The Coding Manual for Qualitative Researchers

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Johnny Saldaña

online resources

THE CODING MANUAL FOR QUALITATIVE RESEARCHERS

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THE CODING MANUAL FOR QUALITATIVE RESEARCHERS

Fourth Edition

Johnny Saldaña

Los Angeles

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For Kathy Charmaz – colleague, mentor, and friend

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ABOUT THE AUTHOR

Johnny Saldaña
is Professor Emeritus from Arizona State University's (ASU) School of Film, Dance, and Theatre in the Herberger Institute for Design and the Arts, where he taught from 1981 to 2014. He received his BFA in Drama and English Education in 1976, and MFA in Drama Education in 1979 from the University of Texas at Austin.

He is the author of *Longitudinal Qualitative Research: Analyzing Change through Time* (AltaMira Press, 2003); *Fundamentals of Qualitative Research* (Oxford University Press, 2011); *Ethnotheatre: Research from Page to Stage* (Left Coast Press, 2011); *Thinking Qualitatively: Methods of Mind* (Sage Publications, 2015); a commissioned title for Routledge's World Library of Educationalists Series, *Writing Qualitatively: The Selected Works of Johnny Saldaña* (Routledge, 2018); co-author with the late Matthew B. Miles and A. Michael Huberman of *Qualitative Data Analysis: A Methods Sourcebook* (4th ed., Sage Publications, 2020); co-author with Matt Omasta of *Qualitative Research: Analyzing Life* (Sage Publications, 2018); and the editor of *Ethnodrama: An Anthology of Reality Theatre* (AltaMira Press, 2005). Previous editions of *The Coding Manual for Qualitative Researchers* have been translated into Korean, Turkish, and Chinese-Simplified.

His methods works have been cited and referenced in more than 18,000 research studies conducted in over 130 countries in disciplines such as K-12 and higher education, medicine and health care, technology and social media, business and economics, government and social services, the fine arts, the social sciences, human development, and communication. He has published a wide range of research articles in journals such as *Research in Drama Education*, *The Qualitative Report*, *Multicultural Perspectives*, *Youth Theatre Journal*, *Journal of Curriculum and Pedagogy*, *Teaching Theatre*, *Research Studies*

in Music Education, *Cultural Studies ↔ Critical Methodologies*, the *International Journal of Qualitative Methods*, the *International Review of Qualitative Research*, and *Qualitative Inquiry*, and has contributed several chapters to research methods handbooks. His most popular journal article, "Blue-Collar Qualitative Research: A Rant" (*Qualitative Inquiry*, 2014), has been downloaded by over 4,000 readers, according to ResearchGate.

His research in qualitative inquiry, data analysis, and performance ethnography has received awards from the American Alliance for Theatre & Education, the National Communication Association – Ethnography Division, the American Educational Research Association's Qualitative Research Special Interest Group, New York University's Program in Educational Theatre, the Children's Theatre Foundation of America, and the ASU Herberger Institute for Design and the Arts.

PREFACE TO THE FOURTH EDITION

The fourth edition of *The Coding Manual for Qualitative Researchers* features a reformatting of its contents into 15 chapters for easier sectional reference. Two new first cycle coding methods, Metaphor Coding and Themeing the Data: Categorically, join the 33 others in the collection. Analytic software screenshots and academic references have been updated. Several new figures have been added throughout the manual. Revised examples and analyses are provided for Holistic Coding, Provisional Coding, Themeing the Data: Categorically, and Themeing the Data: Phenomenologically. I have enhanced the discussions in the coding methods profiles' Applications and Analysis sections. Additional examples of how to code and possible analytic outcomes have been added.

I stress at the beginning and ending of this book that coding is just *one* way, not *the* way to analyze qualitative data. Even if you prefer other analytic approaches such as assertion development, content analysis, or theory-based holistic interpretation, this manual offers guidance for non-coded analytic reflection, along with resources and references for learning more about the field's diverse data analytic methods.

Google Scholar and ResearchGate updates, conferences, and e-mail correspondence with students and colleagues have informed me how the first three editions of *The Coding Manual for Qualitative Researchers* have been utilized in a variety of studies internationally in disciplines such as K–12 and higher education, the fine arts, government and social services, business, technology and social media, communication, sport, human development, interpersonal relationships, the social sciences, health care, and medicine. I am both humbled and honored that *The Coding Manual for Qualitative Researchers* and its cousin,

Qualitative Data Analysis: A Methods Sourcebook (third and fourth editions co-authored with the late Matthew B. Miles and A. Michael Huberman), have been cited and referenced in more than 18,000 research studies conducted in over 130 countries.

Graduate students and their professors have told me how much they appreciate the manual's extensive citations, clarity, and mentorship tone for their professional development and projects. Yet I must also extend my own thanks and gratitude to the legacy of scholars whose publications provide rich sources for several of the ideas collected in this book. I give credit where credit is due by quoting, citing, and referencing their works through fair use guidelines.

My primary role as author of this manual is to serve as a contemporary archivist of the vast literature on qualitative methods, and to selectively display and explain relevant material about codes and coding. But the amounts of books and e-resources on the subject have increased exponentially over the past decade, and I cannot possibly survey everything in the area. I must rely on you to bring your specific disciplinary knowledge base and your rich personal experiences to supplement the material included in this resource. I hope that this expanded fourth edition of *The Coding Manual for Qualitative Researchers* and its companion website offer readers even more pragmatic guidance for qualitative data analysis.

Johnny Saldaña,
Professor Emeritus

ONLINE RESOURCES

A companion website accompanies this manual with additional resources such as SAGE journal article links, exercises and activities, classroom ancillary materials, and expanded data sets for coding and qualitative data analytic skills development: https://study.sagepub.com/saldanacoding4e

“Wake up and smell the coding.”

(SAGE Campus Marketing)

PART ONE CODING FOUNDATIONS

1 AN INTRODUCTION TO CODES AND CODING

Chapter Summary

This chapter first presents the purposes and goals of *The Coding Manual for Qualitative Researchers*. It then provides definitions and examples of codes and categories and their roles in qualitative data analysis. Fundamental principles of coding follow, and the chapter concludes with reflections on necessary researcher attributes and the role of method in coding.

PURPOSES OF THE MANUAL

The three primary purposes of this manual are:

1. to illustrate the functions of codes, coding, and analytic memo writing during the qualitative data collection and analytic processes;
2. to profile a selected yet diverse repertoire of coding methods generally applied in qualitative data analysis; and
3. to provide readers with sources, descriptions, recommended applications, examples, and additional resources for coding and further analyzing and synthesizing qualitative data.

This manual serves as a reference to supplement existing works in qualitative research design and fieldwork. It focuses exclusively on codes and coding and how they play a role in the qualitative data analytic process. For newcomers to qualitative inquiry it presents a repertoire of coding methods in illustrated detail. Additional information and extended discussion of the methods can be found in most of the cited sources.

The manual does not subscribe to any one specific research methodology or method. Throughout this book you will read a breadth of perspectives on codes and coding, sometimes purposely juxtaposed to illustrate and highlight diverse opinions among scholars in the field. The following demonstrates just two examples of such professional divergence:

> Any researcher who wishes to become proficient at doing qualitative analysis must learn to code well and easily. The excellence of the research rests in large part on the excellence of the coding. (Strauss, 1987, p. 27)
>
> But the strongest objection to coding as a way to analyze qualitative research interviews is not philosophical but the fact that it does not and cannot work. It is impossible in practice. (Packer, 2018, p. 94)

No one, including myself, can claim final authority on the utility of coding or the "best" way to analyze qualitative data. In fact, I take moderate liberty in adapting and even renaming selected prescribed coding methods for clarity or flexibility's sake. I do this not to standardize terminology within the field, but simply to employ consistency throughout this particular resource.

I must also emphasize at the very beginning that *there are times when coding the data is absolutely necessary, and times when it is most inappropriate for the study at hand*. All research questions, conceptual frameworks, methodologies, and fieldwork parameters are context-specific. Also, whether you choose to code or not depends on your individual value, attitude, and belief systems about qualitative inquiry. For the record, here are mine, from *Fundamentals of Qualitative Research*:

> Qualitative research has evolved into a multidisciplinary enterprise, ranging from social science to art form. Yet many instructors of research methods vary in their allegiances, preferences, and prescriptions for how to conduct fieldwork and how to write about it. I myself take a pragmatic stance toward human inquiry and leave myself open to choosing the right tool for the right job. Sometimes a poem says it best; sometimes a data matrix does. Sometimes words say it best; sometimes numbers do. The more well versed you are in the field's eclectic methods of investigation, the better your ability to understand the diverse patterns and complex meanings of social life. (Saldaña, 2011b, pp. 177–8)

Coding is just *one* way of analyzing qualitative data, not *the* way. Be cautious of those who demonize the method outright. And be equally cautious of those who swear unyielding affinity to codes or what has been colloquially labeled "coding fetishism." I prefer that you yourself, rather than some presumptive theorist or hardcore methodologist, determine whether coding is appropriate for your particular research project.

This manual supplements introductory works in qualitative research because most textbooks limit their discussions about coding to the writer's prescribed, preferred, or signature methods. I wanted to provide in a single resource a selected collection of various coding methods developed by other researchers and myself that provides students and colleagues a useful reference for classroom exercises and assignments, and for their own independent research for thesis and dissertation fieldwork and future qualitative studies. But by no means is this manual an exhaustive resource. If you need additional information and explanation about the coding methods, check the References.

This book serves primarily as a manual—a collection of useful information. It is not necessarily meant to be read from cover to cover, but it certainly can be if you wish to acquaint yourself with all 35 coding methods' profiles and their analytic possibilities. If you choose to review all the contents, read selected sections at a time, not all of them in one sitting, otherwise it can overwhelm you. If you scan the manual to explore which coding method(s) might be appropriate for your particular study, read the profiles' Description and Applications sections to determine whether further reading of the profile is merited, or check the glossary in Appendix A. I doubt you will use every coding method included in this manual for your particular research endeavors throughout your career, but they are available here on an "as-needed" basis for your unique projects. Like an academic curriculum, the sequential order of the profiles has been carefully considered. They do not necessarily progress in a linear manner from simple to complex, but are clustered generally from the fundamental to the intermediate to the advanced.

WHAT IS A CODE?

A code in qualitative analysis is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data. The data can consist of interview transcripts, participant observation field notes, journals, documents, open-ended survey responses, drawings, artifacts, photographs, video, websites, e-mail correspondence, social media, academic and fictional literature, and so on. The portion of data coded during first cycle coding processes can range in magnitude from a single word to a full paragraph, an entire page of text or a stream of moving images.

In second cycle coding processes, the portions coded can be the exact same units, longer passages of text, analytic memos about the data, and even a reconfiguration of the codes themselves developed thus far. Charmaz (2001) describes coding as the "critical link" between data collection and their explanation of meaning. To me, first cycle coding is *analysis*—taking things apart. Second cycle coding is *synthesis*—putting things together into new assemblages of meaning (Saldaña & Omasta, 2018).

Do not confuse the use of *code* in qualitative data analysis with the use of *code* in semiotics, even though slight parallels exist between the two applications. In semiotics, a code relates to the interpretation of symbols in their specific social and cultural contexts. And while some code choices by the analyst may appear metaphoric, most codes are not metaphors (according to the principles established by Lakoff & Johnson, 2003). Also, *coding* in computer software applications refers to algorithmic program writing and software engineering. That purpose and meaning are not what is covered in this book, even though the disciplines of digital technology and software engineering have found the contents of this manual surprisingly useful.

In qualitative data analysis, a code is a researcher-generated interpretation that symbolizes or "translates" data (Vogt, Vogt, Gardner, & Haeffele, 2014, p. 13), and thus attributes meaning to each individual datum for later purposes of pattern detection, categorization, theme, assertion or proposition development, theory building, and other analytic processes. Clarke and Braun (2016) suggest that a well-developed code should stand on its own and solidly represent the data from which it originated, while methodologist Paul Mihas sees codes as "invitations and openings" to further inquiry. Just as a title represents and captures a book, film, or poem's primary content and essence (e.g., *The Scarlet Letter*, *It's a Wonderful Life*, "Do Not Go Gentle Into That Good Night"), so does a code represent and capture a datum's primary content and essence.

Throughout this manual, I use a consistent set of rich text features to differentiate symbolic summaries:

- CODES, SUBCODES, AND THEMES ARE SET IN CAPS
- *SUBTHEMES ARE SET IN ITALICIZED CAPS*
- Categories are set in bold
- ***Subcategories are set in bold italic.***

Coding examples

An example of a coded datum, as it is presented in this manual, looks like this when taken from a set of field notes about an urban neighborhood. The one-word capitalized code in the right column is a Descriptive Code, which summarizes the primary topic of the excerpt that follows the same superscript number:

Code example 1.1

[1] I notice that the grand majority of homes have chain link fences in front of them. There are many dogs (mostly German shepherds) with signs on fences that say "Beware of the Dog."	[1] security

Here is an example of several codes applied to data from an interview transcript in which a high school senior describes his favorite teacher. The codes are based on what outcomes the student receives from his mentor. Note that one of the codes is taken directly from what the participant himself says and is placed in quotation marks—this is called an In Vivo Code:

Code example 1.2

[1] He cares about me. He has never told me but he does. [2] He's always been there for me, even when my parents were not. He's one of the few things that I hold as a constant in my life. So it's nice. [3] I really feel comfortable around him.	[1] sense of self-worth [2] stability [3] "comfortable"

Did you agree with the codes? Did other words or phrases run through your mind as you read the data? It is all right if your choices differed from mine. Coding is not a precise science; it is primarily an interpretive act. Also be aware that a code can sometimes *summarize*, *distill*, or *condense* data, not *reduce* them. Reduction implies something lost. Madden (2017) notes that such analytic work does not diminish but "value adds" to the research story (p. 103).

Also, some may wonder, "Where did those three codes 'come from'?" They came from my thinking, my background knowledge, and my creativity. One common phrase in the research methods literature is that codes, categories, themes, and so on seem to mysteriously and magically "emerge." Yes, ideas for labels sometime occur spontaneously in your mind and may seem to appear "out of nowhere." But codes, categories, themes, and other qualitative data summations are actively *constructed*, *formulated*, *created*, and *revised* by the researcher, not through some elusive process. Ethnographer Steven A. Harvey astutely shared, "We should be more careful with the word 'emerge' so that students don't expect to just twist their transcripts like you would wring out a towel and expect the codes to fall all over the floor like water." (Personal communication, 2020.)

The introductory examples above were kept purposely simple and direct. But depending on the researcher's academic discipline, ontological and epistemological orientations, theoretical and conceptual frameworks, and even the choice of coding method itself, some codes can attribute more evocative meanings to data. In the excerpt below, a mother describes her teenage son's troubled school years. The codes derive from the perspective of middle and junior high school years as a difficult period for most youth. They are abstract and evocative in nature; this is an example of Concept Coding:

Code example 1.3

[1] My son, Barry, went through a really tough time about, probably started the end of fifth grade and went into sixth grade. [2] When he was growing up young in school he was a people-pleaser and his teachers loved him to death. [3] Two boys in particular that he chose to try to emulate, wouldn't, were not very good for him. [4] They were very critical of him, they put him down all the time, and he kind of just took that and really kind of internalized it, I think, for a long time. [5] In that time period, in the fifth grade, early sixth grade, they really just kind of shunned him all together, and so his network as he knew it was gone.	[1] middle-school hell [2] teacher's pet [3] bad influences [4] tween angst [5] the lost boy

Note that when we reflect on a passage of data to decipher its core meaning, we are *de*coding; when we determine its appropriate code and label it, we are *en*coding. For ease of reference throughout this manual, *coding* will be the sole term used. Simply understand that coding is the transitional process between data collection and more extensive data analysis and synthesis. Coding, in fact, is compatible with the way the human mind naturally thinks. "This ability to digest large amounts of information by breaking it into smaller pieces is how our brains turn information into knowledge" (Duhigg, 2016, pp. 245–6).

Coding for patterns

A pattern is repetitive, regular, or consistent occurrences of action/data that appear more than twice. “At a basic level, pattern concerns the relation between unity and multiplicity. A pattern suggests a multiplicity of elements gathered into the unity of a particular arrangement” (Stenner, 2014, p. 136). As qualitative researchers, we seek patterns as somewhat stable indicators of humans’ ways of living and working to render the world “more comprehensible, predictable and tractable” (p. 143). They become more trustworthy evidence for our findings since patterns demonstrate habits, salience, and significance in people’s daily lives. They help confirm our descriptions of people’s “five Rs”: routines, rituals, rules, roles, and relationships (Saldaña & Omasta, 2018). Discerning these trends is a way to solidify our observations into concrete instances of meaning.

Bernard (2018) succinctly states that analysis is “the search for patterns in data and for ideas that help explain why those patterns are there in the first place” (p. 355). In the examples presented thus far, each unit of data was assigned its own unique code, due primarily to the short length of the excerpts. In larger and complete data sets, you will find that several to many of the same codes will be used repeatedly throughout. This is both natural and deliberate—natural because there are mostly repetitive patterns of action and consistencies in human affairs, and deliberate because one of the coder’s primary goals is to find these repetitive patterns of action and consistencies in human affairs as documented in the data. In the example below, note how the same Process Code (a word or phrase which captures action) is used twice during this small unit of elementary school classroom activity:

Code example 1.4

[1] Mrs. Jackson rises from her desk and announces, “OK, you guys, let’s get lined up for lunch. Row One.” Five children seated in the first row of desks rise and walk to the classroom door. Some of the seated children talk to each other. [2] Mrs. Jackson looks at them and says, “No talking, save it for the cafeteria. [3] Row Two.” Five children seated in the second row of desks rise and walk to the children already standing in line.	[1] lining up for lunch [2] managing behavior [3] lining up for lunch

Another way the above passage could be coded is to acknowledge that managing behavior is not a separate action or an interruption of the routine that disrupts the flow of lining up for lunch, but to interpret that managing behavior is an embedded or interconnected part of the larger social scheme that composes lining up for lunch. The coding might appear thusly, using a method called Simultaneous Coding (which applies two or more codes within a single datum):

Code example 1.5

[1a] Mrs. Jackson rises from her desk and announces, “OK, you guys, let’s get lined up for lunch. Row One.” Five children seated in the first row of desks rise and walk to the classroom door. Some of the seated children talk to each other. [1b] Mrs. Jackson looks at them and says, “No talking, save it for the cafeteria. Row	

Two.” Five children seated in the second row of desks rise and walk to the children already standing in line.	

Take note of some important caveats when it comes to understanding patterns and regularity: idiosyncrasy *is* a pattern (Saldaña, 2003, pp. 118–22), there can be patterned variation in data (Agar, 1996, p. 10), and patterns can be *demi-regular*—that is, not perfectly consistent but generally consistent throughout the data. Sometimes we code and categorize data by what participants talk about. They may all share with you their personal perceptions of school experiences, for example, but their individual experiences and value, attitude, and belief systems about education may vary greatly from being bored and disengaged to being enthusiastic and intrinsically motivated. When you search for patterns in coded data to categorize them, understand that sometimes you may group things together not just because they are exactly alike or very much alike, but because they might also share something in common—even if, paradoxically, that commonality consists of differences.

For example, each one of us may hold a strong opinion about who should lead our country. The fact that we each have an individual opinion about that issue is what we have in common. As for *who* we each believe should lead the country, that is where the differences and variations occur. Acknowledge that a confounding property of category construction in qualitative inquiry is that data cannot always be precisely and discretely bounded; they are within “fuzzy” boundaries at best (Tesch, 1990, pp. 135–8). That is why Simultaneous Coding is an option, when needed. Hatch (2002) offers that you think of patterns not just as stable regularities but as varying forms. A pattern can be characterized by:

- similarity (things happen the same way)
- difference (they happen in predictably different ways)
- frequency (they happen often or seldom)
- sequence (they happen in a certain order)
- correspondence (they happen in relation to other activities or events)
- causation (one appears to cause another) (p. 155).

Alvesson and Kärreman (2011) caution that a narrow focus on codification for pattern making with qualitative data can oversimplify the analytic process and hamper rich theory development: “Incoherencies, paradoxes, ambiguities, processes, and the like are certainly key aspects of social reality and worth exploring—both as topics in their own right and as a way of getting beyond premature pattern-fixing and the reproduction of taken-for-granted assumptions about specific patterns” (p. 42). Their advice is well taken, for it is not always the regularities of life but its anomalies and deviations that intrigue us, that stimulate us to question and to investigate why they exist concurrently with the mundane and normative—a process called “abductive analysis” (Tavory & Timmermans, 2014). As you code, construct patterns, certainly—but do not let those one or two codes that do not quite seem to fit anywhere frustrate you or stall your analytic work. Use these fragments as stimuli for deep reflection on the reason for their existence, if not their purpose, in the larger social scheme of things. But also take comfort in Braun and Clarke’s (2006) realist perspective that a pattern in data is rarely 100% complete and non-contradicted.

Coding lenses, filters, and angles

Coding requires that you wear your researcher's analytic lens. But how you perceive and interpret what is happening in the data depends on what type of filter covers that lens and from which angle you view the phenomenon. For example, consider the following statement from an older rancher living north along the Arizona border with Mexico: "There's just no place in this country for illegal immigrants. Round them up and send those criminals back to where they came from." One researcher, a grounded theorist using In Vivo Coding to keep the data rooted in the participant's own language, might code the datum this way:

Code example 1.6

1 There's just no place in this country for illegal immigrants. Round them up and send those criminals back to where they came from.	1 "no place"

A second researcher, a rural ethnographer employing Descriptive Coding to document and categorize the breadth of opinions stated by multiple participants, might code the same datum this way:

Code example 1.7

1 There's just no place in this country for illegal immigrants. Round them up and send those criminals back to where they came from.	1 immigration issues

And a third researcher, a critical race theorist employing Values Coding to capture and label subjective perspectives, may code the exact same datum this way:

Code example 1.8

1 There's just no place in this country for illegal immigrants. Round them up and send those criminals back to where they came from.	1 xenophobia

The collection of coding methods in this manual offers a repertoire of possible lenses, filters, and angles to consider and apply to your approaches to qualitative inquiry. Researchers' eyes are like lenses. The way they perceive social life can be influenced and affected by the investigator's own significant demographic attributes such as gender, age, race/ethnicity, sexual orientation, socioeconomic class, and/or occupation (Behar & Gordon, 1995; Saldaña, 2015; Stanfield & Dennis, 1993). Lenses might also consist of the particular research methodology or disciplinary approach employed for a study (educational, sociological, psychological, etc.).

Cameras also have filters covering their lenses that let certain wavelengths in and keep others out. The filters that cover a researcher's lens might consist of a set of personal values, attitudes, and beliefs about the world, formed by his or her unique personal biography, learned experiences, and individual thinking patterns. Researchers' identities as human beings will influence and affect what they observe in the field site since we tend to interpret others' experiences based on our own. Filters also consist of particular theoretical perspectives within a discipline—for example, feminist, critical, emancipatory.

Cameras are also placed at particular angles, suggesting not just panoramic and close-up views, but also a researcher's relational positionality and standpoint as a peripheral,

active, complete, and/or covert member (Adler & Adler, 1987; Emerson, Fretz, & Shaw, 2011), in addition to the researcher's interpretations of social action he or she sees and hears at the micro- (local and particular), meso- (cultural, national, or mid-range), and/or macro- (conceptual, global, or universal) levels of life. Researchers zoom in and out throughout the course of observations to get varied perspectives of the social scene, varying from insider to outsider, from intimate to distant, or from emotionally invested to neutrally detached (Saldaña & Omasta, 2018, pp. 34–6).

Merriam (1998) states that "our analysis and interpretation—our study's findings—will reflect the constructs, concepts, language, models, and theories that structured the study in the first place" (p. 48). And it is not just your methodological approach to qualitative inquiry (e.g., case study, ethnography, phenomenology) and ontological and epistemological foundations that influence and affect your coding decisions (Creswell & Poth, 2018; Mason, 2002). Sipe and Ghiso (2004), in their revealing narrative about coding dilemmas for a children's literacy study, note that "All coding is a judgment call" since we bring "our subjectivities, our personalities, our predispositions, [and] our quirks" to the process (pp. 482–3). Like the characters in director Akira Kurosawa's classic film *Rashōmon*, multiple realities exist because we each perceive and interpret social life from different points of view.

Coding as a heuristic

The majority of qualitative researchers will code their data both during and after collection as an analytic tactic, for coding *is* analysis. Differing perspectives, however, attest that "Coding and analysis are not synonymous, though coding is a crucial aspect of analysis" (Basit, 2003, p. 145). Coding is a heuristic (from the Greek, *heuriskein*, meaning "to discover"), an exploratory problem-solving technique without specific formulas or algorithms to follow. Codes are significant phrases that "make meaning …, they are something that happens that make something [else] happen" (Fuller & Goriunova, 2014, p. 168); they initiate a rigorous and evocative analysis and interpretation for a report. Plus, coding is not just labeling, it is *linking*: "It leads you from the data to the idea and from the idea to all the data pertaining to that idea" (Richards & Morse, 2013, p. 154).

Coding is a cyclical act. Rarely is the first pass or first cycle of coding data perfectly attempted. The second cycle (and possibly the third and fourth, etc.) of recoding further manages, filters, highlights, and focuses the salient features of the qualitative data record for generating categories, themes, and concepts, grasping meaning, and/or building theory. Coffey and Atkinson (1996) propose that "coding is usually a mixture of data [summation] and data complication … breaking the data apart in analytically relevant ways in order to lead toward further questions about the data" (pp. 29–31). Locke, Feldman, and Golden-Biddle (2015) conceptualize the coding process as a "live" rather than inert action. Coding "is organic in which coding, codes and data shape each other; they are interdependent and inseparable" (p. 373). Once a code is applied to a datum during first cycle analysis, it is not a fixed representation but a dynamic and malleable process "through which to consider and interact with further observations and ideas" (p. 6). Indeed, heuristic fluidity is necessary to prioritize insightful qualitative analytic discovery over mere mechanistic validation.

Dey (1999) critically posits that "With categories we impute meanings, with coding we compute them" (p. 95). To some, *code* is a "dirty four-letter word." A few research methodologists perceive a code as mere shorthand or an abbreviation for the more important category yet to be discovered. Unfortunately, some use the terms *code* and *category* interchangeably when they are, in fact, two separate components of data analysis. I advocate that qualitative codes are essence-capturing and essential elements of the research story that, when clustered together according to similarity and regularity (i.e., a pattern), actively facilitate the development of categories and thus analysis of their connections. Ultimately, I like one of Charmaz's (2014) metaphors for the process when she states that coding "generates the bones of your analysis. … [I]ntegration will assemble those bones into a working skeleton" (p. 113).

CODIFYING AND CATEGORIZING

To codify is to arrange things in a systematic order, to make something part of a system or classification, to categorize. When you apply and reapply codes to qualitative data, you are codifying—a process that permits data to be divided, grouped, reorganized, and linked in order to consolidate meaning and develop explanation (Grbich, 2013). Coding enables you to organize and group similarly coded data into categories or "families" because they share some characteristic—the beginning of a pattern. You use classification reasoning plus your tacit and intuitive senses to determine which data "look alike" and "feel alike" when grouping them together (Lincoln & Guba, 1985, p. 347).

From codes to categories

Synthesis combines different things in order to form a new whole, and it is the primary heuristic for transitioning from coding to categorizing (and from categorizing to other analytic syntheses). A quantitative parallel is determining the mean or average of a set of numbers. You take, say, 10 different test scores varying in range from a perfect score of 100 to the lowest achieved score of 62. Add each score (totaling 872), divide by the number of scores (10), and the mean is calculated (87.2). You have synthesized 10 different test scores into one new whole or symbol of meaning. But does qualitative data analysis have a heuristic equivalent? No and yes.

How do you "average" 10 different but somewhat comparable words and phrases to arrive at a category? There is no qualitative algorithm or formula that adds up the codes and calculates their mean. But there are methods for synthesizing the collective, not to arrive at a reduced answer but to move toward *consolidated meaning*. That meaning may take the symbolic form of a category, theme, concept, assertion, or proposition, or set in motion a new line of investigation, interpretive thought, or the crystallization of a new theory. I blithely offer: "Quantitative analysis calculates the mean. Qualitative analysis calculates meaning."

For example, in Harry, Sturges, and Klingner's (2005) ethnographic study of the overrepresentation of minorities in special education programs, data initially coded as classroom materials, computers, and textbooks were categorized under the major heading, Resources. As their study continued, another major category was constructed labeled Teacher Skills with the subcategories *Instructional Skills* and *Management Skills*. The codes subsumed under these subcategories—part of the overall hierarchical "coding scheme" (Silver & Lewins, 2014)—were:

Category: Teacher Skills

Subcategory 1: Instructional Skills

Code: PEDAGOGICAL

Code: SOCIO-EMOTIONAL

Code: STYLE/PERSONAL EXPRESSION

Code: TECHNICAL

Subcategory 2: Management Skills

Code: BEHAVIORIST TECHNIQUES

Code: GROUP MANAGEMENT

Code: SOCIO-EMOTIONAL

Code: STYLE (overlaps with instructional style)

Code: UNWRITTEN CURRICULUM

As another example, Eastman's (2012) ethnographic study, "Rebel Manhood: The Hegemonic Masculinity of the Southern Rock Music Revival," employed grounded theory's Initial, Focused, and Axial Coding to develop categories of "identity work strategies [Southern US] rebel men use to compensate for their lack of the economic resources and authority higher class men use to signify their hegemonic manhood" (p. 195). One major conceptual category was Rebel Manhood as Protest Masculinity, with its three subcategories:

Protesting Education and Rejecting Cultural Capital

Protesting Work and Career

Protesting Economic Authority

Another conceptual category was Compensatory Rebel Manhood Acts, with its three subcategories:

Drinking Alcohol and Violence

Drug Use

Protesting Authority and Risk Taking.

Maykut and Morehouse (1994) refine each category by developing a rule for inclusion in the form of a propositional statement, coupled with sample data. For example, if a category in a case study is labeled Physical Health, its rule for inclusion might read:

Physical Health: The participant shares matters related to physical health such as wellness, medication, pain, etc.: "I'm on 25 milligrams of amitriptyline each night"; "I've lost ten pounds on this new diet."

Categories might also evolve as conceptual processes rather than descriptive topics such as:

Inequity: Participants perceive unfair treatment directed toward themselves and favoritism directed toward others: "I've been working here for over 25 years and some newcomers are making higher salaries than me."

The categories' statements are then compared to each other to discern possible relationships to create an *outcome proposition* based on their combination.

There are exceptions to every rule, however. Harding (2019) promotes that codes can be placed in more than one category or subcategory if you feel that the multiple classification is justified. This tactic is incompatible with analytic methods such as Domain and Taxonomic Coding and analysis (see Chapter 10), but quite logical within the paradigm of "fuzzy sets," which acknowledges that categories are not always discretely bounded but oftentimes overlap (Bazeley, 2013, p. 351). I prefer to keep my codes singular and clustered into their most appropriate categories for analysis. Yet it is good to know that, *if and when needed*, a code can get subsumed into more than one category. Too much of this, though, may suggest

that the codes and/or the categories may not be as clearly defined as necessary, for there is a big difference between “fuzzy” category boundaries and “vague” ones.

Overall, the purposes of categorizing are to identify how an array of codes belongs in certain groups, to sort codes according to defining attributes, to compare one categorical group to another, and to condense the complexity of the data corpus (Freeman, 2017, p. 25).

Recoding and recategorizing

Rarely will anyone get coding right the first time. Qualitative inquiry demands meticulous attention to language and images, and deep reflection on the researcher-constructed patterns and meanings of human experience. Recoding can occur with a more attuned perspective using first cycle methods again, while second cycle methods describe those processes that might be employed during the second (and third and possibly fourth, etc.) review of data. Punch (2009), researching childhoods in Bolivia, describes how her codes, categories, and themes (as she defines them) developed and subdivided during her ethnographic fieldwork and concurrent data analysis:

> [O]ne of my initial large codes was "home". Everything relating to life at home was coded under this category and then subdivided into three themes: gender roles; child/adult work roles in the household; power and discipline. On reading through this latter category, I realized not only did it concern adult power over children, but also children's strategies for counteracting adult power. After reorganizing these two sub-sections, I decided to split up the theme of children's strategies into different types: avoidance strategies, coping strategies, and negotiation strategies. Finally, on browsing again through the sub-theme of negotiation strategies I found that I could further sub-divide it into child-parent negotiations and sibling negotiations. These data then formed the basis for structuring my findings on children's lives at home. (pp. 94–5)

If you extract the coding scheme described in Punch's narrative above, and transform it into an outline format or a hierarchical tree, it might appear thusly:

I HOME

A. Gender Roles

B. Child/Adult Work Roles in the Household

C. Power and Discipline

1. *Adult Power over Children*

2. *Children's Strategies for Counteracting Adult Power*

    a. Avoidance Strategies

    b. Coping Strategies

    c. Negotiation Strategies

        i. *Child/Parent Negotiations*

        ii. *Sibling Negotiations*

As you code and recode, expect—or rather, strive for—your codes and categories to become more refined and, depending on your methodological approach, more conceptual and abstract. Some of your first cycle codes may be later subsumed by other codes, relabeled, or dropped altogether. As you progress toward second cycle coding, you might rearrange and reclassify

coded data into different and even new categories. Abbott (2004) cleverly likens the process to "decorating a room; you try it, step back, move a few things, step back again, try a serious reorganization, and so on" (p. 215).

For example, I observed and interviewed fourth- and fifth-grade children to learn the ways they hurt and oppress each other (Saldaña, 2005b). This was preparatory fieldwork before an action research project that attempted to empower children with strategies, learned through improvised dramatic simulations and role-playing, for dealing with bullying in the school environment. I initially categorized their responses into Physical and Verbal forms of oppression. Some of the codes that fell under these categories were:

Category: Physical Oppression

Code: PUSHING

Code: FIGHTING

Code: SCRATCHING

Category: Verbal Oppression

Code: NAME-CALLING

Code: THREATENING

Code: LAUGHING AT

As coding continued, I observed that a few oppressions were a combination of both physical *and* verbal actions. For example, a child can exclude others physically from a game by pushing them away, accompanied with a verbal statement such as "You can't play with us." Hence, a third major category was developed: Physical and Verbal Oppression.

As the study continued, more data were collected through other methods, and gender differences in children's perceptions and enactment of oppression became strikingly apparent. To young participants, oppression was not about the body and voice; it was about "force" and "feelings." The three initial categories were eventually reduced to two during second cycle coding, and renamed based on what seemed to resonate with gender-based observations. The new categories and a few sample codes and rearranged subcodes included:

Category: Oppression through Physical *Force* (primarily but not exclusively by boys)

Code: FIGHTING

Subcode: SCRATCHING

Subcode: PUSHING

Subcode: PUNCHING

Category: Oppression through Hurting Others' *Feelings* (primarily but not exclusively by girls)

Code: PUTTING DOWN

Subcode: NAME-CALLING

Subcode: TEASING

Subcode: TRASH TALKING

Also note how the subcodes themselves are specific, observable types of *realistic* actions related to the codes, while the two major categories labeled **Oppression** are more *conceptual* and *abstract* in nature.

See the Domain and Taxonomic Coding profile in Chapter 10 for an extended discussion of this case, the Initial and Focused Coding examples in Chapters 6 and 13 respectively, and the techniques of code mapping and code landscaping in Chapter 12 to learn how a series of codes gets categorized.

From codes and categories to theory

Some categories may contain clusters of coded data that merit further refinement into subcategories. And when you compare major categories to each other and consolidate them in various ways, you transcend the "particular reality" of your data and progress toward the thematic, conceptual, and theoretical. As a very basic process, codifying usually follows the ideal and streamlined scheme illustrated in Figure 1.1.

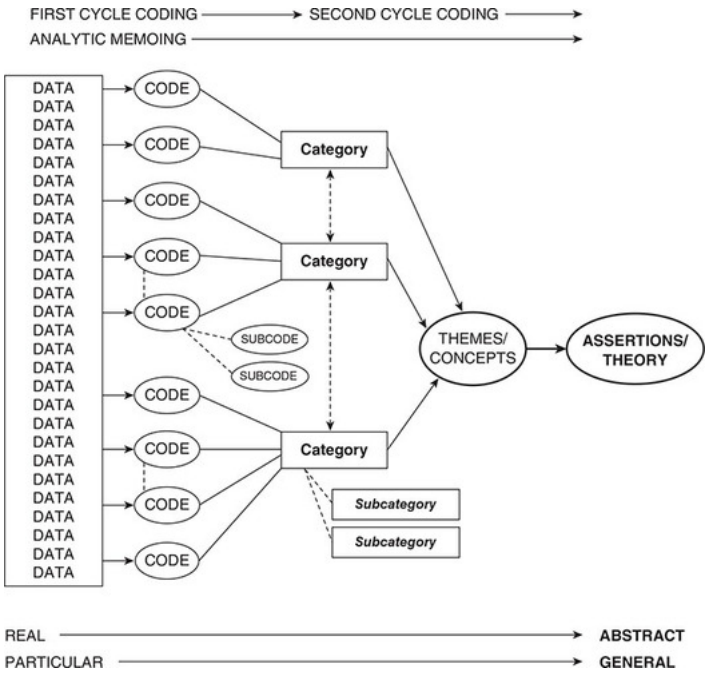

Figure 1.1 A streamlined codes-to-theory model for qualitative inquiry

Keep in mind that the actual act of reaching theory is much more complex than illustrated. Richards and Morse (2013) clarify that "categorizing is how we get 'up' from the diversity of data to the shapes of the data, the sorts of things represented. *Concepts* are how we get up to more general, higher-level, and more abstract constructs" (p. 173). Our ability to show how these themes and concepts systematically interrelate leads toward the development of theory (Corbin & Strauss, 2015), though Layder (1998) contends that pre-established sociological theories can inform, if not drive, the initial coding process itself. The development of an original theory is not always a necessary outcome for qualitative inquiry, but acknowledge that pre-existing theories drive the entire research enterprise, whether you are aware of them or not (Mason, 2002).

In the example above of children's forms of oppression, I constructed two major categories from the study: Oppression through Physical *Force*, and Oppression through Hurting Others' *Feelings*. So, what major themes or concepts can be developed from these categories? An obvious theme we noticed was that, in later childhood, peer oppression is gendered. One higher-level concept we constructed—an attempt to progress from the real to the abstract—was *child stigma*, based on the observation that children frequently label those who are perceived different in various ways "weird," and thus resort to oppressive actions (Goffman, 1963). We could not, in confidence, formulate a formal theory from this study due to the limited amount of fieldwork time in the classrooms. But a key assertion (Erickson, 1986)—a statement that proposes a summative, interpretive observation of the local contexts of a study—that we developed and put forth was:

To artist and activist Augusto Boal, adult participation in theatre for social change is "rehearsal for the revolution." With ages 9–11 children, however, their participation in theatre for social change seems more like an "audition" for preadolescent social interaction. The key assertion of this study is: *Theatre for social change overtly reveals the interpersonal social systems and power hierarchies within an elementary school classroom microculture, because the original dramatic simulations children create authentically reflect their statuses and stigmas.* It diagnostically shows which children are leaders, followers, resisters, and targets; who is influential and who is ignored; which children may continue to assert dominance in later grade levels; and which children may succumb to those with more authority in later grade levels. (Adapted from Saldaña, 2005b, p. 131)

This key assertion, like a theory, attempts to progress from the particular to the general by inferring *transfer*—that what was observed in just six elementary school classrooms at one particular site may also be observed in comparable elementary school classrooms in other locations. This assertion also progresses from the particular to the general by *predicting patterns* of what may be observed and what may happen in similar present and future contexts.

The differences between codes and themes

Several qualitative research studies report that the analyst employed "thematic coding." That, to me, is misleading terminology. A theme can be an *outcome* of coding, categorization, or analytic reflection, but it is not something that is, in itself, coded (that is why there is no "theme coding" method in this manual, but there *are* references to thematic analysis and a chapter titled "Methods of Themeing the Data"). A datum is initially and, when needed, secondarily coded to discern and label its content and meaning according to the needs of the inquiry. Rossman and Rallis (2003) explain the differences: "think of a category as a *word or phrase* describing some segment of your data that is *explicit*, whereas a theme is a *phrase or sentence* describing more *subtle and tacit* processes" (p. 282, emphasis added). As an example, security can be a code, but denial means a false sense of security can be a theme.

Qualitative researchers are not algorithmic automatons. If we are carefully reading and reviewing the data before and as we formally code them, we cannot help but notice a theme or two (or a pattern or concept) here and there. Make a note of it in an analytic memo (see Chapter 3) when it happens, for it can sometimes guide your continued coding processes. A set of themes is a good thing to construct from analysis, but at the beginning cycles there are other rich discoveries to be made with specific coding methods that explore phenomena such as participant processes, emotions, and value systems.

The four components of analysis discussed thus far have parallels to the ways our minds naturally work. Our brains

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> synthesize vast amounts of information into symbolic summary (codes); we make sense of the world by noticing repetition and formulating regularity through cognitive schemata and scripts (patterns); we cluster similar things together through comparison and contrast to formulate bins of stored knowledge (categories); and we imprint key learnings from extended experiences by creating proverb-like narrative memories (themes). (Saldaña, 2015, p. 11)

NECESSARY PERSONAL ATTRIBUTES FOR CODING

Aside from cognitive skills such as logical and critical thinking, there are seven personal attributes all qualitative researchers should possess, particularly for coding processes.

First, you need to be *organized*. This is not a gift that some people have and others do not. Organization is a set of disciplined skills that can be learned and cultivated as habits. A small-scale qualitative study's word count of data will range in the tens and sometimes hundreds of thousands of words. The multiple codes you generate will need a tightly organized framework for qualitative analysis; in fact, organization *is* analysis. And despite the electronic filing systems of hard drives and dedicated qualitative data analytic software (discussed in Chapter 2), you will still encounter and manipulate many pages of paper in qualitative work. Date and label all incoming data and keep multiple digital and hard copies as backups.

Second, you need to exercise *perseverance*. Virtually every writer of qualitative research methods literature remarks that coding data is challenging and time-consuming. Some writers also declare how tedious and frustrating it can be. Take breaks from your work when you need to, of course—this will keep you refreshed and alert. But cultivate a personal work ethic and create an environment and schedule that enable you to sustain extended periods of time with analytic tasks requiring your full concentration.

Third, you need to be able to *deal with ambiguity*. Coding and codifying are not precise sciences with specific algorithms or procedures to follow. Yes, occasionally answers may suddenly and serendipitously crystallize out of nowhere. But at other times, a piece of the analytic puzzle may be missing for days or weeks or even months. Rich ideas need time to formulate in your mind, so have trust and faith in yourself that these may emerge in due time. But remember that you can accelerate the process through analytic memo writing.

Fourth, you need to exercise *flexibility*. Coding is a cyclical process that requires you to recode not just once but twice (and sometimes even more). Virtually no one gets it right the first time. If you notice that your initial methods choices may not be working for you or not delivering the answers you need, be flexible with your approach and try a modified or different method altogether. Virtually all researcher-developed coding schemes are never fixed from the beginning—they evolve as analysis progresses.

Fifth, you need to be *creative*. There is a lot of art to social science. Ethnographer Michael H. Agar (1996) asserts that the early stages of analysis depend on "a little bit of data and a lot of right brain" (p. 46). We generally advocate that qualitative researchers remain close to and deeply rooted in their data, but every code and category you construct or select is a choice from a wide range of possible options. Creativity also means the ability to think visually, to think symbolically, to think in metaphors, and to think of as many ways as possible to approach a problem (Saldaña, 2015). Creativity is essential for your data collection, data analysis, and even for your final written report.

Sixth, you need to be *rigorously ethical*. Honesty is perhaps another way to describe this, but I deliberately choose the phrase because it implies that you will always be: rigorously ethical with your participants and treat them with respect; rigorously ethical with your data and not ignore or delete those seemingly problematic passages of text; and rigorously ethical with your analysis by maintaining a sense of scholarly integrity and working diligently toward the final outcomes.

The seventh and arguably most important skill you need for coding is an *extensive vocabulary*. The precision of quantitative research rests with numeric accuracy. In qualitative research, our precision rests with our word choices. For example, there are

subtle interpretive differences between something that “may,” “could,” “can,” “probably,” “possibly,” and “seemingly” happen; and a wide interpretive difference between something that happens “frequently,” “usually,” and “often” (Hakel, 2009). An unabridged dictionary and thesaurus become vital reference tools to find just the right words for your codes, categories, themes, concepts, assertions, propositions, and theories. Explore the origins of key words in an unabridged dictionary to find surprising new meanings (e.g., did you know that the root word of *hypocrite* is “actor”?). A thesaurus review of a key word chosen as a code or category may introduce you to an even better—and more precise—word for your analysis.

For an applied introduction to the cognitive skills and personal attributes necessary for coding and qualitative data analysis, see Saldaña (2015) and the exercises and simulations in the book’s companion website.

CRITIQUES AGAINST CODING

There have been some legitimate critiques against coding, some of them philosophical and some of them methodological. Yet when I hear these criticisms I am inclined to think that my colleagues' reservations originate from what used to be earlier, positivist approaches to coding—mechanical and technical paradigms that did indeed make the enterprise sheer drudgery and the outcomes often little more than topic-driven lists. Below are some of the most frequent criticisms I have heard against coding and my responses to those perceptions.

Coding is reductionist. Coding is what you perceive it to be. If you see it as reductionist, then that is what it will be for you. But recall that my definition of coding approaches the analytic act as one that assigns rich symbolic meanings through essence-capturing and/or evocative attributes to data. The 35 coding profiles in this book present an array of methods. And by design or necessity, a few are indeed meant to assist with nothing more complicated than descriptive, topical indexing, and even fewer are formulaic and prescriptive because that is how their developers intended them. But most of these methods generate discovery of the participant's voice, processes, emotions, motivations, values, attitudes, beliefs, judgments, conflicts, microcultures, identities, worldview, life course patterns, etc. These are not reductionist outcomes but multidimensional facets about the people we study.

Coding tries to be objective. Somewhat and no. This could become an extended discussion about the ontological, epistemological, and methodological assumptions of inquiry, but let me bypass those in favor of a quick response. Intercoder agreement in team coding (see Chapter 2) does indeed seem as if "objectivity" is the driving analytic force due to the need for two or more researchers to independently corroborate on the meaning of each datum. But in reality, the process is not so much objectivity as it is simply achieving similar results between two or more people.

For the individual researcher, assigning symbolic meanings (i.e., codes) to data is an act of personal signature. And since we each most likely perceive the social world differently, we will therefore experience it differently, interpret it differently, document it differently, code it differently, analyze it differently, and write about it differently. Objectivity has always been an ideal yet contrived and virtually impossible goal to achieve in quantitative research. Qualitative researchers do not claim to be objective because the notion is a false god.

Coding is mechanistic, instrumentalist, and distances you from your data. If you are doing your job right as a qualitative researcher, nothing could be further from the truth. Coding *well* requires that you reflect deeply on the meanings of each and every datum. Coding *well* requires that you read, reread, and reread yet again as you code, recode, and recode yet again. Coding *well* leads to total immersion in your data corpus with the outcome exponential and intimate familiarity with its details, subtleties, and nuances. When you can quote verbatim by memory what a participant said from your data corpus and remember its accompanying code, I do not understand how that action has "distanced" you from your work.

Coding is nothing more than counting. In traditional content analysis studies, counting the number of times a particular set of codes occurs is indeed an important measure to assess the frequency of items or phenomena. But one of the caveats I propose later in this manual is that frequency of occurrence is not necessarily an indicator of significance. The analytic approaches for most of these coding methods do not ask you to count; they ask you to ponder, to scrutinize, to interrogate, to experiment, to feel, to empathize, to sympathize, to speculate, to assess, to organize, to pattern, to categorize, to connect, to

integrate, to synthesize, to reflect, to hypothesize, to assert, to conceptualize, to abstract, and—if you are really good—to theorize. Counting is easy; thinking is hard work.

Coding is "dangerous," "violent," and "destructive." I have difficulty understanding why extremist words such as these have been chosen to describe the act of coding. I associate these words with natural disasters, criminals, and war, not with qualitative data analysis. I feel these monikers are sensationalist hyperbole in a culture of fear, and I question their legitimacy and accuracy for describing their critics' intended concerns. In other words, these are, to me, poor word choices for an argument. And poor word choosers make bad coders.

Coding is an outdated method for qualitative data analysis. Coding qualitative data has over a half-century of use, and a substantive track record in many disciplines and scholarly publications. The technology needed for the enterprise has most certainly evolved through time, as have the methodologies and methods. But the core process of coding remains to this day a legitimate option for qualitative researchers. It is a tradition that has endured, not out of mindless adherence to established protocols, but due to its successful utility as a purposeful analytic approach to voluminous amounts of data.

There has been a recent trend in some circles of scholarship to discount and "refuse" coding outright as an old-fashioned, post-positivist approach that does not harmonize with more theory-based analytics (e.g., inspired by Derrida, Deleuze, Foucault). Methodologist Yvonna S. Lincoln (2015) challenges post-structuralist rejection of coding:

> I am aware that some scholars are now calling for an abandonment of coding and other analytic forms (Jackson & Mazzei, 2012), but walking away from disciplined, careful analysis of data in favor of pure interpretation, or of "chunking" data through theory, does not release the researcher from demonstrating that his or her work is rigorous and that it has adhered to some set of criteria that provides for systematicity, and for public inspectability. How are we to know what was done if we have no idea how interpretations were arrived at and if we have no data trail to help us follow the logic of shoehorning … data through the theoretical framework of some long-dead French intellectual. (pp. 203–4)

Coding does not preclude or push theory and theorists aside. You as the analyst can still weave theory into your thinking through analytic memo writing and in the final report itself. Coding is neither a philosophy nor a way of viewing the world; it is simply a heuristic for achieving some sense of clarity *about* the world from your data and your deep reflections on them.

There's more to data analysis than just coding. I absolutely agree. The 43 analytic approaches documented in Appendix B alone support this perception. This manual advocates that coding is a heuristic—a method of discovery that hopefully stimulates your *thinking* about the data you have been given and have collected. And in case you forgot two very important principles stated at the beginning of this chapter, here they are again:

1. Coding is just *one* way of analyzing qualitative data, not *the* way.
2. There are times when coding the data is absolutely necessary, and times when it is most inappropriate for the study at hand.

The next chapter discusses some of the fundamental methods and techniques of coding qualitative data.

2 FUNDAMENTAL CODING METHODS AND TECHNIQUES

Chapter Summary

This chapter addresses specific methods and techniques of coding qualitative data. It offers recommendations for amounts of data to code, data layout and formatting, code frequencies, inquiry frames, codebooks, manual coding, software, translation, and reflections on method.

CODING AS CRAFT

I am very well aware of the interpretivist and post-structuralist turns in qualitative inquiry, and the movements toward evocative writing and emancipatory social action through ethnographic fieldwork (Denzin & Lincoln, 2018). My own qualitative research projects have ranged from the realist to the literary and from the confessional to the critical (Saldaña, 2018; Van Maanen, 2011). But as a theatre practitioner, my discipline acknowledges that we must attend to both the art *and craft* of what we do to make our stage production work successful. And in my career as a teacher educator, it was my job to teach how to teach. Hence, I needed an attunement to various methods of classroom practice because my professional responsibilities required it. Some methods were organizational, managerial, time-efficient, and related to carefully planned curriculum design. Yet I emphasized to my students that processes such as the creative impulse, trusting your instincts, taking a risk, spontaneous novelty, and just being empathetically human in the classroom are also legitimate methods of teaching practice. Education is complex; so is social life in general and so is qualitative inquiry in particular.

This heightened, ever-present awareness of craft, of "how to," transfers into my research work ethic. I am both humbly and keenly aware not only of what I do but of why I do it. A metacognition of method, even in an emergent, intuitive, inductive-oriented, and socially conscious enterprise such as qualitative inquiry, is vitally important. This awareness comes with time and experience (and trial and error), but development can be accelerated if you have some preparatory knowledge of "how to." Corbin and Strauss (2015) wisely advise, "The best approach to coding is to relax and let your mind and intuition work for you" (p. 219), but I add that a working knowledge of fundamental coding methods and techniques is also vitally necessary.

WHAT GETS CODED?

Richards and Morse (2013) humorously advise for analytic work, “If it moves, code it” (p. 162). But what exactly *gets* coded in the data? Codes symbolize and, through their categorization, attempt to capture the complex linguistic, interactional, narrative, visual, and material orders of social life (Atkinson, 2015, p. 52).

The coded researcher

In the coding examples profiled in later chapters, you will notice that the interviewer's questions, prompts, and comments are not coded. This is because the researcher's utterances are more functional than substantive *in these particular cases* and do not merit a code. Also, I prioritize the participants' data when analyzing interviews since I am studying their perceptions, not mine. My interpretations of their narratives via coding is my contribution to the meaning-making enterprise.

But if the exchanges between an interviewer and interviewee are more than just information gathering—if the interactions are significant, bidirectional, dialogic exchanges of issues and jointly constructed meanings—then the researcher's contributions could be appropriately coded alongside the participant's. Certainly, the researcher's participant observation field notes, authored from a first-person perspective, merit codes since they both document naturalistic action and include important interpretations of social life and potentially rich analytic insights.

Amounts of data to code

One related issue with which qualitative research methodologists disagree is the amount of the data corpus—the total body of data—that should be coded. Some (e.g., Lofland, Snow, Anderson, & Lofland, 2006; Strauss, 1987; cf. Wolcott, 1999) feel that every recorded fieldwork detail is worthy of consideration, for it is from the patterned minutiae of daily, mundane life that we might generate significant social insight. Others (e.g., Guest, MacQueen, & Namey, 2012; Morse, 2007; Seidman, 2019), if not most, feel that only the most salient portions of the corpus related to the research questions merit examination, and that even up to one-half to two-thirds of the total record can be summarized or "deleted," leaving the remainder for intensive data analysis.

Paulus, Lester, and Dempster (2014) suggest that available digital tools for qualitative research may have made complete transcription of materials obsolete, with "gisted" or "essence" transcription as preferred approaches with programs such as Transana, which maintains the full audio/video data record for future researcher reference, as needed (pp. 94–100). Stonehouse (2019) promotes "audio-coding" with CAQDAS (Computer-Assisted Qualitative Data Analysis Software) programs, in which codes are applied and linked to passages on a digital audio recording embedded in the project file, rather than onto a text edited or hard-copy transcription. With eye-opening statistics, Stonehouse (2019) calculates that no more than 4% of excerpts from a complete interview transcript may be included in a published article. "Thus, the audio-coding researcher avoids needlessly transcribing 96% of the interview" (p. 7).

The potential hazard is that the data not transcribed or deleted might contain the as yet unknown units of data that could pull everything together, or include the negative or discrepant case that motivates a rethinking of a code, category, theme, concept, assertion, proposition, or theory. Yet software programs for voice-to-text transformation, such as Zoom, oTranscribe, and Temi, have become more readily available, thus alleviating the burden of manual transcription. Postmodern perspectives on ethnographic texts consider all documentation and reports partial and incomplete anyway, so the argument for maintaining and coding a full or condensed data corpus seems moot. Amount notwithstanding, ensure that you have not just sufficient qualitative but sufficient *quality* data with which to work that have been appropriately transcribed and formatted.

I have learned from years of qualitative data analysis that only with experience does one feel more secure knowing what is important in the data record and what is not. I therefore code only what rises to the surface—"relevant text" as Auerbach and Silverstein (2003) label it. Sullivan (2012) identifies his significant passages of data from the corpus as "key moments," and the reconstructed assembly of same-topic interview passages from different participants as "cherry-picked" dialogic "sound bites" for intensive thematic or discourse analysis. Everything else, like in a twentieth-century film editing studio, falls to the cutting room floor.

The beginning of my fieldwork career was a major learning curve for me, and I coded anything and everything that was collected. I advise the same for novices to qualitative research, but do not feel bound by that recommendation. You, too, will eventually discover from experience what matters and what does not in the data corpus. Bottom line: Code smart, not hard. Code only the data that relate to your research questions of interest. (Of course, there will always be brief passages of minor or trivial consequence scattered throughout interviews and field notes. Code these N/A—not applicable.)

So, what *gets* coded? Slices of social life recorded in the data—participant activities, perceptions, and the tangible documents and artifacts produced by them. Your own reflective data in the form of analytic memos (discussed in Chapter 3) and observer's comments in

field notes are also substantive material for coding. The process does not have to be approached as if it were some elusive mystery or detective story with deeply hidden clues and misleading red herrings scattered throughout. If human action is driven by motives, values, emotions, culture, and so on, then why not just code these actions and social meanings directly (assuming they are represented in your data and your inferential skills are working at an optimum)? The entire process *and products* of creating data about the data in the form of codes, categories, analytic memos, and graphical summaries are “metadata activities” (MacQueen & Guest, 2008, p. 14).

PRELIMINARY CODING TECHNIQUES

Formatting data for coding gives you a bit more familiarity with the contents and initiates a few basic analytic processes. It is comparable to “warming up” before more detailed work begins.

Data layout

As you prepare text-based qualitative data for manual (i.e., paper-and-pencil) coding and analyzing, lay out printed interview transcripts, field notes, and other researcher-generated materials in double-spaced format on the left half or left two-thirds of the page, keeping a wide right-hand margin for writing codes and notes. Rather than running data together as long unbroken passages, separate the text into short paragraph-length units with a line break between them whenever the topic or subtopic appears to change (as best as you can, because in real life "social interaction does not occur in neat, isolated units" (Glesne, 2011, p. 192)). Gee, Michaels, and O'Connor (1992) call these unit breaks and their rearrangement into poetic-like verses for discourse analysis "stanzas" of text, and emphasize that "formatting choices are a part of the analysis and may reveal or conceal aspects of meaning and intent" (p. 240). Unit divisions will also play a key role in formatting data for CAQDAS programs (discussed later).

Below is an excerpt from a word-processed interview transcript without any breaks in the text. The participant, a white male PhD student, reflects on the midpoint of his doctoral program of study:

PARTICIPANT: I'm 27 years old and I've got over $50,000 in student loans that I have to pay off, and that scares the hell out of me. I've got to finish my dissertation next year because I can't afford to keep going to school. I've got to get a job and start working.

INTERVIEWER: What kind of job do you hope to get?

PARTICIPANT: A teaching job at a university someplace.

INTERVIEWER: Any particular part of the country?

PARTICIPANT: I'd like to go back to the east coast, work at one of the major universities there. But I'm keeping myself open to wherever there's a job. It's hard listening to some of the others [in the current graduating class] like Jake and Brian interviewing for teaching jobs and being turned down. As a white male, that lessens my chances of getting hired.

INTERVIEWER: I think most employers really do look for the best person for the job, regardless of color.

PARTICIPANT: Maybe. If I can get some good recs [letters of recommendation], that should help. My grades have been real good and I've been getting my name out there at conferences.

INTERVIEWER: All of that's important.

PARTICIPANT: The prospectus is the first step. Well, the IRB [Institutional Review Board approval] is the first step. I'm starting the lit review this summer, doing the interviews and participant observation in the fall, writing up as I go along, and being finished by spring.

INTERVIEWER: What if more time is needed for the dissertation?

PARTICIPANT: I've got to be finished by spring.

An unformatted excerpt such as the above could be entered into a CAQDAS program as is. But for manual coding, and even for some preliminary formatting for selected CAQDAS programs, the interview text can be divided or parsed into separate units or stanzas when a topic or subtopic shift occurs. Each stanza, with a noticeable line break in between, could

conceivably become a unit that will receive its own code. Other necessary formatting, such as truncating names or placing non-coded passages in square brackets, can be taken care of at this layout stage of data preparation:

P: I' m 27 years old and I' ve got over $50,000 in student loans that I have to pay off, and that scares the hell out of me. I' ve got to finish my dissertation next year because I can' t afford to keep going to school. I' ve got to get a job and start working.

I: [What kind of job do you hope to get?]

P: A teaching job at a university someplace.

I: [Any particular part of the country?]

P: I' d like to go back to the east coast, work at one of the major universities there. But I' m keeping myself open to wherever there' s a job.

It' s hard listening to some of the others [in the current graduating class] like Jake and Brian interviewing for teaching jobs and being turned down. As a white male, that lessens my chances of getting hired.

I: [I think most employers really do look for the best person for the job, regardless of color.]

P: Maybe.

If I can get some good recs [letters of recommendation], that should help. My grades have been real good and I' ve been getting my name out there at conferences.

I: [All of that' s important.]

P: The prospectus is the first step. Well, the IRB [Institutional Review Board approval] is the first step. I' m starting the lit review this summer, doing the interviews and participant observation in the fall, writing up as I go along, and being finished by spring.

I: [What if more time is needed for the dissertation?]

P: I' ve got to be finished by spring.

The interview excerpt above will be coded and analyzed in Chapter 9' s profile, Eclectic Coding.

Pre-coding

In addition to coding with words and short phrases, never overlook the opportunity to "pre-code" (Layder, 1998) by circling, highlighting, bolding, underlining, or coloring rich or significant participant quotes or passages that strike you—those "codable moments" worthy of attention (Boyatzis, 1998). Creswell and Poth (2018, p. 216) recommend that such quotes found in data contained in a CAQDAS program file can be simultaneously coded *as* quotes with their other codes to enable later retrieval. Selected programs have areas dedicated to storing intriguing quotations for later access. Dedoose software includes a tag labeled "Great Quotes" the user can apply to intriguing data passages. These data can become key pieces of the evidentiary warrant to support your assertions, propositions, or theory, and serve as illustrative examples throughout your report (Erickson, 1986; Lofland et al., 2006). The codes or quotes may even be so provocative that they become part of the title, organizational framework, or through-line of the report.

For example, in my study of theatre of the oppressed (i.e., theatre for social change) with elementary school children, I was puzzled why young people continually employed combative tactics during improvisational dramatic simulations to resolve imbalanced power issues, when I was trying to teach them proactive peace-building efforts. A fourth-grade girl poignantly provided the answer when we discussed my concerns by explaining to me, "Sometimes, you can't be nice to deal with oppression" (Saldaña, 2005b, p. 117). The quote was so powerful that it began my final research report as a datum that would both capture the reader's interest and later explain the through-line of the study.

Bernard, Wutich, and Ryan (2017) recommend that rich text features of word processing software can also enable initial coding and categorization *as* data are transcribed. In a health study related to participants talking about their experiences with the common cold, "*Signs and symptoms are tagged with italics*; treatments and behavioral modifications are tagged with underlining; and **diagnosis is tagged with bold**" (p. 144, rich text features added). Field notes can also employ rich text features for "at a glance" separation before coding and analytic review:

- Descriptive, narrative passages of field notes are logged in regular font.
- **"Quotations, things spoken by participants, are logged in bold font."**
- *Observer's comments (OCs), such as the researcher's subjective impressions or analytic jottings, are set in italics.*
- Underlined text (or different font size/style or color) is reserved for other research markers such as key quotes, follow-up tasks, final report passages, etc.

Preliminary jottings

Start coding *as* you collect and format your data, not after all fieldwork has been completed. When you write up field notes, transcribe recorded interviews, or file documents you gathered from the site, jot down any preliminary words or phrases for codes on the notes, transcripts, or documents themselves, or as an analytic memo or entry in a research journal for future reference. They do not have to be accurate or final at this point, just ideas for analytic consideration while the study progresses. Do not rely on your memory for future writing. Get your thoughts, however fleeting, documented in some way.

Also make certain that these code jottings are distinct in some way from the body of data—capitalized, italicized, bolded, etc. Liamputtong and Ezzy (2005, pp. 270–3) recommend formatting pages of data into three columns rather than two. The first and widest column contains the data themselves—interview transcripts, field notes, etc. The second column contains space for preliminary code notes and jottings, while the third column lists the final codes. The second column's ruminations or first impressions may help provide a transitional link between the raw data and codes:

Code example 2.1

COLUMN 1 Raw Data	COLUMN 2 Preliminary Codes	COLUMN 3 Final Code
1 The closer I get to retirement age, the faster I want it to happen. I'm not even 55 yet and I would give anything to retire now. But there's a mortgage to pay off and still a lot more to sock away in savings before I can even think of it. I keep playing the lottery, though, in hopes of winning those millions. No luck yet.	"*retirement age*" *financial obligations dreams of early retirement*	1 RETIREMENT ANXIETY

Some of my students, during preliminary stages of analysis, devote the right-hand margin to tentative codes for specific data units, while the left-hand margin includes broader topics or interpretive jottings for later analytic memo writing (see Chapter 3).

Virtually all methodologists recommend initial and thorough readings of your data while writing analytic memos or jottings in the margins, tentative ideas for codes, topics, and noticeable patterns or themes. Write your code words or phrases completely rather than abbreviating them to mnemonics or assigning them reference numbers. Avoid such truncations as "PROC-AN CD" or "122.A," which just make the decoding processes of your brain work much harder than they need to during analysis.

Questions to consider as you code

Auerbach and Silverstein (2003, p. 44) recommend that you keep a copy of your research concern, theoretical framework, central research question, goals of the study, and other major issues on one page in front of you to keep you focused and allay your anxieties because the page focuses your coding decisions. Emerson et al. (2011) advise a general list of questions to consider when coding field notes, regardless of research purpose:

- What are people doing? What are they trying to accomplish?
- How, exactly, do they do this? What specific means and/or strategies do they use?
- How do members talk about, characterize, and understand what is going on? What assumptions are they making?
- What do I see going on here?
- What did I learn from these notes? Why did I include them?
- How is what is going on here similar to, or different from, other incidents or events recorded elsewhere in the fieldnotes?
- What is the broader import or significance of this incident or event? What is it a case of? (p. 177)

I would add to this list the question I ask myself during all cycles of coding and data analysis: “What strikes you?” Sunstein and Chiseri-Strater (2012) expand on this by suggesting that fieldworkers, during all stages of a project, ask themselves:

- What surprised me? (to track your assumptions)
- What intrigued me? (to track your positionality)
- What disturbed me? (to track the tensions within your value, attitude, and belief systems) (p. 115).

Coding contrasting data

If you work with multiple participants in a study, it may help to code one participant's data first, then progress to the second participant's data. You might find that the second data set will influence and affect your recoding of the first participant's data, and the consequent coding of the remaining participants' data. The same may hold true for a coding system applied to an interview transcript first, then to a day's field notes, then to a document. Be aware that, depending on the coding method(s) chosen, some codes may appear more frequently in selected types of data than others. Selected CAQDAS program functions keep you apprised of the codes and their frequencies as analysis progresses.

THE NUMBERS OF CODES

The actual number of codes, categories, themes, and/or concepts you generate for each project vary and depend on many contextual factors, yet one question students ask most is how often codes "should" get applied to qualitative data. The answer depends on the nature of your data, which particular coding method you select for analysis, and how detailed you want or need to be—in other words, more filters to consider.

“Lumping” and “splitting” the data

For example, the following data excerpt comes from a speech by a second-year, urban, grades K－8 school teacher speaking to pre-service education majors enrolled in a university teaching methods course (Saldaña, 1997). She has just shared several poignant vignettes about some of her most difficult students. Notice that just one In Vivo Code is applied to capture and represent the essence of this entire excerpt—a broad brushstroke representation called Holistic Coding:

Code example 2.2

[1] I’m not telling you this to depress you or scare you but it was a reality for me. I thought I was so ready for this population because I had taught other groups of kids. But this is such a unique situation, the inner city school. No, I should take that back: It’s not as much of a unique situation *anymore*. There are more and more schools that are turning into inner city schools. … I really had to learn about the kids. I had to learn about the culture, I had to learn the language, I had to learn the gang signals, I had to learn what music was allowed, what t-shirts they could wear on certain days and not on other days. There was just a lot to learn that I had never even thought about.	[1] “a lot to learn”

The method above is called “lumper” coding (also known as macro-coding). The opposite is someone who codes as a “splitter” (also known as micro-coding)—one who splits the data into smaller codable moments (Bernard, 2018, p. 395). Thus, more detailed In Vivo Coding of the exact same passage might appear thusly:

Code example 2.3

I’m not telling you this to depress you or scare you but it was a [1] reality for me. [2] I thought I was so ready for this population because I had taught other groups of kids. But this is such a [3] unique situation, the inner city school. No, I should take that back: It’s not as much of a unique situation *anymore*. There are more and more schools that are turning into [4] inner city schools. … [5] I really had to learn about the kids. I had to learn about [6] the culture, I had to learn the language, I had to learn the gang signals, I had to learn what music was allowed, what t-shirts they could wear on certain days and not on other days. There was just [7] a lot to learn that I had never even thought about.	[1] “reality” [2] “i thought i was so ready” [3] “unique situation” [4] “inner city schools” [5] “i really had to learn” [6] “the culture” [7] “a lot to learn”

Now this excerpt is represented with seven codes rather than one. I state the numbers not to suggest that more is better or that less is more, but to highlight that lumping is an expedient coding method (with future detailed subcoding still possible), while splitting generates a more nuanced analysis from the start.

Each approach has its advantages and disadvantages, aside from the obvious factors of time and mental energy required. Lumping gets to the essence of categorizing a phenomenon, while splitting encourages careful scrutiny of social action represented in the data. But lumping may lead to a superficial analysis if the coder does not employ conceptual words and phrases (see the discussion of Concept Coding in Chapter 6), while fine-grained splitting of data may overwhelm the analyst when it comes time to categorize the codes.

Perspectives vary within the professional literature. Stern (2007) admits: “I never do a line-by-line [coding] analysis because there is so much filler to skip over. Rather, I do a search and seizure operation looking for cream [that rises to the top] in the data” (p. 118). But Charmaz (2015) advises that detailed line-by-line coding promotes a more trustworthy analysis that “reduces the likelihood of imputing your motives, fears, or unresolved personal issues to your respondents and to your collected data” (p. 68).

Code proliferation

A common problem I have observed with beginning qualitative data analysts is *code proliferation*. An analogy would be stacking cumulative amounts of paper on a desk haphazardly day after day that you someday plan to file. But after several months of random stacking, the amount of paper eventually overwhelms you and you are at a loss for where and how to begin organizing the materials. If each sheet of paper represented an individual code from your data set, the number could run into the hundreds before you feel that you may have reached a point of no return.

If you are working with CADQAS programs which provide organizational and managerial capabilities with your coded data and codes, the problem is not as formidable. But if you are working on hard copy and by hand with a rather voluminous data corpus, you need at the very least to minimize the code proliferation problem before it gets out of hand. Figure 2.1 shows one example of hundreds of individual In Vivo Codes on separate slips of paper arrayed on a dining room table for initial categorization. Though the resulting qualitative analysis by this researcher was most insightful, the journey toward the destination was quite an arduous task. To prevent yourself from getting into a similar conundrum, I recommend the following:

Figure 2.1 Individual In Vivo Codes on separate slips of paper (photo by the study's researcher, anonymity requested)

- *Code only the most essential parts of your data corpus.* Not everything you collect in the field will be necessarily relevant to your research questions and consequent analysis. Though all data nuances may help inform the bigger picture of your study, the detailed analytic work of coding can be reserved for those portions of the corpus that are deemed "relevant text" to the study.

- *Code as a "lumper" not a "splitter."* Many of the coding examples in the profiles that follow are deliberately detailed to illustrate the possibilities of interpreting the data. And many codes appear only once in the examples since the data excerpts are relatively short. Assess your data-to-codes ratio early in the process, and determine whether detailed coding may be helping or hindering your efforts. Take the "code line-

by-line" recommendation from several qualitative research methodologists with a grain of salt.

- *Use selected codes repeatedly.* Remember that one of the purposes of coding is to detect patterns in the data. There are repetitive actions in daily human life and often shared or reinforced perspectives among multiple participants. Not every datum in a corpus requires its own unique code. Deliberately search for commonalities throughout the data and employ an evolving repertoire of established codes. Kirner and Mills (2020) wisely advise that if you "are never reusing codes, you might look carefully at whether you are really coding or you are only abbreviating" the data units (p. 130).

- *Subsume codes into broader codes or categories as you continue coding.* One household routine that many practice is to clean the kitchen *as* you cook, rather than saving the complete task until after the meal has been eaten. This makes the clean-up chore more efficient and less tedious afterward. The same principle applies to coding. "Clean up" or recode or categorize your codes *as* you continue collecting and analyzing data (see Coding the Codes in Chapter 12). Granted, these new codes and categories may be tentative because continued data analysis may revise your initial classifications. But you will be ahead of the analytic curve if you do some preliminary cleaning and organizing ahead of time.

- *Let analytic memoing do some if not most of the work for you.* Coding is in service to thinking. The insights you make about social phenomena arise from a lot of backstage work with coding, but most importantly from the analytic connections you construct and report. Analytic memoing (see Chapter 3) attempts to bring together disparate moments of detail work into more coherent meanings. Write cumulatively about the emerging research picture as coding proceeds. Synthesize and integrate the ideas as they occur to you while data collection and analysis continue.

During second cycle coding, you might collapse the original number of first cycle codes into a smaller number as you reanalyze the data and find that larger segments of text are better suited to just one key code rather than several smaller ones. It is only from experience that you will discover which approach works best for you, your particular study, and your particular research goals.

The quantities of qualities

Adu (2019, p. 198) suggests that a single code should not be more than five words long, but I am willing to extend a code to however long it needs to be to adequately symbolize a datum. I do recommend, though, that In Vivo Codes should rarely extend into full sentence-length representations. Codes, categories, and concepts work best as single words (e.g., adaptation, burnout), two-word "couplets" (e.g., withholding expertise, challenging authority) or short phrases (e.g., school as sanctuary, "running low on gas"). Themes, assertions, propositions, and theories require sentence-length representations with accompanying explanatory narratives (e.g., Confinement means a lack of purpose; Health care workers felt overwhelmed and helpless during the COVID-19 pandemic).

Harding (2019) openly acknowledges that his advice is subjective, yet he recommends that a code shared by approximately one-fourth of the study's respondents merits consideration in the analysis and a possible contribution to the research findings. He also advises that roughly three-fourths of the total number of participants should share a similar code between them (related to an experience or opinion found in their data) for a "commonality" to be established, such as a category or theme. But my own experience has taught me that, *in some cases*, the unique instance of a code that appears just once and nowhere else in the data corpus, or a code that appears just two or three times across different cases or time periods, may hold important meaning for generating a significant insight in later analysis. Unfortunately, that same number of just one, two, or three instances of a code may also suggest something unimportant, inconsequential, and unrelated to your research questions and purpose. The analyst must reconcile which one of these possibilities is at work.

Friese (2014) prescribes that qualitative research projects should never venture into the thousands for a final number of codes; between 50 and 300 different codes total are recommended (pp. 92, 128). Lichtman (2013) projects that most qualitative studies in education will generate 80–100 different codes that will be organized into 15–20 categories and subcategories which eventually synthesize into 5–7 major concepts (p. 248). Creswell and Poth (2018) initiate their analysis with a shortlist of 5–6 Provisional Codes to begin the process of "lean coding." This expands to no more than 25–30 categories that then combine into 5 or 6 major themes (p. 190). Other disciplines and varying approaches to qualitative inquiry may prescribe different sets of numbers as general guidelines for analysis, but MacQueen, McLellan, Kay, and Milstein (2009) observe that "For the most part, coders can only handle 30–40 codes at one time" for a study, especially if they use a system developed by someone else (p. 218).

The final number of major themes or concepts should be held to a minimum to keep the analysis coherent, but there is no standardized or magic number to achieve. Unlike Lichtman's five to seven central concepts and Creswell and Poth's five or six major themes, anthropologist Harry F. Wolcott (1994, p. 10) generally advises throughout his writings that *three* of anything major seems an elegant quantity for reporting qualitative work. Merriam and Tisdell (2016) wisely advise, for analytic outcomes, "the fewer the categories, the greater the level of abstraction, and the greater the ease with which you can communicate your findings to others" (p. 214).

“Quantitizing” the qualitative

Some researchers may wish to transform their qualitative data and/or codes into quantitative representations for exploratory review or statistical analysis. Sandelowski, Voils, and Knafl (2009) posit that “the rhetorical appeal of numbers—their cultural association with scientific precision and rigor—has served to reinforce the necessity of converting qualitative into quantitative data” (p. 208). They propose that quantitizing, or the transformation of non-numeric data into a counted form of some kind, is “engineering data” to create different indices of meaning. Just as codes are symbolic summaries of larger excerpts of data, numbers (in the form of medians, percentages, standard deviations, etc.) are symbolic summaries of a measured outcome.

Quantitizing qualitative data is done for varying reasons, but several methodologists I have consulted advised me, “Ask yourself *why* you’re changing qualitative data into numbers in the first place.” If you are transforming words into numbers solely for what you believe may be more persuasive results and case-making, you may be doing it for the wrong reason. Instead, quantitizing may be better applied to content analytic studies, mixed methods studies, and field experiments that test for differences between treatment and second-site (i.e., control) groups, or differences between time periods with a single participating group. Mixed methods texts (Bazeley, 2018; Creamer, 2018; Creswell & Plano Clark, 2018; Tashakkori & Teddlie, 2010; Vogt et al., 2014) provide excellent discussions of rationales and procedures for data mixing and transformation. Here I address in detail only one—a purpose I label *paradigmatic corroboration*.

Assuming that quantitative and qualitative research, each with their own distinctive symbol systems of meaning, are two separate approaches to inquiry, it is possible to achieve comparable types of results when each approach examines the same local phenomenon or data set. As an example, I analyzed survey data that collected both quantitative ratings from respondents to close-ended prompts, plus written responses to related, open-ended, follow-up prompts (McCammon, Saldaña, Hines, & Omasta, 2012). A sample question from the e-mail survey administered to adults of varying ages is:

1 a My participation in high school speech and/or theatre has affected the adult I am now [choose one:]

4 - Strongly Agree

3 - Agree

2 - Disagree

1 - Strongly Disagree

1 b In what ways do you think your participation in speech and/or theatre as a high school student has affected the adult you have become?

Paradigmatic corroboration occurs when the quantitative results of a data set do not simply harmonize or complement the qualitative analysis but corroborate it. In other words, the quantitative analytic results “jive” with or appear to correspond with the qualitative analytic outcomes. Part of the survey study analyzed differences between two or more configurations of respondents (e.g., between male and female respondents; between younger, mid-life, and older respondents) to observe whether quantitative analysis showed any statistically significant differences between groups, *in addition to* whether any noticeable

qualitative differences in codes and categories were generated from the open-ended response data.

If there was no significant difference ($p < .05$) between male and female participants to the inferential statistical testing of their numeric ratings, then the codes and categories of the respective groups' qualitative responses should also show no substantive differences between gender groups. But when there *was* a statistically significant difference between age groups—for example, between respondents in their 20s and older respondents aged 50 plus—their respective qualitative codes and categories also revealed differences. For example, younger respondents offered more intrinsic benefits (friendships, empathy, artistic growth, etc.) of their high school theatre and speech participation; older adults referred to more extrinsic rewards and accomplishments (roles in plays, awards, career advancement). The numeric outcomes helped support the qualitative analytic results. Quantity corroborated quality, and vice versa.

Paradigmatic corroboration provides the analyst a "reality check" of his or her analytic work. It also provides two sets of lenses to examine the data for a multidimensional and more trustworthy account. Magnitude Coding could serve as one way of transforming or "quantitizing" qualitative data. Hypothesis Coding—and, with some adaptation, Evaluation Coding—is designed to test differences between two (or more) participant groups. Significant frequency or evaluative differences between a set of major codes from two groups can be assessed, for example, through the *t*-test (for larger samples) or the nonparametric Mann–Whitney *U*-test (for smaller samples or ordinal data). Most CAQDAS programs include statistical capabilities with your codes, revealing results such as frequencies, cluster analyses, correlations, and so forth.

By no means should you infer that I advocate the transformation or quantitizing of qualitative data for all studies. It is an option available to you if and only if it will help meet your analytic goals and provide the best answers for your particular research questions. If you are in doubt, as some of my colleagues advised, ask yourself *why* you are changing qualitative data into numbers in the first place. For an example of transformation methods using an Excel spreadsheet, see gpstrategies.com/blog/qualitativedata.

DEDUCTIVE AND/OR INDUCTIVE CODING

To code deductively is to begin the analytic enterprise with a set of a priori (i.e., determined beforehand) codes, whether developed by the researcher or adopted from another researcher's pre-established coding system (see Provisional and Hypothesis Coding in Chapter 9, and Protocol Coding in Chapter 10). Deductive coding is recommended when your conceptual framework, research questions, and other matters of research design suggest that certain codes, categories, themes, or concepts are most likely to appear in the data you collect. It is also recommended when your inquiry is theory-driven and targets specific experiences, phenomena, actions, and so on that you are certain will appear in the empirical materials.

The deductive researcher generates a provisional "start list" of codes prior to fieldwork. "A start list can have from a dozen or so up to 50 codes; that number can be kept surprisingly well in the analyst's memory without constant reference to the full list—*if* the list has a clear structure and rationale. It is a good idea to get that list on a single sheet for easy reference" (Miles, Huberman, & Saldaña, 2020, p. 74). An example of a deductive set of codes that might be developed for a study comes from a content analytic exploration of gender, age, racial/ethnic, and sexual orientation representations in television commercials. The researcher wants to examine not just how often but in what ways different demographic characteristics are portrayed in advertising media. A code list given to a team member before coding a sample of video recordings might consist of Attribute Codes (see Chapter 5) such as:

MALE

FEMALE

NON-BINARY/GENDER FLUID

HUMAN/LIVE SUBJECT

INFANT/CHILD

ADOLESCENT/TWEEN/TEEN

YOUNG ADULT

MIDLIFE ADULT

OLDER ADULT

ANIMATED/DIGITIZED

LIVE ANIMAL

VOICE-OVER

FEATURED [e.g., with dialogue, prominent appearance]

SUPPORTING [e.g., no dialogue, brief appearance]

EXTRA [e.g., background actors]

NO REP [meaning, no life forms visually appear in the commercial, just nature, objects, or things such as houses, cars, food, etc.]

[Other codes follow for race/ethnicity and sexual orientation]

Coding inductively is entering the analytic enterprise with as open a mind as possible—a "learn as you go" approach that spontaneously creates original codes the first time data are reviewed. Most qualitative researchers work this way, which satisfies "other readers, who can see that the researcher is open to what the site has to say rather than determined to force-fit the data into preexisting codes" (Miles et al., 2020, p. 74). Coding inductively takes longer to reflect and to compose words and phrases of meaning. But it is the data-driven method of choice for most grounded theorists, ethnographers, phenomenologists, and researchers of other traditional approaches to qualitative inquiry. Most of the examples in the coding methods profiles that follow illustrate inductive coding.

Induction and deduction are actually dialectical rather than mutually exclusive research procedures. As an inductive coding system is constructed and becomes solidified, it then becomes a deductive coding system for the data analyses that follow. One cannot help starting a project with some knowledge about what may be found. Yet, investigators must also remain open to new discoveries and constructions of knowledge about the human condition. Otherwise, what is the point of research?

In sum, the deductive researcher starts with a preliminary list of codes, and the inductive researcher ends up with one.

THE CODEBOOK OR CODE LIST

Since the number of codes can accumulate quite quickly and change as analysis progresses, keep a record of your emergent codes in a separate file as a codebook—a compilation of the codes, sometimes accompanied with their content descriptions, and a brief data example for reference. CAQDAS programs, by default, maintain a list of codes you have created for the project and provide space to define them. This can be reviewed periodically—both on the monitor screen and on hard copy—as coding progresses to assess its current contents and possible evolution. Maintaining this list provides an analytic opportunity to organize and reorganize the codes into major categories and subcategories. This management technique also provides a comparative list if you work with multiple participants and sites. One school site's data, for example, may generate a list of codes significantly different from another school site.

Figure 2.2 illustrates a sample codebook adapted from Saldaña and Omasta's (2018) case study analysis of a movie theater employee's perceptions of his job. Though most people would read the chart from left to right, observing how the three main categories are broken into their respective subcategories, it was originally constructed from the right to the left. The In Vivo Codes in the right column were first clustered into comparable groups, then assigned their subcategory labels, listed in the second column. Comparable subcategories were then merged into the three broader categories listed in the first column. As a confirmatory tactic, the code descriptions and data samples, seen in the third column, were then composed to insure the codes' "fit" in the overall codebook scheme. If any inconsistencies arose or if better organizational possibilities emerged, revisions were made in code placement, subcategory labeling, and so on, until each row's cells harmonized. This codebook could serve as a beginning template, to be expanded and revised as new participants are interviewed and their data coded, then integrated into the matrix.

Categories	*Subcategories*	Code Descriptions and Data Samples	IN VIVO CODES
Impression Management	***Onscreen Policy***	Codes refer to official theater policies for customer service, employee decorum, mottos for ways of working: "The official policy would be 'Clean, efficient, fun, movie theater experience for every guest'."	"BECAUSE OF POLICY" "CLEAN MOVIE THEATERS FOR EVERYONE" "CLEAN, FAST, EASY, FUN" "CLEANLINESS" "CUSTOMER SERVICE FIRST" "KEEP THE POLICIES" "OFFICIAL POLICY"
	Behind the Facade	Codes refer to "backstage" references by employees or actions that contradict official theater policies: "they advertise customer service first, but then some of the policies are more on the business side and less on the customer's side."	"BACKWARDNESS" "BEHIND THE SCENES" "FACADE" "RIPPING PEOPLE OFF" "THE BUSINESS SIDE"
Positive Interactions	***Cordiality***	Codes refer to employee cordiality and polite interactions with customers: "Very cordially, of course." "I always try to be cordial."	"ACCOMMODATING" "CONCISE AND CLEAR" "CORDIALLY" "EXTREMELY CORDIAL" "TRY TO BE CORDIAL" "TRYING TO BE POLITE"
	"Apologetic"	Codes refer to apologetic employee actions toward customers: "One of the things in training was always be the first to apologize if anything goes wrong. Never blame the guest—or customer—be concise and clear with them about what they have to offer."	"APOLOGETIC" "APOLOGIZED" "FIRST TO APOLOGIZE" "NEVER BLAME"
	Integrity	Codes refer to an employee's personal principles and personal work ethic: "they trained us on all these things, but even my own values and practices kind of seep through."	"FORTHRIGHT" "MY OWN VALUES AND PRACTICES" "TRAINED" "TRIED HARD" "TRUE IN WORD" "VERY ADAMANT"
Negative Interactions	***Inconsistency***	Codes refer to contradictions in or inconsistent adherence to theater or employee policies: "It just seems kind of two-faced." "I'd guess only about forty percent of the employees or managers actually took that part of the policy serious."	"CONFLICTED" "ONLY ABOUT FORTY PERCENT" "TWO-FACED" "WASN'T CONSISTENT"
	"Issues"	Codes refer to negative encounters or actions (not feelings) by employees doing their jobs: "it was a policy that lots of employees had issues with." "You might gripe about a guest, but as soon as a guest is there …"	"ACCIDENT" "BIG FUSS" "CHEESY" "GRIPE" "HAD ISSUES WITH" "IMPOLITE" "KIND OF WEIRD" "LOUD NOISES" "PUSHED"
	Defeatism	Codes refer to negative feelings, emotional discouragement, and low morale by employees: "if the assistant managers don't care, it slowly turned into the employees realizing that we didn't care." "It was hard, particularly towards the end. What disgruntled me as an employee the most was …"	"COMPLACENT" "DISCOURAGED" "DISGRUNTLED" "DON'T CARE" "EXCUSE" "IT WAS HARD" "JUST NOT CARING" "STIGMA" "THIS IS GARBAGE" "UNFORTUNATELY" "WE DIDN'T CARE"

Figure 2.2 A sample codebook (Saldaña & Omasta, 2018, pp. 228-9)

Codebooks or CAQDAS code lists become especially critical as a set of coding standards when multiple team members work together on the same project's data (see Coding Collaboratively below). Bernard et al. (2017, p. 150) advise that, for some studies with a more compact number of codes, each item in the codebook can specify its

- *short description*—the name of the code itself
- *detailed description*—a 1–3 sentence description of the coded datum's qualities or properties
- *inclusion criteria*—conditions of the datum or phenomenon that merit the code
- *exclusion criteria*—exceptions or particular instances of the datum or phenomenon that do not merit the code

- *typical exemplars*—a few examples of data that best represent the code
- *atypical exemplars*—extreme or special examples of data that still represent the code
- *"close, but no"*—data examples that could mistakenly be assigned this particular code.

Also note that a codebook differs from an *index*, the latter being a coded composite of the data corpus, organized alphabetically, hierarchically, chronologically, categorically, etc. This alone, rather than an extensively detailed codebook, can suffice for small-scale studies conducted by a single researcher. CAQDAS programs are superior for indexing functions with a qualitative data corpus. An excellent discussion on qualitative codebooks can be found in Bernard et al. (2017). For sample codebooks for *quantitative* content analysis, which illustrate the fine-grained detail possible, access Kimberly A. Neuendorf's "The Content Analysis Guidebook Online" at academic.csuohio.edu/neuendorf_ka/content.

MANUAL AND CAQDAS CODING

Some instructors of statistics and quantitative data analysis require that their students first learn how to "crunch the numbers" manually using only a pocket/hand calculator to provide them with cognitive understanding and ownership of the formulas and results. Once a statistical test has been administered this way, they can then use computers with software specifically designed to calculate numeric data.

Coding and qualitative data analysis have their equivalent trial. Like other instructors, I require that my students first perform "manual" coding and qualitative data analysis using paper and pencil on hard copies of data entered and formatted with basic word processing software only. The reason is that each class assignment of data gathering is relatively small-scale and thus a manageable project to analyze in this manner. But if a student's dissertation project or my own independent research studies require multiple participant interviews or extended fieldwork and extensive field note taking, then CAQDAS becomes a vital and indispensable tool for the enterprise.

Basit (2003) compared personal experiences between manual and electronic coding and concluded that "the choice will be dependent on the size of the project, the funds and time available, and the inclination and expertise of the researcher" (p. 143). I would add to this the research goals of the enterprise and the emergent satisfaction with the electronic coding system. Gallagher (2007) and her research team began a multi-site ethnography with CAQDAS, yet they soon learned that their software choice

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> was effective for data management, but inadequate for the nuanced and complex work of data analysis. [The software package] gave us style, but not substance; it sacrificed the attention to, and containment of, complexity we were after. … In effect, we returned to a manual [coding] system that respected the sheer quantity and complexity of qualitative data and the surrounding contexts. (pp. 71, 73)

Coding collaboratively with hard-copy data is difficult enough for a research team. The task increases exponentially in complexity if CAQDAS files are shared and accessed at different times among individual team members.

Coding manually

Trying to learn the basics of coding and qualitative data analysis simultaneously with the sometimes complex instructions and multiple functions of CAQDAS programs can be overwhelming for some, if not most, researchers. Your mental energies may be more focused on the software than the data. I recommend that for first-time or small-scale studies, code on hard-copy printouts first, not via a computer monitor. There is something about manipulating qualitative data on paper and writing codes in pencil that gives you more control over and ownership of the work. Perhaps this advice stems from my old-school ways of working that have become part of my "codus" operandi.

But for those with software literacy, a few of Microsoft Word's basic functions can code directly onto data. Some will select a passage of text and insert a comment, which contains the code for the datum. Others might insert a vertical text box running along the right-hand margin and insert the codes aligned with the data (see Figure 2.3). Others create a two-column table with the data set in a wider left-hand column, and the codes listed in a narrower right-hand column. Researchers with smaller data sets needing just three to ten major codes and/or categories total can assign a specific colored font to text passages that belong in the same category.

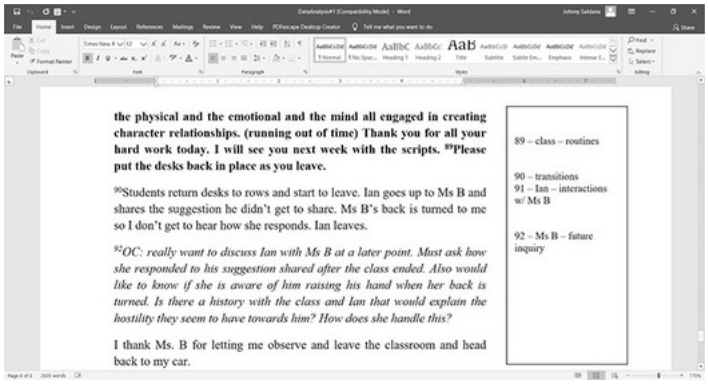

Figure 2.3 A Microsoft Word field notes document with codes in a right-margin text box (courtesy of Teresa Minarsich)

One of my mixed methods survey projects employed Microsoft Excel as a repository for the database because there were 234 surveys returned, and the software provided excellent organization with individual cells holding thousands of entries and their accompanying codes (see Figure 2.4). Each row represented an individual participant's survey data, while each column held the responses to a specific survey question. An additional row below each individual respondent contained the codes for his or her data. Excel also enabled me to calculate survey ratings into means and to conduct *t*-tests for subgroup comparisons. The software's CONCAT (CONCATENATE in earlier versions) function merges qualitative data from cells you specify, making the extraction of codes into one single cell a speedy task if they have been properly formatted in advance.

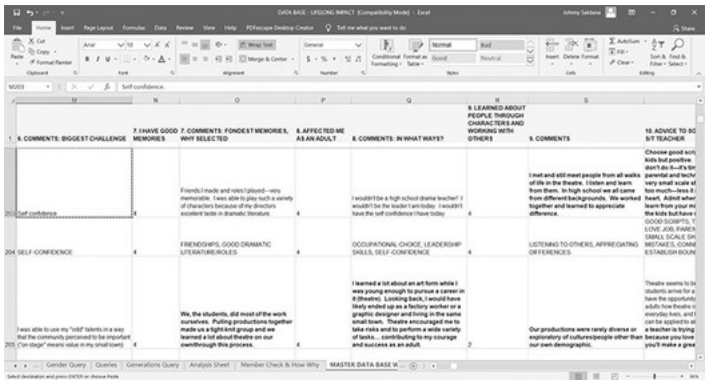

Figure 2.4 A Microsoft Excel spreadsheet with mixed methods data and codes in its cells

Nevertheless, there is something to be said for a large area of desk or table space with each code written on its own index card or "sticky note," or multiple pages or strips of paper, spread out and arranged into appropriate clusters to see the smaller pieces of the larger puzzle—a literal, "old-school" perspective not always possible on a computer's monitor screen. After you feel the codes are fairly well set from your initial hard-copy work, transfer your codes onto the electronic file. But first, "Touch the data. … Handling the data gets additional data out of memory and into the record. It turns abstract information into concrete data" (Graue & Walsh, 1998, p. 145). Even Robert V. Kozinets (2020), no less an authority on "netnography" and digital technology, admits, "You might keep your [research] journal on paper, in a bound notebook (as I do) with printed out sections taped on its pages, highlighted, with scrawled notes beside it" (p. 294).

Coding electronically

After you have gained some experience with hard-copy coding and have developed a basic understanding of the fundamentals of qualitative data analysis, apply that experiential knowledge base by working with CAQDAS. Keep in mind that CAQDAS itself does not actually code the data for you; that task is still the responsibility of the researcher. The software efficiently stores, organizes, manages, and reconfigures your data to enable human analytic reflection. The CAQDAS software program Dedoose enables both qualitative *and* quantitative and thus mixed methods analyses of the data. Figure 2.5 displays a code weight distribution plot and shows how a click on a segment within any Dedoose distribution plot will retrieve the related, underlying qualitative excerpts.

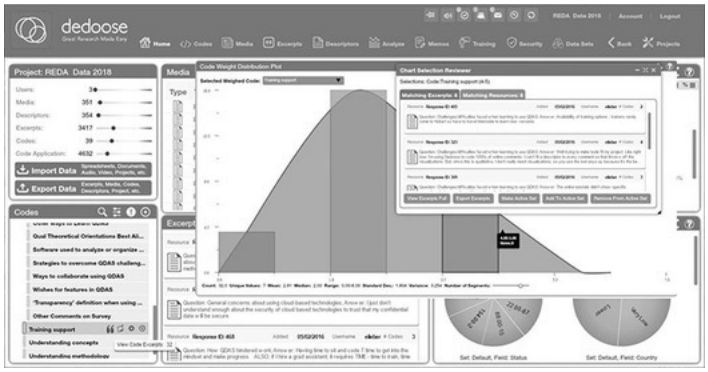

Figure 2.5 Dedoose Version 9.0.3, web application for managing, analyzing, and presenting qualitative and mixed methods research data (2020). Los Angeles, CA: SocioCultural Research Consultants, LLC, www.dedoose.com; courtesy of Eli Lieber

I advise that you work with a smaller portion of your data first, such as a day's field notes or a single interview transcript, before importing the data corpus into the program. Several CAQDAS developers also recommend that researchers orient themselves to the software by first using it as a repository for literature review materials such as article PDFs, citation information, significant excerpts, summary notes, and so on, all coded appropriately with descriptive tags such as analytic methods, themes, and theories. As with all text-edited work on a computer, back up your original files as a precautionary measure. Several major CAQDAS programs to explore, whose websites provide online tutorials or demonstration software/manual downloads of their most current versions, are:

- AQUAD: aquad.de/en
- ATLAS.ti: atlasti.com
- CAT: cat.texifter.com
- Dedoose: dedoose.com
- Delve: delvetool.com
- DiscoverText: discovertext.com
- HyperRESEARCH: researchware.com

- INTERACT: mangold-international.com
- MAXQDA: maxqda.com
- Narralizer: narralizer.com
- Noldus: noldus.com
- NVivo: qsrinternational.com
- Q-Notes: cdc.gov/qnotes/About.aspx
- QDA Miner: provalisresearch.com
- Quirkos: quirkos.com
- Taguette: taguette.org
- Transana: transana.com
- V-Note: v-note.org
- Vosaic: vosaic.com
- webQDA: webqda.net
- Weft QDA: pressure.to/qda/
- WordStat: provalisresearch.com.

Selected CAQDAS programs come in both PC and Mac versions, and a few are available for Android. Programs such as AQUAD and Weft QDA are available free of charge. Refer to Jackson and Bazeley (2019), Edhlund (2011), Friese (2014), Richards (2015), Salmona, Lieber, and Kaczynski (2020), Silver and Lewins (2014), and Woolf and Silver (2018) for accompanying literature on the major commercial programs. Also see Hahn (2008) and La Pelle (2004) for qualitative data analysis with basic word-processing software and office suites; Brent and Slusarz (2003), Ignatow and Mihalcea (2017), and Meyer and Avery (2009) for advanced computational strategies with software; Paulus et al. (2014) for assorted digital tools available for qualitative data collection and analysis; Davidson and di Gregorio (2011) for Web 2.0 tools such as DiscoverText and the Coding Analysis Toolkit; and Richards and Morse (2013) for what selected CAQDAS programs can and cannot do. Geisler (2018) compares the functionality of Excel, MAXQDA, and Dedoose software for coding language studies.

It is impractical to advise or prescribe which software program is “best” for particular qualitative studies and even for individual researchers. A technologically sophisticated CAQDAS program includes many advanced features, but researchers are not obligated to use every one of them. You are the best judge of your own software needs for your data, your available financial resources, and your personal preferences for user-friendliness, so explore several of the programs available to you on your own at the web addresses provided above to make an informed decision.

I have learned that peer and instructor mentorship with a CAQDAS program is vital and more effective than just reading its software manual on your own. If you can enroll in workshops or classes in CAQDAS facilitated by master teachers, I highly recommend them. Alternatives consist of accessing online video demonstrations, tutorials, and webinars offered by selected CAQDAS companies. Several of these have uploaded multiple short films about their products and features on YouTube (search for the clips by product name).

At the time of this writing, new technological tools exclusively designed or adaptable for qualitative data management and analysis seem to appear more and more frequently. Some programs, such as ATLAS.ti, are accessible on an iPad; other programs, like NVivo, can import (or "capture") and analyze social media data from websites and platforms such as Twitter, Facebook, and YouTube. Evernote.com is becoming more and more a user-friendly repository and workspace for qualitative researchers.

It becomes virtually impossible to keep up with all the electronic, software, and Internet resources available to researchers. My only recommendation is to gain as much general technological literacy as you can to make yourself aware of all your options, but to select your final tools wisely so that they help, rather than hinder, your analytic efforts. "To the software, a code is just an object that can be attached to various other objects and whose content can be searched and retrieved. Everything else is up to you" (Friese, 2014, p. 211).

Data formatting for CAQDAS

The heading and paragraph formats of qualitative data such as field notes and, in particular, interview transcripts need to conform consistently with the particular software package's prescriptions for text layout. This becomes vital for its coding and retrieval functions to work consistently and reliably. Most commercial programs all import and handle documents saved in rich text format, enabling you to employ supplemental cosmetic coding devices such as colored fonts, bolding, and italicizing in your data (Silver & Lewins, 2014, p. 50).

One of the best features of some CAQDAS programs is their ability to display code labels themselves in various colors for "at a glance" reference and visual classification. Quirkos includes a user-assigned color coding feature—a function that provides a unique color to each coding stripe and accompanying bin. Reviewing similarly color-coded data during second cycle coding makes it easier to refine first cycle codes and to create new or revised categories.

Coding capabilities with CAQDAS

Selected qualitative data analysis programs permit you to do what you can do manually, such as: apply more than one code to the same passage or sequential passages of text (variously labeled in the methods literature as "simultaneous coding," "double coding," "co-occurrence coding," "multiple coding," or "overlap coding"); code a smaller portion of text within a larger portion of coded text ("subcoding," "embedded coding," or "nested coding"); and subsume several similarly coded passages under one larger code ("pattern coding," "meta coding," "umbrella coding," or "hierarchical coding"); along with the ability to instantly and conveniently insert annotations, comments, or analytic memos related to a specific datum or code. Each CAQDAS program will employ its own distinct set of terms for its coding functions and operations, so refer to the user's manual for specific ways of working.

CAQDAS, unlike the human mind, can maintain and permit you to organize evolving and potentially complex coding systems into such formats as hierarchies, clusters, and networks for "at a glance" user reference. Figure 2.6 shows a screenshot from the most recent version of Quirkos, which displays both the data's color-coded stripes in the right pane, with their corresponding color-coded bins in the left pane. The size of each circular bin reflects the code's magnitude/frequency. For a clear and elegant video introduction to coding with Quirkos, see: https://bit.ly/2XJuvzb

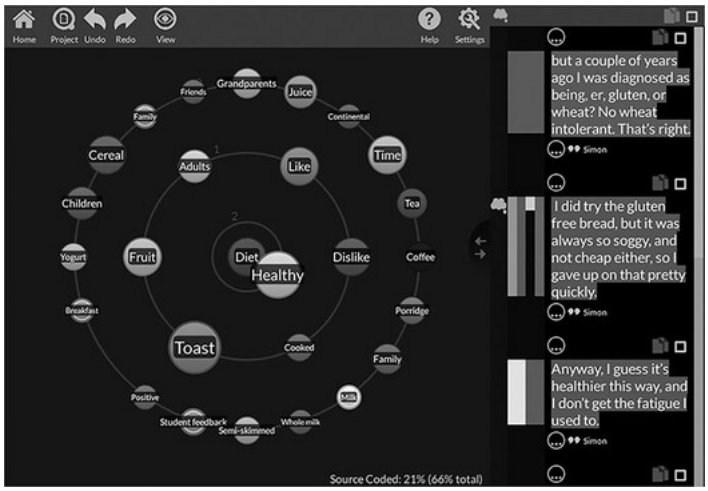

Figure 2.6 A screenshot from Quirkos Software Version 2.2.1, November 2019 (courtesy of Daniel Turner, Founder and Director of Quirkos Software, www.quirkos.com)

Though I stated above that software does not code for you, there is a utilitarian function called "auto coding" available in most CAQDAS programs, which can alleviate some of the repetitiveness of manually coding similar passages of text, especially those gathered from surveys or structured interviews. Passages have to be formatted in prescribed ways and contain the same root word or phrase, however, for this function to work accurately. The ATLAS.ti handbook strongly recommends a manual review after auto coding has been performed to verify the software's coding assignments, and Silver and Lewins (2014) suggest that researchers should not feel obligated to use auto coding just because it is available. Woolf and Silver (2018) do recommend that auto coding serves special purposes such as a "first cut" exploratory coding review for later, more refined coding cycles, or when unique yet reoccurring technical terms appear throughout the data (p. 83).

Searches and queries with CAQDAS

Another one of CAQDAS' s advantages over manual paper-and-pencil coding and analysis is its search and querying abilities to quickly collect and display key words and phrases and similarly coded data for examination. Searches or queries of coded passages can even find where particular codes co-occur, overlap, appear in a sequence, or lie in proximity to each other. These search functions can perform such actions as retrieve, filter, group, link, and compare, enabling the researcher to perform such human actions as infer, make connections, identify patterns and relationships, interpret, and build theory with the data (Bazeley, 2013; Silver & Lewins, 2014). Figure 2.7 illustrates MAXQDA' s Word Tree function, displaying how a document' s language includes selected sentence construction patterns.

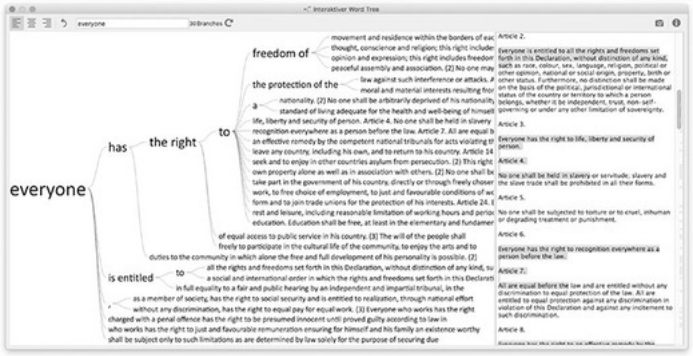

Figure 2.7 A MAXQDA 2020 screenshot of a document' s word tree (courtesy of Elizabeth Jost, VERBI Software, maxqda.com)

CAQDAS also permits the researcher to shift quickly back and forth between multiple analytic tasks such as coding, analytic memo writing, and exploring patterns in progress. Add to this the software' s ability to recode, uncode, rename, delete, move, merge, group, and assign different codes to shorter and longer passages of text with a few mouse clicks and keystrokes during second cycle coding, and the advantages of CAQDAS over paper and pencil soon become apparent. And when the magnitude of a qualitative database on hard copy becomes overwhelming, the elegant data and coding displays of selected programs can provide the analyst a sense of necessary order and organization, and enhance one' s cognitive grasp of the work in progress.

Rather than presenting in this section an extended discussion of CAQDAS' s specific applications with coding and data analysis, additional references will be made on an "as-relevant" basis throughout the rest of this manual. Since most readers of this book are more than likely newcomers to qualitative data analysis, I assume that manual coding will be the first method they employ. Thus, I present the coding profiles with that assumption in mind. Those with experience or expertise in CAQDAS programs can adapt the coding principles described in this manual into their particular software package' s active files and documents.

SOLO AND TEAM CODING

Coding in most qualitative studies is a solitary act—the “lone ethnographer” intimately at work with his or her data (Galman, 2013)—but larger fieldwork projects may involve a team.

Coding solo

If you work as a lone ethnographer or lone wolf analyst, shop talk with a colleague or mentor about your coding and analysis as you progress through them. Both solo and team coders can even consult the participants themselves during analysis (a process called "member checking") as a way to validate the findings thus far. Even if you and other members of a research seminar each work on different projects, share coded field note excerpts and discuss your dilemmas about coding and analysis to generate peer support and to help you and others find better connections between categories in progress (Burant, Gray, Ndaw, McKinney-Keys, & Allen, 2007; Strauss, 1987). Discussion provides opportunities not only to articulate your internal thinking processes, but also to clarify your emergent ideas and possibly make new insights about the data.

Ezzy (2002, pp. 67–74) recommends several strategies for checking the progress of your analysis while still in the field. Though applicable for team researchers as well, the lone researcher can benefit most from these recommendations to assess the trustworthiness of his or her account: (1) initially code *as* you transcribe interview data; (2) maintain a reflective journal on the research project with copious analytic memos; and (3) check your interpretations developed thus far with the participants themselves.

Coding collaboratively

Writers of joint research projects advocate that coding in these cases can and should be a collaborative effort (Erickson & Stull, 1998; Guest & MacQueen, 2008; Schreier, 2012). Multiple minds bring multiple ways of analyzing and interpreting the data: “a research team builds codes and coding builds a team through the creation of shared interpretation and understanding of the phenomenon being studied” (Weston et al., 2001, p. 382). Provocative questions get posed for consideration that could possibly generate new and richer codes (Olesen, Droes, Hatton, Chico, & Schatzman, 1994). Ultimately, team members must coordinate and insure that their sometimes individual coding efforts harmonize, particularly if a central database and multi-user CAQDAS system are employed. (PC and Mac versions of the same software may not enable multi-user compatibility.) MacQueen, McLellan-Lemal, Bartholow, and Milstein (2008, p. 132) strongly advise that one member of the team be assigned primary responsibility as “codebook editor”—the one who creates, updates, revises, and maintains the master list for the group. It is also important that each coder be relatively well versed in the topic or discipline addressed in the study to better guarantee a suitable entry level of working knowledge with the data.

Those conducting action or community-based research can invite the study’s participants/stakeholders themselves into the analytic process as a collaborative venture to provide a sense of ownership and investment in data analysis and its consequent recommendations for social change (Stringer, 2014). Northcutt and McCoy (2004) label focus group development of their own categories of interest “affinities.” Children and adolescents, too, can be taught to investigate and analyze issues that relate to their social worlds (Alderson, 2008; Heiligman, 1998; Warren, 2000). Haw and Hadfield (2011) and Heath, Hindmarsh, and Luff (2010) hold “data sessions” where informed colleagues and sometimes participants themselves are invited to preview and review video fragments from fieldwork to collaboratively interrogate and discuss relevant multiple dimensions of the research issues suggested. This dialogic exchange of ideas in a workshop and collegial atmosphere attunes the research team to new and varying perspectives before more intensive scrutiny and formal video analysis begin.

Coding by committee can range from a time-saving democratic effort to a frustrating enterprise filled with road blocks, depending on the amount and complexity of data and—to be honest—the researcher personalities involved. Group dynamics suggest that a team meeting regularly to collectively code data should consist of no more than five people. More than five individuals make problem-solving and decision-making exponentially more difficult. It may also be wise to develop strategies and contingency plans ahead of time for what to do in case coding progress stalls or if professional disagreements occur and an executive decision needs to be made.

I myself prefer to be the “lone wolf coder” when it comes to working with colleagues on a research project, but my team members are given copies of my coded data to review at all stages, and are encouraged to function as rigorous examiners and auditors of my analyses.

Multiple coders

Team members can code both their own and others' data gathered in the field to cast a wider analytic net and provide a "crowd-sourcing reality check" for each other. For these types of collaborative ventures, *intercoder agreement*, *intercoder* or *interrater reliability*, or *interpretive convergence* (the percentage at which at least two different coders agree and remain consistent with their assignment of particular codes to particular data) is an important part of the process (for formulas and discussions see Bernard, 2018; DeCuir-Gunby, Marshall, & McCulloch, 2011; Hruschka et al., 2004; Krippendorff, 2009; Neuendorf, 2017).

There is no standard or base percentage of agreement among qualitative researchers, but the 80–90% range seems a minimal benchmark to those most concerned with an evidentiary statistic. Selected CAQDAS programs include such measures as the kappa coefficient, Pearson's *r*, and other coding comparison queries as calculation functions for intercoder agreement. MacPhail, Khoza, Abler, and Ranganathan (2016) discovered that intercoder reliability measures with the kappa coefficient increased dramatically simply when different coders standardized the units (i.e., the paragraph length) of the same interview data they each coded separately.

Some methodologists question the utility and application of intercoder agreement for qualitative data analysis since the entire process is an interpretive enterprise. Thus, research teams may wish to dispense with such quantitative measures altogether and rely on intensive group discussion, "dialogical intersubjectivity," coder adjudication, and simple group consensus as an agreement goal (Brinkmann & Kvale, 2015, 2018; Harry et al., 2005; Sandelowski & Barroso, 2007). Morse (1997) provides wise counsel when she cautions researchers about the "myth" of interrater reliability:

> Interrater reliability is appropriate with semistructured interviews, wherein all participants are asked the same questions, in the same order, and data are coded all at once at the end of the data collection period. But this does not hold for unstructured interactive interviews. … The coding process is highly interpretative. (pp. 445–6)

ON TRANSLATED DATA AND CODING

I myself have not had the opportunity to work with non-English data or data originally documented in one language then translated into another. The recommendation from bilingual qualitative researchers such as Johannes Schroeder is to code in the data's same language (e.g., an interview participant's German narrative receives German codes). The culturally specific syntax and nuances of a language are maintained this way for a more trustworthy analysis. This makes sense since the symbol systems of a language and its corresponding codes better harmonize. Researcher Raluca Delaume employed Holistic Coding to analyze separate interviews conducted in different languages and/or if the participant was not speaking in his or her native language. Holistic, or broad brushstroke, Coding enabled a better pooling of codes from multiple data sets in different languages for category development.

For data that will eventually be translated, however, it is the researcher's best judgment as to whether to code the original or translated versions. The consensus of bilingual colleagues is to not apply English codes to non-English data, but in selected cases the researcher's fluency in multiple languages can enhance rather than confound the analysis, as Hanna and Ortega (2016) expertly demonstrate with In Vivo Spanish and English "code-switching" (pun intended) with Mexican immigrant interview data. Tarozzi (2019) insightfully observes that English has more concept-oriented vocabulary than other languages, and not all languages use gerunds ("-ing" words), thus limiting the use of Process Codes, for example. Green and Thorogood (2018) advise that translators of both live and transcribed interviews serve as analysts since they will be highly attuned to cultural and linguistic nuances of the original language.

ON METHOD

Thorough—even cursory—descriptions about the researcher's code development and coding processes rarely make it into the methods section of a final report (but a dissertation writer should consider including his or her codebook as an appendix to the study). The majority of readers would most likely find the discussion tedious or irrelevant compared to the more important features such as the major categories and findings. Also, scholarly journals place length restrictions on article manuscripts, so some components of the research story must be left out and, more often than not, codes and coding fall by the wayside. But in all honesty, I do not think most of the academic community minds (cf. Stewart, 1998).

I am not advocating that published research should include what most feel is a behind-the-scenes matter. Just acknowledge that the long time and rigorous effort you put into, and joyous personal analytic growth you experience through, coding and analytic memo writing are private affairs between you and your data (cf. Constas, 1992). When you invite important guests to your home for dinner, you do not ask them to appear two or three hours before the scheduled serving time to watch you cook in the kitchen. They arrive just before the meal to feast on and enjoy what you have worked so hard to prepare.

Yet, analogy aside, please do not refer to or consider this manual as a "cookbook" for your raw data. That suggests that the methods profiled here are like tested recipes guaranteed to produce successful dishes every time. Method "is just a way of ordering our capacity for insight—but does not produce it" (Ruthellen Josselson, in Wertz et al., 2011, p. 321). Coding requires *methodological sensitivity*, "the skill or aptitude required by researchers in selecting, combining, and employing methods, techniques, and tools in actual research situations" (Bryant, 2017, p. 36). Most methodologists concur that coding schemes are customized to the specific contexts of a study; your data are unique, as are you and your creative abilities to code them. I do not have the answers to your questions, but you and your data do. In good faith, I guarantee you some guidance and, if we are both lucky, perhaps some insight.

This chapter focused on the necessary craft of codes and coding. There is an accompanying heuristic with this process—writing analytic memos, the subject of the next chapter.

3 WRITING ANALYTIC MEMOS ABOUT NARRATIVE AND VISUAL DATA

Chapter Summary

This chapter first reviews the purposes and goals of analytic memo writing, then discusses 15 recommended topics for reflection during data collection and analysis. A section is included on the related processes of grounded theory methodology, followed by suggestions for the analysis of visual data.

THE PURPOSES OF ANALYTIC MEMO WRITING

Analytic memo writing documents reflections on: your coding processes and code choices; how the process of inquiry is taking shape; and the emergent patterns, categories and subcategories, themes, and concepts in your data—all possibly leading toward theory. Codes written in the margins of your hard-copy data (termed "marginalia") or associated with data and listed in a CAQDAS file are nothing more than labels until they are analyzed. Your private and personal written musings before, during, and about the entire enterprise are a question-raising, puzzle-piecing, connection-making, strategy-building, problem-solving, answer-generating, rising-above-the-data heuristic. Robert E. Stake (1995) muses, "Good research is not about good methods as much as it is about good thinking" (p. 19). And Valerie Janesick (2016) wisely observes that, in addition to systematic analysis, "the qualitative researcher should expect to uncover some information through informed hunches, intuition, and serendipitous occurrences that, in turn, will lead to a richer and more powerful explanation of the setting, context, and participants in any given study" (p. 147).

WHAT IS AN ANALYTIC MEMO?

Analytic memos are somewhat comparable to researcher journal entries or blogs—a place to "dump your brain" about the participants, phenomenon, or process under investigation by thinking and thus writing and thus thinking even more about them: "memos are 'notes to self' about anything to do with the project" (Clarke, Friese, & Washburn, 2018, p. 106). They are "roughly equivalent to a lab notebook in experimental research" (Vogt et al., 2014, p. 394).

Coding and analytic memo writing are concurrent qualitative data analytic activities, for there is "a reciprocal relationship between the development of a coding system and the evolution of understanding a phenomenon" (Weston et al., 2001, p. 397). Think of a code not just as a significant word or phrase you applied to a datum, but as a symbolic prompt or trigger for written reflection on the deeper and complex meanings it evokes. The objective is researcher reflexivity on the data corpus, "thinking critically about what you are doing and why, confronting and often challenging your own assumptions, and recognizing the extent to which your thoughts, actions and decisions shape how you research and what you see" (Mason, 2002, p. 5). The writing thus helps you work *toward* a solution, *away from* a problem, or a combination of both. "Memos are about creating an intellectual workplace for the researcher" (Thornberg & Charmaz, 2014, p. 163).

Let me clarify that I use *analytic* memo as my term of choice because, to me, all memos are analytic regardless of content. Some methodologists recommend that you label, classify, and keep separate different types of memos according to their primary purpose: a coding memo, theoretical memo, research question memo, task memo, etc. But I have found it difficult in my own work to write freely and analytically within the bounded parameters of an artificial memo category as a framing device. Kathy Charmaz advises in her grounded theory workshops, "Let your memos read like letters to a close friend. There's no need for stodgy, academic prose." I simply write what goes through my mind, *then* determine what type of memo I wrote to title it, and thus later determine its place in the data corpus.

Memos are data; as such they, too, can be coded, categorized, and searched with CAQDAS programs. Dating each memo helps keep track of the evolution of your study. Giving each memo a descriptive title and evocative subtitle enables you to classify it and later retrieve it through a CAQDAS search. Depending on the depth and breadth of your writing, memos can even be woven as substantive portions into the final written report.

Also important to note here is the difference between analytic memos and field notes. Field notes, as I distinguish them, are the researcher's written documentation of participant observation, which may include the observer's personal and subjective responses to and interpretations of social action encountered. Field notes may contain valuable observer's comments and insights that address the recommended categories for analytic memo reflection described below (Bogdan & Biklen, 2007). Thus, personal field notes are potential sites in which rich analysis may occur. I recommend extracting these memo-like passages from the corpus and keeping them in a separate file devoted exclusively to analytic reflection.

Virtually every qualitative research methodologist agrees: whenever *anything* related to and significant about the coding or analysis of data comes to mind, stop whatever you are doing and write a memo about it immediately. The goal is not just to summarize the data but to reflect and expound on them. Future directions, unanswered questions, frustrations with the analysis, insightful connections, and anything about the researched and the researcher are acceptable content for memos. Ethnographer Amanda Coffey (2018) notes that analysis "involves an ongoing dialogue with and between data and ideas" (p. 25).

Most CAQDAS programs enable the researcher to instantly insert and link an analytic memo (or comment or annotation) to a specific datum or code. But sometimes “ah-ha” moments of insight occur at unexpected and inopportune times—in the shower, while driving, eating lunch, etc. So, keep a small paper notepad and something to write with, or a digital audio recorder or other handheld device, nearby at all times for brief jottings or reminders in lieu of computer access. Paulus et al. (2014) recommend the cloud-based note-taking system Evernote as a digital tool for quickly documenting then later retrieving your reflections (pp. 21–2). Do not rely on “mental notes to self.”

EXAMPLES OF ANALYTIC MEMOS

Despite the open-ended nature of analytic memo writing in qualitative inquiry, there are some general and recommended prompts for reflection. Below is an excerpt from an online survey of adults reflecting on their high school arts experiences. One woman in her 50s who attended secondary school in the 1970s recalls her tumultuous personal life during adolescence and how performance served as a therapeutic form of expression for her. The codes applied to the data are first-impression Eclectic Codes (see Chapter 9). Examples of analytic memo content related to the excerpt follow:

Code example 3.1

KAREN: [1] Through my drama experience I found a voice to express the anger and hidden emotions that I was experiencing at that time. It was life-saving therapy for me to yell and scream and cry by becoming someone else. [2] I had been sexually abused when I was 11 years old and never told anyone until I was 30 and went through years of counseling. [3] When my family moved from [a west coast state] when I was 12, my dad had been having an affair and my parents moved to [an east coast state] to start over. When I was a sophomore, my dad started having an affair with a woman that he eventually married in January 1978 after leaving our home in November 1977. [4] When I was a junior, I sat in the doctor's office as he explained that although I was a perfectly normal, healthy 17 year old, I would never be able to have children. I had gone through an early menopause for some unknown reason and started taking hormone replacement therapy—which I still do to this day. My mom, although she meant well, told me to never tell anyone because they would look at me as "damaged goods." [5] That's why I was never close with anyone in high school because I was afraid they would find out the secrets that I was hiding.	[1] drama as therapy [2] sexual abuse [3] family instability [4] "damaged goods" [5] hiding secrets

Extensive memo writing, as illustrated below, over just one small passage of coded data, such as that above, is most unlikely. The example is kept deliberately brief to show how the same piece of data can be approached from multiple lenses, filters, and angles for analytic memo writing. Analytic memos can reflect on the following 15 prompts (in no particular order of importance):

1. Reflect on and write a descriptive summary of the data.

   Summarizing extended passages of data is an analytic act, for it condenses (not reduces) the corpus into manageable vignettes for review. Summaries can stay at the descriptive level, but might also extend into "first-impression" reflections and other analytic observations, to date. A summarizing analytic memo could be applied to larger units of data such as a complete interview transcript or a day's set of field notes. For illustrative purposes, a summative analytic memo based solely on the data excerpt above might read:

   ---

   24 March 2014

   SUMMARY: KAREN AND DRAMA AS THERAPY

Karen recalls her past sexual abuse, parents' divorce, adolescent health problems, and relational distance with peers in high school. She notes how her high school drama program was "life-saving therapy" for her.

This is one of the more arresting survey responses thus far in the database. In other response cells, Karen seems to have no problem expressing her vulnerability and painful past. Fortunately, there is a "happy ending" with a successful career and marriage.

---

2. **Reflect on and write about how you personally relate to the participants and/or the phenomenon.**

   Establish connections between yourself and the social world you are studying. Sympathize and empathize with the participants' actions to understand their perspectives and worldviews. In what ways are you similar to them? Examine your own emotions, relationship, and values, attitudes, and beliefs about the phenomenon you are exploring. An analytic memo, based on the data excerpt above, might read:

---

24 March 2014

PERSONAL RELATIONSHIP TO THE STUDY: ADOLESCENT DRAMA

As a drama educator, I've seen the power of the art form to heal, and I know the therapeutic benefits for its participants. Although I was never sexually abused as a child or faced a parental break-up, I had my own deep, dark secrets during adolescence that kept me from getting closer to others. This poor woman certainly had her share of childhood trauma, and "DAMAGED GOODS" refers not just to her physical but to her mental/emotional health. What a sense of insecurity and trust issues all this must lead to as you grow up.

---

3. **Reflect on and write about the participants' actions, reactions, and interactions.**

Saldaña and Omasta (2018) describe that:

Action is what a person does (e.g., thinking, speaking, and moving). *Reaction* is response to an action—to someone else's or one's own action or given circumstances. *Interaction* is the collective back-and-forth sequences of action and reaction. These three terms and concepts constitute the cyclical process of humans engaged with social life. (p. 12)

At times we place too much focus on what people *do* to the neglect of how they *react*. Reactions and interactions tell us much about a person's value system and his or her social and emotional intelligences. Analytic memos can reflect on the quality of the individual in group relationships that researchers observe in participants. A memo can also ruminate on significant moments we hear or see that suggest how a participant perceives his or her place in the cultural milieu. An analytic memo, based on the data excerpt above, might read:

---

24 March 2014

REACTION AND INTERACTION: AN ABDUCTED ADOLESCENCE

Karen states, “I was never close with anyone in high school.” Adolescence is one of the most critical times in human development when potential lifetime friendships form. I recall that line from some piece of literature I read long ago: “What a shame to have such a deep secret about your life and not be able to tell anyone about it.” The lack of social interaction at a time when a teenager is desperate for it is not only isolating but devastating. Karen was told to keep the tragedies to herself, thus shutting herself off from an important formative stage of life. Healing would come only when her adult autonomy was realized.

---

4 Reflect on and write about the participants’ routines, rituals, rules, roles, and relationships.

These five interrelated facets of social life are just some of the key concepts related to the analysis of social action, collectively labeled “the five Rs” (Saldaña, 2015; Saldaña & Omasta, 2018). Briefly explained:

- *Routines* are those repetitive and sometimes mundane matters humans do for the business of daily working and living
- *Rituals* are significant actions and events interpreted to hold special meaning for the participant
- *Rules*, broadly, refer to socialized behavior and the parameters of conduct that empower or restrict human action
- *Roles* (parent, student, favored son, victim, etc.) refer to the personas we assume or attribute to others and the characteristic qualities that compose one’s identity and perceived status
- *Relationships* refer to the forms of reactions and interactions of people in their roles as they undertake their routines and rituals through frames of rules.

This prompt for analytic reflection encompasses many complex aspects of what it means to be human in the social world, and each one of the five merits its own memo. But it is also beneficial to interrelate two or more of them to zero in on the dynamics of participant action, reaction, and interaction. An analytic memo might read:

---

24 March 2014

THE FIVE R’S: BROKEN RULES, BROKEN ROLES, AND A HEALING RITUAL

Karen’s young life was a tragic series of rule-breaking by adults through sexual abuse, infidelity, divorce, and abandonment, plus her own rule-breaking (i.e., developmentally accelerated) illness which stigmatized her roles as a young adult woman and future mother. *Rule*-breaking by others led to her *role*-breaking. But the “life-saving” ritual of theatre cleansed Karen of her “damaged goods” status—a pollution ritual, as the anthropologists label it, that enhanced her then current and later roles and relationships.

5Reflect on and write about what you find intriguing, surprising, or disturbing.

Sunstein and Chiseri-Strater (2012) developed this prompt for student fieldworkers. It is particularly appropriate as a forum for researchers to reflect honestly on unexpected encounters with social life that arrest and disrupt their personal sensibilities. This is both a reflexive and confessional exercise in explaining *why* some aspect of the data intrigues, surprises, or disturbs. An analytic memo might read:

---

24 March 2014

DISTURBING: KAREN'S LIFE

Karen openly discloses that she was sexually abused at age 11, but doesn't say by whom. She never told anyone, and I assume that includes her parents. An ethos of dark secrecy was the way this family seemed to operate, especially between Karen and her mother. The traumas of her abuse, parents' divorce, inability to have children, the therapy—I was shaking my head in disbelief that all this happened as she was growing up. I was a teacher at the same time Karen was in high school in the 1970s, and in those years I had no idea that one person could have that much "damage." Who else in my own classrooms had been sexually abused?

---

6 Reflect on and write about your code choices and their operational definitions.

Define your codes and rationalize your specific choices for the data. This is an internal "reality check" of your thinking processes, and reflection may generate other possible codes or more refined coding methods. Glaser (1978) reminds us that, through "writing memos on codes, the analyst draws and fills out analytic properties of the descriptive data" (p. 84). Methodologist Paul Mihas observes that while a code condenses a datum's meaning, an analytic memo expands on that meaning.

Code management systems in most CAQDAS programs permit you to enter a more concise definition for each code you generate, while CAQDAS memo systems provide more space to reflect and expand on the codes' meanings. An analytic memo might read:

---

24 March 2014

IN VIVO CODE: "DAMAGED GOODS"

Karen's self-descriptor of "DAMAGED GOODS" referred to her physical inability to bear children, but I inferred that emotional damage also resulted from her childhood sexual abuse and her parents' break-up. More and more young people today seem "damaged" in one way or another. Daniel Goleman's pessimistic prediction in *Emotional Intelligence* (1995) that the most recent generation of youth are more prone to carry emotional "baggage" with them seems eerily true as I interact and deal with some of my college students and their high maintenance needs.

Use "DAMAGED GOODS" whenever a survey respondent mentions a particularly traumatic event from childhood or adolescence that seems to have left residual scars of some kind.

---

7 Reflect on and write about emergent patterns, categories, themes, concepts, assertions, and propositions.

Remember that individual codes eventually become part of a broader scheme of classification. Reflection on how the codes tentatively get placed into categories and/or subcategories, suggest a theme, evoke a higher-level concept, or stimulate an assertion or proposition, may begin to create a sense of order to your analysis thus far. Charmaz (2014, p. 170) advises that insight into patterns and the variability of data can emerge when the researcher emphasizes *comparison*—comparing people and their accounts or experiences, comparing codes, comparing categories, comparing the data to the existing literature, and so on. An analytic memo might read:

---

24 March 2014

EMERGENT PATTERNS: THE VARIABILITY OF IMPACT

As I review the database, survey respondents offer various "payoffs" from their participation in the arts, ranging from none at all to life-saving impact. A few saw it as worthwhile activity for their high school years only, while others pursued it as a lifelong career. One of the most apparent causes of that influence/impact is the quality of the teacher. But I need to reconcile why those who responded that their teacher was mediocre or poor nevertheless got something out of their participation.

The variability is almost scaled from "none at all" to "a lot." The fact that this has dimensions suggests that a core category/grounded theory might emerge from this as analysis continues.

---

8 Reflect on and write about the possible networks and processes (links, connections, overlaps, flows) among the codes, patterns, categories, themes, concepts, assertions, and propositions.

One of the most critical outcomes of qualitative data analysis is to interpret how the individual components of the study weave together. The actual integration of key words from coding into the analytic memo narrative—a technique I call *codeweaving*—is a practical way to ensure that you are thinking how the puzzle pieces fit together. First-draft diagrams of network relationships between and among concepts are also possible as analytic memo content (see Chapter 12 for an extended example). Networking and process diagrams make you think of possible hierarchies, chronological flows, and influences and affects (i.e., cause and effect). The codes just from the data excerpt above are: drama as therapy, sexual abuse, family instability, "damaged goods", and hiding secrets. An analytic memo might read:

---

24 March 2014

NETWORKS AND PROCESSES: CODEWEAVING ATTEMPTS

A codeweaving attempt with this data excerpt to compose an assertion is: "Students HIDING SECRETS about their 'DAMAGED GOODS' status (e.g., SEXUAL ABUSE, FAMILY INSTABILITY) may find DRAMA AS an artistic form of THERAPY." Another version is: "DRAMA AS THERAPY is not the primary goal of its teachers; but students who perceive themselves as 'DAMAGED GOODS' (e.g., SEXUAL ABUSE, FAMILY INSTABILITY, HIDING SECRETS) may find the art form a therapeutic modality."

After sketching around with these codes (see Figure 3.1), I formulated that *positive experiences with and the therapeutic benefits of drama/theatre can break through the protective layer of hidden secrets some students may place around themselves*.

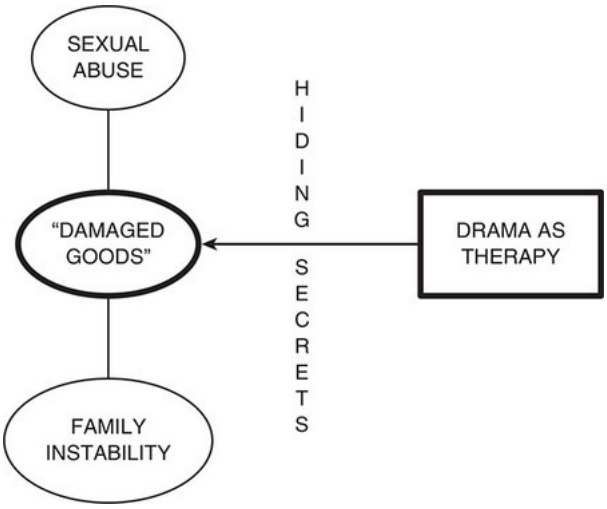

Figure 3.1 An analytic memo sketch on codeweaving

9 **Reflect on and write about an emergent or related existing theory.**

Transcend the local and particular of your study, and reflect on how your observations may apply to other populations, to the bigger picture, to the generalizable, even to the universal. Explore possible metaphors and symbols at work in your data that suggest transferability. Speculate on how your theory in progress predicts human action and explains why those actions occur. Integrate existing literature and theories into or compare them to your own particular study's data. An analytic memo might read:

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24 March 2014

THEORY: STIGMA AND PRESENTATION OF SELF

Erving Goffman's *Stigma* has much to say about why some (but not most) students go into theatre programming in high school. When there's a scar of some kind, whether internal or external, the impulse is to hide it (HIDING SECRETS)—as Goffman (1963) says, "the situation of the individual who is disqualified from full social acceptance … [is] reduced in our mind [or in the stigmatized person's own mind] from a whole and usual person to a tainted, discounted one."

Karen also testified that she hid her emotions, and going into theatre where emotions are essential for performance perhaps provided her the outlet she needed at the time. If successful, the theatre student can find purpose, meaning, and personal significance through the art form. "Becoming someone else" is not just for stage performance but for everyday life performance to make an acceptable presentation of self to others (check Goffman's *The Presentation of Self* later).

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10 **Reflect on and write about any problems with the study.**

Opportunities to reflect on fieldwork or analytic "glitches" by writing about them may generate solutions to your dilemmas. The act also raises provocative questions for continued reflection (or *refraction*—musings on complex and ambiguous "blurry moments" (O'Connor, 2007, p. 4)), to expand on the complexity of the social worlds you are observing, or to vent any personal frustrations you may be feeling about the study. Problems can also refer to any contradictions, inconsistencies, noticeable absences, or irreconcilable unity in the data. An analytic memo might read:

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24 March 2014

PROBLEM: AGGREGATE VS EXEMPLARS

I find I'm having problems aggregating survey responses into qualitative themes, especially when a unique story like Karen's appears in the database. I'm also falling into the trap of quantifying responses, such as "65% of participants said _____." There's nothing wrong with that, but I want to go beyond this mind-set. Erickson's assertion heuristics seem like the way to go for constructing patterns out of the data. But I do want to highlight Karen's story as powerful testimony.

I've always wondered whether there's such a thing as a "qualitative mean" and whether it's of any value in analysis. A mean negates the spectrum of responses, but captures the "average" or typical. But if you're going to do that for qualitative research, you might as well quantify the data. (And while I'm on the subject, is there any such thing as a "qualitative median"?)

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11 **Reflect on and write about any personal or ethical dilemmas with the study.**

Ethical issues of varying magnitude arise in virtually every study with human participants. Most of these dilemmas are usually unforeseen, based on what participants unexpectedly bring to interviews or what the researcher observes in the field that counters his or her value, attitude, and belief systems. Reflection keeps you attuned to these matters and may help you brainstorm possible solutions. An analytic memo might read:

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24 March 2014

ETHICS: OUTLIERS VS EXEMPLARS

The consent agreement for this survey informed participants that they might be contacted by one of the team researchers for follow-up if the respondent gave us his or her permission. Karen wrote that it was OK with her, but I'd feel very uncomfortable corresponding and especially talking with her by phone, knowing the things I do about her past. This is admittedly an exemplary case, but I don't want to exploit it purely for its power or shock value. Only two other respondents out of 234 participants come close to writing about comparable experiences—how drama "saved my life." Are these outliers, or strong evidence as to the efficacy of the arts for human development? Sometimes advocacy needs these types of stories. Some may perceive them, however, as too dramatic—ironically—and not representative of the majority of cases.

---

12 Reflect on and write about future directions for the study.

Each qualitative research project is unique and cumulative in nature. The more you interview participants and observe them in natural social settings, the more ideas you generate for possible future research action. As data collection and analysis progress, you may discover missing elements or a need for additional data. You may even reconceptualize your entire initial approach and find inspiration from a new insight about the phenomenon or process under investigation. An analytic memo might read:

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24 March 2014

FUTURE DIRECTIONS: ADDITIONAL LITERATURE REVIEW

I feel I've got a pretty good handle on the theatre education literature review, and so many things we're observing in our respondents have been documented by other researchers in separate studies. I'm admittedly deficient in the drama therapy and abuse survivors' literature, so those fields may be worth exploring for Karen's particular case. No other respondents in the survey have been as forthcoming as she, but that doesn't mean everyone disclosed so openly.

Something just occurred to me: "healing" as a key word. Check this out in searches and see if anything relevant comes up.

---

13 Reflect on and write about a synthesis of the analytic memos generated thus far (metamemos).

Corbin and Strauss (2015) note that beginning memo writing tends to start off simply and descriptively, while later writings become more substantive and abstract. Though this may happen of its own accord, the researcher will also have to consciously achieve it. Periodically review the stock of analytic memos developed thus far to compose "metamemos" that tactically summarize, integrate, and revise what has been observed and developed to date. Methodologist Ray Maietta colloquially labels these *What I know so far* memos. This method also provides the researcher with a "reality check" of the study and analysis in progress. An analytic memo might read:

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24 March 2014

METAMEMO: FRAGILITY, VULNERABILITY, RESILIENCY

After scanning the analytic memos thus far, I notice I placed a lot of attention on the "DAMAGED GOODS" code. In another piece I did on health care dramas, I wrote that the major themes of those pieces tend to focus on humans' "fragility, vulnerability, and resiliency." Not everyone who entered a high school drama/speech program in this study was fragile, broken, or traumatized when they began. But once they entered the programs, they *were* asked to become vulnerable through their classroom and extracurricular experiences' artistic demands—putting yourself out there in front of an audience for presentation and performance. Virtually everyone in the survey testified that these high school experiences gave them lifelong CONFIDENCE, which suggests a resilient outcome of sorts. Karen's story is certainly a success story when she later writes about getting her college degree on a full scholarship, her decades-long marriage, adopted children, and current university administrative position.

---

14 Reflect on and write about tentative answers to your study's research questions.

Focusing on your a priori (determined beforehand) articulated research questions, purposes, and goals as analysis progresses will keep you on track with the project. Start by writing the actual question itself then elaborate on answers in progress. An analytic memo might read:

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24 March 2014

RESEARCH QUESTION: LIFELONG IMPACT

This study addresses: In what ways does participation in high school theatre/speech classes and/or related extracurricular activities positively influence and affect adults after graduation? Later in the survey, Karen writes how her high school theatre teacher helped her get a college scholarship which led to a degree which thus helped her career. But during high school, the art form was "life-saving therapy" at a critical time in her young adult development. I imagine the scars of her family turbulence took some time to heal and I wonder if she's fully recovered from them now that she's in her 50s. But during adolescence, theatre provided her, by portraying other characters, "a voice to express" the emotional catharsis necessary.

---

15 Reflect on and write passage drafts for the final report of the study.

Extended analytic memos can become substantive think pieces suitable for integration into the final report of your study. As you "write out loud," you may find yourself composing passages that can easily be edited and inserted directly into the finished text. Or, you might use analytic memo writing as a way to ponder the organization, structure, and contents of the forthcoming final report. Develop memos that harmonize with your methodology and its goals.

For example, if your study seeks a grounded theory, compose final report memos that address the central/core category and its properties and dimensions. If the study is phenomenological, zero in on the essences and essentials of the phenomenon. Also address the particular disciplinary interests of your potential readers—those in education, for example, may be more interested in the policies and outcomes of high-stakes testing than those in the discipline of communication. An analytic memo might read:

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24 March 2014

FINAL REPORT: A SPECTRUM OF QUOTES

Of utmost importance is to show the *variability* of lifelong impact, lest we lose credibility by claiming that drama/speech is a panacea for all social ills. I should include that quote from the one respondent who wrote, "It really has not changed my adult life at all," followed by the one who said, "Although I don't feel like being involved in theatre has changed my life, it definitely changed my high school experience. It was something I worked hard at, enjoyed, and looked forward to." Then as a notch up, maybe include the response of the Internet strategy consultant who wrote his drama teacher was "one of the main influences in my life. … Were it not for her guidance, I think my life would probably be much different today."

The top impacts are from the film editor who testified, "Theatre and speech saved mine and my brother's lives," along with Karen's "it was life-saving therapy for

me." Karen's full survey response does not have an extended exemplar quote to it—I'll have to put her story in context and include the full narrative and story as a vignette. I don't want to reduce her to a sound bite but take some time in the report for this compelling tale.

Selected CAQDAS manuals recommend that memos can be viewed by multiple research team members to share information and exchange emergent ideas about the study as analysis progresses. Richards (2015) recommends that any CAQDAS explorations of code searches, queries, and so on merit researcher documentation and reflection through memoing.

To recap, analytic memos are opportunities for you to reflect on and write about:

1. a descriptive summary of the data
2. how you personally relate to the participants and/or the phenomenon
3. the participants' actions, reactions, and interactions
4. the participants' routines, rituals, rules, roles, and relationships
5. what you find intriguing, surprising, or disturbing
6. your code choices and their operational definitions
7. emergent patterns, categories, themes, concepts, assertions, and propositions
8. the possible networks and processes (links, connections, overlaps, flows) among the codes, patterns, categories, themes, concepts, assertions, and propositions
9. an emergent or related existent theory
10. any problems with the study
11. any personal or ethical dilemmas with the study
12. future directions for the study
13. a synthesis of the analytic memos generated thus far (metamemos)
14. tentative answers to your study's research questions
15. passage drafts for the final report of the study.

Additional analytic memo topics and prompts

The 15 recommended prompts listed above are certainly not the only ones that can stimulate your writing. A memo prompted by your unique conceptual framework, a paradigmatic concern, or an abstract concept suggested by the study are additional worthwhile topics for reflection. If your study's methodology is feminist research, discourse analysis, or critical ethnography, for example, writing about social dynamics, power issues, inequity, and other facets of values-laden investigation are most necessary to meet the project's inquiry goals. Example prompts include:

- What tactic is being used to gain an advantage over others here?
- What are the marginalizing interactions here?
- What are the resistance strategies of those who are disempowered? (Hadley, 2019, p. 581)

Analytic memo writing can also adopt a more holistic approach through methods developed by other researchers. The ResearchTalk consulting team (Ray Maietta, Paul Mihas, Kevin Swarthout, Alison Hamilton, and Jeff Petruzelli) has developed innovative memo topics for researcher reflection—in fact, memoing most often *precedes* coding, not the other way around:

- A *document reflection memo* examines the entire interview transcript through a blend of summary and researcher interpretations of and commentary about the case. One of its purposes is to look for narrative trajectories or threads of meaning, a "vertical" reading of the participant's story.
- A *key quotation memo* closely examines an excerpt from the transcript that is particularly rich, a paragraph-length passage that motivates researcher reflection on its language, action, and significant meaning it holds for the participant.
- A *comparison memo* works "horizontally" by reflecting on similarities and differences between transcripts from multiple participants. It dimensionalizes the data though the examination of contrast and variability of responses.

Just as you will be encouraged later in this manual to develop your own unique coding system, so too should you feel free to develop your own analytic memo-writing repertoire of topics and prompts. Creative thinking requires both focus and freedom.

Reflection and refraction

An intriguing way to conceptualize the contemplation of qualitative data is as *refraction* (O' Connor, 2007), a perspective that acknowledges mirrored reality and the researcher' s lens as

> dimpled and broken, obscured in places, operating as a concave or at other times a convex lens. As such, it throws unexpected and distorted images back. It does not imitate what looks into the mirror but deliberately highlights some things and obscures others. It is deliciously … unpredictable in terms of what might be revealed and what might remain hidden. (p. 8)

Writing *about* the problematic, the ambiguous, and the complex is no guarantee that crystal clarity will evolve, but the approach serves as a heuristic that may lead to deeper awareness of the multifaceted social world, and as an initiating tactic to refocus the blurry.

Ultimately, analytic memo writing is the transitional process from coding to the more formal write-up of the study (see Chapter 15). Your reflections and refractions on the topics listed above collectively generate potential material for formulating a set of core ideas for presentation. Substantive analytic memos may also contribute to the quality of your analysis by rigorous reflection on the data. Stern (2007) proposes, "If data are the building blocks of the developing theory, memos are the mortar" (p. 119), while Birks and Mills (2015) consider memos the "lubricant" of the analytic machine, and "a series of snapshots that chronicle your study experience" (p. 40).

CODING AND CATEGORIZING ANALYTIC MEMOS

Analytic memos themselves from the study can be coded and categorized according to their content. Gibson and Hartman (2014) emphasize that the *sorting* of memos is not just an organizational but an important analytic act that outlines the constituent elements of your write-up. The descriptive titles in the examples above enable you to group related memos by reflections on networks; emergent patterns; ethics; metamemos; etc. The subtitles function as subcodes or themes and enable you to subcategorize the contents into more study-specific groupings—for example, analytic memos about specific participants, specific code groups, specific theories in progress, etc. CAQDAS programs provide these classification functions for organized review and reflection.

Analytic memos generate codes, categories, themes, and concepts

One principle I stress throughout selected profiles in later chapters is that, even after you have coded a portion of your data and categorized the codes into various lists, *analytic memo writing serves as an additional code-, category-, theme-, and concept-generating method*, in addition to narrative outcomes such as assertions, propositions, and theories. By memo writing about the specific codes you have applied to your data, you may discover even better ones. By memo writing about your puzzlement and loss for a specific code for a particular datum, the perfect one may emerge. By memo writing about how some codes seem to cluster and interrelate, a category, theme, or concept for them may be identified. Codes, categories, and other analytic summaries of meaning are found not just in the margins or headings of interview transcripts and field notes—they are also embedded *within* analytic memos. Corbin and Strauss (2015) provide meticulous and in-depth examples of this procedure in their fourth edition of *Basics of Qualitative Research*.

The cyclical collection, coding, and analytic memo writing of data are not distinct linear processes but "should blur and intertwine continually, from the beginning of an investigation to its end" (Glaser & Strauss, 1967, p. 43). This is one of the major principles developed by grounded theory's premiere writers, Barney G. Glaser and Anselm L. Strauss, and elaborated in later writings by Juliet Corbin, Kathy Charmaz, Adele E. Clarke, and Janice Morse. Bryant and Charmaz's (2007, 2019) edited volumes, *The SAGE Handbook of Grounded Theory* and *The SAGE Handbook of Current Developments in Grounded Theory*, are perhaps the most authoritative collections of extended essays on the methodology.

GROUNDED THEORY AND ITS CODING CANON

Briefly, grounded theory, developed in the 1960s, is generally regarded as one of the first methodologically systematic approaches to qualitative inquiry. The process usually involves meticulous analytic attention by applying specific types of codes to data through a series of cumulative coding cycles that ultimately lead to the development of a theory—a theory "grounded" or rooted in the original data themselves.

In this coding manual, six particular methods are considered part of grounded theory's coding canon (though they can all be used in other non-grounded theory studies): In Vivo, Process, Initial, Focused, Axial, and Theoretical Coding. (In earlier publications, Initial Coding was referred to as "open" coding, and a stage before Theoretical Coding was referred to as "selective" coding.)

Each of these six coding methods is profiled in later chapters, but the thing to note here is the coding processes' ongoing interrelationship with analytic memo writing, and the memos' reorganization and integration into the final report of the study. Gordon-Finlayson (2019) emphasizes that "coding is simply a structure on which reflection (via memo-writing) happens. *It is memo-writing that is the engine of grounded theory, not coding*" (p. 296, emphasis in original). Glaser and Holton (2004) further clarify that "Memos present hypotheses about connections between categories and/or their properties and begin to integrate these connections with clusters of other categories to generate the theory" (n.p.).

Figure 3.2 presents a very reduced and elemental model of developing "classic" grounded theory for reference. Note how analytic memo writing is a linked component of the major stages leading toward the development of theory.

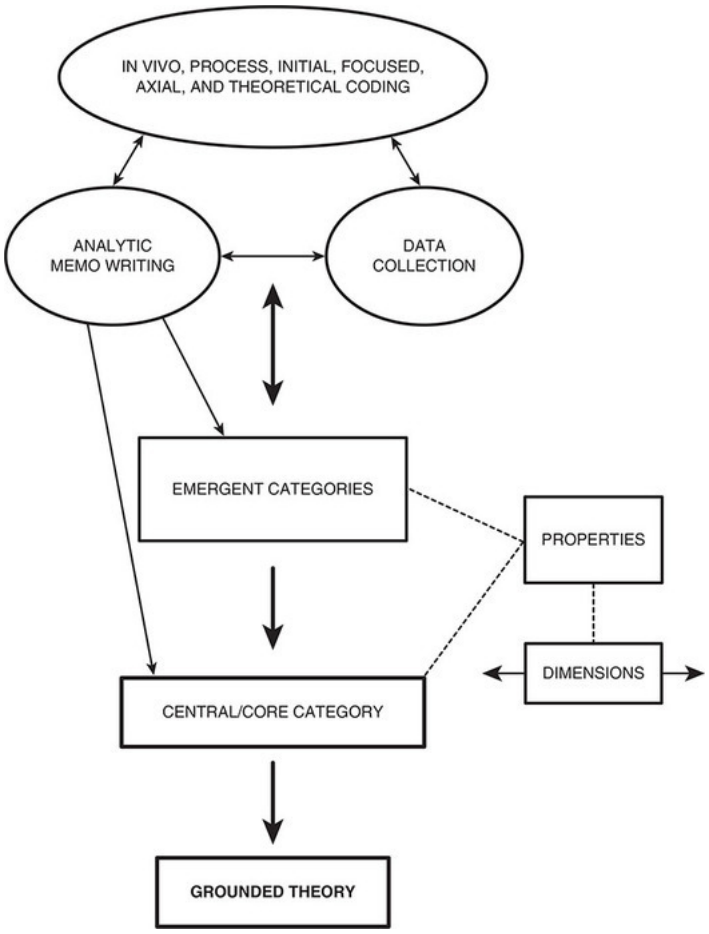

Figure 3.2 An elemental model for developing "classic" grounded theory

I minimize the number of analytic memo examples in the coding profiles that follow because I myself find reading extensive ones in research methods textbooks too case-specific and somewhat fatiguing. If you wish to see how a trail of analytic memos progresses from first through second cycles of coding with the same data excerpt, see the profiles for Initial, Focused, Axial, and Theoretical Coding. For a dedicated overview of this manual's grounded theory coding methods, see Sigauke and Swansi (2020).

ANALYZING VISUAL DATA

A slippery issue for some is the analysis of visual data such as photographs, documents, print materials (magazines, brochures, etc.), Internet websites, video/film, children's drawings, television broadcasts, and other items in addition to the physical environments and artifacts of fieldwork (room décor, architecture, participant dress and accessories, etc.). Banks (2018) offers that traditional content analysis of visual materials serves as a precursor to more evocative interpretations by the researcher. But despite some pre-existing coding frameworks for visual representation such as semiotic analysis (e.g., Gibson & Brown, 2009; Grbich, 2013; Ledin & Machin, 2018), and the rapidly developing automated visual content analysis software, I feel the best approach to analyzing visual data is a holistic and exploratory lens guided by intuitive inquiry and strategic questions.

Rather than one-word or short-phrase codes (which are still possible if desired for approaches such as qualitative content analysis), the researcher's careful scrutiny of and reflection on images, documented through field notes and analytic memos, generate language-based data that *accompany* the visual data. Ironically, we must use words to articulate our "take" on pictures and imagery. So, any descriptors and interpretations we use for documenting the images of social life should employ rich, dynamic words. Gee (2011) proposes that the methods we use for discourse analysis of written texts are just as valid for analyzing visual materials (p. 188).

Below I address briefly some recommended analytic approaches to just a few types of visual materials. See Recommended Guidance below for additional sources.

Photographs

If you do choose to code visual data for particular reasons, I recommend a strategic selection from Grammatical, Elemental, and Affective Methods (see Chapters 5–7) when conducting such genres of research as traditional ethnography or content analysis, which generally prescribe systematic counting, indexing, and categorizing of elements. The types of codes you apply should relate in some way to the research questions driving the study and analysis. Descriptive Coding and Subcoding, for example, catalogue a detailed inventory of contents, while Emotion Coding focuses on the mood and tone of images or the emotions suggested by human participants included in the photo. Depending on the content, visual design elements as primary codes tagged with related subcodes are also appropriate, such as:

Code: LINE; Sample Subcodes: DIAGONAL, CURVED, ERRATIC

Code: TEXTURE; Sample Subcodes: ROUGH, METALLIC, VELVETY

Code: COLOR; Sample Subcodes: ROYAL PURPLE, FADED BROWNS, FOREBODING SHADES

Code: COMPOSITION; Sample Subcodes: CROWDED, BALANCED, MINIMALIST

Digital photographs can be pasted directly into field note texts as part of the data record and for immediate analytic reference. Some CAQDAS programs enable you to select an area of a digital photograph and assign a particular code to the region.

I prefer to analyze photographs and other visual data in *reverse* of how I analyze narrative texts. I begin not with codes but with jottings and analytic memos that document my initial impressions and holistic interpretations of the images. Afterward, I assess the credibility of my visual reading through supporting details from the photograph—evidence that affirms (or disconfirms) my personal assertions. Codes within the memo derive *from* the interpretations of the visual *as* the analytic text is composed. I also caption the photo to capture the essence of the image, as I interpret it—a form of Themeing the Data (see Chapter 11).

Figure 3.3 is an exterior photograph taken at street level of an area of downtown suburban renovation in Seattle, Washington. My initial jottings (free writing about first impressions and open interpretations) include the following:

Old meets new. History is being demolished to make room for the new and trendy.

Figure 3.3 Downtown suburban renovation (original in color; photo by Eliana Watson)

A more formal analytic memo expands on the jotting and the image's "scenic choreography" itself. Note the use of design elements, in caps, as codes:

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4 November 2019

"TRADITION IS A THING OF THE PAST"

The natural COLOR of a rich blue cloudless Seattle sky CONTRASTS with steel construction machinery and debris. An old, boarded-up brick building sits between two modern structures near the waterfront. The Highway 99 jazz club is now closed (according to its website). A multilevel parking structure supports some (doubtless expensive) residential apartments above it. Another historic building sits to the right of it, and an adjacent local market on the far right of the photo appears to be the only surviving business in this area.

The CONTRAST between the cold cement surface of the parking garage against the warmth of the old brick buildings is most striking. The MOVEMENT of DIAGONAL LINES between the crane and the tallest red brick building almost looks as if they are in conflict and at a standoff with each other: modern versus old, evolution versus tradition, erosion versus accretion, reconstruction carnage versus enduring stability. The small local market, rather than the large jazz club, still survives at the moment this photo was taken (summer 2019). But I feel its days are numbered, sadly. Big business, industry, real estate developers—most will not preserve the past, but instead will raze it to raise money.

My caption for this photo: Tradition Tear-down.

Human participants in photographs call for an analysis of facial expressions, body language, dress, spatial relationships with others and the environment, and other known contexts (e.g., the action before and after the photo was taken, the participants' biographies, the photographer's identity). Figure 3.4 shows a photo of a boy playing a video game. The first-impression jottings are:

Hoping to win, armored with video game devices. Master the virtual world in the comfort of your own living room.

Figure 3.4 Playing a video game (original in color; photo by Eliana Watson)

The analytic memo now expands the jottings and focuses on the participant action and inferences by the researcher. Again, note the use of codes or key words in caps:

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17 November 2019

Contexts: The photo displays a 12-year-old suburban boy, Michael (pseudonym), playing *Fortnite*, a popular video game, in his home during the afternoon of a fall 2019 vacation period from school. Michael plays video games for approximately two hours every day, usually connecting with others online as teammates or competitors. The photo was taken by a relative.

Interpretations: Michael is seated on the living room floor, looking up at the widescreen TV mounted to the wall. The position suggests SUPPLICATION to a DIGITAL DEITY. The video control and large earphones he wears are reminiscent of an aircraft pilot—his ELECTRONIC PANOPLY, gearing him up for imaginative flights and simulated warfare.

Two ways of interpreting Michael's facial expression come to mind. The first one is NUMBED STUPOR, as if hours of video game playing have DESENSITIZED him to alertness and agency. But the second interpretation is emotion-laden—a MILD VULNERABILITY, as if he's worried about losing. The moment captured in the photo seems to be just before some kind of UNCERTAIN OUTCOME. His head juts forth slightly from his torso, as if CRANING IN with SLIGHT ANTICIPATION. But it's as if he knows he's going to SUCCUMB to whatever imaginary combat he's engaged in.

When I interviewed Michael about the photo and the moment, he recalled that he had just killed a character in *Fortnite*. He was actually concentrating on the video game's action but was slightly tired. Perhaps that's why I picked up on the VULNERABLE EXPRESSION.

Michael has also been observed playing video games with robust ENERGY, interacting online verbally and EXCITEDLY with others in simulated wars and sporting events like basketball and wrestling. But in this photographed moment there's a FRAGILITY to him—his child's face OVERTAKEN by adult-sized earphones (not shoes) that he's expected to grow into.

Photo Caption: Digital Video's Control.

Repeated viewings and analytic memo writing about visual data documented in field notes or maintained in a repository are more appropriate approaches to qualitative inquiry because they permit detailed yet selective attention to the elements, nuances, and complexities of visual imagery, and a broader interpretation of the compositional totality of the work. Clark (2011, p. 142) ruminates that participant-developed visual artifacts such as photos, drawings, collages, and other artistic products should not be considered nouns (i.e., things analyzed by a researcher *after* their production) but as verbs—processes co-examined with participants *during* the artistic product's creation, followed by participants' reflections on the interpretations and meanings of their own work.

Just as no two people most likely interpret a passage of text the same way, no two people will most likely interpret a visual image the same way. Each of us brings our background experiences, values system, and disciplinary expertise to the processing of the visual, and thus our personal reactions, reflections, and refractions. Spencer (2011) advocates that readings of the visual should adopt a sociological lens with a critical filter through "thick description" analytic narratives: "the 'craft' of visual research requires a balance between inductive forces—allowing the collected data to speak for itself, and deductive forces—structuring, ordering principles derived from theoretical models and concepts" (p. 132). From a community-based, participatory action research perspective, photovoice facilitator Laura Lorenz recommends that multiple photographs taken by a group of participants be analyzed by the collective to formulate their own categories and themes with an attunement to the metaphors and symbols in their work.

Documents and artifacts

Documents are "social products" that must be examined critically because they reflect the interests and perspectives of their authors (Hammersley & Atkinson, 2019, p. 125) and carry "values and ideologies, either intended or not" (Hitchcock & Hughes, 1995, p. 231). Official documents in particular "make claims to power, legitimacy, and reality" (Lindlof & Taylor, 2019, p. 299) and should be analyzed not just for the information they provide but also for the cultural representations they suggest and the embedded action they imply (Holliday, 2016, p. 78).

When I analyze hard-copy materials such as teacher-prepared handouts with my research methods students, I propose to them, "Tell me something about the person who created this document, based on what you infer from the document's appearance and content." I have knowledge of who created the material, but my students do not. I assess from their responses whether they can tell me such things as the writer's gender ("What leads you to believe that the person who created this document is male/female?"), level of education ("What do the vocabulary and narrative style tell you about the individual and its intended readership?"), values system ("What do you infer is important to him or her?"), and ways of working ("What do such things as the layout, organization, color choices, and font/type styles tell you about this person's work ethic?"). Students are remarkably perceptive when it comes to reading the document's "clues" to closely profile the personality of its creator.

If you subscribe to the theory that the products we create embody who we are, then the environments we establish for ourselves may also embody who we are. Personal settings such as a work area, office, and home contain material items or artifacts that the user/owner has collected, created, inherited, and/or purchased. Each artifact has a history of how it got there and a reason or meaning for its presence.

Spaces have a macro "look" and "feel" to them based on the collective assembly of micro details of specific items, organization, maintenance, cleanliness, lighting, color, and other design elements. When I walk into a new space, the primary analytic task that runs through my mind is, "Tell me something about the person or people working/living here." Certainly we can learn much more about a space's occupants and artifacts by having participants give us a guided tour accompanied with questions and answers about significant items that attract our visual attention. If we have permission to digitally photograph parts of the setting, the visual documentation later permits more reflection and meaning-making through analytic memoing. We need not conduct an extensive written inventory of each and every single item in a space, but the guiding principle I apply to my own visual analysis is, "What is the first and general impression I get about this environment, and what details within it lead me to that impression?"

Walker, Kaimal, Gonzaga, Myers-Coffman, and DeGraba (2017) analyzed active-duty military service members' visual representations of post-traumatic stress disorder (PTSD) and traumatic brain injury (TBI) in masks created by the participants. Both the artworks' visual features (e.g., color, line) and clinical notes (e.g., participant symptoms, rationale for design choices) about the mask makers were coded and compared. The masks, as ritualistic artifacts and visual products, represented an evocative extension of a service member's role identity through the artwork's sentiment, process, and symbolism. Physical and psychological injuries were symbolized, for example, through "lips sealed, stitched, or locked" as "the inability to express oneself" (p. 5).

The research team collaboratively analyzed the masks from art therapy and clinical perspectives and observed that the visual imagery provided a graphic representation of some of the unseen struggles, challenges, and lived experiences of active-duty military service

members with PTSD, TBI, and comorbid psychological disorders (p. 10). The mask in Figure 3.5 represents an exterior of honor and passion when serving in the military (i.e., a glittering US flag and Bronze Star Medal he earned for heroic actions in combat). The mask opens up to reveal a bloody skull which symbolizes war and the underlying injuries and exposure to death/evil.

Figure 3.5 A mask representing a service member's frustrations and existential reflections with military experiences (original in color).

Source: Walker et al. (2017). The masks were made by military service members during art therapy treatment at the National Intrepid Center of Excellence, Walter Reed National Military Medical Center, Bethesda, MD.

Clarke, Friese, and Washburn's (2018) situational analysis stresses the need to examine the material elements of our social world found in artifacts and documented in our field notes. They also prescribe that for initial visual discourse/materials analysis, interpreting and analytic memo writing are critical. It is thus the memos themselves—the researcher's narratives—that are coded for further analysis.

Live and video-recorded action

Often in fieldwork we document the visual through textual narratives. As an example, below is a set of field notes about a young actor's on-stage performance work—three-dimensional, kinetic visual data—in one of his high school play productions of a modern farce. Unlike the observation of natural social life, observation of live or video-recorded theatrical performance takes into account both planned and spontaneous action by the actor's body and voice:

Compared to other actors, Barry's movements are sharp, crisp, economic. He maintains still poses in compositions, does not steal focus. His voice is clear, good volume, articulate, wide variety, range. He is dynamic, has good energy, believable in his dialogue. Even when there's an error with a rope (as part of the set that falls) he covers well. Unlike other actors, he does not "foot-fudge," wander, or rock. The others overact, miss the comic timing, speech is sometimes sloppy, difficult to hear. Barry has a leading man quality about him, a presence. He looks handsome, blonde hair cut close—had it long recently—sturdy build, the physique of a beginning football player.

Rather than coding this documented set of visual (and verbal) data in the margin, an analytic memo about this field note set focuses on the visual discourses:

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10 November 2011

VISUAL DATA: BARRY'S PHYSICALITY

A good actor needs what Howard Gardner calls "kinesthetic intelligence." Barry, as a high school actor, displays a heightened awareness of it on stage, though in everyday life his physicality is relaxed, even "dumpy." This intelligence comes from metacognition and technique, an attunement to and consciousness of everything your body is doing during performance. Not everyone has this skill, even university actors.

The majority of male Hollywood celebrities are handsome, well-built, and their fan base is drawn to their physical appearance. The beautiful, even in everyday life, also tend to be the popular. In the classroom, I notice girls surrounding Barry before class begins. His "leading man" presence means not only playing a lead role in a play, but leading others who are willing to follow in organized activity. Though he is aware of his body, he is not arrogant about it, which perhaps adds even more to his charisma and appeal. In high school (and adulthood), when you've got looks, you've got an advantage. His I would label/code: COMFORTABLE CONFIDENCE.

The still image of a digital photo permits nuanced visual analysis, but Walsh, Bakin, Lee, Chung, and Chung (2007) note that digital video data of action can be coded multiple times for in-depth detail by replaying the file while focusing on different aspects with each "pass." Heath et al. (2010), however, advise against coding and categorization of video and instead support an analytic inductive approach that favors "the ways in which social action and interaction involve the interplay of talk, visible and material conduct" (p. 9). Short video fragments are microanalyzed through a combination of conversation analysis transcription (running vertically down a page) with descriptive documentation of the visual

record (running horizontally across a page) such as facial expressions, gestures, whole body movements, spatial relationships, physical contact, and manipulation of objects/artifacts.

Parameswaran, Ozawa-Kirk, and Latendresse (2019) offer a method they label "live coding," the simultaneous manual coding of data while listening to or watching an audio or video recording. Audio recordings provide opportunities for coding paralinguistic features such as the participant's tone of voice, rate of speech, and other vocal dynamics such as volume and pitch. Video recordings enable the coding of audio features plus non-verbal movements such as head nods of agreement, and other subtextual reactions through facial or body language. Particularly rich or significant quotes that support the developing themes are transcribed for codebook documentation. The coders observed that "Seeing and hearing participants while noting their nonverbals offered additional layers to the participant's text. This provided additional depth to the analysis that was missing from coding of the transcripts alone" (p. 12). Ellingson (2017) offers non-verbal communication elements to observe, which could also serve as categories for more specific codes:

- **Kinesics**: body language, posture, gesture, movement, etc.
- **Proxemics**: space people leave between one another
- **Vocalics**: voice, vocal tone, fluency, etc.
- **Haptics**: touch, body contact
- **Chronemics**: use of time
- **Appearance**: clothing, accessories, grooming, etc.
- **Territoriality**: configuration and décor of a physical environment associated with a person or organization
- **Other**: physical interactions with objects, in space, etc.

Dyadic video analysis better guarantees the confirmability and trustworthiness of findings and potentially leads to stronger outcomes. One of my studies examined a video of children in participatory play with adults. I watched the video with a research assistant and both of us took individual written notes about what we observed, comparable to field note taking. We stopped the 60-minute video every 10 minutes to discuss and compare our observations thus far to note any similarities and our individual capture of things the other may have missed. If necessary, we reversed the video to confirm an analytic insight or to clarify a disagreement about our findings. Our reflections in between each 10-minute segment enabled us to "shop talk" and come to consensus about how the children interacted with adults. The exchange and development of ideas was a richer one than either of us could have generated on our own.

Coding systems for a video/film, if used, could include not just the content but the film-making techniques employed to assess its artistic impact (e.g., handheld, zoom, hard cut, dissolve, voice-over). Walsh et al. (2007) and Silver and Lewins (2014) profile several software programs that can code digital video, but they also note each one's limitations such as cost, currency, and user-friendliness. Several CAQDAS programs (e.g., ATLAS.ti and NVivo) can access or store digital video and photographs for coding in addition to text. Though Friese (2014) recommends coding the video file directly rather than coding a transcription of it to stay close to the digital data (p. 103), Figure 3.6 illustrates a CAQDAS screenshot from Transana software, which demonstrates the process of video/transcription coding.

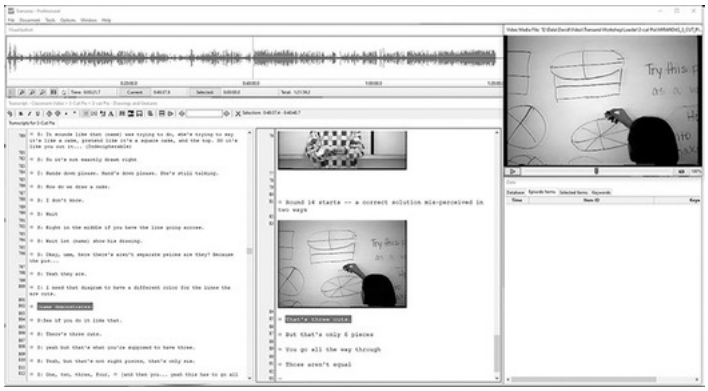

Figure 3.6 A screenshot from Transana software (courtesy of David K. Woods, transana.com)

Overall, a researcher's video analysis is comparable to a video camera's and player's functions. Your eyes can zoom in and out to capture the big picture as well as the small details. When necessary, you can freeze the frame, play a portion in slow motion, or loop a section to replay continuously in order to scrutinize the details and nuances of action. Your written analysis of video is like the translation subtitles or DVD soundtrack commentary accompanying the original footage. For more on video as method, see Harris (2016).

Recommended guidance

Available texts provide qualitative researchers with more detailed approaches to the analysis of visual media and materials. Clarke et al.'s (2018) "Mapping Visual Discourse Materials" chapter in their text *Situational Analysis* presents a thorough list of questions to consider from the perspectives of aesthetic accomplishment ("How does the variation in color direct your attention within the image?") to contextual and critical readings ("What work is the image doing in the world? What is implicitly and explicitly normalized?") (pp. 282–3). Thomson (2008) and Freeman and Mathison (2009, pp. 156–63) provide excellent guidelines and questions for the analysis of children's drawings and participant-produced photographs and media ("How does the image relate to bigger ideas, values, events, cultural constructions?"). Hammersley and Atkinson (2019) provide rich guidance for analyzing indoor environments from an ethnographic perspective. Berger (2014b) superbly reviews how everyday objects and artifacts can be analyzed from sociological, psychological, anthropological, and other perspectives to interpret the meanings and values of our personal possessions and material culture.

Björkvall (2017), Grbich (2013), Hansen and Machin (2013), and Ledin and Machin (2018) provide excellent overviews and summaries of analyzing visual and media materials. Altheide and Schneider (2013) provide rich data collection protocols for and conceptual approaches to media analyses of print and electronic documents, while Coffey (2014) and Grant (2019) offer concise yet substantive overviews of document analysis. Kozinets (2020) sharply attunes readers to the visual and textual components of "netnography" or social media research. Berger (2014a) uses social science lenses and filters for media analyses of films, television programs, video games, print advertising, mobile phone communications, and so on. Heath et al. (2010) offer valuable guidelines for all facets of working with and inductively analyzing video recordings.

Though analysis is addressed minimally in Braun, Clarke, and Gray's (2017) *Collecting Qualitative Data*, the chapter collection provides excellent guidance for lesser used and newer forms of data such as instant messages, e-mail interviews, blogs, and online forums. The Data Research and Development Center provides a downloadable document on *Guidelines for Video Research in Education* at drdc.uchicago.edu/what/video-research.html. And Paulus et al. (2014) provide a state-of-the-art overview of digital tools available for qualitative data collection and analysis, several of which focus on hardware and software for visual/media analysis.

Chapter discussions can be found in Pauwels and Mannay's (2020) impressive assembly of contributors for *The SAGE Handbook of Visual Research Methods*, while Knowles and Cole's (2008) *Handbook of the Arts in Qualitative Research* provides additional readings in photography, video, and other popular visual forms. Even general introductory textbooks in art history and appreciation, film studies, fashion design, architecture, digital photography, and other related fields can enhance your knowledge base of design principles such as line, color, texture, lighting, symmetry, composition, and other elements which can support your analytic work.

As a theatre practitioner, I was trained to design for the stage, so visual literacy is a "given" in my ethnographic ways of working. Today's mediated and visual cultures seem to indoctrinate and endow all of us by default with visual literacy—heightened awareness of images and their presentation and representation. From my readings of various systematic methods for analyzing visual data, I have yet to find a single satisfactory approach that rivals the tacit and visceral capabilities of human reflection and interpretation. Trust your intuitive, holistic impressions when analyzing and writing about visual materials—employ a personal response methodology coined as "organic inquiry." Overall, the goals of visual analysis are to "ask what kinds of ideas, values and identities are therefore

communicated and what elements, processes and causalities are hidden" (Ledin & Machin, 2018, p. 32).

The next chapter begins with an overview of how to use this manual to guide you through its first cycle coding methods profiles, and how to select the most appropriate one(s) for your particular qualitative research study.

PART TWO FIRST CYCLE CODING METHODS

4 SELECTING FIRST CYCLE CODING METHODS

Chapter Summary

This chapter first reviews the multiple factors to consider when selecting one or more particular coding methods for your analytic work. An extended example of first and second cycle coding processes follows. In later chapters, 29 first cycle coding methods are profiled. Each profile contains the following: Sources, Description, Applications, Example, Analysis, and Notes.

THE CODING CYCLES

In theatre production of original works, a folk saying goes, "Plays are not written—they're *re*written." A comparable saying for qualitative researchers is, "Data are not coded—they're *re*coded." Some methodologists label the progressive refinement of codes in a study as "stages," "levels," or "feedback loops." But to me, the reverberative nature of coding—comparing data to data, data to code, code to code, code to category, category to category, category back to data, etc.—suggests that the qualitative analytic process is cyclical rather than linear. Finfgeld-Connett (2018) astutely observes that "codes and categories organically expand and contract" during the data analytic process (pp. 35–6).

The coding methods in this manual are divided into two main sections, first cycle and second cycle coding methods (see Figure 4.1). First cycle methods are those processes that happen during the initial coding of data and are divided into seven subcategories: Grammatical, Elemental, Affective, Literary and Language, Exploratory, Procedural, and Themeing the Data. Each subcategory's major characteristics will be explained in brief introductions later in this chapter, and descriptions can also be found in Appendix A. Most first cycle methods are fairly direct.

FIRST CYCLE CODING METHODS	SECOND CYCLE CODING METHODS
Grammatical Coding Methods Attribute Coding Magnitude Coding Subcoding Simultaneous Coding	**Grounded Theory Coding Methods** Focused Coding Axial Coding Theoretical Coding
Elemental Coding Methods Structural Coding Descriptive Coding In Vivo Coding Process Coding Initial Coding Concept Coding	**Cumulative Coding Methods** Pattern Coding Elaborative Coding Longitudinal Coding
Affective Coding Methods Emotion Coding Values Coding Versus Coding Evaluation Coding	
Literary and Language Coding Methods Dramaturgical Coding Motif Coding Narrative Coding Metaphor Coding Verbal Exchange Coding	
Exploratory Coding Methods Holistic Coding Provisional Coding Hypothesis Coding Eclectic Coding	
Procedural Coding Methods Protocol Coding OCM (Outline of Cultural Materials) Coding Domain and Taxonomic Coding Causation Coding	
Methods of Themeing the Data Categorically Phenomenologically For Metasummary and Metasynthesis	

Figure 4.1 First cycle and second cycle coding methods (see Appendix A for descriptions)

Second cycle methods (Chapters 13–14) are a bit more challenging because they require such analytic skills as classifying, prioritizing, integrating, synthesizing, abstracting, conceptualizing, and theory building. If you have taken ownership of the data through careful first cycle coding (and recoding), the transition to second cycle methods becomes easier. But be aware that codes are not the only method you should employ, as noted

anthropologists George and Louise Spindler (1992) attest: “only the human observer can be alert to divergences and subtleties that may prove to be more important than the data produced by any predetermined categories of observation or any instrument. … The categories of happenings repeat themselves endlessly in human affairs, yet each event is unique” (pp. 66–7). Thus, analytic memo writing before, during, and after you code becomes a critical heuristic (see Chapter 3).

SELECTING THE APPROPRIATE CODING METHOD(S)

Several students acquainted with previous editions of this manual have asked me to develop a matrix that could somehow lead them directly and effortlessly to the most appropriate coding method(s) for their particular studies. I wish that such a reference chart existed but, unfortunately, the task defies assembling a foolproof matrix in print and even online. Appendix B in this book, A Glossary of Analytic Recommendations, is the closest I can come to constructing some type of directional aid, with Appendix A, A Glossary of Coding Methods, as a follow-up resource. Since each qualitative study is a unique project, I hesitate prescribing specific coding methods expressly tailored for your needs. You and your research mentors are the best judges of which coding method(s)—and notice the plural option—is (are) appropriate for your particular study.

So, which coding method(s) *is (are)* appropriate for your particular study? Permit me to offer the sage yet tiresome advice we give too often in qualitative inquiry: "It depends." Noted methodologist Michael Quinn Patton (2015) rationalizes this by observing, "Because each qualitative study is unique, the analytical approach used will be unique" (p. 522). And, as I noted at the beginning of this manual, no one, including myself, can claim final authority on the "best" way to code qualitative data.

Depending on the nature and goals of your study, you may find that one coding method alone will suffice, or that two or more are needed to capture the complex processes or phenomena in your data (see Eclectic Coding in Chapter 9). Most of the coding methods profiled in this manual are not discrete and a few even overlap slightly in function; some can be "mixed and matched" when needed. Be cautious of muddying the analytic waters, though, by employing too many methods for one study (such as 10 first cycle coding methods) or integrating incompatible methods (such as an Exploratory Method with a Procedural Method).

The majority of examples in the profiles demonstrate coding with interview transcripts and participant observation field notes. But virtually all of these methods are also applicable to other forms of data such as statistics, artifacts, fictional literature, and social media. It is not necessarily or always the types of data that drive the coding decisions, but rather what the researcher needs to explore, learn, and discover through both systematic and creative analyses with codes or themes as reflective prompts.

Let me offer an array of different answers for the various contexts of beginning qualitative researchers.

Various perspectives on coding decisions

Which coding method(s) is (are) appropriate for your particular study? Some feel coding must be prefaced and accompanied with careful reading and rereading of your data as your subconscious, not just your coding system, develops connections that lead to flashes of insight (DeWalt & DeWalt, 2011). Some feel that more than one coding method and at least two different analytic approaches should be explored in every study to enhance accountability and the depth and breadth of findings (Coffey & Atkinson, 1996; Leech & Onwuegbuzie, 2005; Mello, 2002). Some research genres, such as conversation and discourse analysis, may not employ coding at all but rely instead on detailed transcription notation and extensive analytic memos about the data (Gee, Michaels, & O' Connor, 1992).

Some forgo coding of data altogether to rely on phenomenological interpretations of the themes in and meanings of texts (van Manen, 1990; Wertz et al., 2011). Some perceive coding as an abhorrent act incompatible with newer interpretivist qualitative research methodologies such as performance ethnography and narrative inquiry (Hendry, 2007; Lawrence-Lightfoot & Davis, 1997). Some believe prescribed methods of coding are altogether mechanistic, futile, purposeless (Dey, 1999), a simplistic closed system and a "failure" in post-structural research approaches (Jackson & Mazzei, 2012), and even "destructive" and "violent" toward meaning-making (Packer, 2018). Others, like me, believe in the necessity and payoff of coding for selected qualitative studies, yet wish to keep themselves open during initial data collection and review before determining which coding method(s)—if any—will be most appropriate and most likely to yield a substantive analysis. I label this personal stance "pragmatic eclecticism."

Research question alignment

Which coding method(s) is (are) appropriate for your particular study? The nature of your central and related research questions—and thus the answers you seek—will strongly influence the specific coding choice(s) you make. Trede and Higgs (2009) review how research question framing should harmonize with ontological, epistemological, and methodological stances: "Research questions embed the values, world view and direction of an inquiry. They also are influential in determining what type of knowledge is going to be generated" (p. 18). Reynolds (2019), reviewing critical discourse analyses in journalism, promotes that data analysts of these studies should "code for power"—that is, employ a strategic amalgam of particular coding methods (Concept, Values, Versus, etc.)—to examine the ideologies embedded in media materials.

Ontological questions address the nature of participants' realities, so aligned research questions might begin with:

- "What is the nature of … ?"
- "What are the lived experiences of … ?"
- "What is it like being … ?"

These types of questions suggest the exploration of personal, interpretive meanings found within the data. Selected coding methods that may catalogue and better reveal these ontologies include In Vivo, Process, Emotion, Values, Dramaturgical, and/or Focused Coding, plus Themeing the Data.

Epistemological questions address theories of knowing and an understanding of the phenomenon of interest. Aligned research questions might begin with:

- "How does … ?"
- "In what ways does … ?"
- "What does it mean to be … ?"
- "How do people make sense of … ?"
- "What factors influence … ?"
- "Why does … ?"

These types of questions suggest the exploration of participant actions/processes and perceptions found within the data. Selected coding methods that may catalogue and better reveal these epistemologies include Descriptive, Process, Initial, Versus, Evaluation, Dramaturgical, Domain and Taxonomic, Causation, and/or Pattern Coding, plus Themeing the Data.

These are all, of course, merely a few coding suggestions based on the initiating words of hypothetical and incomplete question prompts. The point here is to carefully consider which coding method(s) may generate the *types* of answers you need, based on the *forms* of questions you pose.

Paradigmatic, conceptual, and methodological considerations

Which coding method(s) is (are) appropriate for your particular study? Specific coding method(s) decisions may happen before, during, and/or after an initial review of the data corpus. One study with young people I conducted (Saldaña, 2005b) primarily used In Vivo Coding to honor children's voices and to ground the analysis in their perspectives (In Vivo Codes use the direct language of participants as codes rather than researcher-generated words and phrases). This choice was determined a priori or *beforehand* as part of the critical ethnographic research design. Thus, the coding decision was based on the *paradigm* or *theoretical approach* to the study.

But another project I conducted with teachers (Hager, Maier, O'Hara, Ott, & Saldaña, 2000) applied Versus Coding—phrases that capture the actual and conceptual conflicts within, among, and between participants, such as teachers vs administrators—to the data *after* I noticed that interview transcripts and field notes were filled with tensions and power issues. Thus, the coding decision was based on an *emergent conceptual framework* for the study.

Still another longitudinal ethnographic study I conducted (Saldaña, 1997) mixed and matched various coding methods at the beginning—Eclectic Coding—because I was not quite sure what was happening and thus what I was looking for. What I eventually selected as the primary method was Descriptive Coding since I had multiple types of data (interview transcripts, field notes, documents, etc.) collected over a 20-month period, *and* I required a Longitudinal Coding system that would enable me to analyze participant change across time. Thus, the coding decisions were based on the *methodological needs* of the study.

Coding and a priori goals

Which coding method(s) is (are) appropriate for your particular study? Some methodologists advise that your choice of coding method(s) and even a provisional list of codes should be determined beforehand to harmonize with your study's conceptual framework or paradigm, and to enable an analysis that directly answers your research questions and goals (see Structural, Provisional, Hypothesis, Protocol, and Elaborative Coding). If your goal is to develop *new* theory about a phenomenon or process, then classic or re-envisioned grounded theory and its accompanying coding methods—In Vivo, Process, Initial, Focused, Axial, and Theoretical Coding—are your recommended but not required options. (In the examples and analyses portions of these coding profiles, I stay with the same participant and her data to show how one particular case progresses from first through second cycle coding methods.)

But some well-intended research goals can emerge as quite problematic. For example, *identity* is a concept (or construct, process, experience, phenomenon, etc.) that has multiple approaches to and definitions of it, depending on the discipline—if not the individual. The fields of psychology, sociology, anthropology, human development, education, communication, youth studies, feminist studies, cultural studies, queer studies, visual studies, etc., each have their own body of scholars, literature, theories, and oral traditions about what *identity* means and consists of. In my multidisciplinary readings, I have observed that there seems to be a diversity of perspectives and an "almost but not quite there" grasp on this very complex concept. Pre-established codes that relate to attributes (gender, age, ethnicity, etc.), culture, values, attitudes, and beliefs, for example, are most likely essential to studies about identity.

But what becomes more and less important after that depends on who is being researched and who the researcher is. Some will say identity is a state of being; others will say it is a contingent state of becoming. Some say identity is the accumulation of one's past; others say it is how we envision ourselves in the present and our possible selves in the future. Some say identity is your individual sense of self; others say it is how you are similar to and different from other people. Some say identity is a label; others say it is a symbol or metaphor. Some say identity is composed of the personal stories you tell; others say it is composed of the dialogic, interpersonal relationships you have. Different identities of the same individual can exist both offline and online, suggesting that identity is both real and illusory. An identity can be ascribed by someone to someone else, yet that identity attribution can also be resisted. Personality is what you attribute to others, but identity is what you attribute to yourself.

Some say identity is what you do; some say it is what you value and believe; some say it is how you perform; and others say it is what you own and consume. Some say identity can be categorized; some say it is holistic; some say it is constructed; some say it is a project; and others say it is composed of multiple and shifting forms in different social contexts. Some say identity is cultural; some say it is political; some say it is psychological; and others say it is sociological. Still others will say it is all of the above; and still others will say it is some of that but it is also something more, for the analytic components of identity are separate but not separable. The point here is that *identity exists by how it is defined*. So if you are using a priori codes, you need to do some very deep thinking about what identity means before you start applying its related codes to your data.

Coding in mixed methods studies

Which coding method(s) is (are) appropriate for your particular study? Depending on the qualitative coding method(s) you employ, the choice may have numeric conversion and transformation possibilities. Mixed methods studies (Creswell & Plano Clark, 2018; Tashakkori & Teddlie, 2010; Vogt et al., 2014) currently explore how qualitative data can sometimes be "quantitized" for statistical analysis—descriptive measures such as frequencies and percentages—or for survey instrument development. Major codes or even significant quotes from participant interviews might serve as stimuli for writing specific survey instrument items that ask respondents to assign a numeric rating of some kind. In this manual, Magnitude Coding (see Chapter 5) is a method that applies numbers or other symbols to data and even to codes themselves that represent values on a scale, such as 3 = high, 2 = medium, and 1 = low. There are some methodological purists who object to combining qualitative data with quantitative measurement. But I feel that as researchers we should keep ourselves open to numeric representation—when appropriate—as a supplemental heuristic to analysis. Magnitude Coding may even be used concurrently with such Affective Methods as Values, Emotion, and Evaluation Coding, and with the Exploratory Method of Hypothesis Coding.

Most CAQDAS programs include statistical capabilities such as word frequency counts, code frequency counts, the matrix display of "quantitized" qualitative data in Excel spreadsheets, and even the transfer of converted qualitative data into quantitative data analysis programs. Microsoft Excel can also perform selected statistical analyses such as *t*-tests and analysis of variance (ANOVA). Some CAQDAS programs can also import and associate quantitative data with the qualitative data set, enabling mixed methods analysis. Remember that word frequency in the data corpus does not necessarily suggest significance, but it is nevertheless worth exploring as a query (as featured in NVivo, for example) to delve into any emergent but as yet undetected patterns.

Exploratory coding

Which coding method(s) is (are) appropriate for your particular study? Several of my students have explored variations of coding based on hunch-driven queries. One student wrote in an analytic memo that an interview transcript excerpt was coded twice—once with Descriptive Coding, then a second time on a clean copy with Versus Coding—just "to see what would happen." He learned that applying the two coding methods *sequentially* gave him a richer perspective on the same data set.

Another student took advantage of available margin space by coding one page of an interview transcript on the left-hand side with Versus Coding, and on the right-hand side with In Vivo Coding, again, just to explore what the two outcomes might suggest. He learned that In Vivo Coding gave him heightened awareness of the individual's unique circumstances, while Versus Coding enabled him to transcend the particulars of the case and transfer more conceptual ideas to a broader population. These were forms of Simultaneous Coding, triggered by nothing more than researcher curiosity to explore "what if …?". Creswell (2016) advises that codes could be placed in the left margin of a data set's hard copy, and themes in the right margin (p. 158).

Descriptive coding as a common default

Which coding method(s) is (are) appropriate for your particular study? Some coding methods are better than others for particular types of data. One of the most common coding errors I have observed for interview transcript data is *choosing Descriptive Coding as a default method*. Descriptive Coding generates a sufficient list of subtopics—what is talked about—but generally does not offer the analyst insightful meanings about the participants and their perspectives. For example, below is an excerpt of a mother reflecting on her troubled adolescent son's early school years. Notice how the content of the story is a poignant one, yet the two Descriptive Code choices—albeit sufficient—do not get at the heart of the narrative or the participant's concerns:

Code example 4.1

[1] My son, Barry, went through a really tough time about, probably started the end of fifth grade and went into sixth grade. When he was growing up young in school he was a people-pleaser and his teachers loved him to death. [2] Two boys in particular that he chose to try to emulate, wouldn't, were not very good for him. They were very critical of him, they put him down all the time, and he kind of just took that and really kind of internalized it, I think, for a long time. In that time period, in the fifth grade, early sixth grade, they really just kind of shunned him all together, and so his network as he knew it was gone.	[1] student-teacher relationship [2] bad role models

Most beginning coders tend to work this way, applying descriptive nouns or noun phrases to data that are "craft" but not "art." Now look at the same data excerpt but with a different coding method—In Vivo Coding. In Vivo Codes derive from the actual language of the participant, and the four codes applied to this analysis seem more evocative in contrast to the two Descriptive Codes above:

Code example 4.2

[1] My son, Barry, went through a really tough time about, probably started the end of fifth grade and went into sixth grade. [2] When he was growing up young in school he was a people-pleaser and his teachers loved him to death. [3] Two boys in particular that he chose to try to emulate, wouldn't, were not very good for him. They were very critical of him, they put him down all the time, and he kind of just took that and really kind of internalized it, I think, for a long time. [4] In that time period, in the fifth grade, early sixth grade, they really just kind of shunned him all together, and so his network as he knew it was gone.	[1] "tough time" [2] "people-pleaser" [3] "put him down" [4] "shunned him"

When the four codes are listed together for analytic memo reflection, the conflicts of the story are made manifest and zoom in on the emotional dimensions of the story:

"TOUGH TIME"

“PEOPLE-PLEASER”

“PUT HIM DOWN”

“SHUNNED HIM”

Also notice that the In Vivo Codes are more action-oriented than the Descriptive Codes.

Yet another method to get at the dynamics of the story is Process Coding, which uses gerunds (“-ing” words) to label actual or conceptual actions relayed by participants:

Code example 4.3

[1] My son, Barry, went through a really tough time about, probably started the end of fifth grade and went into sixth grade. When he was growing up young in school he was a people-pleaser and his teachers loved him to death. [2] Two boys in particular that he chose to try to emulate, wouldn’t, were not very good for him. They were very critical of him, they put him down all the time, and he kind of just took that and really kind of internalized it, I think, for a long time. [3] In that time period, in the fifth grade, early sixth grade, they really just kind of shunned him all together, and so his network as he knew it was gone.	[1] pleasing people [2] internalizing rejection [3] losing your network

Compare the Descriptive, In Vivo, and Process Codes next to each other and notice how the latter two columns potentially stimulate more evocative analytic memo writing about the phenomenon, and suggest a brief narrative trajectory of action for analysis:

Code example 4.4

Descriptive Codes	In Vivo Codes	Process Codes
STUDENT – TEACHER RELATIONSHIP BAD ROLE MODELS	“TOUGH TIME” “PEOPLE-PLEASER” “PUT HIM DOWN” “SHUNNED HIM”	PLEASING PEOPLE INTERNALIZING REJECTION LOSING YOUR NETWORK

To recap, use Descriptive Coding sparingly and preferably not at all for interview transcript data unless topical indexing of the database is necessary for documentation, future reference, longitudinal analysis, or quantitative assessment (e.g., content analysis). Topic-based nouns do not tell you as much about the human condition as verbs, gerunds, and the participant’s own words. Other methods such as Emotion, Values, and Dramaturgical Coding will also help reveal what may be going through a participant’s mind. I prefer to use Descriptive Coding for interviews only when the analytic goal is evaluation or comparison (see Magnitude, Evaluation, and Longitudinal Coding).

“Generic” coding methods

Which coding method(s) is (are) appropriate for your particular study? An instructor familiar with the methods profiled in this manual and your particular project can offer specific recommendations and guidance. In lieu of mentorship, I suggest starting with a combination of these basic coding methods as a “generic” approach to your data and analysis, but remain open to changing them if they are not generating substantive discoveries for you:

- First cycle coding methods
    - Attribute Coding (for all data as a management technique)
    - Structural Coding or Holistic Coding (for all data as a “grand tour” overview)
    - Descriptive Coding (for field notes, documents, and artifacts as a detailed inventory of their contents)
    - In Vivo Coding, Process Coding, and/or Values Coding (for interview transcripts as a method of attuning yourself to participant perspectives and actions)
- Second cycle coding methods
    - Focused Coding and/or Pattern Coding (for categorization of your coded data as an initial analytic strategy)

New and hybrid coding schemes

Which coding method(s) is (are) appropriate for your particular study? The 35 coding methods profiled in this manual are not the only ones available to you. For example, teachers could code students' verbal or written responses using the revised Bloom's taxonomy of cognition—remember, understand, apply, analyze, evaluate, and create (Sousa, 2011, pp. 256–64). Endres and Whitlock (2017) developed a descriptive coding scheme to examine technology use in diabetes self-management. One of their major codes was type of technology with subcodes such as *glucose meter*, *insulin pump*, and *fitness monitors*. One of my students' interviews with an African American artist generated codes related to matters of race/ethnicity and relationships such as exclusion, inclusion, bias, discrimination, and ethnic tension. One of my longitudinal case study's symbolic "volumes" and "tempos" of selected stages from his tumultuous adolescence were arts-based coded with musical dynamics (a form of Magnitude Coding) such as adagio, mezzo forte, allegretto, and andante.

You are encouraged to develop not only your own coding methods as needed, but even your own data analytic processes. Bernauer (2015) developed a method for analyzing interview data that he terms "oral coding," which originated from an admitted fatigue with traditional printed transcription and coding. Audio recordings are listened to repeatedly over several days to gain intimate knowledge of their contents, to extract significant quotes, and to document formulated codes, themes, and concepts. The researcher then orally re-records salient participant passages along with personal analytic reflections as they relate to the research questions of interest. These become consolidated into abstracts which are then used as material for the final report.

This form of oral coding keeps the researcher deeply embedded in the literal voices of participants, allowing nuanced inferences and interpretations of vocal tones, tempos, subtexts, and the like. The interweaving of participant quotes with researcher comments simulates a dialogic exchange resulting in cumulative and transformative insights. Stonehouse (2019) offers a related method he labels "audio-coding," in which codes are applied not to narrative interview transcripts but directly onto units of digital audio recording files loaded into CAQDAS programs.

You can develop new or hybrid coding methods or adapt existing schemes, customized to suit the unique needs and disciplinary concerns of your study. Templates are provided in Appendix C to document them after the first and second cycle coding methods have been profiled.

General criteria for coding decisions

Which coding method(s) is (are) appropriate for your particular study? Below is a summary for considering and selecting one or more of them. Notice, though, that most of these criteria cannot be addressed until you have done some preliminary coding on a portion of your data. Thus, pilot-test your initial choices with a few pages of field notes and/or interview transcripts. Also examine the recommended applications in the methods profiles and Appendices A and B in this manual for options, guidance, and direction, but not as mandates, restrictions, or limitations. Glesne (2011) reassures researchers, "Learn to be content … with your early, simple coding schemes, knowing that with use they will become appropriately complex" (p. 191). As a review and summary, here are the general principles and factors discussed thus far, plus additional criteria that may influence and affect your coding method(s) choice(s).

Foundation principles

- Because each qualitative study is unique, the analytic approach you use will be unique—which may or may not utilize coding.
- Some methodologists advise that your choice of coding method(s) and even a provisional list of codes should be determined a priori or beforehand (deductive) to harmonize with your study's conceptual framework, paradigm, or research goals. But emergent, data-driven (inductive) coding choices are also legitimate.
- If needed, you can develop new or hybrid coding methods or adapt existing schemes, customized to suit the unique needs and disciplinary concerns of your study.

Initial decision making

- Keep yourself open during initial data collection and review before determining which coding method(s)—if any—will be most appropriate and most likely to yield a substantive analysis.
- In lieu of mentorship, start with a combination of "generic" coding methods as a beginning approach to your data and analysis, but remain open to changing them if they are not generating substantive discoveries for you.
- If your goal is to develop new theory about a phenomenon or process, then classic or re-envisioned grounded theory and its accompanying coding methods (In Vivo, Process, Initial, Focused, Axial, and Theoretical Coding) are your recommended but not required options.
- Pilot-test your coding choice(s) on a few pages of data to assess its (their) possibilities.

Coding compatibility

- Carefully consider which coding method(s) may generate the types of answers you need, based on the forms of research questions you pose.

- Insure that the particular data forms (e.g., interview transcripts, participant observation field notes) lend themselves to the chosen coding method(s).
- Depending on the nature and goals of your study and forms of data, you may find that one coding method alone will suffice, or that two or more are needed to capture the complex processes or phenomena in your data.
- Be cautious of mixing incompatible coding methods; choose each one purposefully.
- Depending on the qualitative coding method(s) you employ, the choice may have numeric conversion and transformation possibilities for basic descriptive statistics or mixed methods studies.

Coding flexibility

- Coding methods choices may happen not just before but even during and after an initial review of the data corpus, based on emergent or new conceptual frameworks and methodological needs of the study.
- Explore variations of coding based on hunch-driven queries, triggered by nothing more than researcher curiosity to explore "what if …?"
- Data are not coded—they are *re*coded. Be willing to change your method(s) if your initial choice(s) is (are) not working.

Coding outcomes

- After an initial "breaking-in" period has passed, you should feel more comfortable and confident applying the codes to your data.
- The analytic pathway should feel as if you are grasping specificity and complexity—not complication.
- As you are applying the coding method(s) to the data and writing analytic memos, you should feel as if you are making new discoveries, insights, and connections about your participants, their processes, and/or the phenomenon under investigation.

On overwhelming fear

One of the most frequent concerns from my own students when they begin their qualitative data analytic assignments is feeling overwhelmed by the vast array of coding methods from which to choose. And even though we have explored selected approaches and conducted in-class exercises with some depth, there is still that initial fear when they begin to code their own collected data by themselves. I acknowledge their "overwhelming fear," for I remember it quite well when I first coded my first day's set of field notes over 25 years ago, wondering if I was doing it right and puzzled by the purpose of it all.

Like many first-time ventures with new ways of working, there is an initial anxiety that may lead to hesitation or, at worst, paralysis from starting the task. But do not let overwhelming fear stop you. Acknowledge that it is a common feeling among many novice (and even expert) researchers; you are not alone. Simply take qualitative data analysis one datum at a time. There may be a few bumps in the road here and there, but coding gets easier and goes faster as you continue to learn and practice this craft.

A FIRST AND SECOND CYCLE CODING EXAMPLE

> One of my former students appreciated what she perceived as my ability to perceptively analyze qualitative data and told me, "I want to know how your mind works." I smiled and replied, "It would scare you." (Saldaña, 2015, p. 190)

Describing how my mind codes and analyzes qualitative data is best expressed as a stream of consciousness narrative. My mind thinks quickly and reverberatively, and to systematize my thought patterns for reader clarity is to create an artificial, linear procedure. Below I document "how my mind works" as faithfully as I can to illustrate my ontological, epistemological, methodological, and axiological ways of working as a qualitative data analyst. I use the first two pages of Mike Lefevre's story from Studs Terkel's (1972, pp. xxxi–xxxii) *Working* as a data sample:

> Read the data—I print out all transcripts and field notes in hard copy because it's easier to work that way than on a computer monitor. I was taught to "touch the data."
>
> Circle key words and phrases in pencil, not pen, as I read the data. In Vivo Coding is my first "go to" method with interview transcripts because it keeps me grounded in the participant's voice. It seems more authentic and instinctive than other methods to code this way, regardless of research question and methodology. I might choose a different method later, though. I keep myself open to other options and choices. I code as a splitter, not a lumper. I'm detail-oriented and I look for nuance. I'll reread some sentences or paragraphs before I move on to look for "buried treasure" (see Figure 4.2).

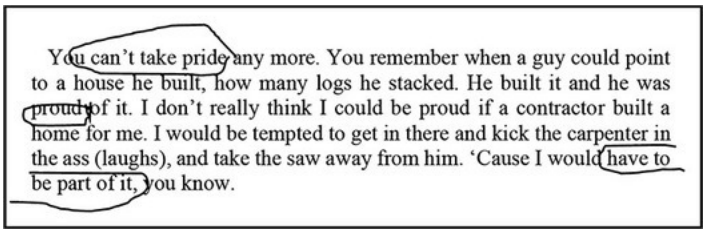
You can't take pride any more. You remember when a guy could point to a house he built, how many logs he stacked. He built it and he was proud of it. I don't really think I could be proud if a contractor built a home for me. I would be tempted to get in there and kick the carpenter in the ass (laughs), and take the saw away from him. 'Cause I would have to be part of it, you know.

Figure 4.2 An In Vivo coded excerpt

Source: Terkel (1972, p. xxxi)

Reread the transcript, now that I've got a better handle on it. Think twice about my initial In Vivo Code choices: maybe there's a significant word or phrase I missed the first time, so I circle it; maybe a word or phrase I thought was significant isn't as important as I first thought, so I erase the circle. I notice some repetition and circle key words the participant says several times; this is a motif or pattern that might be important later. My baseline criteria: If I was listening to this transcript's original recording, what words or phrases might have been stressed through volume, pitch, or parsing by the speaker? (This is Anna Deavere Smith's verbatim analysis method.) To get to that level of insight, I may even voice out loud the transcript to get an embodied feel for it.

Transfer the circled words and phrases onto a Word document as a list. (This is a small-scale project. I prefer to analyze through Microsoft Word and I'll only use CAQDAS software if my data corpus is large or if I'll need sophisticated applications such as mixed methods analyses or complex diagrams.) Write each code in caps and quotation marks to remind me that the codes come from the participant and not from me. I think carefully about each code as I type it to take ownership of it. This is another round that tells me whether to add to or delete my initial and revised code choices:

IN VIVO CODES (35) IN THE ORDER THEY APPEAR:

"DYING BREED"

"MUSCLE WORK"

"PICK IT UP, PUT IT DOWN"

"DYING"

"CAN'T TAKE PRIDE"

"PROUD"

"HAVE TO BE PART OF IT"

"NEVER GONNA"

"NEVER GONNA"

"TINY SATISFACTION"

"DON'T SEE WHERE NOTHING GOES"

"GOOD WORKER"

"BAD ATTITUDE"

"I DO MY WORK BUT"

"TIRED"

"WANT TO SIT DOWN"

"HARD WORK"

"ALL THE NAMES"

"WHAT CAN I POINT TO?"

"SOMETHING TO POINT TO"

"NOT-RECOGNITION"

"DEGRADING"

"WANDERED"

“SINGLE”

“PUNCHED”

“KNOCKED”

“I’ M DOING MY WORK”

“STAY OUT OF MY WAY”

“YOU CAN’ T SOCK A SYSTEM”

“AN OLD MULE”

“EFFETE SNOB”

“BE PROUD OF IT”

“IMPROVE YOUR POSTERITY”

“OUT OF THE CAVE”

“SEND MY KID TO COLLEGE”

Scan the list; “eyeball” or analytically browse through it. See if anything strikes me about the code choices. Make a note of it as a brief jotting somewhere so I don’ t forget it:

Negative outlook, sense of regret in Mike’ s narrative.

Select the codes list and click “Sort Text” in Word to put the codes in alphabetical order. This actually helps me look for patterns and cleans up the randomness of the initial list. It’ s an artificial device but, hey, it works for me. It brings order to chaos:

IN VIVO CODES (35) IN ALPHABETICAL ORDER:

“ALL THE NAMES”

“AN OLD MULE”

“BAD ATTITUDE”

“BE PROUD OF IT”

“CAN’ T TAKE PRIDE”

“DEGRADING”

“DON’ T SEE WHERE NOTHING GOES”

“DYING BREED”

“DYING”

“EFFETE SNOB”

“GOOD WORKER”

“HARD WORK”

“HAVE TO BE PART OF IT”

“I DO MY WORK BUT”

“I’ M DOING MY WORK”

“IMPROVE YOUR POSTERITY”

“KNOCKED”

“MUSCLE WORK”

“NEVER GONNA”

“NEVER GONNA”

“NOT-RECOGNITION”

“OUT OF THE CAVE”

“PICK IT UP, PUT IT DOWN”

“PROUD”

“PUNCHED”

“SEND MY KID TO COLLEGE”

“SINGLE”

“SOMETHING TO POINT TO”

“STAY OUT OF MY WAY”

“TINY SATISFACTION”

“TIRED”

“WANDERED”

“WANT TO SIT DOWN”

“WHAT CAN I POINT TO?”

“YOU CAN’ T SOCK A SYSTEM”

Eyeball the list and make more jottings of any observed/constructed patterns:

Motifs in the codes: “PRIDE,” “DYING,” “NEVER,” “WORK”

Time to categorize through second cycle Focused Coding: start cutting and pasting together the codes into clusters of what “looks alike” and “feels alike.” It really isn’ t much harder than that. I love to organize things.

INITIALLY CLUSTERED IN VIVO CODES (10 GROUPS):

“DYING BREED”

“AN OLD MULE”

“DYING”

“I’ M DOING MY WORK”

“GOOD WORKER”

“MUSCLE WORK”

“PICK IT UP, PUT IT DOWN”

“HARD WORK”

“TIRED”

“WANT TO SIT DOWN”

“PROUD”

“BE PROUD OF IT”

“TINY SATISFACTION”

“HAVE TO BE PART OF IT”

“ALL THE NAMES”

“SOMETHING TO POINT TO”

“I DO MY WORK BUT”

“CAN’ T TAKE PRIDE”

“NEVER GONNA”

“NEVER GONNA”

“DON’ T SEE WHERE NOTHING GOES”

“NOT-RECOGNITION”

“DEGRADING”

“WHAT CAN I POINT TO?”

“BAD ATTITUDE”

“WANDERED”

“SINGLE”

“PUNCHED”

“KNOCKED”

“STAY OUT OF MY WAY”

“YOU CAN’ T SOCK A SYSTEM”

“EFFETE SNOB”

“SEND MY KID TO COLLEGE”

“IMPROVE YOUR POSTERITY”

“OUT OF THE CAVE”

Yes, one code can be in its own category, though that drives me crazy sometimes. That one code could be an outlier, it could be something significant, or it might just be nothing important in the overall scheme of things. It’ s my call.

Now think about and make an outline format of the codes. This is yet another round to determine whether some codes belong in other groups, and if all the codes still merit a place in the list. If they don’ t seem to belong, rearrange or delete them. Order the codes from most important to least important, or from major to minor, but put them in some type of hierarchical array. Order out of chaos.

What seem to be the major first cycle codes that now serve as second cycle Focused Codes (i.e., category labels)? Take these major category labels (three is ideal but I’ m open to more or less) and reflect on how they subsume the others and capture the essence of the transcript data—or rather, how I interpret and assert what’ s going on in the data. Make these Focused Codes big and bold to stand out from the rest. Stake your claim:

RECLUSTERED, OUTLINED (3 LEVELS), ORDERED, AND CATEGORIZED IN VIVO CODES:

“MUSCLE WORK”

“PICK IT UP, PUT IT DOWN”

“HARD WORK”

“GOOD WORKER”

“I’ M DOING MY WORK”

“PROUD”

“BE PROUD OF IT”

“TINY SATISFACTION”

“TIRED”

“WANT TO SIT DOWN”

“WANDERED”

“SINGLE”

“BAD ATTITUDE”

“DYING”

“DYING BREED”

“AN OLD MULE”

“I DO MY WORK BUT”

“DEGRADING”

“CAN’ T TAKE PRIDE”

“DON’ T SEE WHERE NOTHING GOES”

“NEVER GONNA”

“NEVER GONNA”

“SOMETHING TO POINT TO”

“ALL THE NAMES”

“HAVE TO BE PART OF IT”

“WHAT CAN I POINT TO?”

“NOT-RECOGNITION”

“YOU CAN’ T SOCK A SYSTEM”

“PUNCHED”

“KNOCKED”

“STAY OUT OF MY WAY”

“OUT OF THE CAVE”

“IMPROVE YOUR POSTERITY”

“SEND MY KID TO COLLEGE”

"EFFETE SNOB"

Now focus and reflect on the three major In Vivo category labels:

"MUSCLE WORK"

"I DO MY WORK BUT"

"OUT OF THE CAVE"

Explore what these Focused Codes *symbolize*. Find some ways to connect and unify them through a jotting or analytic memo:

> *There's a storyline suggested by the three In Vivo/Focused Codes: Labor, Regret, Escape. Mike is a man's-man but isn't mindless; he thinks deeply about his life. One of his most powerful lines later in this piece is, "It isn't that the average working guy is dumb. He's tired, that's all."…*

Put the three category labels into some type of diagram that illustrates their interrelationship or process. It's another way of exploring how the categories may connect. Don't think too much, trust your first instincts (see Figure 4.3).

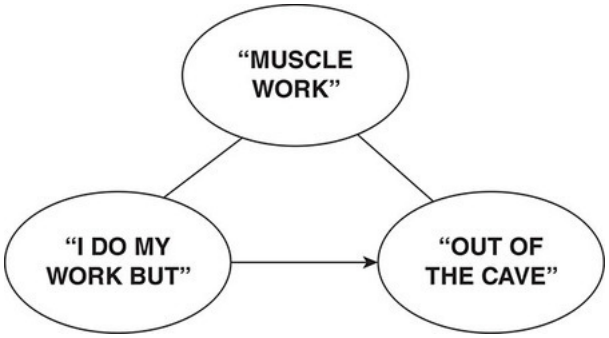

Figure 4.3 The interrelationship between three Focused Codes

Now put those artistic skills of yours to work. Redesign the diagram to visually enhance what's going on with Mike, as I interpret it. Codeweave, intermix to synthesize the codes further. Arts-based approaches can reveal even more about the phenomenon (see Figure 4.4).

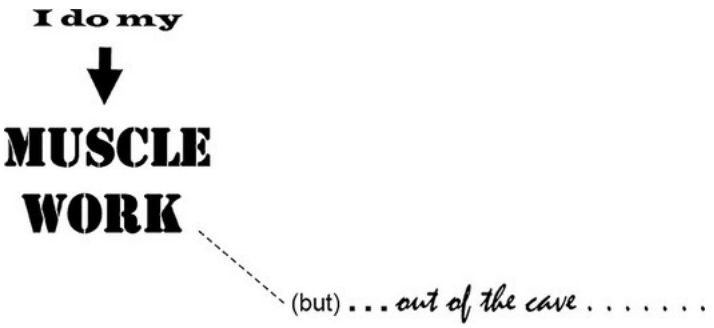

Figure 4.4 An arts-based model of interrelationship

And now, write what's going through my mind. Synthesize these analytic exercises into a more coherent narrative ….

This is the way my mind works when I code and analyze qualitative data before the formal write-up. It is a combination of experiential methods recall (i.e., what has worked for me in the past) with improvised analytic heuristics (i.e., methods of discovery I employ *as* I analyze the data). Different coding methods such as Process Coding, Dramaturgical Coding, etc., employ different thinking strategies, especially when the research study is framed with a particular set of research questions. See Locke, Feldman, and Golden-Biddle (2020) for a content analysis of coding procedures documented in selected qualitative studies.

Remember that *coding is in service to thinking*. Codes are symbolic prompts or triggers for deeper meanings the data may evoke during analytic reflection.

OVERVIEW OF FIRST CYCLE METHODS

First cycle coding methods are organized into seven broad subcategories, but remember that several of these individual methods overlap slightly and can be compatibly "mixed and matched" or Eclectically Coded for application in one particular study. For example, the coding of an interview transcript might employ an amalgam of In Vivo, Emotion, Values, and Dramaturgical Coding. As another example, a single code can be both Conceptual *and* Holistic for qualitative metasynthesis (see Chapter 11).

Grammatical Coding Methods (Chapter 5) enhance the organization, nuances, and texture of qualitative data. *Elemental Coding Methods* (Chapter 6) consist of foundation approaches to coding qualitative texts. *Affective Coding Methods* (Chapter 7) investigate participant emotions, values, and other subjective qualities of human experience. *Literary and Language Coding Methods* (Chapter 8) draw on aspects of written and oral communication for codes. *Exploratory Coding Methods* (Chapter 9) permit open-ended investigation, while *Procedural Coding Methods* (Chapter 10), for lack of a better term, "standardize" ways to code data. The final section on *Methods of Themeing the Data* (Chapter 11) acknowledges that extended passages in the form of sentences can also capture the essence and essentials of participant meanings.

THE CODING METHODS PROFILES

Each coding method profiled in the manual follows a comparable format.

Sources

Credit is given here to those writers whose works provide information or inspiration for the coding method. The authors' titles can be found in the References section of the manual. A listing does not always mean that the source contains further information about the particular coding procedure. In a few cases, a reference may have utilized or described the theoretical or methodological foundations for a particular code without necessarily outlining procedures for applying it.

Description

A short description of the code and its function is provided. Somewhat complex coding methods include an extended discussion for clarification. Also see Appendix A for a more condensed review of the method and its applications.

Applications

The general purpose and projected outcome of the coding method are briefly described here. A description of possible studies that might (not must) incorporate the coding method is also provided. These recommendations may include particular research methodologies (e.g., grounded theory, narrative inquiry), disciplines (e.g., education, communication), outcomes (e.g., generating a list of themes, learning about participant agency), and appropriateness (e.g., a coding method better suited for interview transcripts rather than field notes).

Example

Excerpts of varying length from field notes, interview transcripts, and documents provide material for coding demonstrations. All authentic data included were collected from independent or class research projects approved by my university's Institutional Review Board (which included participants' permission to publish collected data), previously published research, outdoor public observations, and public documents. Pseudonyms replace actual participant names, and the settings have been changed to protect participant confidentiality. A few examples are fictional data composed solely for illustrative purposes. The content ranges from the mundane to the explicit and covers a number of subject areas (e.g., teaching, human development, health care, workplace organization, interpersonal relationships). Most examples are deliberately brief and straightforward to assist with comprehension.

As you have seen thus far, codes are presented in capital letters in the right-hand margin next to the data with superscript numbers linking the data excerpt to its specific code:

Code example 4.5

Driving west along the highway's access road and up Main St. to Wildpass Rd. there were [1] abandoned warehouse buildings in disrepair, [2] spray painted gang graffiti on walls of several occupied and unoccupied buildings. I passed a [3] Salvation Army Thrift Store, Napa Auto Parts store, a tire manufacturing plant, old houses in-between industrial sites, an auto glass store, Market/Liquors, Budget Tire, a check cashing service. [4] More spray paint was on the walls.	[1] buildings [2] graffiti [3] businesses [4] graffiti

This visual strategy is intended as an easy "at a glance" manual reference, but your own coding process does not have to follow this system. If you work on hard copy (highly recommended for first-time and small-scale qualitative research projects), you can circle, underline, or highlight a passage of data and connect it with a line to your penciled code written in the margin. If you use CAQDAS (highly recommended for large-scale, long-term, and team-based qualitative research projects), employ its prescribed methods for selecting the text and type in or select from the evolving menu its accompanying code. Word or Excel software can also suffice for basic code entries to modest amounts of qualitative data. Excel works particularly well for small-scale mixed methods studies such as surveys and evaluations.

Keep in mind that no two qualitative researchers think and, most likely, code alike. Your ideas for codes may be different—even better—than the ones I present in the examples. It is all right if you interpret the data differently than me. I tend to code as a "splitter" (see Chapter 2) and thus my codes are somewhat numerous and detailed.

Analysis

Depending on the method, some examples merit a brief discussion of the consequent analysis after coding. This section presents the possible directions researchers might progress toward, recommendations for extended data analysis, and cautionary advice. Again, the cited sources will provide a more thorough discussion of what follows the particular coding process.

A list of recommended (not mandated or all-inclusive) analytic and representational strategies for further consideration is included in this section, and suggests such modalities as: research methodologies (e.g., phenomenology, narrative inquiry), analytic methods (e.g., frequency counts, content analysis), graphic representations (e.g., matrices, displays), next cycle coding processes, and others. The References will provide excellent detailed methods for enhancing your qualitative work. See Appendix B for a glossary of these analytic recommendations.

Notes

Concluding or supplemental comments about the coding method are provided in this section.

5 GRAMMATICAL CODING METHODS

Chapter Summary

Grammatical coding methods refer not to the grammar of language but to the basic grammatical principles of a technique.

Attribute Coding logs essential information about the data and demographic characteristics of the participants for future management and reference. Virtually all qualitative studies will employ some form of Attribute Coding.

Magnitude Coding applies alphanumeric or symbolic codes and/or subcodes to data, when needed, to describe their variable characteristics such as intensity or frequency. Magnitude Codes add adjectival or statistical texture to qualitative data and assist with mixed methods or quantitative studies.

Subcoding assigns a second-order tag after a primary code to detail or enrich the entry. The method is appropriate when general code entries will later require more extensive indexing, categorizing, and subcategorizing into hierarchies or taxonomies, or for nuanced qualitative data analysis.

Simultaneous Coding occurs when two or more codes are applied to or overlap with a qualitative datum to detail its complexity. CAQDAS lends itself well to this method since the programs can display and manage multiple code assignments simultaneously.

ATTRIBUTE CODING

Sources

Bazeley, 2003; DeWalt & DeWalt, 2011; Gibbs, 2002; Lofland et al., 2006

Description

Richards (2015) refers to this type of coding grammar as “Descriptive Coding,” but that term will be used in a different context in this manual. Also, Bogdan and Biklen (2007) classify this type of coding grammar as “Setting/Context Codes,” with Kuckartz (2014) labeling it “Socio-demographic Coding,” and other sources labeling it “Mechanical Coding” and “Descriptors.” Attribute Coding is chosen as the term for this manual to harmonize with selected CAQDAS program syntax.

Attribute Coding is the notation, usually at the beginning of a data set rather than embedded within it, of basic descriptive information such as: the fieldwork setting (e.g., school name, city, country), participant characteristics or demographics (e.g., age, gender, race/ethnicity, health status), data format (e.g., interview transcript, field note, document), time frame (e.g., 2020, May 2019, 8:00–10:00 a.m.), and other variables of interest for qualitative and some applications of quantitative analysis. CAQDAS programs enable you to enter Attribute Codes for data sets in related files.

Applications

Attribute Coding is appropriate for virtually all qualitative studies, but particularly for those with multiple participants and sites, studies in which participant demographics play a key role, and studies with a wide variety of data forms (e.g., interview transcripts, field notes, journals, documents, diaries, correspondence, artifacts, video). Friese (2014, p. 53) cleverly recommends that even digital file names contain attribute descriptors such as gender, occupation, age, date of interview, and so on, for easier classification and retrieval. The interview file of a 22-year-old male restaurant server might be labeled: M-SERVER-22-MAY 29 2014.docx.

Attribute Coding is good qualitative data management and provides essential participant information and contexts for analysis and interpretation. Mason (1994) calls this process giving data various "addresses" for easy location within the corpus. Lofland et al. (2006) recommend that "folk/setting-specific" information be included as codes that identify the types of activities and behaviors that appear in the data set for future categorization and explorations of interrelationship. Altheide and Schneider (2013) prescribe documenting the generic attributes of media for analysis, such as a news story's medium (newspaper, magazine, Internet site, TV (live, video-tape, local, national), etc.), date of broadcast/print, length of report, title, main topic, themes, and so on.

Examples

Any data set might include the following sample Attribute Codes and descriptors for each participant in a standardized format established by the researcher:

PARTICIPANT (PSEUDONYM): BARRY

AGE: 18

GRADE LEVEL: 12

GPA (Grade Point Average): 3.84

GENDER: MALE

ETHNICITY: WHITE

SEXUAL ORIENTATION: HETEROSEXUAL

SOCIAL CLASS: LOWER-MIDDLE

RELIGION: METHODIST

DATA FORMAT: INTERVIEW 4 OF 5

TIME FRAME: MARCH 2018

A set of participant observation field notes might include these types of Attribute Codes:

PARTICIPANTS: 5TH GRADE CHILDREN

DATA FORMAT: P.O. FIELD NOTES / SET 14 OF 22

SITE: WILSON ELEMENTARY SCHOOL, PLAYGROUND

DATE: 6 OCTOBER 2014

TIME: 11:45 a.m. – 12:05 p.m.

ACTIVITIES INDEX [a list of the field notes' major contents]:

RECESS

BOYS PLAYING SOCCER

BOYS ARGUING

GIRLS IN CONVERSATION

GIRLS PLAYING FOUR-SQUARE

TEACHER MONITORING

DISCIPLINE

Analysis

CAQDAS programs can maintain and link Attribute Codes (which in programming language may be called Attributes, Properties, Values, etc.) with data and provide the researcher opportunities to query and compare first and second cycle coded data in tables and matrices by such demographic variables as age, grade level, gender, race/ethnicity, religion, geographic location, and others. Unanticipated patterns of interrelationship (i.e., correlation), influences and affects (i.e., causation), cultural themes, and longitudinal trends may emerge from the systematic investigation of data or even hunch-driven queries according to selected characteristic combinations of interest (Bazeley, 2003). Quantitative transformation of selected Attribute Codes is also possible to analyze them as nominal data and their possible correlations with other data sets (e.g., attribute absent = 0, attribute present = 1; for gender coding, male = 1, female = 2).

Rubin and Rubin (2012) advise that seemingly mundane attribute references *within* the data themselves, such as dates, time frames, and the names of people and programs, can be coded as events or topical markers that may reveal organizational, hierarchical, or chronological flows from the data, especially if multiple participants with differing perspectives are involved. You might also consider intriguing role attributes to selected participant types such as survivor, martyr, victim, and so on; or relationship attributes such as mentorship, strained father–son, idol worship, and so on.

Attribute Coding is intended as a *coding grammar*, a way of documenting descriptive "cover" information about participants, the site, and other related components of the study.

Some recommended ways to further analyze Attribute Codes are (see Appendix B):

- case studies (Merriam, 1998; Stake, 1995)
- content analysis (Krippendorff, 2013; Neuendorf, 2017; Schreier, 2012; Wilkinson & Birmingham, 2003)
- cross-cultural content analysis (Bernard, 2018)
- frequency counts (LeCompte & Schensul, 2013)
- graph-theoretic techniques for semantic network analysis (Namey, Guest, Thairu, & Johnson, 2008)
- illustrative charts, matrices, diagrams (Evergreen, 2020; Miles et al., 2020; Morgan, Fellows, & Guevara, 2008; Northcutt & McCoy, 2004; Paulston, 2000)
- longitudinal qualitative research (Giele & Elder, 1998; McLeod & Thomson, 2009; Saldaña, 2003, 2008)
- mixed methods research (Creamer, 2018; Creswell, 2014; Creswell & Plano Clark, 2018; Tashakkori & Teddlie, 2010)
- qualitative evaluation research (Patton, 2008, 2015)
- social media analysis (Kozinets, 2020; Paulus & Wise, 2019; Rogers, 2019; Salmons, 2016)
- survey research (Fowler, 2014; Wilkinson & Birmingham, 2003)
- within-case and cross-case displays (Miles et al., 2020; Shkedi, 2005).

Notes

Educational qualitative studies (e.g., Greig, Taylor, & MacKay, 2013) should make concerted efforts to separate and compare boys' and girls' data. For example, recent research in brain-based learning suggests marked differences between the ways children of both genders process information. Multicultural/multiethnic studies and projects in critical race theory could also separate and compare data gathered from participants of different racial/ethnic backgrounds. See Rebekah Nathan's (2005) ethnography, *My Freshman Year*, for an example of how Attribute Coding of university students by gender and race/ethnicity enabled her to observe how their on-campus dining patterns countered the school's goals of achieving "community and diversity" (pp. 61–6, 171–2).

MAGNITUDE CODING

Sources

Miles et al., 2020; Weston et al., 2001

Description

Magnitude Coding has also been termed “value coding,” but that term will be used in a different context in this manual.

Magnitude Coding consists of and adds a supplemental alphanumeric or symbolic code or subcode (sometimes called a “tag”) to an existing coded datum or category to indicate its intensity, frequency, direction, presence, or evaluative content. Salmona, Lieber, and Kaczynski (2020) offer that code ratings and weights can supplement a qualitative datum to provide a numeric dimension for quality, strength, depth, perceived importance, sentiment, salience, beauty, and value (pp. 77, 122). Magnitude Codes can be qualitative, quantitative, and/or nominal or ordinal indicators to enhance description.

Applications

Magnitude Coding is appropriate for descriptive qualitative studies that include basic statistical information such as frequencies or percentages, and for qualitative studies in education, social science, and health care that also support quantitative measures as evidence of outcomes. Sentiment analysis or opinion mining, which examines positive, negative, and neutral perspectives in social media texts, might adopt Magnitude Coding as a qualitative notation system (Liu, 2015). Przybylski (2021, pp. 80–81) considers selected facets of social media texts such as capitalization, punctuation, abbreviations, spelling, sentence length, colloquialisms, links, special characters, and emojis as data worthy of analysis. Magnitude Coding can notate these facets if relevant to the study. Quantitative meta-analyses, or qualitative metasummaries and metasyntheses, can employ Magnitude Coding for comparing treatment effects or impact of findings across different studies.

Some researchers may wish to transform their qualitative data and/or codes into quantitative representations for statistical analysis. This may be applicable for content analytic studies, mixed methods studies, and field experiments that wish to test for differences between treatment and second-site (i.e., control) groups. Magnitude Coding could serve as one way of transforming or "quantitizing" qualitative data. Significant frequency or evaluative differences between a set of major codes from two groups can be assessed, for example, through the *t*-test (for larger samples) or the nonparametric chi-square or Mann–Whitney *U*-tests (for smaller samples).

It is very difficult to sidestep quantitative representation and suggestions of magnitude in any qualitative research study—"quasi-statistics" as Weaver-Hightower (2019, pp. 116, 139) labels these word types. Phrases such as "*most* participants," "happened *often*," or "*extremely* important" *might* appear *frequently* in our work. Such descriptors are not a liability, but instead an asset to enhance the "approximate accuracy" and texture of the prose.

Some methodologists object to combining qualitative and quantitative applications. Mixed methods research, however, is a method gaining currency in inquiry. Magnitude Coding is supplemental shorthand to add texture to codes, subcodes, and categories. Sometimes words say it best; sometimes numbers do; and sometimes both can work in concert to compose a richer answer and corroborate each other.

Examples

Magnitude Codes can consist of words or abbreviations that suggest intensity or prominence:

STR = Strongly

MOD = Moderately

NO = No Opinion

LOP = Low Pain Level

HIP = High Pain Level

or words or abbreviations that suggest frequency:

O = Often

S = Somewhat

N = Not at all

Magnitude Codes can consist of numbers in lieu of descriptive words to indicate intensity or frequency, as well as such continua as weight or importance:

3 = High

2 = Medium

1 = Low

0 = None or N/A

47 INS = 47 Instances

16 EXC = 16 Exchanges

87%

Fielding (2008) recommends that coding can suggest “direction” of a particular process, phenomenon, or concept:

+SI = Positive Self-Image

-SI = Negative Self-Image

Magnitude Codes can also suggest direction through symbols representing conceptual ideas or opinions. Evergreen (2018) labels these symbols “judgmental icons” (p. 58) since they assign an evaluation to what is coded:

← = Back to Basics Education

→ = Progressive Educational Change

↓ = Maintain Status Quo in Schools

↔ = Mixed Recommendations for Education

Magnitude Codes can apply symbols or judgmental icons to indicate the presence or absence of something within a category:

+ = Present

Ø = Absent

? = Unknown or Unclear

Y = Yes

N = No

M = Maybe

Magnitude Codes can consist of words or numbers that suggest evaluative content:

POS = Positive

NEG = Negative

NEU = Neutral

MIX = Mixed

And, Magnitude Codes can employ rich text and font features (when possible with your software) for visual emphasis and evaluative judgment:

Code example 5.1

CRITICAL!

SUPERFLUOUS ACTIVITY

clinical depression...

UNYIELDING

In the example below, a patient describes the differences between and merits of his primary care and sleep medicine physicians. Descriptive Coding indicates the subjects he addresses about each of them, and the numeric ratings added afterward are the researcher's interpretation of the quality of care received. The rating system used for this example of Magnitude Coding is:

3 = High Quality

2 = Satisfactory Quality

1 = Low Quality

[blank] = No Evaluative Comment

Interview words and phrases that suggest and support the assigned ratings have been bolded for reference:

Code example 5.2

[1] Dr Lucas-Smith's office, she's my main doctor, is **very organized**, the receptionists are **friendly** and the nursing staff acts **very professionally.** [2] But Dr Johnson's office staff seems like interns **in training—and** ***bad*** ones, at that. Sometimes you feel like they **haven't got a clue** about what's going on, you know?	[1] dr ls staff: 3 [2] dr j staff: 1
Now, [3] Dr Lucas-Smith is a bit **cold**, maybe ***too*** **"professional,"** but [4] she's relatively fresh out of med school so her **knowledge is state-of-the-art.** That's what **I like** about her: she was **able to clear up** two health problems of mine—a cyst under my left arm and a superficial blood clot on my leg—that previous doctors didn't know what to do about.	[3] dr ls decorum: 2 [4] dr ls expertise: 3
Dr Johnson is kind of old-school but [5] he **knows his stuff.** [6] My office visits with him are **OK** but [7] he does **so much small-talk** that I wanna tell him, "Just treat me so I can get outta here, I've already been waiting an hour for you."	[5] dr j expertise: 3 [6] dr j decorum: 2 [7] dr j wait time: 1
[8] With Dr Lucas-Smith, it's **efficient**—in and outta there, probably because she's so **popular** and has **lots of patients** she needs to see. You **don't feel rushed**, but you do feel like you're **there for a purpose**, so let's get to it.	[8] dr ls wait time: 3

Analysis

Magnitude Codes can be placed in a summary table or matrix for "at a glance" analysis (see Figure 5.1).

DR QUALITY:	DR LS	DR J
STAFF	3	1
DECORUM	2	2
EXPERTISE	3	3
WAIT TIME	3	1
TOTALS	11	7

Figure 5.1 Magnitude Codes in a summary table

CAQDAS programs and Microsoft Excel can generate selected statistics culled from Magnitude Codes. Selected programs, for example, permit you to see your assigned "weight" of a coded segment of text or a code itself in comparison to others, providing another measure of magnitude for analysis. Excel includes calculation functions for both descriptive and inferential statistics such as the mean, *t*-test, and chi-square distributions. And Wheeldon and Åhlberg (2012, pp. 138–42) offer the "salience score" as a mixed methods statistic for recording the frequency or presence of individual variables throughout data collection, ranging from 0 (not salient) to 9 (extremely salient).

Grounded theory coding methods recommend the search for a property's or category's *dimensions* such as the variability of intensity and frequency. Magnitude Codes can be used as subcodes during first cycle stages to tentatively plot the ranges observed in the data for these dimensions. In the coding example above, the doctors' degrees of professionalism can range from 1 (low quality) to 3 (high quality). Later coding cycles will shift the emphasis away from specific people and onto abstract concepts. Thus, professionalism becomes the new coded property with its dimensions ranging from "low" to "high" or, using In Vivo Code language, from "old school" to "state-of-the-art."

Numbers and words, or quantities and qualities, can sometimes work in conjunction rather than opposition. There were occasions when I needed to visit an urgent care facility for health matters, and was asked by nurses during my initial examinations: "On a scale of *one* to *ten*, how much pain are you in, with *one* being 'none at all,' to *ten* being 'extremely agonizing' pain?" My self-reported number—a quantitative indicator—to the nurse informed her of my perception of discomfort/quality with my body, and suggested to her the most appropriate action to take. The culturally constructed "1 to 10 scale" uses a finite range of numbers to express the magnitude of a quality. It is interesting to observe how most people, when a number such as "3" or "8" is uttered on a scale of 1 to 10, seem to share a tacit understanding about the inferred quality suggested by that number.

Miles et al. (2020) illustrate various ways of quantitizing qualitative evaluation through rubric-based codes that can be compatibly transferred and applied to quantitative data and statistical results. A qualitizing rating/ranking/positioning system like the examples below can be applied to both qualitative and quantitative data to assess their comparability. The method is an adaptation of Magnitude Coding and assigns to a range of data a continuum of researcher observations and judgments such as:

Quantities

- MINOR, MODERATE, MAJOR
- A LITTLE, IT DEPENDS, A LOT
- NIL, UNCERTAIN, LOW, HIGH
- NOT APPLICABLE, MISSING DATA, INCOMPLETE DATA, DATA COMPLETE

Evaluative Qualities

- POOR, MODERATE, GOOD
- UNFAVORABLE, NEUTRAL, FAVORABLE
- MISSING, WEAK, ADEQUATE, STRONG
- INEFFECTIVE (−), MIXED EFFECTIVE (±), EFFECTIVE (+), VERY EFFECTIVE (++)

Change

- DROPPED, REVISED, ADDED / CREATED
- NOT PERTINENT (1), PERTINENT, BUT NOT IMPORTANT IN CAUSING CURRENT SITUATION (2), IMPORTANT FACTOR IN CAUSING CURRENT SITUATION (3)
- ANTECEDENT CONDITION(S), MEDIATING VARIABLE(S), OUTCOME(S)

Effects

- NEGATIVE EFFECTS, POSITIVE EFFECTS
- WEAK INFLUENCE, STRONG INFLUENCE, RECIPROCAL INFLUENCE
- NOT IMPORTANT, SOMEWHAT IMPORTANT, QUITE IMPORTANT, VERY IMPORTANT
- NO IMPACT, LITTLE TO NO IMPACT, SOME IMPACT / IMPACTS IN COMBINATION, HIGH IMPACT, VERY HIGH IMPACT

Magnitude Coding is intended as a *coding grammar*, a way of “quantitizing” and/or “qualitizing” a phenomenon’s intensity, frequency, direction, presence, or evaluative content (Tashakkori & Teddlie, 1998). It is most often refinement or specification of a code

during first cycle coding methods but can also be applied during second cycle coding for assessing variability and dimensions of a code, subcode, or category. The CAQDAS program Dedoose is just one of several that enables the application of numeric ratings and weights to qualitative data.

Some recommended ways to further analyze Magnitude Codes are (see Appendix B):

- Hypothesis Coding and Pattern Coding
- assertion development (Erickson, 1986)
- content analysis (Krippendorff, 2013; Neuendorf, 2017; Schreier, 2012; Wilkinson & Birmingham, 2003)
- data matrices for univariate, bivariate, and multivariate analysis (Bernard, 2018)
- descriptive statistical analysis (Bernard, 2018)
- frequency counts (LeCompte & Schensul, 2013)
- graph-theoretic techniques for semantic network analysis (Namey et al., 2008)
- illustrative charts, matrices, diagrams (Evergreen, 2020; Miles et al., 2020; Morgan et al., 2008; Northcutt & McCoy, 2004; Paulston, 2000; Wheeldon & Åhlberg, 2012)
- longitudinal qualitative research (Giele & Elder, 1998; McLeod & Thomson, 2009; Saldaña, 2003, 2008)
- mixed methods research (Creamer, 2018; Creswell, 2014; Creswell & Plano Clark, 2018; Tashakkori & Teddlie, 2010)
- qualitative evaluation research (Patton, 2008, 2015)
- quick ethnography (Handwerker, 2001)
- sentiment analysis (Ignatow & Mihalcea, 2017; Liu, 2015)
- social media analysis (Kozinets, 2020; Paulus & Wise, 2019; Rogers, 2019; Salmons, 2016)
- splitting, splicing, and linking data (Dey, 1993)
- survey research (Fowler, 2014; Wilkinson & Birmingham, 2003)
- within-case and cross-case displays (Miles et al., 2020; Shkedi, 2005).

Notes

Magnitude Codes can be applied to Values, Emotion, Hypothesis, and Evaluation Codes that may contain continua of intensity, frequency, direction, presence, and/or evaluative content. Faherty (2010), for example, differentiates between the codes anger1 and anger2 as *mild* anger and *extreme* anger, respectively (p. 63).

SUBCODING

Sources

Gibbs, 2018; Miles et al., 2020

Description

The methods literature uses various terms when referring to a primary code tagged with another: “embedded coding,” “nested coding,” “secondary coding,” “joint coding,” “prefix coding,” etc. Subcoding, as the most frequent term, will be used in this manual.

A subcode is a second-order tag assigned after a primary code to detail or enrich the entry, depending on the volume of data you have or specificity you may need for categorization and data analysis. Gibbs (2018) explains that the most general code is called the “parent” while its subcodes are the “children”; subcodes that share the same parent are “siblings” in a hierarchy (p. 103).

Applications

Subcoding is appropriate for virtually all qualitative studies, but particularly for ethnographies and content analyses, studies with multiple participants and sites, and studies with a wide variety of data forms (e.g., interview transcripts, field notes, journals, documents, diaries, correspondence, artifacts, video). Subcoding is also appropriate when general code entries will later require more extensive indexing, categorizing, and subcategorizing into hierarchies or taxonomies, or for nuanced qualitative data analysis as a "splitter" rather than "lumper" (see Chapter 2). Harding (2019) utilizes participant pseudonyms as subcodes and sub-subcodes to help him keep track of separate focus group members' contributions and of individual participants from a multiple-case study—for example, peer review limited by time: thomas; motivation to teach well: rachel.

Subcoding could be employed after an initial yet general coding scheme has been applied (such as Holistic Coding) and the researcher realizes that the classification scheme may have been too broad. For example, data first coded as schools could be later subcoded into schools - classrooms, schools - playgrounds, schools - cafeterias, schools - front offices, etc. Subcodes might also be added to primary codes if the analyst has noticed particular emergent qualities or interrelationships such as: schools - failing, schools - businesslike, schools - autonomous, schools - a+. Gibbs (2018) adds that subcodes are not just noun-based subcategories but have a *relationship* to the parent code. For example, a subcode might consist of explanations, consequences, reasons, attitudes, strategies, durations, and other concepts (p. 104).

Example

An ethnographer's field notes describe an urban, lower-income neighborhood in a large metropolitan area. The italicized "OC" sections in these notes are observer's comments (Bogdan & Biklen, 2007, pp. 163–4), subjective impressions or memos embedded within the factual description, which also merit consideration for codes and subcodes. Major things for observation thus far have included residents, businesses, and graffiti, but this portion of notes focuses on houses (a simple Descriptive Code which functions as the parent code) with attached subcodes (children) that detail the primary code:

Code example 5.3

[1] Some houses, because of their disrepair, look abandoned. But the things seen through the window and in the yard clue you that someone still lives there. [2] One house has a picture portrait of Jesus and a cross on its front wall. I notice TV antennas on several roofs.	[1] houses – disrepair [2] houses – décor
OC: [3] No cable TV—a luxury; can't afford it; not a priority.	[3] houses – economics
[4] Laundry hangs in the back yards of several homes on a clothesline. [5] There's a house with a small statue of the Virgin Mary in front, [6] "Beware of the Dog/*Perro*" signs. [7] Desk chairs, worn upholstered furniture are in the front yards of some homes.	[4] houses – yards [5] houses – décor [6] houses – security [7] houses – yards
OC: [8] It's all we've got.	[8] houses – economics

Analysis

Later data retrieval will collect everything coded with houses into a general category, and more specific subcategories can be composed with the subcodes. Thus, everything subcoded with *yards* will be reassembled into one bin, *décor* into another, etc. These contents may be organized even further, if needed, to enable finer-grained analysis of the data corpus. The subcodes for data coded houses might be collected and ordered thusly, which could even serve as an outline for a written ethnographic account of the topic (see Descriptive Coding):

I HOUSES

A ECONOMICS

1 YEARS BUILT

2 DISREPAIR

3 AVAILABLE UTILITIES

B DÉCOR

1 OUTDOOR SURFACES

2 ART WORK

3 RELIGIOUS ARTIFACTS

C YARDS

1 FRONT YARDS

2 SIDE AND BACK YARDS

D SECURITY

1 FENCES AND GATES

2 SIGNAGE

3 DOGS

Subcoding is intended as a *coding grammar*, a way of initially detailing and organizing data into preliminary categories, subcategories, hierarchies, taxonomies, and indexes.

Some recommended ways to further analyze subcodes are (see Appendix B):

- content analysis (Krippendorff, 2013; Neuendorf, 2017; Schreier, 2012; Wilkinson & Birmingham, 2003)
- cross-cultural content analysis (Bernard, 2018)
- descriptive statistical analysis (Bernard, 2018)
- domain and taxonomic analysis (Schensul, Schensul, & LeCompte, 1999b; Spradley, 1979, 1980)
- frequency counts (LeCompte & Schensul, 2013)
- interrelationship (Saldaña, 2003)
- qualitative evaluation research (Patton, 2008, 2015)
- splitting, splicing, and linking data (Dey, 1993)
- within-case and cross-case displays (Miles et al., 2020; Shkedi, 2005).

Notes

Use Subcoding only when detailed data analysis or indexing is necessary. It may be confounding for first-time ventures of manual (hard-copy) coding, but very easy for CAQDAS programs to log and later retrieve. For additional examples of Subcoding, see the profiles for Magnitude, Initial, Evaluation, Protocol, OCM (Outline of Cultural Materials), Domain and Taxonomic, and Longitudinal Coding. See Code Landscaping in Chapter 12 for a method of manually organizing codes, subcodes, and sub-subcodes into categories based on frequency.

Subcoding differs from Simultaneous Coding. A subcode relates directly to its primary code (e.g., houses–disrepair), while Simultaneous Codes—two or more significant codes assigned to the same datum—may differ in inferential meaning (e.g., houses and poverty).

SIMULTANEOUS CODING

Source

Miles et al., 2020

Description

The methods literature uses various terms when referring to two or more codes applied to the same passage or sequential passages of text: “simultaneous coding,” “double coding,” “co-occurrence coding,” “multiple coding,” “overlap coding,” “embedded coding,” “nested coding,” “parallel coding,” etc. Simultaneous Coding, as the simpler term, will be used in this manual.

Simultaneous Coding applies two or more different codes to a single qualitative datum, or the overlapped occurrence of two or more codes applied to sequential units of qualitative data.

Applications

Simultaneous Coding is appropriate when the content of the data suggests multiple meanings that necessitate and justify more than one code since complex “social interaction does not occur in neat, isolated units” (Glesne, 2011, p. 192). Simultaneous Coding can be justified if a data segment is both descriptively and inferentially meaningful, or if the analyst interprets both manifest (apparent) and latent (underlying) meanings. Yet, be aware that some may attribute indecisiveness on the researcher’s part if Simultaneous Coding is used excessively. This may also suggest that there is no clear or focused research purpose and thus a clear lens, filter, and angle for analyzing the data. If Simultaneous Coding is used, justify the rationale for its use.

Examples

A public school teacher is interviewed on how holding an advanced graduate degree affects her salary. Her Master of Fine Arts (MFA) required 30 more credit hours than a Master of Arts (MA), yet the district does not acknowledge the legitimacy of her degree. In this first example, note how *the entire unit* merits two codes because the researcher perceives two separate issues at work within the teacher's story. Another code is applied later that refers to the "cultural shock and adaptation" processes employed for the study's conceptual framework. This code *overlaps* with the two major unit codes:

Code example 5.4

I: Did completing your MFA degree affect your pay scale or status of employment?	
NANCY: [1a & 1b] Not one bit. But I fought. I wrote a couple of letters to the district human resources director explaining that I have an MFA which is 60 credit hours, and they stipulated an *MA* degree for a pay raise. And my degree was like getting 30 more credit hours of schooling which would be the "Master's plus 24," which is the next pay line. And we went over it and over it and she wouldn't give me the extra pay raise. And then I explained that I have 96 graduate credit hours now, so I have far above the 30 credit hours for a master's, and they still wouldn't give it to me. And so it's kind of a moot issue, they just won't do it.	[1a] inequity [1b] school district bureaucracy
I: Are you going to continue to pursue it or just …	
NANCY: [2] No, I'm going to let it be because I know I won't win like that, you know? I just know it. Um, so I'm just gonna drop it and I probably won't reach the "Master's plus 24" while I'm here because that's like a whole 'nother degree for me. So I'll just stick to what I'm at right now.	[2] acculturation

As a second example from field notes, a school fundraising event is described. The *entire unit* is assigned the descriptive Process Code fundraising, but within this unit there are four separate yet related Process Codes that identify the actions at work. These could be perceived in this particular example as *nested codes* within the primary *hierarchical code*:

Code example 5.5

Today is Valentine's Day and flowers can be seen carried by students and teachers through the hallways. Nancy is dressed in a red sweater top, blue jean shorts, and red glittered earrings.	
[1] At 8:00 a.m. I enter Nancy's classroom. A very large cardboard box and two plastic tubs with carnations are by the platform. Nancy tells a student, "Aren't they pretty this year? They're prettier than last year." The flowers cost $150 and the goal is to make $150 profit on them. Nancy drove to a mall floral shop yesterday to get them.	[1] fundraising

[1a] She tells three girls who take flowers to sell, “OK, one dollar apiece, guys. And I don’t have any change, guys. [1b] We’re gonna have so much fun today.” The girls leave with the flowers. Nancy goes into the hall and says to a student, [1c] “Hey Mike, how are you? … They’re gonna sell them in the cafeteria. … Yeah, they’re in there now.”	[1a] delegating [1b] motivating [1c] promoting
[1d] Two junior high students come in and look at the flowers. Boy: “Do you want one, Elena?” Elena: “Yeah.” Boy: “What color?” Elena: “Red.” The Boy gives Nancy a dollar, waves the flower above Elena’s head and says laughingly, “Here, here!”	[1d] transacting

Analysis

The first example above displays a case that occasionally occurs in qualitative data when the richness or complexity of an event or participant's story makes it difficult for a researcher to assign only one major code to the datum. And if the researcher's focus for the study includes several areas of interest, and if a single datum captures or illustrates points related to more than one of those areas, Simultaneous Coding can be applied. The method also serves as a means of investigating interrelationship. If passages coded inequity are consistently coupled with such codes as school district bureaucracy, staff authority, principal's leadership, and acculturation, emergent patterns can be explored and tested.

The second example (fundraising) shows how a particular coded phenomenon or process can be broken down into its constituent elements through Simultaneous Coding. Such detail work might support and lead to Process Coding, Domain and Taxonomic Coding, or Causation Coding. This type of coding may also help you see both "the bigger picture" and "the trees in the forest" at work in the data.

Logistically, Simultaneous Coding should be used sparingly if there are massive amounts of data and especially if they will be coded manually. CAQDAS programs are better equipped to manage extensive Simultaneous Coding. Van de Ven and Poole (1995) transformed coded qualitative data into quantitative dichotomous variables for longitudinal statistical analysis, but they first layered a "track" of up to five different codes for a single key incident across time. Qualitative codes on this track consisted of such items as the people involved with the incident, their relationships within their organization, and an assessment of their outcomes. The coding was not only simultaneous but also *multidimensional*. CAQDAS programs such as NVivo can apply multiple codes to the same passage of text, which later enables the software to process "intersections"—the generation of associations, links, and matrices (Jackson & Bazeley, 2019).

Simultaneous Coding is intended as a *coding grammar*, a way of applying multiple codes and/or coding methods, if and when needed, to complex passages of qualitative data.

Some recommended ways to further analyze Simultaneous Codes are (see Appendix B):

- content analysis (Krippendorff, 2013; Neuendorf, 2017; Schreier, 2012; Wilkinson & Birmingham, 2003)
- graph-theoretic techniques for semantic network analysis (Namey et al., 2008)
- illustrative charts, matrices, diagrams (Evergreen, 2020; Miles et al., 2020; Morgan et al., 2008; Northcutt & McCoy, 2004; Paulston, 2000; Wheeldon & Åhlberg, 2012)
- interrelationship (Saldaña, 2003)
- situational analysis (Clarke, Friese, & Washburn, 2015a, 2018)
- splitting, splicing, and linking data (Dey, 1993).

Notes

Simultaneous Coding differs from Subcoding. A subcode relates directly to its primary code (e.g., houses – disrepair), while Simultaneous Codes may differ in assigned meaning (e.g., houses and poverty).

6 ELEMENTAL CODING METHODS

Chapter Summary

Elemental coding methods are primary approaches to qualitative data analysis. They have basic but focused filters for reviewing the corpus and they build a foundation for future coding cycles.

Structural Coding applies a content-based or conceptual phrase representing a topic of inquiry to a segment of data to both code and categorize the data corpus. Structural Codes are generally foundation work for further detailed coding.

Descriptive Coding assigns basic labels to data to provide an inventory of their topics. The method is perhaps more suitable for non-interview data.

In Vivo Coding and *Process Coding* are foundation methods for grounded theory, though they are applicable to other analytic approaches. In Vivo Coding draws from the participant's own language for codes. Process Coding uses gerunds exclusively for codes. These techniques are employed in other grounded theory methods: Initial, Focused, Axial, and Theoretical Coding.

Initial Coding is the first major stage of a grounded theory approach to the data. The method both codes and categorizes a researcher's first review of the corpus, and can incorporate In Vivo and Process Coding.

Concept Coding extracts and labels "big picture" ideas suggested by the data. Though several other first and second cycle coding methods can also generate concept codes, the profile illustrates how the approach can be used as a stand-alone method.

STRUCTURAL CODING

Sources

Guest et al., 2012; MacQueen et al., 2008; Namey et al., 2008

Description

Colloquial terms for this method are “anchor coding,” “utilitarian coding,” “index coding,” “referential coding,” and “macro-coding,” referring to its categorization functions. In this manual, Structural Coding will be the term used since its sources have labeled it as such.

Structural Coding applies a content-based or conceptual phrase representing a topic of inquiry to a larger segment of data that relates to a specific research question used to frame the interview (MacQueen et al., 2008, p. 124). The similarly coded segments are then collected together for more detailed coding and/or analysis.

Applications

Structural Coding is appropriate for virtually all qualitative studies, but particularly for those employing multiple participants, standardized or semi-structured data-gathering protocols, hypothesis testing, or exploratory investigations to gather topics lists or indexes of major categories or themes.

Structural Coding is question-based coding that "acts as a labeling and indexing device, allowing researchers to quickly access data likely to be relevant to a particular analysis from a larger data set" (Namey et al., 2008, p. 141). Structural Coding both codes and initially categorizes the data corpus to examine comparable segments' commonalities, differences, and relationships. The sources suggest that Structural Coding is perhaps more suitable for interview transcripts than other data such as researcher-generated field notes, but open-ended survey responses are also appropriate with this method.

Example

A mixed methods study is conducted to survey and interview participants who currently smoke about their habit. One particular area of inquiry focuses on the smokers' past cessation attempts (if any) to investigate their choices of techniques and their success and/or non-success with them.

In the example below, an interviewer asks a middle-aged adult male about his smoking history and habits. Note how these segments of data are preceded by the particular research question from the study, followed by its related Structural Code. Since Structural Coding does not rely on margined entries, the examples will scan across the entire page. Note that the participant's responses and the interviewer's questions, probes, and follow-ups are included in the coded segments:

Research Question: What types of smoking cessation techniques (if any) have participants attempted in the past?

Structural Code: [1] UNSUCCESSFUL SMOKING CESSATION TECHNIQUES

---

[1] I: Have you ever tried to quit smoking?

PARTICIPANT: Yeah, several times.

I: Were any of them successful?

PARTICIPANT: Only for a short while. Then I started back up again.

I: What kinds of stop-smoking techniques have you tried in the past?

PARTICIPANT: The nicotine lozenges seemed to work best, and I was doing pretty well on those for about two or three weeks. But then life stuff got in the way and the work stress was too much so I started smoking again.

I: What other techniques have you tried?

PARTICIPANT: A long time ago I tried cold turkey. I just kept myself busy doing stuff around the house to keep my mind off of smoking. But then my car got broken into a couple of days later and the window got busted, so the stress just got to me and I started smoking again.

Research Question: What factors lead to participants' unsuccessful smoking cessation attempts?

Structural Code: [2] REASONS FOR UNSUCCESSFUL SMOKING CESSATION

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[2] I: You said that "stress got to" you as a reason to start smoking again.

PARTICIPANT: Yeah, and not, it wasn't the stress of not smoking that got to me, it was life stress—the car break-in, work—it just got to be too much for me and I broke down and needed a cigarette, *really* needed one.

I: What was it about work that made you want to smoke again?

PARTICIPANT: There was a lot of responsibility and expectations riding on me. I was worried that, well, at that time I was worried that things weren't going to turn out the way they needed to, whether I would have enough personnel, deadlines to meet, just too much stress. And I knew this was coming so maybe I just picked the wrong time to quit.

I: And what is "life stuff"? *(PARTICIPANT chuckles)* What does that—

PARTICIPANT: Life stuff—laundry, ironing, grocery shopping, uh, feeding the cats, cleaning their litter boxes, running around to do this and that with barely any time to do it.

I: I can relate to that. Now, when you went "cold turkey," how did you cope? …

Research Question: What types of smoking cessation techniques (if any) have participants attempted in the past?

Structural Code: [3] SUCCESSFUL SMOKING CESSATION TECHNIQUES

---

[3] I: So, how did you finally quit smoking?

PARTICIPANT: Prescription Chantix worked for me, though some of my friends who tried it said it gave them weird side effects. That stuff was amazing, but it did have some side effects, but I think that was due to withdrawal from nicotine, not from the medication.

I: Did Chantix work the first time?

PARTICIPANT: Yes, it helped with the physical effects, but not always the psychological. I had to deal with that on my own. It was free on my medical plan, the medication, so that was a plus.

I: How did you deal with the psychological effects?

PARTICIPANT: Just a lot of eating. I gained weight, which I knew would happen. I just dealt with it. The worse thing was wanting to hurt somebody, I was so angry. It's like, if I can't have a cigarette, someone's gonna pay! *(laughs)*

Analysis

“Structural coding generally results in the identification of large segments of text on broad topics; these segments can then form the basis for an in-depth analysis within or across topics” (MacQueen et al., 2008, p. 125). The coding method can be kept at a basic level by applying it as a categorization technique for further qualitative data analysis. But depending on the research study’s goals, quantitative applications are also possible.

Namey et al. (2008) “suggest determining frequencies on the basis of the number of individual participants who mention a particular theme, rather than the total number of times a theme appears in the text. … [A] code frequency report can help identify which themes, ideas, or domains were common and which rarely occurred” (p. 143). In the study profiled above, other participants’ similarly coded interview segments would be collected together, then further coded and/or subcoded to extract data related to the specific research questions. successful smoking cessation techniques for this particular group might include such coded items and their frequency counts in descending order as:

Table 6.1

Techniques	No. of participants
PRESCRIPTION MEDICATION	19
E-CIGARETTE	12
NICOTINE PATCHES	8
“COLD TURKEY”	7
Keep Busy	2
Thoughts of Saving Money	2
Exercise	2
Try Not to Think About It	1
SUPPORT NETWORK	7
Friends	4
Partner/Spouse	2
Telephone Hotline	1
NICOTINE GUM	5
NICOTINE LOZENGES	4
GRADUAL WITHDRAWAL	4
COUNSELING	2
AVERSION THERAPY	1

An “at a glance” scan of the above data would suggest that the category **Counseling Intervention** (counseling, aversion therapy) was the least used technique with this particular group, with prescription medication as the most frequent **Medicinal Intervention**. Graph-theoretic data reduction techniques, “also referred to as semantic network analyses, may be used to identify complex semantic relationships in bodies of texts” through tables and matrices (Namey et al., 2008, p. 146). The data in this study could be analyzed by gender, for example, to investigate any differences between men’s and women’s choices of smoking cessation measures, or by age, income/education level, etc.

Advanced statistical techniques such as hierarchical clustering and multidimensional scaling can identify associations, co-occurrence, distance and proximity, dimension, and other quantitative aspects of qualitative data. In the example above, **Nicotine Substitutes** (gum, lozenges) might statistically associate in hierarchical clustering analysis. CAQDAS programs and their transfer of converted data to quantitative computer programs are indispensable for such analytic work. Quantitative follow-up, however, is not always necessary. Other qualitative methods such as thematic analysis and grounded theory are also applicable with Structurally Coded data.

Some recommended ways to further analyze Structural Codes are (see Appendix B):

- first cycle coding methods
- content analysis (Krippendorff, 2013; Neuendorf, 2017; Schreier, 2012; Wilkinson & Birmingham, 2003)
- frequency counts (LeCompte & Schensul, 2013)
- graph-theoretic techniques for semantic network analysis (Namey et al., 2008)
- illustrative charts, matrices, diagrams (Evergreen, 2020; Miles et al., 2020; Morgan et al., 2008; Northcutt & McCoy, 2004; Paulston, 2000; Wheeldon & Åhlberg, 2012)
- interrelationship (Saldaña, 2003)
- quick ethnography (Handwerker, 2001)
- splitting, splicing, and linking data (Dey, 1993)
- survey research (Fowler, 2014; Wilkinson & Birmingham, 2003)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998; Smith & Osborn, 2015)
- within-case and cross-case displays (Miles et al., 2020; Shkedi, 2005).

Notes

Structural Coding is an analytic cousin of Holistic Coding. Holistic Coding, however, is more exploratory and even tentative in nature, while Structural Coding is framed and driven by specific research questions and topics.

DESCRIPTIVE CODING

Sources

Miles et al., 2020; Saldaña, 2003; Wolcott, 1994

Description

This method is also called “topic coding” “topic tagging,” or “index coding” in some of the literature, but Descriptive Coding will be used in this manual to align with Wolcott’s terminology. The phenomenon of hashtags or the # symbol preceding a topic for social media communication is a popular form of Descriptive or “hashtag” Coding since it identifies and links comparable contents.

Descriptive Coding summarizes in a word or short phrase—most often a noun—the basic topic of a passage of qualitative data. To clarify, Tesch (1990) differentiates that “it is important that these [codes] are identifications of the *topic*, not abbreviations of the *content*. The topic is what is talked or written *about*. The content is the substance of the message” (p. 119).

Applications

Descriptive Coding is appropriate for virtually all qualitative studies, but particularly for beginning qualitative researchers learning how to code data, ethnographies, and studies with a wide variety of non-interview data (e.g., field notes, journals, documents, diaries, correspondence, artifacts, video, social media).

Descriptive Coding of audio and video archives greatly assists with indexing topics and subtopics with key words for future cross-reference. For example, recordings of politicians' speeches can be meticulously coded by topic or key word to assess factual information, opinion, or policy consistency and change across time. Descriptively coded survey or structured interview data can also serve mixed methods studies by calculating percentages, frequencies, and other descriptive measures of response. However, I strongly recommend that Descriptive Coding *not* be used for individual case study or small-group interview transcripts because the noun-based codes of this method will not reveal very much insight into participants' minds. Rely instead on other meaning-driven methods such as In Vivo, Values, Emotion, and/or Dramaturgical Coding.

Many ethnographic studies usually begin with such general questions as "What is going on here?" and such reflective questions as "What is this a study about?" Descriptive Coding is just one approach to analyzing the data's basic topics to assist with answering these types of questions. Turner (1994) calls this cycle the development of a "basic vocabulary" of data to form "bread and butter" categories for further analytic work (p. 199). Description is the foundation for qualitative inquiry, and its primary goal is to assist the reader to see what you saw and to hear what you heard (Wolcott, 1994, pp. 55, 412), rather than scrutinize the nuances of people in social action.

Descriptive Codes from data collected across various time periods and charted in matrices are useful for assessing longitudinal participant change (Saldaña, 2003, 2008). Quantitative meta-analyses, or qualitative metasummaries and metasyntheses, can employ descriptive coding for comparing treatment effects or impact of findings across different studies. This method has utility for big data projects with its quantitative and qualitative summaries. The coding method is also appropriate for documenting and analyzing the material products and physical environments of ethnographic fieldwork (Hammersley & Atkinson, 2019).

Example

An ethnographer walks through an urban, lower-income neighborhood in a large metropolitan area and takes field notes describing the setting. The field notes are written descriptively—that is, factually and objectively as much as possible. The italicized "OC" sections interspersed throughout are observer's comments (Bogdan & Biklen, 2007, pp. 163–4), subjective impressions, or memos embedded within the factual description, which also merit consideration for codes. Note how several Descriptive Codes repeat as the topics shift:

Code example 6.1

Driving west along the highway's access road and up Main St. to Wildpass Rd. there were [1] abandoned warehouse buildings in disrepair, [2] spray painted gang graffiti on walls of several occupied and unoccupied buildings. I passed a [3] Salvation Army Thrift Store, Napa Auto Parts store, a tire manufacturing plant, old houses in-between industrial sites, an auto glass store, Market/Liquors, Budget Tire, a check cashing service. [4] More spray paint was on the walls.	[1] buildings [2] graffiti [3] businesses [4] graffiti
OC: [5] *There seems to be an abundance of car-oriented businesses in the neighborhood. Industrial looking atmosphere—no "showroom" qualities. Here is where "repair" is more important than sales.*	[5] businesses
I parked on Turquoise Rd. and walked along the periphery of an elementary school lot. [6] The majority of the homes had dirt front yards; the only vegetation growing were weeds. Maybe one house per block had what would be called a lawn. The majority seem unattended, not cared for. The homes look like they were built in the 1930s, 1940s at the latest. [7] I saw spray paint on the "No Trespassing" sign of the elementary school and smaller gang symbols on it. [8] A beer bottle and beer can were against the fence of the school. [9] Surfaces on the houses vary—maybe one per block looks fairly well painted. The majority are peeling in paint, rotted wood, various materials (wood, stucco, tin) on the same house.	[6] houses [7] graffiti [8] trash [9] houses
OC: *Priorities, energies, financial resources do not go into the appearance of homes. There are more important things to worry about.* [10] I notice that the grand majority of homes have chain link fences in front of them. There are many dogs (mostly German shepherds) with signs on fences that say "Beware of the Dog." OC: *There's an attempt to keep things at home safe. Protection from robbers, protection of property. Keep your distance—this is mine.*	[10] security

Analysis

Descriptive Coding leads primarily to a categorized inventory, tabular account, summary, or index of the data's contents. It is essential groundwork for second cycle coding and further analysis and interpretation (Wolcott, 1994, p. 55). In the example above, all qualitative data passages coded with houses, for example, would be extracted from the main body of field notes and reassembled together in a separate file for an organized and categorized narrative portrait of the environment for further analysis:

> Priorities, energies, and financial resources of this neighborhood's residents do not go into the appearance of their homes (there are more important things to worry about).
>
> Houses appear to have been built in the 1930s through 1940s. I notice TV antennas (rather than cable) on several roofs. Surfaces on the houses vary. Maybe one per block looks fairly well painted. But the majority's exteriors have peeling paint, rotting wood, and an assembly of wood, stucco, and tin on the same house. Some, because of their disrepair, look unattended and abandoned. But look in the yards and inside the homes through their windows: people still live here.
>
> Laundry hangs on clotheslines in the back yards of several homes. The majority have dirt front yards where the only vegetation growing is weeds. Maybe one house per block has what would be called a lawn; other front yards contain desk chairs and worn upholstered furniture. There's a house with a small statue of the Virgin Mary in front. Another house has a picture portrait of Jesus and a cross on its front wall.

Berger (2014b), Clarke et al. (2018), and Hammersley and Atkinson (2019) emphasize that fieldwork and field notes should place particular importance on interpreting the symbolic meanings of artifacts and physical environments of our social worlds. Everything from maintenance to design of homes, businesses, schools, recreation areas, streets, and so forth is inference-laden. A home is not merely a structure but a physical and symbolic representation of its residents' identity, biography, and values (Hammersley & Atkinson, 2019, pp. 135-6). Descriptive Coding is one approach to documenting from rich field notes the tangible products that participants create, handle, work with, and experience on a daily basis.

Some recommended ways to further analyze Descriptive Codes are (see Appendix B):

- Subcoding, Hypothesis Coding, Domain and Taxonomic Coding, Focused Coding, and Pattern Coding
- content analysis (Krippendorff, 2013; Neuendorf, 2017; Schreier, 2012; Wilkinson & Birmingham, 2003)
- cross-cultural content analysis (Bernard, 2018)
- descriptive statistical analysis (Bernard, 2018)
- domain and taxonomic analysis (Schensul et al., 1999b; Spradley, 1979, 1980)
- frequency counts (LeCompte & Schensul, 2013)
- graph-theoretic techniques for semantic network analysis (Namey et al., 2008)

- grounded theory (Bryant, 2017; Bryant & Charmaz, 2007, 2019; Charmaz, 2014; Corbin & Strauss, 2015; Stern & Porr, 2011)
- longitudinal qualitative research (Giele & Elder, 1998; McLeod & Thomson, 2009; Saldaña, 2003, 2008)
- mixed methods research (Creamer, 2018; Creswell, 2014; Creswell & Plano Clark, 2018; Tashakkori & Teddlie, 2010)
- qualitative evaluation research (Patton, 2008, 2015)
- quick ethnography (Handwerker, 2001)
- social media analysis (Kozinets, 2020; Paulus & Wise, 2019; Rogers, 2019; Salmons, 2016)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998; Smith & Osborn, 2015)
- within-case and cross-case displays (Miles et al., 2020; Shkedi, 2005).

Notes

Descriptive Coding is a straightforward method for novices to qualitative research, particularly for those first using CAQDAS programs. The method categorizes data at a basic level to provide the researcher with an organizational grasp of the study. Coding with simple descriptive nouns alone, however, may not enable more complex and theoretical analyses as the study progresses, particularly with interview transcript data.

See Collins and Durington (2015) for the strategic use of hashtags in the coding of posted digital materials (pp. 48–52). And access *The New York Times* November 2019 report, "The Twitter Presidency," for its descriptive (qualitative and quantitative) content analysis of Tweets: https://www.nytimes.com/interactive/2019/11/02/us/politics/trump-twitter-presidency.html

IN VIVO CODING

Sources

Charmaz, 2014; Corbin & Strauss, 2015; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987; Strauss & Corbin, 1998

Description

In Vivo Coding has also been labeled “literal coding,” “verbatim coding,” “inductive coding,” “indigenous coding,” “natural coding,” and “emic coding” in selected methods literature. In this manual, In Vivo Coding will be used since it is the most well-known label.

The root meaning of in vivo is “in that which is alive,” and as a code refers to a word or short phrase from the actual language found in the qualitative data record, “the terms used by [participants] themselves” (Strauss, 1987, p. 33).

Folk or *indigenous* terms are participant-generated words from members of a particular culture, subculture, microculture, or counterculture. Folk terms indicate the existence of the group’s cultural categories (McCurdy, Spradley, & Shandy, 2005, p. 26). For example, some homeless youth say that they “sp’ange” (ask passers-by for “spare change”). Digital culture has created such terms and acronyms as “tweet,” “LOL,” and “FML.” In Vivo Coding a subculture’s unique vocabulary or *argot* is one method of extracting these indigenous terms (and see Domain and Taxonomic Coding for more specific categorization guidelines).

Applications

In Vivo Coding is appropriate for virtually all qualitative studies, but particularly for beginning qualitative researchers learning how to code data, and studies that prioritize and honor the participant's voice. In Vivo Coding is one of the methods to employ during grounded theory's Initial Coding but can be used with several other coding methods in this manual.

In Vivo Coding is particularly useful in educational ethnographies with youth. The child and adolescent voices are often marginalized, and coding with their actual words enhances and deepens an adult's understanding of their discourses, cultures, and worldviews. In Vivo Coding is also quite applicable to action, participatory, and practitioner research (Coghlan & Brannick, 2014; Fox, Martin, & Green, 2007; Stringer, 2014) since one of the genre's primary goals is to adhere to the "*verbatim principle*, using terms and concepts drawn from the words of the participants themselves. By doing so [researchers] are more likely to capture the meanings inherent in people's experience" (Stringer, 2014, p. 140).

After decades of coding qualitative data, I have personally found In Vivo Coding to be my first "go-to" method with interview transcript data, regardless of the study's research questions or methodological approach.

Example

An adult female interviewer talks to Tiffany, a 16-year-old teenage girl, about her friendships at high school. Note how all In Vivo Codes are placed in quotation marks, and how virtually each line of data gets its own code. This is coding as a “splitter”:

Code example 6.2

I [1] hated school last year. [2] Freshman year, it was awful, I hated it. And [3] this year’s a lot better actually. Um, I [4] don’t know why. I guess, over the summer I kind of [5] stopped caring about what other people thought and cared more about, just, I don’t know. It’s [6] hard to explain. I [7] found stuff out about myself, and so I went back, and all of a sudden I found out that when I [8] wasn’t trying so hard to [9] have people like me and to do [10] what other people wanted, people [11] liked me more. It was [12] kind of strange. Instead of [13] trying to please them all the time, they liked me more when I [14] wasn’t trying as hard. And, I don’t know, like every-, everybody might, um, people who are just, kind of, [15] friends got closer to me. And people who didn’t really know me [16] tried to get to know me. [17] I don’t know.	[1] “hated school” [2] “freshman year awful” [3] “this year’s better” [4] “don’t know why” [5] “stopped caring” [6] “hard to explain” [7] “found stuff out” [8] “wasn’t trying so hard” [9] “have people like me” [10] “what other people wanted” [11] “liked me more” [12] “kind of strange”

	[13] “trying to please them” [14] “wasn’ t trying as hard” [15] “friends got closer” [16] “tried to know me” [17] “i don’ t know”

Key writers of grounded theory advocate meticulous work and that an In Vivo (or other) Code should appear next to every line of data. Depending on your goals, In Vivo Codes can be applied with less frequency, such as one word or phrase for every three to five sentences. In the interview excerpt above, rather than 17 In Vivo Codes I could have limited the number to 4—coding as a “lumper”:

Code example 6.3

I hated school last year. [1] Freshman year, it was awful, I hated it. And this year’ s a lot better actually. Um, I don’ t know why. I guess, over the summer I kind of stopped caring about what other people thought and cared more about, just, I don’ t know. It’ s hard to explain. I [2] found stuff out about myself, and so I went back, and all of a sudden I found out that when I [3] wasn’ t trying so hard to have people like me and to do what other people wanted, people liked me more. It was kind of strange. Instead of trying to please them all the time, they liked me more when I wasn’ t trying as hard. And, I don’ t know, like every-, everybody might, um, people who are just, kind of, [4] friends got closer to me. And people who didn’ t really know me tried to get to know me. I don’ t know.	[1] “freshman year awful” [2] “found stuff out” [3] “wasn’ t trying so hard” [4] “friends got closer”

Analysis

As you read interview transcripts or other documents that feature participant voices, attune yourself to words and phrases that seem to call for bolding, underlining, italicizing, highlighting, or vocal emphasis if spoken aloud. Their salience may be attributed to such features as impacting nouns, action-oriented verbs, evocative vocabulary, clever or ironic phrases, similes and metaphors, etc. If the same words, phrases, or variations thereof are used often by the participant (such as "I don't know" in the example above), and seem to merit an In Vivo Code, apply it. In Vivo Codes "can provide a crucial check on whether you have grasped what is significant" to the participant, and may help crystallize and condense meanings (Charmaz, 2014, p. 135). Thus, keep track of codes that are participant-inspired rather than researcher-generated by always putting In Vivo Codes in quotation marks: "hated school".

There is no fixed rule or formula for an average number of codes per page or a recommended ratio of codes to text. Trust your instincts with In Vivo Coding. When something in the data appears to stand out, apply it as a code. Researcher reflection through analytic memo writing, coupled with second cycle coding, will condense the number of In Vivo Codes and provide a reanalysis of your initial work. Strauss (1987, p. 160) also recommends that researchers examine In Vivo Codes not just as themes but as possible *dimensions* of categories—that is, the continuum or range of a property.

An initial analytic tactic with codes is to eyeball (i.e., analytically browse) the codes list to inventory the contents and to discern any particular patterns. Extracting and reorganizing the codes list in alphabetical order through Word or Excel's "Data Sort" function may enable you to detect some similar clusters. For example, the alphabetized array reads:

"DON'T KNOW WHY"

"FOUND STUFF OUT"

"FRESHMAN YEAR AWFUL"

"FRIENDS GOT CLOSER"

"HARD TO EXPLAIN"

"HATED SCHOOL"

"HAVE PEOPLE LIKE ME"

"I DON'T KNOW"

"KIND OF STRANGE"

"LIKED ME MORE"

"STOPPED CARING"

"THIS YEAR'S BETTER"

"TRIED TO KNOW ME"

"TRYING TO PLEASE THEM"

“WASN’ T TRYING AS HARD”

“WASN’ T TRYING SO HARD”

“WHAT OTHER PEOPLE WANTED

The alphabetical proximity of “trying to please them”, “wasn’ t trying as hard”, and “wasn’ t trying so hard” suggests a possible category or theme at work, prompting a marginal jotting or analytic memo on “trying”.

A second method for initially organizing the array of In Vivo Codes is to list them on a text editing page and then cut and paste them into outlined clusters that suggest categories of belonging and an order of some kind (such as hierarchical, chronological, mirco to macro, etc. See Chapter 4 for another extended example of In Vivo Coding). Using the 17 In Vivo Codes from the split-coding example above, the outline reads as follows:

I. “HATED SCHOOL”
    A. “FRESHMAN YEAR AWFUL”
II. “STOPPED CARING”
    A. “WHAT OTHER PEOPLE WANTED”
        1. “HAVE PEOPLE LIKE ME”
        2. “TRYING TO PLEASE THEM”
    B. “FOUND STUFF OUT”
        1. “WASN’ T TRYING SO HARD”
        2. “WASN’ T TRYING AS HARD”
III. “THIS YEAR’ S BETTER”
    A. “FRIENDS GOT CLOSER”
    B. “LIKED ME MORE”
    C. “TRIED TO KNOW ME”
IV. “DON’ T KNOW WHY”
    A. “I DON’ T KNOW”
    B. “KIND OF STRANGE”
    C. “HARD TO EXPLAIN”

Remember that memos are a critical component of grounded theory’ s coding processes, and *memo writing also serves as a code-, category-, theme-, and concept-generating method*. An analytic memo excerpt based on the coding example above reads as follows (and note that In Vivo Codes and participant quotes are included throughout):

---

25 May 2011

CODE: “I DON’ T KNOW”

Tiffany is genuinely puzzled (“DON’ T KNOW WHY”, “HARD TO EXPLAIN”) by a paradox of sustaining quality friendships: “when I wasn’ t trying so hard to have people like me and to do what other people wanted, people liked me more.” At age 16, she is learning “about myself”—who she is and wants to become, rather than what others want or expect from her. Just as there is documented and developmental *emotional ambivalence* in middle childhood, perhaps adolescence has its equivalent stage called SOCIAL AMBIVALENCE, concurrent with the individual’ s IDENTITY WORK.

In Vivo Codes capture “behaviors or processes which will explain to the analyst how the basic problem of the actors is resolved or processed” (Strauss, 1987, p. 33) and help preserve participants’ meanings of their views and actions in the coding itself (Charmaz,

2014). In Vivo Codes can also provide imagery, symbols, and metaphors for rich category, theme, and concept development, plus evocative content for arts-based interpretations of the data. Using some of Tiffany's own language, a poetic reconstruction (called "found poetry" or "poetic transcription") of the above vignette's codes and transcript excerpts might read:

Freshman year:

awful,

hated school. …

Over the summer:

stopped caring about what others thought,

found stuff out about myself. …

This year's better:

friends got closer,

tried to know me,

liked me more. …

Don't know why:

kind of strange,

hard to explain. …

This year's better. (Saldaña, 2011b, p. 129)

Playwright and verbatim theatre performer Anna Deavere Smith asserts that people speak in "organic poems" through everyday discourse. Thus, In Vivo Coding is one strategy for getting at the organic poetry inherent in a participant.

In Vivo Codes could be used as the sole coding method for the first cycle of data analysis, and the sole method of choice for small-scale studies, but that may limit the researcher's perspective on the data, a perspective that can contribute to more conceptual and theoretical views about the phenomenon or process. Sometimes the participant says it best; sometimes the researcher does. Be prepared and willing to mix and match coding methods as you proceed with data analysis.

Several CAQDAS programs make In Vivo Coding easy by permitting the analyst to select a word or short phrase from the data, clicking a dedicated icon, and assigning the selected text *as* an In Vivo Code. But be aware that some CAQDAS functions will retrieve multiple text units only if they share the *exact* same code you have applied to them. In Vivo Coded data most often are so unique that they will require careful review and self-categorization into an

NVivo node, for example. Also, selected CAQDAS programs may not permit the use of quotation marks to accompany and indicate an In Vivo Code entry. Thus, find an alternative format for the code (e.g., all CAPS or a dedicated color font) in lieu of quotation marks, if necessary.

Some recommended ways to further analyze In Vivo Codes are (see Appendix B):

- second cycle coding methods
- action and practitioner research (Altrichter, Posch, & Somekh, 1993; Coghlan & Brannick, 2014; Fox et al., 2007; Stringer, 2014)
- case studies (Merriam, 1998; Stake, 1995)
- discourse analysis (Bischoping & Gazso, 2016; Gee, 2011; Rapley, 2018; Willig, 2015)
- domain and taxonomic analysis (Schensul et al., 1999b; Spradley, 1979, 1980)
- frequency counts (LeCompte & Schensul, 2013)
- grounded theory (Bryant, 2017; Bryant & Charmaz, 2007, 2019; Charmaz, 2014; Corbin & Strauss, 2015; Stern & Porr, 2011)
- interactive qualitative analysis (Northcutt & McCoy, 2004)
- memo writing about the codes/themes (Charmaz, 2014; Corbin & Strauss, 2015; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)
- metaphoric analysis (Coffey & Atkinson, 1996; Lakoff & Johnson, 2003; Todd & Harrison, 2008)
- narrative inquiry and analysis (Bischoping & Gazso, 2016; Clandinin & Connelly, 2000; Coffey & Atkinson, 1996; Cortazzi, 1993; Coulter & Smith, 2009; Daiute & Lightfoot, 2004; Holstein & Gubrium, 2012; Murray, 2015; Riessman, 2008)
- phenomenology (Giorgi & Giorgi, 2003; Smith, Flowers, & Larkin, 2009; Vagle, 2018; van Manen, 1990; Wertz et al., 2011)
- poetic and dramatic writing (Denzin, 1997, 2003; Glesne, 2011; Knowles & Cole, 2008; Leavy, 2015; Saldaña, 2005a, 2011a)
- polyvocal analysis (Hatch, 2002)
- portraiture (Lawrence-Lightfoot & Davis, 1997)
- qualitative evaluation research (Patton, 2008, 2015)
- sentiment analysis (Ignatow & Mihalcea, 2017; Liu, 2015)
- social media analysis (Kozinets, 2020; Paulus & Wise, 2019; Rogers, 2019; Salmons, 2016)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998; Smith & Osborn, 2015).

Notes

Researchers new to coding qualitative data often find In Vivo Coding a safe and secure method with which to begin. But be wary of overdependence on the strategy because it can limit your ability to transcend to more conceptual and theoretical levels of analysis and insight.

For an example of how In Vivo Coding can be used with a strategic focus, see Metaphor Coding in Chapter 8. Also see Carolyn Lunsford Mears' (2009) outstanding book on interviewing and transcript analysis, *Interviewing for Education and Social Science Research*, which extracts and arranges the essentialized verbatim texts of participants into poetic mosaics.

PROCESS CODING

Sources

Bogdan & Biklen, 2007; Charmaz, 2002, 2015; Corbin & Strauss, 2015; Strauss & Corbin, 1998

Description

Process Coding has also been labeled “action coding” in selected methods literature. In this manual, Process Coding will be used since it implies broader concepts.

Process Coding uses gerunds (“-ing” words) exclusively to connote action in the data (Charmaz, 2002). Simple observable activity (e.g., reading, playing, watching TV, drinking coffee) and more general conceptual action (e.g., struggling, negotiating, surviving, adapting) can be coded as such through a Process Code. The processes of human action can be “strategic, routine, random, novel, automatic, and/or thoughtful” (Corbin & Strauss, 2015, p. 283).

Processes also imply actions intertwined with the dynamics of time, such as those things that emerge, change, occur in particular sequences, or become strategically implemented through time (Hennink, Hutter, & Bailey, 2020; Saldaña, 2003). One classic example of process is Tuckman and Jensen’s (1977) re-envisioned model of small-group dynamics, in which members generally progress through five stages:

1. *Forming* (an orientation of group members to each other’s ways of working)
2. *Storming* (intragroup conflicts arising from individual differences)
3. *Norming* (a negotiating and “settling in” cohesive stage)
4. *Performing* (the small group functioning productively to achieve its goals)
5. *Adjourning* (group closure).

Applications

Process Coding is appropriate for virtually all qualitative studies, but particularly for those that search for the routines and rituals of human life, plus the "rhythm as well as changing and repetitive forms of action-interaction plus the pauses and interruptions that occur when persons act or interact for the purpose of reaching a goal or solving a problem" (Corbin & Strauss, 2015, p. 173). Processes are also embedded within "psychological concepts such as prejudice, identity, memory [and] trust" because these are things "people do rather than something people *have*" (Willig, 2015, p. 146). For grounded theory, Process Coding happens simultaneously with In Vivo Coding, Initial Coding, Focused Coding, and Axial Coding, and a search for *consequences* of action/interaction is also part of the process. Processes can also be broken down into subprocesses for finer detail (Corbin & Strauss, 2015, p. 174).

Like In Vivo Coding, Process Coding is not necessarily a specific method that should be used as the sole coding approach to data, though it can be with small-scale projects.

Example

An adult female interviewer talks to a teenage girl about rumors. Note how the codes are all gerund-based (and note that the interviewer's questions and responses are not coded—just the participant's responses). Virtually each line of data gets its own code. This is coding as a "splitter":

Code example 6.4

TIFFANY: Well, [1] that's one problem, that [my school is] pretty small, so [2] if you say one thing to one person, [3] and then they decide to tell two people, [4] then those two people tell two people, and [5] in one period everybody else knows.[6] Everybody in the entire school knows that you said whatever it was. So …	[1] problemizing school size [2] saying one thing [3] telling others [4] telling others [5] everybody knowing [6] knowing what you said
I: Have you ever had rumors spread about you? TIFFANY: Yeah, [7] it's just stupid stuff, completely outlandish things, too. [8] I, I don't really want to repeat them. I: That's OK, you don't have to.	[7] rejecting rumors [8] not repeating what was said
TIFFANY: [9] They were really, they were ridiculous. [10] And the worst thing about rumors, [11] I don't really care if people think that, because obviously they're pretty stupid to think that in the first place. But [12] the thing I care about is, like, last year, especially freshman year, was a really horrible year school-wise. And, [13] I guess it was good in a way that you find out who your real friends are, because [14] some of them turned on me and [15] then started to say that those things were true and, like, [16] then people thought, "Well that person's her friend, so they must know." And so, [17] it just made the entire thing worse. And [18] you really learn a lot about people and, uh, and [19] who your real friends are. LuAnn's [20] probably the only person who's really stuck by me this entire time, and [21] just laughed at whatever they said.	[9] rejecting ridiculousness [10] criticizing rumors [11] not caring what people think [12] remembering a horrible year [13] finding out who your real friends are

	[14] turning on you [15] saying things are true [16] assuming by others [17] making things worse [18] learning a lot about people [19] learning who your friends are [20] sticking by friends [21] laughing at what others say

Analysis

Charmaz (2015) wisely observes, "When you have studied a process, your categories will reflect its phases" or stages (p. 80). The conventions of storyline are used in analytic memo writing when reviewing data for process—for example, the first step, the second step, the turning point, the third step, subsequently, thus, and so on. Participant language with transitional indicators such as "if," "when," "because," "then," "and so," etc., clue the researcher to a sequence or process in action. These sequences or processes can be ordered as a numeric series of actions, listed as a bullet-pointed set of outcomes, or graphically represented with first-draft illustrations as a flow diagram. Simple examples based on the interview above include:

Narrative—Spreading Rumors:

1. [I]f you say one thing to one person,
2. and then they decide to tell two people,
3. then those two people tell two people,
4. and in one period everybody else knows.

Coded Process—Spreading Rumors:

1. SAYING ONE THING
2. TELLING OTHERS
3. TELLING OTHERS
4. EVERYBODY KNOWING

See Figure 6.1 for an illustrated process of spreading rumors. Bernard et al. (2017, pp. 185–6) also recommend charting participant process in a horizontal matrix, so that the first cell describes the *historical context*, followed by the *triggers* that initiate the *main event*. Next, the *immediate reaction* is outlined, concluding with the *long-term consequences*.

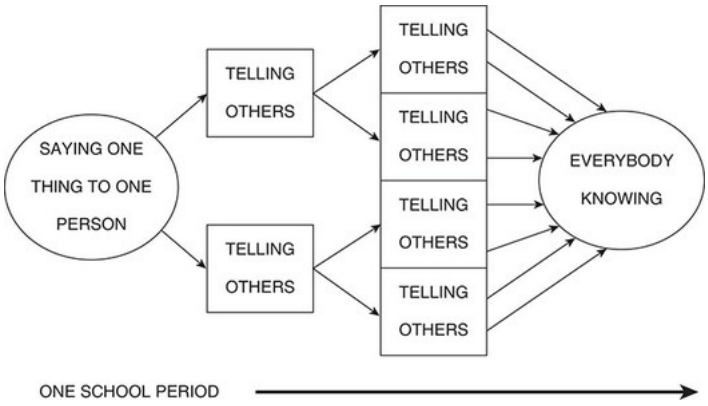

Figure 6.1 An illustrated process for spreading rumors

Consequences of Rumors (the Process Codes that led to the outcome categories are listed for reference):

- False accusations (SAYING THINGS ARE TRUE, ASSUMING BY OTHERS)
- Confrontation (TURNING ON YOU)
- Hurt feelings (MAKING THINGS WORSE, CRITICIZING RUMORS)
- Bad memories (NOT REPEATING WHAT WAS SAID, REMEMBERING A HORRIBLE YEAR)
- Reinforcement of loyalties (FINDING OUT WHO YOUR REAL FRIENDS ARE, LEARNING WHO YOUR FRIENDS ARE, STICKING BY FRIENDS)
- Social awareness (LEARNING A LOT ABOUT PEOPLE)
- "High road" personal growth (REJECTING RUMORS, REJECTING RIDICULOUSNESS, CRITICIZING RUMORS, NOT CARING WHAT PEOPLE THINK, LAUGHING AT WHAT OTHERS SAY)

Researcher reflection through analytic memo writing, coupled with second cycle coding, will condense the number of Process Codes and provide a reanalysis and synthesis of your initial work. Dey (1993) encourages consideration of the complex interplay of factors that compose a process and how we can "obtain a sense of how events originate and evolve, and their shifting significance for those involved. Process refers to movement and change over time. In place of a static description, we can develop a more dynamic account of events" (p. 38). Charmaz (2014, pp. 169–70) advises that analytic memos about process can reflect on what slows, impedes, or accelerates the process, and under which conditions the process changes. CAQDAS program linking functions enable you to mark the trail of participant process throughout the data corpus. See Analytic Storylining in Chapter 15 for process-oriented vocabulary to employ in analytic memos and write-ups.

Since Process Codes suggest action, I encourage you to *embody* each code you develop as a form of kinesthetic experience and analysis. Gesturally or with your whole body, enact movements that interpret the codes. For example, rejecting rumors might be interpreted by looking away with an indifferent facial expression as you hold a palm up to suggest "talk to the hand." learning who your friends are might initiate pantomiming a hug with a friend. You may find this a bit awkward at first, but explore it as an arts-based heuristic to gain deeper understanding of the participants and the codes' symbolic and subtextual meanings. I resonate with Ellingson (2017) who places the body at the center of her analytic work, looking for things in the data that "made my mouth and throat hum, my eyes widen, my spine straighten, my head nod, and my shoulders shiver with excitement when I read about them. I chose exemplars that made my heart speed up and my breath gasp" (p. 192). Indeed, I myself as a former actor am in constant subtle upper body motion as I sit in front of a desktop monitor, read interview transcripts, and physically enact and react to participant narratives.

Some recommended ways to further analyze Process Codes are (see Appendix B):

- Causation Coding
- second cycle coding methods
- action and practitioner research (Altrichter et al., 1993; Coghlan & Brannick, 2014; Fox et al., 2007; Stringer, 2014)
- case studies (Merriam, 1998; Stake, 1995)
- cognitive mapping (Miles et al., 2020; Northcutt & McCoy, 2004)

- decision modeling (Bernard, 2018)
- discourse analysis (Bischoping & Gazso, 2016; Gee, 2011; Rapley, 2018; Willig, 2015)
- grounded theory (Bryant, 2017; Bryant & Charmaz, 2007, 2019; Charmaz, 2014; Corbin & Strauss, 2015; Stern & Porr, 2011)
- illustrative charts, matrices, diagrams (Evergreen, 2020; Miles et al., 2020; Morgan et al., 2008; Northcutt & McCoy, 2004; Paulston, 2000; Wheeldon & Åhlberg, 2012)
- logic models (Knowlton & Phillips, 2013)
- memo writing about the codes/themes (Charmaz, 2014; Corbin & Strauss, 2015; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)
- splitting, splicing, and linking data (Dey, 1993)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998; Smith & Osborn, 2015)
- vignette writing (Erickson, 1986; Graue & Walsh, 1998).

Notes

To appreciate the breadth and depth of Corbin and Strauss' s (2015) discussion of Process Coding, readers are referred to their book, *Basics of Qualitative Research*, for a full explanation and thorough examples of memo writing that capture process, and how micro and macro levels of analysis can be projected onto the data. Charmaz' s (2014) *Constructing Grounded Theory* is also essential reading on this coding method.

See Caldarone and Lloyd-Williams' (2004) thesaurus of action verbs for process reference. Also refer to Dramaturgical Coding for a comparable approach to analyzing a participant' s tactics and strategies, and Causation and Longitudinal Coding for links between phases, stages, and cycles of process and action.

INITIAL CODING

Sources

Charmaz, 2014; Corbin & Strauss, 2015; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987; Strauss & Corbin, 1998

Description

Earlier publications in grounded theory refer to Initial Coding as “open coding,” and it has also been labeled “free coding.” Charmaz’s (2014) term will be used in this manual since it implies an initiating procedural step in harmony with first cycle coding processes.

Initial Coding breaks down qualitative data into discrete parts, closely examines them, and compares them for similarities and differences (Strauss & Corbin, 1998, p. 102). The goal of Initial Coding, particularly for grounded theory studies, is to “remain open to all possible theoretical directions suggested by your interpretations of the data” (Charmaz, 2014). It is an opportunity for you as a researcher to reflect deeply on the contents and nuances of your data and to begin taking ownership of them. Initial Coding is not necessarily a specific formulaic method. It is a first cycle, open-ended approach to coding the data with some recommended general guidelines.

Initial Coding can employ In Vivo Coding or Process Coding, for example, or other selected methods profiled in this manual. At times you may notice that elements of a possible or developing category are contained within the data. If so, code them during the initial cycle.

Applications

Initial Coding is appropriate for virtually all qualitative studies, but particularly for grounded theory work, ethnographies, and studies with a wide variety of data forms (e.g., interview transcripts, field notes, journals, documents, diaries, correspondence, artifacts, video).

Initial Coding creates a starting point to provide the researcher analytic leads for further exploration and "to see the direction in which to take [this] study" (Glaser, 1978, p. 56). Yet all proposed codes during this cycle are tentative and provisional. Some codes may be reworded as analysis progresses. The task can also alert the researcher that more data are needed to support and build an emerging theory.

Charmaz (2014) advises that detailed, line-by-line Initial Coding (as it is outlined below) is perhaps more suitable for interview transcripts than for researcher-generated field notes.

Example

An adult female interviewer asks a 16-year-old girl about her social friendships (note that the interviewer's questions, responses, and comments are not coded—just the participant's responses). It is not required during Initial Coding, but since one of the eventual goals of grounded theory is to formulate categories from codes, I occasionally not only include a Process Code (e.g., labeling), but also subcode it with specific referents (e.g., labeling: "geeky people"; labeling: "jocks"). These referents may or may not later evolve into categories, dimensions, or properties of the data as analysis continues. The meticulous line-by-line coding in the example below is that of a "splitter":

Code example 6.5

[I: Last week you were talking about the snobby girls at lunchroom. And then you just were talking about that you didn't like some people because they were cliquish. So what kind of, who are your friends? Like, what kind of people do you hang out with?]	
TIFFANY: [1] I hang out with everyone. Really, [2] I choose. Because I've been [living] here for so long, you get, [3] I can look back to kindergarten, and at some point I was [4] best friends with everybody who's been here, [5] practically. [I: You mean in choir?]	[1] "hanging out with everyone" [2] "choosing" who you hang out with [3] recalling friendships [4] "best friends with everybody" [5] qualifying: "practically"
TIFFANY: [6] Almost everybody in my grade. No, in school. And so there are [7] certain people that I've just been [8] friends with since forever.	[6] qualifying: "almost" [7] friends with "certain people" [8] friends with "since forever"
And then it's [9] not fair of me to stereotype either, like, say, "Oh well, like, the [10] really super popular pretty girls are all mean and [11] they're all snobby and they all talk about each other," [12] 'cause they don't. Some of them, some of them don't. And [13] those are the ones	[9] "not fair to stereotype" [10] labeling: "really super

I' m friends, friends with. And then there are the, there are the [14] geeky people. [15] Some of them though, the geeks at our school, aren' t like harmless geeks. They' re like [16] strange-psycho-killer-geek-people-who-draw-swastikas-on-their-backpacks [17] kind of geeks. [I: So are they like Colorado … ?]	popular pretty girls" [11] identifying stereotypes [12] dispelling stereotypes [13] choosing friends: "super popular pretty girls" [14] labeling: "geeky people" [15] qualifying: "some of them" [16] labeling: "strange-psycho-killer-geek" [17] qualifying: "kind of"
TIFFANY: Yeah, [18] some of them are kind of, it' s really scary. [19] But then again [20] there' s not the complete stereotype. Some of the, [21] not all of them are completely, like, wanna kill all the popular people.	[18] qualifying: "some of them" [19] qualifying: "but then…" [20] dispelling stereotypes [21] qualifying: "not all of them"
So, [22] I' m friends with those people. And then the [23] jocks, [24] not all of the guys are idiots, so [25] I' m friends with the ones who can carry on a conversation. [I: *(laughs)* So, so you wouldn' t put yourself in any of the …] TIFFANY: [26] I' m friends with someone because of who they are, [27] not because of what group they, they hang out in basically. ' Cause I think	[22] choosing friends: "geeks" [23] labeling: "jocks" [24] dispelling stereotypes

[28] that’s really stupid to be, like, [29] “What would people think if they saw me walking with this person?” or something.	[25] choosing friends: jocks “who can carry on a conversation” [26] criteria for friendship: “who they are” [27] criteria for friendship: not group membership [28] ethics of friendship [29] not concerned with what others think
[I: So you wouldn’t define yourself with any specific group?] TIFFANY: [30] No.	[30] maintaining individuality
[I: Do you think anyone else would define you as …] TIFFANY: I think people, [31] people define me as popular. Mainly because I would rather hang out with someone who’s [32] good hearted but a little slow, compared to someone [33] very smart but very evil *(chuckle)*.	[31] defining self through others: “popular” [32] criteria for friendship: “good hearted but slow” [33] criteria for friendship: not those “very smart but very evil”

Analysis

Although you are advised to code quickly and spontaneously after familiarizing yourself with the material, pay meticulous attention to the rich dynamics of data through line-by-line coding—a "microanalysis" of the corpus (Corbin & Strauss, 2015, pp. 70–2). Selected writers of grounded theory acknowledge that such detailed coding is not always necessary, so sentence-by-sentence or even paragraph-by-paragraph coding is permissible depending on your research goals and analytic work ethic. Codes in parentheses or accompanied with question marks can be part of the process for analytic follow-up or memo writing and recoding.

One major facet of Initial Coding for grounded theory methodologists is the search for *processes*—participant actions that have antecedents, causes, consequences, and a sense of temporality. choosing friends and dispelling stereotypes (the "-ing" codes) are two such active processes culled from Initial Coding in the example above that may or may not be developed further during second cycle coding.

Also during this or later cycles of grounded theory coding, there will be a search for the *properties* and *dimensions* of categories—conceptual ideas that bring together similarly coded and related passages of data. In the example above, the process of choosing friends has the categories geeks and jocks, each with selected properties or criteria for friendship—for example, jocks "who can carry on a conversation". These categories and their properties may or may not be developed further during second cycle coding.

A personal debriefing or "reality check" by the researcher is critical during and after the Initial Coding of qualitative data, thus an analytic memo is written to reflect on the process thus far. Notice that *memo writing also serves as a code-, category-, theme-, and concept-generating method*. Since range and variance are "givens" when looking at a property's dimensions, reflect on why the range and variance are there to begin with. An analytic memo excerpt based on the coding example above reads:

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30 May 2011

CODE: DISCRIMINATING

Adolescence seems to be a time of contradictions, especially when it comes to choosing your friends. Tiffany is aware of the cliques, their attributed labels, and their accompanying stereotypes at school. Though she herself labels a group in broad terms ("super popular pretty girls," "geeks," "jocks"), she acknowledges that there are subcategories within the group and exceptions to the stereotypes. Though she states she chooses friends for "who they are" and does not care what others think of her for the friends she "hangs out" with, she has explicit criteria for who from the stereotyped group she's friends with. She thinks others define her as "popular" and, as such, is aware of the stereotypical attributes from others that come with being part of that group. Her language is peppered with qualifiers: "some of them," "not all of them," "kind of," "practically," "almost," etc. Developmentally, as an adolescent she seems right on target for *discriminating*—DISCRIMINATING cognitively the exceptions to stereotypes, while being SOCIALLY DISCRIMINATE about her own friendships.

Though the first cycle process is labeled "initial" or "open," suggesting a wide variance of possibilities, Glaser (1978) recommends that the codes developed at this stage somehow relate to each other (p. 57). Corbin and Strauss (2015) also recommend that a separate list of all emerging codes be kept as analysis continues to help the researcher visualize the work in progress and to avoid duplication. CAQDAS code lists will help immensely with this.

Some recommended ways to further analyze Initial Codes are (see Appendix B):

- second cycle coding methods, particularly Focused Coding and Axial Coding
- grounded theory (Bryant, 2017; Bryant & Charmaz, 2007, 2019; Charmaz, 2014; Corbin & Strauss, 2015; Stern & Porr, 2011)
- memo writing about the codes/themes (Charmaz, 2014; Corbin & Strauss, 2015; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)
- situational analysis (Clarke et al., 2015a, 2018)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998; Smith & Osborn, 2015).

Notes

Initial Coding can range from the descriptive to the conceptual or the theoretical, depending on what you observe in and infer from the data, and depending on your personal knowledge and experiences you bring to your reading of the phenomena— “experiential data” that should be integrated into your analytic memo writing, yet not the central focus of it.

For a more open-ended method, see Eclectic Coding in Chapter 9.

CONCEPT CODING

Sources

Mihas, 2014; Saldaña, 2015

Description

Concept Coding, as I describe it here, has been referred to as "analytic coding" by selected research methodologists. In this manual, Concept Coding will be used since analytic coding is too general a term.

Concept Codes assign meso or macro levels of meaning to data or to data analytic work in progress (e.g., a series of codes or categories). A concept is a word or short phrase that symbolically represents a suggested meaning broader than a single item or action—a "bigger picture" beyond the tangible and apparent. A concept suggests an idea rather than an object or observable behavior. For example, a clock is something you can touch and see as it changes minute to minute, but its conceptual attribution is *time*. One can see and touch a church building, but not the concepts of *spirituality* or *religion*. Other concept examples include *romance*, *economy*, and *technology*. Note that these concepts are nouns.

Concepts also refer to processes such as *surviving* or *coping*. Conceptual processes consist of smaller observable actions that add up to a bigger and broader scheme. For example, I can spend an afternoon at a shopping mall window shopping, buying things, and eating lunch at a food court, but the overall action is *consuming*. While at the mall, I can buy a $25 gift card for an 8-year-old girl's birthday, but I am not just buying her a birthday present (the observable action), I am *indoctrinating youth into consumer culture* (the concept). I can watch a pianist pressing down white and black keys expertly on a keyboard, but what the pianist is also doing is *making music*. I could take it a step further by saying the pianist is *expressing artistic sensibilities* or *creating auditory art*. Visiting Starbucks five mornings a week, for some, is not just for purchasing and drinking coffee (the observable actions), but for *performing a morning ritual*, *maintaining a workday habit*, or *feeding an addiction*. Note that these concept phrases begin with gerunds ("-ing" words) to describe broader processes at work.

Applications

A concept generally consists of constituent, related elements. Thus, Concept Codes tend to be applied to larger units or stanzas of data—an analytic "lumping" task that harmonizes with the bigger picture suggested by a concept. Concept Codes are appropriate for studies focused on theory and theory development. Concept Coding is also an appropriate method when the analyst wishes to transcend the local and particular of the study to more abstract or generalizable contexts. Cultural studies, sociopolitical inquiry, and critical theory may find value in Concept Coding since it stimulates reflection on broader social themes and ideas.

Concept Coding is appropriate for all types of data, studies with multiple participants and sites, and studies with a wide variety of data forms (e.g., interview transcripts, field notes, journals, documents, diaries, correspondence, artifacts, video). The method bypasses the detail and nuance of other coding methods to transcend the particular participants of your fieldwork and to progress toward the *ideas* suggested by the study. Thus, Concept Coding might serve such research genres as phenomenology, ethnography, and grounded theory.

Concept Coding is illustrated here as a stand-alone method, but it is worth noting that most first cycle methods such as Process, Values, and Holistic Coding can utilize codes that are conceptual in nature. A series or categorized collection of first cycle codes can be condensed even further into a Concept Code. Concepts could also be derived later from second cycle methods such as Focused, Axial, Theoretical, Pattern, and Elaborative Coding.

Example

A conversation was exchanged in a social setting in Ireland between a middle-aged Irishman and an American tourist. They were comparing perspectives about each others' countries. The Concept Codes applied to the data relate to a research study on national culture. Note that the codes attempt to convey *ideas*, not content topics, and some of them employ In Vivo Coding. A shift in topic suggests a new stanza and thus a new concept at work:

Code example 6.6

AMERICAN: [1] Some cities have smells, you know? They smell a certain way, like New York has an almost stale odor to it, a mix of traffic exhaust and old concrete. And I don't know what it is here [in this Irish city], but it almost smells like perfumed bleach. IRISHMAN: *(laughing)* Bleach? AMERICAN: And maybe it's just because of where I've been, but I've smelled it in the hallways of my hotel, at restaurants, outdoors, even when someone walked by me, I thought it was perfume. It's not a bad smell but it's very distinctive, like a natural chemical of some kind, I can't explain it. IRISHMAN: Do you smell it now? AMERICAN: No, we're, we'll, we've got food around us so that's what I'm smelling now. …	[1] fragrancing culture
IRISHMAN: [2] What I love about America is the excess. You know, I'll walk into a coffee shop here [in Ireland] and all there'll be is milk. I go into a coffee shop in America, and there's 1%, 2%, skim milk, whole milk, half and half, you know? And the highways! There's two lanes at most here goin' one way, and over there you've got five, six lanes of highway all goin' in the same direction. We just don't have the cars or the land for that much highway. And the malls—you'll never see things like that over here. It's usually one shop at a time, but there you've got it all under one roof. Big stores, too, big stores.	[2] american "excess"
AMERICAN: Yeah. [3] What caught my eye here first as I was walking through the streets was the uniforms that the teenagers wear to school. IRISHMAN: Uniforms? AMERICAN: Yeah, they're classy. Seeing the young girls in full length skirts and stylish coats, the boys in very snazzy sweater tops with the distinguished school crest on it. You'd never see uniforms with that much style in the U.S. They reminded me of the Harry Potter films! IRISHMAN: *(laughing)* Harry Potter? AMERICAN: Yes. It's that very old-world style that has distinction.	[3] stylish uniformity

IRISHMAN: You don’ t have that where you are? AMERICAN: No, the school uniforms are a lot more casual; you’ d never see the girls in full length skirts or the boys in a sweater, at least not where I live [in the southwestern US]. Here they’ ve got *style*, a sense of tradition, long tradition. …	
AMERICAN: [4] (*referring to a TV sport program in progress*) Now, what’ s that they’ re playing? IRISHMAN: Hurling. AMERICAN: I have no idea what that is. IRISHMAN: It’ s one of the fastest games ever. AMERICAN: That’ s what those two young men were doing outside, right? The equipment looks the same. IRISHMAN: Yeah, yeah, it’ s very popular here. You gotta be quick on your feet with this game.	[4] indigenous competition

Analysis

The analyst employs a highly interpretive (if not creative) stance with Concept Coding. There is no one right way to assign a specific meaning to an extended passage of data, but your codes need to extend beyond the tangible and observable to transcend to the conceptual. For example, code 4 in the final stanza above could have been hurling, but that is not a conceptual code—it is a Descriptive or Process Code because hurling refers to the topic and the action. irish sport could have been an acceptable Concept Code, but that too refers to the topic and not the suggested *idea*. Thus, indigenous competition was the code assignment because the analyst interpreted the passage as a discussion about a national/cultural sporting event unique to the local setting plus the televised broadcast. This code's phrasing may be what Glaser and Strauss (1967) referred to as a concept with "grab" or evocative power.

You may be guided by your disciplinary interests, specific research questions, or research topic in the development of particular concepts. At other times, the data may suggest unique sums of meaning to you as you reflect upon them. Concepts become richer if you employ creative phrases rather than static nouns or simple gerunds. Code 1 above, fragrancing culture, was the consequent code choice after several first attempts—among them, national scent and cultural "perfume". fragrancing culture is an abstract process suggesting how the participant smells or "odors" the locale. Code 2, american "excess", emerges directly from the speaker since the analyst felt no other conceptual language better subsumed the narrative. Code 3, stylish uniformity, weaves and transforms the speaker's own words into a new evocative phrase.

Each Concept Code (or a collection of comparable Concept Codes) merits its own analytic memo that expands not necessarily on the particulars of the participants and the field site, but on the abstractions and generalities suggested by the code. Thus, the thinking here goes beyond the USA and Ireland and their two citizens in conversation to focus on cultural, cross-cultural, or higher-level concepts. Notice how these memos transcend traditional analytics and work toward more evocative meanings and interpretations suggested by the codes:

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5 July 2014

CONCEPT: FRAGRANCING CULTURE

Science tells us that our sense of smell can trigger strong associative memories. "Bodies in space" are part of geography, but "memories" are part of "place." Olfactory sensations take us to places of mind. Synaptic connections are made so that smells stimulate stories. Maybe we just don't tell stories; we smell them. Narratives are odorous.

Each story, like each place, has its own distinctive scent. Bottle up my tale as a cologne or perfume. Fragrances sprayed on us are not about smelling a certain way, but storying us a certain way. The scent creates a character, and I go on that persona's adventures in my mind (when I can't in real life). Fragrances are a story, a subculture, taking me to an ideal place where new and exciting memories can be made for later fond recollection.

Place has a smell. Geography is a scent. One whiff and I'm there.

6 July 2014

CONCEPT: AMERICAN "EXCESS"

I remember the documentary *Super Size Me* and its themes of American excess. I am struck, however, by the contradictory label of "excess" when so many Americans live in minimum wage poverty. Excess seems like a cover story, a national/cultural stereotype that once may have indeed been true, but now belongs to the greedy and rich industrialists.

These are dangerous times, when the 1% of the wealthy control a 99% populace at varying levels of need. This is how revolutions begin, when a majority says "enough" and demands their share of the half and half for their coffee. But placate the masses—give us our six-lane highways and we're happy. Give us our 100-store malls and we're even happier. Not everyone has the resources to buy their signature fragrances at Bath and Body Works, but malls are the great equalizer—anyone of any race and any class can enter this sacred temple of consumption. Build a new nation? Hey, let's Build-a-Bear instead.

Concept Coding works best when the codes become prompts or triggers for critical thought and writing. Systematic clustering of comparable concepts into categories for further analysis is possible, but the collective perhaps better serves to organize an extended theme for reflection. Codes such as stylish uniformity and indigenous competition can be joined together to discuss the theme of traditions and ethos of a culture.

Qualitative research methodologist Paul Mihas (2014) labels a comparable technique a "load-bearing code"—that is, a single conceptual code that subsumes or codeweaves (see Chapter 3) two or more fragmented codes. For example, a male participant who survived a hurricane and experienced little property damage to his home might speak about his luck in one portion of an interview, then express feelings of guilt in the next portion over seeing neighbors who suffered far more damage than him. Mihas attempts to integrate luck and guilt into a single code that conceptualizes the tension between these two states and which can be applied to other similar passages in the interview. Thus, a conceptual load-bearing code such as the luck–guilt tradeoff or living between luck and guilt is applied to larger portions of interview data when the participant speaks about both experiences. Concepts suggest big ideas, so do not be afraid to "think big" as you expand on them in analytic memos.

Some recommended ways to further analyze Concept Codes are (see Appendix B):

- Axial Coding
- cross-cultural content analysis (Bernard, 2018)
- grounded theory (Bryant, 2017; Bryant & Charmaz, 2007, 2019; Charmaz, 2014; Corbin & Strauss, 2015; Stern & Porr, 2011)
- memo writing about the codes/themes (Charmaz, 2014; Corbin & Strauss, 2015; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)
- metaphoric analysis (Coffey & Atkinson, 1996; Lakoff & Johnson, 2003; Todd & Harrison, 2008)
- phenomenology (Giorgi & Giorgi, 2003; Smith et al., 2009; Vagle, 2018; van Manen, 1990; Wertz et al., 2011)
- political analysis (Hatch, 2002)
- quick ethnography (Handwerker, 2001)

- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998; Smith & Osborn, 2015).

Notes

Concept Coding does not have to be a stand-alone method with your data. Many of the other first and second cycle coding methods profiled in this book generate concept-like codes. See Coding the Codes in Chapter 12 for additional discussion on concept generation.

7 AFFECTIVE CODING METHODS

Chapter Summary

Affective coding methods investigate subjective qualities of human experience (e.g., emotions, values, conflicts, judgments) by directly acknowledging and naming those experiences. Some researchers may perceive these methods as lacking objectivity or rigor for social science inquiry. But affective qualities are core motives for human action, reaction, and interaction and should not be discounted from our investigations of the human condition. The emerging field of sentiment analysis, which examines online subjective opinions, emotions, and attitudes, can benefit from affective methods.

Emotion Coding and *Values Coding* tap into the inner cognitive systems of participants. Emotion Coding, quite simply, labels the feelings participants may have experienced. Values Coding assesses a participant's integrated value, attitude, and belief systems at work.

Versus Coding acknowledges that humans are frequently in conflict, and the codes identify which individuals, groups, or systems are struggling for power. Critical studies lend themselves to Versus Codes.

Evaluation Coding focuses on how we can analyze data that judge the merit and worth of programs and policies.

EMOTION CODING

Sources

Goleman, 1995; Kahneman, 2011; Liu, 2015; Prus, 1996

Description

Emotion Codes label the emotions recalled and/or experienced by the participant, or inferred by the researcher about the participant. Goleman (1995) defines an emotion as “a feeling and its distinctive thoughts, psychological and biological states, and range of propensities to act” (p. 289).

Applications

Emotion Coding is appropriate for virtually all qualitative studies, but particularly for those that explore intrapersonal and interpersonal participant experiences and actions, especially in matters of identity, social relationships, reasoning, decision-making, judgment, and risk-taking. Emotions arise from internal or external causes and are more reliably identified by a researcher from personal interaction with participants rather than through written materials (Liu, 2015). However, social media research "needs to make us care about [this strange new world] and the real people populating and affected by it. A great netnography … needs to arouse the most important of emotions: empathy for others. A sense of our own shared humanity" (Kozinets, 2020, p. 412).

Since emotions are a universal human experience, our acknowledgement of them in our research provides deep insight into the participants' perspectives, worldviews, and life conditions. Virtually everything we do has an accompanying emotion(s): "One can't separate emotion from action; they flow together, one leading into the other" (Corbin & Strauss, 2015, p. 23). Your abilities to read non-verbal cues, to infer underlying affects, and to sympathize and empathize with your participants, are critical for Emotion Coding.

"Emotions, ideals, and the moral order are deeply interrelated," asserts Brinkmann (2012, p. 117). Indeed, as Western society evolves, emotional values change: "Consequently, 'I cannot keep up' is replacing 'I want too much' as a central life problem. Exhaustion is replacing guilt, fear of inadequacy is replacing fear of non-conformity, and depression is replacing neuroses as a dominant social pathology" (p. 116). Thus, careful scrutiny of a person's emotions reveals not just the inner workings of an individual, but possibly the underlying mood or tone of a society—its ethos.

Example

An older female in an interview about her pet shares a recent story about her cat's illness. The Emotion Codes are a combination of In Vivo Codes and emotional states and reactions. Also note that the transcript has been partitioned into units or stanzas (see Chapter 2) since that will play an important role in its analysis. The coder's choices were based not just on the written transcript's contents, but also on inferences from the audio recording's vocal nuances and field notes that documented what emotions were witnessed/recalled during the interview itself:

Code example 7.1

[1] When I first learned that my cat had diabetes, I felt like I was in this surrealistic dream. The news was given to me over the phone by my vet, and it was said with compassion but urgency, and [2] I was in a whirlwind. I had to give them info on my pharmacy so they could call in an order for insulin and syringes. [3] I remember asking the assistant, "Do you mean a human pharmacy or an animal pharmacy?"	[1] "surrealistic dream" [2] "whirlwind" [3] confusion
[4] I also asked the vet about the costs associated with it, the cat's longevity, and what came next. I made an appointment so I could learn how to administer insulin shots to my cat. [5] That scared the hell out of me. I've never given shots before, and [6] the thought of hurting my cat or, even worse, doing it wrong and hurting him was tearing me apart. [7] I was trying to keep a brave face for, in front of the vet, and [8] it wasn't as hard as I thought it would be.	[4] foreboding [5] "scared" [6] "tearing me apart" [7] "brave face" [8] fear dispelled
[9] So, the first three days were just tension, tension, tension, making sure I was filling the syringe right, giving it to him correctly, making sure there was no bad reactions to the medication. [10] He took them well—his name's Duncan, by the way—took them like nothing's wrong. [11] I was trying to be clinical about it so I could ease some of the tension, but it became routine by the third day. [12] He's doing fine, same as he always was, [13] but I always keep that possibility that in, in the back of my head that he could react badly.	[9] "tension" [10] mild surprise [11] detachment [12] relief [13] doubt
[14] (*long pause; eyes become watery*) [I: That's OK. I'm a cat person, too.] [15] God, this is so hard. They're just like kids, you know?	[14] mild crying [15] parental concern-love

Analysis

Bradberry and Greaves (2009) offer that "all emotions are derivations of five core feelings: happiness, sadness, anger, fear, and shame" (p. 14). Yet just under 1,000 words (in English) exist to describe the nuances and complexities of human emotions, feelings, and moods, and thus the repertoire of potential codes is vast. And there are words for specific emotional states unique to particular languages and cultures. What a language contributes in diversity and accuracy can also become a source of frustration for the researcher attempting to find just the right word to describe, and thus code, a participant's emotional experiences. Gender also plays a significant role in emotional awareness when it comes to both the participants *and* the coder. Barchard and Picker (2016) observed that women give more detailed emotional responses, or what they label "emotional precision": "Just as women seem to know and use more precise words for colors (salmon VS pink …), women use more precise words for emotions (anguish VS feel bad)" (p. 3).

Though most emotions fall into a positive or negative category, a term like "happiness" is not as simple and standardized as we might assume it to be, since happiness is contextual and varies from person to person (Kahneman, 2011, p. 393, 407, 481). Psychologist Erik Fisher (2012) notes that we experience emotions before we formulate the words to articulate them. And even after the experience, the participant is challenged in emotional recall because *some* "affective experiences are fleeting and not available to [accurate] introspection once the feeling has dissipated" (Schwarz, Kahneman, & Xu, 2009, p. 159).

One analytic strategy with Emotion Codes is to track the *emotional journey* or *storyline* of the codes through time—the *structural arc* they follow as certain events unfold. From the example above, each stanza's codes are clustered together and consist of:

1. first stanza: "SURREALISTIC DREAM", "WHIRLWIND", CONFUSION
2. second stanza: FOREBODING, "SCARED", "TEARING ME APART", "BRAVE FACE", FEAR DISPELLED
3. third stanza: "TENSION", MILD SURPRISE, DETACHMENT, RELIEF, DOUBT
4. fourth stanza: MILD CRYING, PARENTAL CONCERN-LOVE.

Analytic memoing explores what each stanza's Emotion Codes have in common, or what emotional story-within-a-stanza is observed as the entire vignette is analyzed:

---

11 June 2011

PATTERNS: THE EMOTIONAL JOURNEY WITH A PET'S ILLNESS

The affection this woman has toward her pet is comparable to PARENTAL LOVE ("They're just like kids, you know?"). So when the owner first receives bad news about a pet's major illness—specifically, a diagnosis of diabetes—reality seems suspended as CONFUSION scatters her thoughts. A sense of FOREBODING generates FEAR as consultation with a veterinarian is made to review new medical treatments. The client, though, may be hiding her true feelings about the matter as a coping mechanism.

A sustained period of TENSION follows (layered, perhaps, with a tint of denial) as the owner adjusts to new caretaking and health maintenance responsibilities with her pet. Throughout this negative journey are a few optimistic peaks or niches when one realizes—indeed, is SURPRISED—when things are easier than you thought they'd be, and go smoother than you thought they would. And though adaptation may eventually lead to a new routine and a sense of RELIEF, lingering DOUBT about the pet's continued health remains. I've heard that CRYING is "nature's reset button" for

humans. Maybe CRYING is not a downer but a necessary peak to reach occasionally during ongoing TENSION so you can purge the bad out of you and move on.

Overall, this experience is not the proverbial "roller coaster" of emotions—for this participant, it's more like a tense ride through the unknowns of a haunted house.

Figure 7.1 shows the analyst's rendered interpretation of the participant's emotional arc, an arts-based method developed by choreographer Bill T. Jones that portrays an emotional journey through time. Each stanza is represented with the code(s) that seem(s) to best capture the overall mood during the interview segment, while the varying line designs attempt to visually symbolize the Emotion Codes. This technique is used by some actors and dancers to help them conceptualize their characters' journeys in performance, and the method can be adapted by qualitative researchers as a creative heuristic for deeper understanding of a participant's emotional journey as recalled in an account. Gibson (2015) labels an emotional arc a "red thread" that weaves throughout a participant's narrative (p. 183).

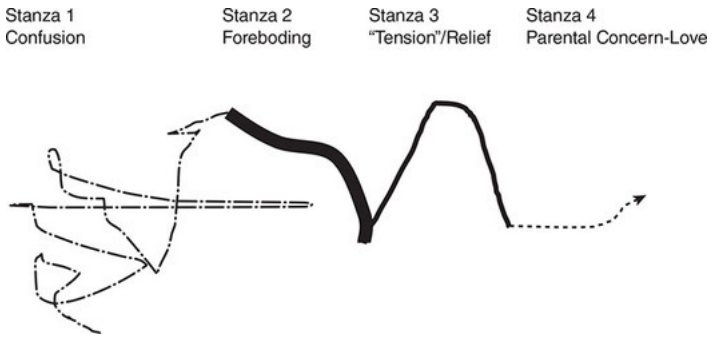

Figure 7.1 An emotional arc for a participant's account

When the phenomenon is fairly complex (such as treatment for cancer), highly contextual (such as experiencing a divorce), or occurs across a relatively lengthy time period (such as one's personal university education experiences), Emotion Codes could be subcoded or categorized in such a way that permits the analyst to discern which emotion(s) occur(s) with which specific period or experience—for example: Which emotions are present during the decision to divorce? Which emotions are present during child custody hearings? Which emotions are present during the signing of legal paperwork related to divorce? In this case, an Emotion Code could be preceded by (or Simultaneously Coded with) a Descriptive or Process Code to place the emotional experience in context:

DECISION TO DIVORCE—PERSONAL FAILURE

CUSTODY HEARING—HATRED

SIGNING PAPERS—REVENGEFUL

Dobbert and Kurth-Schai (1992) also alert researchers to the possible variation and intensity of a single emotion (p. 139). A revengeful or retaliatory action, for example, could be conducted coolly, spitefully, or maliciously. If nuance is critical for the analysis, consider Subcoding the primary emotion further or applying Magnitude Coding. Also acknowledge that emotional states are very complex, and single experiences can include multiple or conflicting emotions—for example, "shame requires a sense of guilt"

(Handwerker, 2015, p. 115). Thus, Simultaneous Coding and/or Versus Coding (e.g., mourning vs relief) can be used concurrently with Emotion Coding. And since emotional responses are intricately woven with our value, attitude, and belief systems, Values Coding also becomes a critical concurrent method.

If an anger, angry, mad, or comparable Emotion Code is present, be aware that anger is a consequential emotion and that a triggering emotion precedes it, such as embarrassment, anxiety, or shame. "Anger results from a demeaning offense against the self, guilt from transgressing a moral imperative, and hope from facing the worst but yearning for better" (Salovey, Detweiler-Bedell, Detweiler-Bedell, & Mayer, 2008, p. 537). During data collection, explore the participant emotions before anger, and scan your data during analysis when an anger code is present to determine the triggering emotion and its appropriate code. CAQDAS will enable you to link this emotional trail of data. It may be stating the obvious: where there is frustration or anger, there is tension or conflict. Thus, explore not just the emotions but the *actions* that initiated them (Back, Küfner, & Egloff, 2010).

Developmentally, middle childhood (approximately ages 8–9) is a period of *emotional ambivalence* in which children experience new emotions but do not necessarily have the vocabulary to describe them. Some young people (and adults) may use metaphors and similes to explain their feelings (e.g., "a floating kind of happy," "like I was in the Twilight Zone"). Researchers may opt to apply In Vivo Codes during the first cycle of coding ("the twilight zone"), then more standard labels during the next cycle for the emotions experienced by the participant (surreal). But if a metaphoric phrase seems to evocatively—if not more accurately—capture the experience, consider keeping it as the code of choice. Eatough and Smith (2006) strongly recommend careful attunement to the participant's *language* use in his or her accounts since individuals "give emotional performances that tell us not about their emotional experience, but about the discursive skills and rules of emotion that they have acquired through language" (p. 117).

Even in adulthood not everyone, particularly heterosexual men (Schwalbe & Wolkomir, 2002), is capable of expressing their emotions, comfortable discussing them, or able to label them accurately. Some may also be quite adept at emotion/impression management, deception, and emotional denial (which could also be coded as such). An inability to articulate what or how one feels, however, should not always be perceived as a deficit: "we should respect people's confusion and indecision and not represent their meanings as more coherent or stable than they are" (Miller, Hengst, & Wang, 2003, p. 222).

Researchers may find themselves making several inferences about the subtextual emotional experiences of some participants in selected settings and contexts. Figure 7.2 displays MAXQDA software's Memo Manager, highlighting the data analyst's questions and reflections on participant emotions. Stay particularly attuned to participant body language and the nuances of voice. Kimmel (2008), in his astute sociological analysis of young adult men's culture, *Guyland*, observed that one participant discussing power roles in sexual relationships "began his description in a sort of temperate voice, without much rancor. But a few seconds later, he looked frustrated and mad, and the tone of his voice had risen to match. Again and again, as guys described their feelings to me, they would at some point stop *describing* their feelings and actually start *feeling* them" (p. 227, emphasis in original).

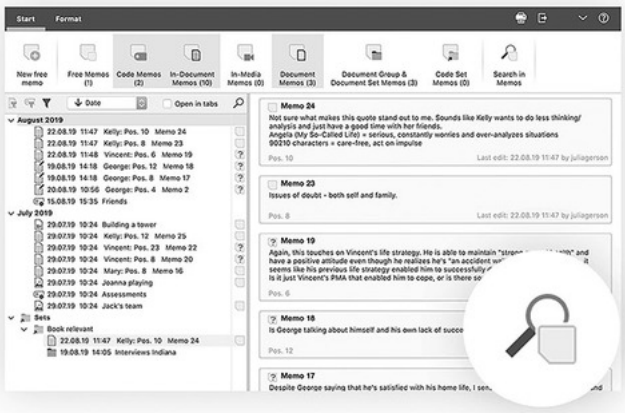

Figure 7.2 A MAXQDA 2020 screenshot of memos related to participants' emotions (courtesy of Elizabeth Jost, VERBI Software, maxqda.com)

Kahneman (2011) offers a fascinating overview of how emotion and cognition interplay with each other to create broader psychological constructs and processes such as "loss aversion," "optimistic bias," and the "illusion of validity." Yet, I myself resonate not just with scientific paradigms but with a piece of folk wisdom: "Life is 20 percent what happens to you, and 80 percent how you react to it." This suggests that we explore not just the actions but, with more emphasis, the emotional *re*actions and *inter*actions of individual people to their particular circumstances.

Each major discipline (psychology, sociology, human communication, human development, education, etc.) will approach and apply in different ways research on emotions. Plus, Western psychology principles do not always transfer to non-Western societies. Emotion Coding, therefore, should be applied with culturally contextual lenses. The subject is intricately complex, so explore the literature from various fields of study, including neuroscience, to assess the conceptual frameworks, operating definitions, and theories regarding emotions.

Some recommended ways to further analyze Emotion Codes are (see Appendix B):

- first cycle coding methods
- action and practitioner research (Altrichter et al., 1993; Coghlan & Brannick, 2014; Fox et al., 2007; Stringer, 2014)
- cognitive mapping (Miles et al., 2020; Northcutt & McCoy, 2004)
- frequency counts (LeCompte & Schensul, 2013)
- interrelationship (Saldaña, 2003)
- life course mapping (Clausen, 1998)
- metaphoric analysis (Coffey & Atkinson, 1996; Lakoff & Johnson, 2003; Todd & Harrison, 2008)
- narrative inquiry and analysis (Bischoping & Gazso, 2016; Clandinin & Connelly, 2000; Coffey & Atkinson, 1996; Cortazzi, 1993; Coulter & Smith, 2009; Daiute & Lightfoot,

2004; Holstein & Gubrium, 2012; Murray, 2015; Riessman, 2008)

- phenomenology (Giorgi & Giorgi, 2003; Smith et al., 2009; Vagle, 2018; van Manen, 1990; Wertz et al., 2011)
- poetic and dramatic writing (Denzin, 1997, 2003; Glesne, 2011; Knowles & Cole, 2008; Leavy, 2015; Saldaña, 2005a, 2011a)
- portraiture (Lawrence-Lightfoot & Davis, 1997)
- sentiment analysis (Ignatow & Mihalcea, 2017; Liu, 2015)
- situational analysis (Clarke et al., 2015a, 2018)
- social media analysis (Kozinets, 2020; Paulus & Wise, 2019; Rogers, 2019; Salmons, 2016).

Notes

If you are not trained in counseling, be wary of playing amateur psychologist during fieldwork, and exercise ethical caution and empathetic and sympathetic support when interviewing people about sensitive or traumatic matters which may generate strong and distressing emotions in recall (McIntosh & Morse, 2009; Morse, Niehaus, Varnhagen, Austin, & McIntosh, 2008). Morse (2012) shares that when participants are interviewed about their illnesses or debilitations, crying is the norm, not the exception.

See Arlie Russell Hochschild's (2003) *The Managed Heart* for her groundbreaking sociological work and theories on "emotional labor" among airline flight attendants, and the possible transfer of these theories to other service and helping professions. Also see Scheff (2015) for a rich discussion on the difficulty of defining basic emotions; Collins and Cooper (2014) for an excellent discussion of the qualitative researcher's emotional intelligence during fieldwork; and Esterhuizen, Blignaut, Els, and Ellis (2012) for a fascinating mixed methods study on emotions and computer literacy learning. A visual image Google search for "Emotion Wheel" and "Periodic Table of Human Emotions" will generate some related reference materials. Finally, watch social scientist Brené Brown's intriguing TED talk on vulnerability, which describes an emotional arc in everyday life: ted.com/talks/brene_brown_on_vulnerability.html

VALUES CODING

Sources

Gable & Wolf, 1993; LeCompte & Preissle, 1993

Description

Values Coding is the application of codes to qualitative data that reflect a participant's values, attitudes, and beliefs, representing his or her perspectives or worldview. Though each construct has a different meaning, Values Coding, as a term, subsumes all three (see Figure 7.3).

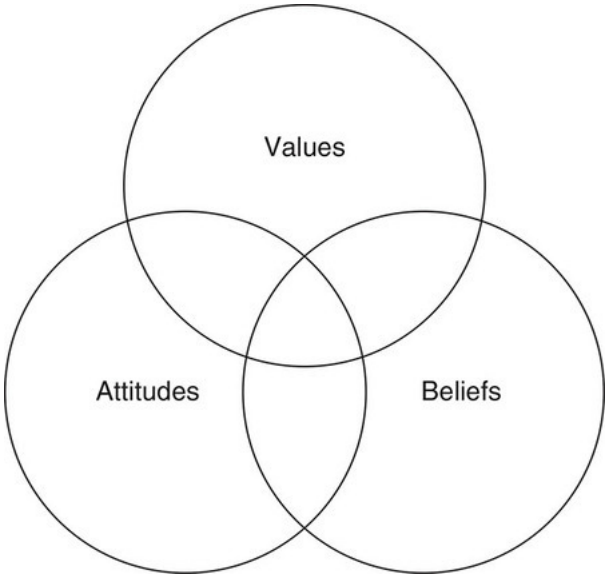

Figure 7.3 An integrated system of values, attitudes, and beliefs

Briefly, a *value* is the importance we attribute to ourselves, another person, thing, or idea. Values are the principles, moral codes, and situational norms people live by (Daiute, 2014, p. 69). "The greater the personal meaning [of something to someone], the greater the personal payoff; the greater the personal payoff, the greater the personal value" (Saldaña, 1995, p. 28).

An *attitude* is the way we think and feel about ourselves, another person, thing, or idea. Attitudes are part of "a relatively enduring system of evaluative, affective reactions based upon and reflecting the evaluative concepts or beliefs, which have been learned" (Shaw & Wright, 1967, p. 3).

A *belief* is part of a system that includes our values and attitudes, plus our personal knowledge, experiences, opinions, assumptions, biases, prejudices, morals, and other interpretive perceptions of the social world. "Beliefs are embedded in the values attached to them" (Wolcott, 1999, p. 97) and can be considered "rules for action" (Stern & Porr, 2011, p. 28).

In sum, a value is what you think/feel is important. An attitude is how you think/feel about something or someone. And a belief is what you personally think/feel to be true.

Values, attitudes, and beliefs are formed, perpetuated, and changed through social interactions and institutions, and our cultural and religious (if any) memberships (Charon, 2013, pp. 102, 131, 133, 221; Lieberman, 2013, pp. 8–9). People within selected age ranges and generational cohorts may also share comparable values systems among their personal social networks.

Applications

Values Coding is appropriate for virtually all qualitative studies, but particularly for those that explore cultural values and belief systems, identity, intrapersonal and interpersonal participant experiences and actions in case studies, appreciative inquiry, oral history, critical ethnography, sociology, social media research, and longitudinal qualitative studies. Scollon and Scollon (2004) go so far as to state that "all speech and all discourse, but also all action is inherently a system of attitudes. Any action implies value, attitude, affect, emotion" (p. 144).

There is complex interplay, influence, and affect between and among all three constructs that manifest themselves in thought, feeling, and action, but Values Coding does not necessarily have to code for all three or differentiate between them unless the study's goals include determining participant motivation, agency, causation, or ideology. Consider the code patriotism: Is patriotism a value, attitude, or belief? Or is it a blend of two or all three constructs? That is for the researcher, preferably in consultation with the participant, to interpret.

Values Coding is applicable not only to interview transcripts, blogs, vlogs, and other participant-generated materials such as journals, diaries, and social media entries on platforms such as Facebook, but also to field notes in which naturalistic participant actions are documented. Using multiple sources, in fact, corroborates the coding and enhances the trustworthiness of the findings (LeCompte & Preissle, 1993, pp. 264–5). What a participant states are his or her values, attitudes, and beliefs may not always be truthful or harmonize with his or her observed actions and interactions. Values Codes can be determined a priori (beforehand) as Provisional Codes, or constructed inductively during coding of the data.

Example

The types of Values Codes in the example below are distinguished through the use of V: (value), A: (attitude), and B: (belief), though it can sometimes be a slippery task to determine which participant statement is which type. A female, mid-career elementary school teacher from a middle-class suburban school shares with an interviewer her overall teaching philosophy and ways of working with fourth-grade children:

Code example 7.2

[1] I think it's important that the child learns that he or she's not alone in this world. There are other people you have to get along with—friends, family, teachers, people that are different colors, people who speak different languages.	[1] v: local and global awareness
[2] I really try to build a sense of community in my classroom, that we treat each other with respect, and that I will do my best to make you feel safe and secure. [3] But it's a two-way street. You—the kids, I mean—have to make the effort to make sure that others feel comfortable around you. [4] There's no name-calling, no teasing or put-downs, no bullying. [5] That's the ideal. It may not always happen, but that's the ideal.	[2] v: classroom community [3] a: student accountability [4] v: respect [5] b: the ideal is possible
[6] And responsibility. I don't know if it's a work ethic or what, but I want them to be accountable, to be on task, to show some commitment, to follow through.[7] Sometimes I get the lamest excuses from them about why something didn't get done or why they're doing something that they don't know why they're doing it, you know? [8] I want them to *think*, that's all. To stay focused on what needs to be done, to not let your mind wander off, to get the job done. …	[6] v: personal responsibility [7] a: dislikes "lame excuses" [8] v: a focused mind
[9] I also want kids to know that learning can be exciting. It breaks my heart when I hear from a child, "I hate to read." [10] Well, it must be what you're reading, then. Yes, we have to use those God-awful basals [readers] as a textbook, [11] but when we get to the library, I let them know about some of the great titles, the Newbery [book award] winners. I read aloud with as much passion as I can muster to show them that literature rocks and it's exciting.	[9] b: learning is exciting [10] a: hates mandatory reading basals [11] v: great literature

Analysis

If you have coded units according to values, attitudes, and beliefs, the next step is to categorize them and reflect on their collective meaning, interaction, and interplay, working under the premise that the three constructs are part of an interconnected system (see Figure 7.4). With the above data we get:

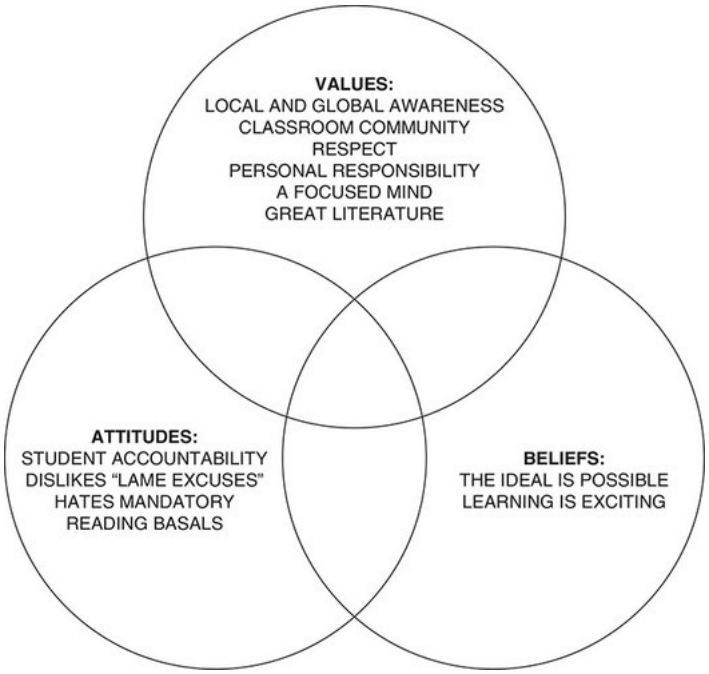

Figure 7.4 A teacher's values, attitudes, and beliefs

Structural code/category: teaching philosophy and goals

Values

LOCAL AND GLOBAL AWARENESS

CLASSROOM COMMUNITY

RESPECT

PERSONAL RESPONSIBILITY

A FOCUSED MIND

GREAT LITERATURE

Attitudes

STUDENT ACCOUNTABILITY

DISLIKES “LAME EXCUSES”

HATES MANDATORY READING BASALS

Beliefs

THE IDEAL IS POSSIBLE

LEARNING IS EXCITING

Analytic reflection through memoing and assertion development weaves the three constructs’ most salient codes together:

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17 June 2014

ASSERTIONS: A TEACHER’S VALUES SYSTEM

This teacher has high goals and expectations for her students, and holds them accountable for realizing those ideals. There’s a strong corroboration between her values, attitudes, and beliefs. The beliefs are positive, yet the attitudes are more about what is disliked. The values show a spectrum ranging from the local microculture of the classroom to the world’s populace and great literature. At mid-career, she still maintains her standards/ideals for classroom learning, yet also has the hardened edge of a teaching veteran who won’t let her students get away with poor work or a disrespectful attitude: “And responsibility. I don’t know if it’s a work ethic or what, but I want them to be accountable, to be on task, to show some commitment, to follow through.” Overall, her content teaching is progressive, but her classroom management and decorum are very traditional—“old school,” if you will.

As I continue classroom observations, I’m going to keep an ear out for what kinds of messages she sends to children, particularly if and when they don’t meet her ideals.

Conceptual values, attitudes, and beliefs may not always be directly stated by participants. Phrases such as “It’s important that,” “I like,” “I love,” or “I need” alert you to what may be valued, believed, thought, or felt, along with such obvious cluing phrases as “I think,” “I feel,” and “I want.” Participant observation in natural social settings relies more on researcher inferences of values, attitudes, and beliefs. But sometimes the most direct way to find out what someone values, thinks, feels, and believes is to simply ask him or her, “What do you value?”, “What’s important to you?”, “What matters to you most?”, “What do you think and feel about …?” Most participants can tell researchers what their values, attitudes, and beliefs are, though they may not always be aware of how these opinions and perspectives originated and evolved.

Values within an individual are influenced and affected by the social and cultural networks to which he or she belongs, yet there are some moral orders and values systems acknowledged as universal across social groups such as *benevolence*, *conformity*, and *security* (Handwerker, 2015, pp. 18–19). *Differential association*, for example, is a sociological “theory that suggests that people’s values are influenced by the groups they interact with most intensively” (Rubin & Rubin, 2012, p. 132). Analyzing what an individual values also suggests what the participant considers *valuable*: “we tend to ascribe value in direct

proportion to how hard a thing is to get" (Kimmel, 2008, p. 258). What someone values consists not only of internal states of mind but of tangible possessions (e.g., monetary wealth, a personal library, a home) and ideal life conditions (e.g., a quiet home, more sex, an equitable workplace).

Gubrium and Holstein (2009, p. 70) remind us that values are shaped by the individual's specific biography and historic period of existence, while Chang (2008, p. 96) notes that personal values are also reflected through the activities in which we engage and in the material items we possess. Analysis and analytic memos generated from Values Coding might explore the origins of the participant's value, attitude, and belief systems derived from such individuals, institutions, and phenomena as parents, peers, school, religion, media, and age cohort, as well as the participant's personal and unique experiences, development, and self-constructed identities from social interaction and material possessions.

Questionnaires and survey instruments, such as Likert scales and semantic differentials, are designed to collect and measure a participant's values, attitudes, and beliefs about selected subjects (Gable & Wolf, 1993). The quantitative data, however, transform meaning into numbers for statistical analysis, yet still have their place in such fields as psychology, opinion research, evaluation research, and organizational studies. Also, these quantitative scales assume direction and intensity of a value, attitude, or belief, necessitating a fixed, linear *continuum* of response (e.g., less to more, strongly agree to strongly disagree) rather than a three-dimensional *ocean* allowing for diverse responses and varying levels of depth (Saldaña, 2003, pp. 91–2). Qualitative inquiry provides richer opportunities for gathering and assessing, in language-based meanings, what the participant values, believes, thinks, and feels about social life.

Certainly, children's and adolescents' values, attitudes, and beliefs emerge and develop as they grow to become citizens of the world, but there seem to be varied perspectives on whether selected values, attitudes, and beliefs remain firmly fixed throughout an adult's life, particularly in later years, or whether these can change subtly to significantly due to personal experiences, circumstances, and epiphanies that initiate deep reflection about oneself and others. I believe that the constructs of values, attitudes, and beliefs are somewhat fluid throughout the life course, and they evolve in different trajectories for different reasons. Thus, when we code a set of data for V/A/B, we must acknowledge that what we observe is that participant's constructs at that particular moment in time. Engelke (2018) astutely observes that "values that matter most are stable and flexible at the same time … like weathervanes; they're 'fixed' yet often move about or change direction on account of what's in the air" (p. 91). Longitudinal qualitative data and their accompanying codes (see Chapter 14) may reveal differences in a person's V/A/B from one time period through another.

Researchers should also attune themselves to moments of *cognitive dissonance*, either in participants or in the researchers themselves. Cognitive dissonance occurs when a person's core belief is challenged internally, and the individual has difficulty mentally reconciling the contradiction. For example, a participant may strongly believe that targets or victims of bullying have thin skin and need to toughen up. But when the participant witnesses a bullying attack and suddenly realizes the problem is not the victim's reaction but the bully's actions, an abrupt moment of confusion occurs. A researcher, too, can experience cognitive dissonance when his or her own values system is challenged by what he or she observes in the field or hears from a participant that counters firmly fixed beliefs.

Finally, Values Coding also requires a paradigm, perspective, and positionality. If a participant states, "I really think that marriage should only be between one man and one woman," the researcher is challenged to code the statement any number of ways depending on the *researcher's own* systems of values, attitudes, and beliefs. Thus, is this participant's remark to be coded: v: traditional marriage, b: heteronormativity, or a: homophobic? If the goal is to capture the participant's worldview or personal ideology,

then the first and second codes are more grounded in his or her perspective. But if the study is critical ethnography, for example, then the latter code may be more appropriate. Values Coding is values-laden.

Some recommended ways to further analyze Values Codes are (see Appendix B):

- action and practitioner research (Altrichter et al., 1993; Coghlan & Brannick, 2014; Fox et al., 2007; Stringer, 2014)
- assertion development (Erickson, 1986)
- case studies (Merriam, 1998; Stake, 1995)
- content analysis (Krippendorff, 2013; Neuendorf, 2017; Schreier, 2012; Wilkinson & Birmingham, 2003)
- cross-cultural content analysis (Bernard, 2018)
- discourse analysis (Bischoping & Gazso, 2016; Gee, 2011; Rapley, 2018; Willig, 2015)
- framework policy analysis (Ritchie & Spencer, 1994)
- frequency counts (LeCompte & Schensul, 2013)
- interactive qualitative analysis (Northcutt & McCoy, 2004)
- life course mapping (Clausen, 1998)
- longitudinal qualitative research (Giele & Elder, 1998; McLeod & Thomson, 2009; Saldaña, 2003, 2008)
- narrative inquiry and analysis (Bischoping & Gazso, 2016; Clandinin & Connelly, 2000; Coffey & Atkinson, 1996; Cortazzi, 1993; Coulter & Smith, 2009; Daiute & Lightfoot, 2004; Holstein & Gubrium, 2012; Murray, 2015; Riessman, 2008)
- phenomenology (Giorgi & Giorgi, 2003; Smith et al., 2009; Vagle, 2018; van Manen, 1990; Wertz et al., 2011)
- political analysis (Hatch, 2002)
- portraiture (Lawrence-Lightfoot & Davis, 1997)
- qualitative evaluation research (Patton, 2008, 2015)
- sentiment analysis (Ignatow & Mihalcea, 2017; Liu, 2015)
- social media analysis (Kozinets, 2020; Paulus & Wise, 2019; Rogers, 2019; Salmons, 2016)
- survey research (Fowler, 2014; Wilkinson & Birmingham, 2003)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998; Smith & Osborn, 2015).

Notes

Daiute (2014) notes that personal values can be interpreted as major or minor, depending on the context (p. 86). Since Values Coding can reflect a participant's needs and wants, and emotions are intricately interwoven with one's values system, see Emotion Coding and Dramaturgical Coding for comparable or complementary methods. Longitudinal Coding is also an effective method for assessing an individual's or culture's changes in values, attitudes, and beliefs through time.

VERSUS CODING

Sources

Altrichter et al., 1993; Hager et al., 2000; Wolcott, 2003

Description

Versus Codes identify in dichotomous or binary terms the individuals, groups, social systems, organizations, phenomena, processes, concepts, etc., in direct conflict with each other. Wolcott (2003) describes a moiety (from the French *moite*, meaning “half”) as one of two—and only two—mutually exclusive divisions within a group. He observed in *Teachers versus Technocrats* that this social division extends throughout educator subculture during times of stress rather than daily business (pp. 116, 122–7). Moieties exist in many facets of social life, and there is generally an asymmetrical power balance between them, a duality that manifests itself as an X VS Y code (e.g., teachers vs parents, republicans vs democrats, work vs play).

Applications

Versus Coding is appropriate for policy studies, gender studies, institutional ethnography, evaluation research, critical discourse analysis, situational analysis, and qualitative data sets that suggest strong conflicts, microaggressions, polarization, or competing goals within, among, and between participants. Studies in cross-cultural or intercultural conflict and opposing norms and values systems may also find utility with the coding method (Handwerker, 2015).

In selected methodologies such as critical ethnography, the researcher may deliberately "take sides" with a group and its issue. For other genres such as action research (Altrichter et al., 1993; Stringer, 2014) and practitioner research (Fox et al., 2007), discerning the conflicting power issues and micro-politics among constituents and stakeholders is an important diagnostic for initiating and facilitating positive social change. Agar (1996) notes that a contemporary ethnographer "looks for patterns of social domination, hierarchy, and social privilege. He or she examines the power that holds patterns in place, how people accept or struggle against them. The focus is on patterns that reveal injustice" (p. 27). Those using Foucault's theories of power and knowledge (e.g., Where there is power, there is resistance) as conceptual frameworks for their research studies may find Versus Coding a compatible analytic heuristic.

Example

In a study of teachers responding to state-developed fine arts standards for educational achievement (Hager et al., 2000), there were distinct moieties that arose as teachers reflected on and grappled with recent policies influencing and affecting their practice. Strong conflicts were evident in the data as participants openly shared their perspectives. One e-mail response reads:

Code example 7.3

[1] My mentor teacher took one look at the standards when they came out, said “What a load of crap,” and dismissed them. [2] She thinks the standards are often impossible to achieve and that you would have to be a superteacher with superstudents to even come close to covering all the material. [3] I don’t use the state standards either. I believe that my lessons incorporate many of the standards, but [4] I do not design them around the standards. I design them around the needs of students in my classes. I tend to personalize projects for the students. [5] I grade them individually based on self-improvement rather than a comparison to other students. I think in many ways [6] the standards expect students to be automatons with the same skills and don’t allow for variances.	[1] teacher vs standards [2] “impossible” vs realistic [3] teacher vs standards [4] standards vs student needs [5] custom vs comparison [6] standardization vs “variances”

Analysis

Conflicting personnel, perspectives, policies, philosophies, curricula, practices, etc., when present in the data corpus from the study illustrated above, were coded as dichotomies, ranging from the actual to the conceptual:

STATE VS DISTRICT

GRADUATION REQUIREMENT VS ELECTIVE

IVORY TOWER VS INNER CITY

PRESCRIPTION VS AUTONOMY

PRODUCT VS PROCESS

In Vivo Codes were used occasionally when teachers' statements were highly illustrative or difficult to reduce to a single word or phrase:

OWNERSHIP VS "WHO WROTE THESE?"

"FUN" VS "TEACH TO THE TEST"

Though not necessary for all studies, Versus Coding may lead to three major moieties: the primary stakeholders, how each side perceives and acts toward the conflict, and the central issue at stake—the latter of which could emerge as a central theme, core category, key assertion, etc. In the study profiled in the example above, the three final moiety categories that subsumed all other Versus Codes were:

- Us (teachers) VS Them (all other personnel, such as principals, school districts, the state department of education, state universities, etc.)
- Your Way (mandated yet poorly written state standards) VS Our Way (experienced educators working at the local level who know their art and their students)
- Con-form (conformity to prescribed and standardized curricula) VS Art-form (creative expression in the subject area and its practice).

Note that the latter category is a fairly creative construct, one not directly stated by participants but generated by the research team during discussion about the study. When this conceptual category was uttered, it felt like an "ah-ha!" moment, cluing us that we had captured the central theme from our fieldwork.

Categorize all codes from your data into one of the three major categories (Stakeholders, Perceptions/Actions, Issues) as an initial analytic tactic, but leave yourself open to reorganizing the codes into other emergent categories, and not just limited to three. Analytic memo writing can focus on what Gibson and Brown (2009) posit as "the reasons why the opposition exists; to try to explain how the two oppositional characteristics may exist in the same empirical space" (p. 141). Analysis should also consider the "mistakes" people make that lead to or sustain the conflict, and if and how they are resolved (p. 134).

Augusto Boal's (1995) social change theory suggests that humans are rarely in conflict with abstract concepts or ideologies (e.g., participant vs religion), but rather with other humans or themselves (e.g., participant vs church leadership, participant vs personal loss of faith). Ground your initial Versus Coding in actual, observable conflicts. Abstract moiety categories can emerge during second cycle coding and later stages of analysis. For grounded theory studies, however, Charmaz (2009) recommends looking for conceptual tensions or "metaphors of opposition" at whatever cycle they emerge—for example, struggle vs surrender, social identifications vs self-definitions (p. 157). Explore who or what is being discredited at the expense of someone or something else maintaining authority.

A related technique is "dilemma analysis," coined by Richard Winter, who applied the method in educational action research (Altrichter et al., 1993, pp. 146–52). Data are reviewed to find and juxtapose inconsistencies and contradictions that inhibit professional practice and decision-making. These dilemmas are listed as sentences that alternate with "On the one hand" and "On the other hand." For example:

- On the one hand, standards legitimize the merit and worth of dance in the schools.
- On the other hand, dance is an elective rather than required course in the schools.
- On the one hand, dance is taught best by trained specialists in the discipline.
- On the other hand, no school district funds exist for employing dance specialists.

Thematic sentence couplings such as these can be categorized appropriately and examined by practitioners for reflection and action, or converted to Versus Codes for categorization and analysis. For example, the first coupling above might be coded legitimate vs elective or "merit and worth" vs optional frill. The second coupling might be coded ideal vs real or personnel need vs personnel void. CAQDAS programs can conveniently and effectively link two different passages of data contradicting each other in content or perspectives for Versus Coding. Another effective model for practitioner research is "force field analysis," which lists the opposing stakeholders' perspectives and uses directional arrows of varying sizes to illustrate the conflicting forces between change and the status quo (Fox et al., 2007, pp. 37–8, 172–6).

Yet another way to explore conflicts in data is to tag them with PRO: and CON: or POS: and NEG: code prefixes. Using the example data for Versus Coding, analysts can separate the positive from the negative perceptions of the phenomenon explored:

Code example 7.4

[1] My mentor teacher took one look at the standards when they came out, said "What a load of crap," and dismissed them. She thinks the standards are often impossible to achieve and that you would have to be a superteacher with superstudents to even come close to covering all the material. [2] I don't use the state standards either. I believe that my lessons incorporate many of the standards, but I do not design them around the standards. [3] I design them around the needs of students in my classes. I tend to personalize projects for the students. I grade them individually based on self-improvement rather than a comparison to other students. [4] I think in many ways the standards expect students to be automatons with the same skills and don't allow for variances.	[1] con: unrealistic standards [2] pro: standards by default [3] pro: student-centered lessons

	[4] con: standardized “automatons”

Analysis can then categorize and subcategorize the positive and negative codes to explore the specific sources of conflict and the potential “light in the tunnel” from proactive perspectives.

Some recommended ways to further analyze Versus Codes are (see Appendix B):

- action and practitioner research (Altrichter et al., 1993; Coghlan & Brannick, 2014; Fox et al., 2007; Stringer, 2014)
- assertion development (Erickson, 1986)
- discourse analysis (Bischoping & Gazso, 2016; Gee, 2011; Rapley, 2018; Willig, 2015)
- framework policy analysis (Ritchie & Spencer, 1994)
- grounded theory (Bryant, 2017; Bryant & Charmaz, 2007, 2019; Charmaz, 2014; Corbin & Strauss, 2015; Stern & Porr, 2011)
- interactive qualitative analysis (Northcutt & McCoy, 2004)
- narrative inquiry and analysis (Bischoping & Gazso, 2016; Clandinin & Connelly, 2000; Coffey & Atkinson, 1996; Cortazzi, 1993; Coulter & Smith, 2009; Daiute & Lightfoot, 2004; Holstein & Gubrium, 2012; Murray, 2015; Riessman, 2008)
- political analysis (Hatch, 2002)
- polyvocal analysis (Hatch, 2002)
- qualitative evaluation research (Patton, 2008, 2015)
- situational analysis (Clarke et al., 2015a, 2018)
- within-case and cross-case displays (Miles et al., 2020; Shkedi, 2005).

Notes

The protagonist versus antagonist paradigm of Versus Coding does not necessarily suggest that there is a clear-cut hero and villain evident in the data. Screenwriter John Rogers is noted for his meme, “You don’t really understand an antagonist until you understand why he’s a protagonist in his own version of the world.” Conflicts are contextual, nuanced, and each side has its own story to tell. Clarke et al. (2018) reinforce “that there are not ‘two sides’ but rather N sides or multiple perspectives in any discourse” (p. 260). And, as a classic saying goes, “There are three sides to every story: your side, my side, and the truth.” Nevertheless, Versus Coding makes evident the power issues at hand as humans often perceive them—as binaries or dichotomies. See Harré and van Langenhove (1999) for a discussion of “positioning theory” in interpersonal interactions, and Freeman’s (2017) evocative discussion on dialectical thinking for exploring how contradictions and friction are processes toward reaching individual and social stability.

The description of Code Mapping in Chapter 12 utilizes the codes from the study illustrated in Versus Coding.

EVALUATION CODING

Sources

Patton, 2008, 2015; Rallis & Rossman, 2003

Description

Evaluation Coding applies (primarily) non-quantitative codes to qualitative data that assign judgments about the merit, worth, or significance of programs or policy (Rallis & Rossman, 2003, p. 492). Program evaluation is “the systematic collection of information about the activities, characteristics, and outcomes of programs to make judgments about the program, improve program effectiveness, and/or inform decisions about future programming. Policies, organizations, and personnel can also be evaluated” (Patton, 2015, p. 18). To Rallis and Rossman, evaluation data describe, compare, and predict. Description focuses on patterned observations or participant responses of attributes and details that assess quality. Comparison explores how the program measures up to a standard or ideal. Prediction provides recommendations for change, if needed, and how those changes might be implemented.

Applications

Evaluation Coding is appropriate for policy, critical, action, organizational, and (of course) evaluation studies, particularly across multiple sites and extended periods of time. Appreciative inquiry and social media research may also benefit from the utility of Evaluation Coding.

Evaluation Codes emerge from the evaluative perspective of the researcher or from the qualitative commentary provided by participants. Selected coding methods profiled in this manual can be applied to or supplement Evaluation Coding (e.g., Magnitude Coding, Descriptive Coding, Values Coding, and grounded theory coding methods), but Evaluation Coding is also customized for specific studies since “the coding system must also reflect the questions that initiated and structured the evaluation in the first place” (Pitman & Maxwell, 1992, p. 765).

Example

A study is conducted on how people with special nutritional and dietary needs manage their daily health maintenance and how medical professionals work with them. A male in his early 30s with a history of severe food allergies and digestive disorders recalls his experiences with medical diagnoses, treatments, and diets. This interview excerpt focuses on one particular treatment and its effects.

The Evaluation Coding example below employs Eclectic Coding (discussed further in Chapter 9)—an amalgam of Magnitude Coding (to note whether the participant makes a positive [+] or negative [−] comment), Descriptive Coding (to note the topic), Subcoding or In Vivo Coding (to note the specific qualitative evaluative comment), plus a recommendation coding tag (REC) with a specific memo/action for follow-up. Since Evaluation Coding should reflect the nature and content of the inquiry, all codes relate to the specific case:

Code example 7.5

SAM: [1] My, my chiropractor sent me to a doctor because she's like, "I can't prescribe medication but I really think, to kick this out of your system, we want to prescribe this," and she told me that, what she wanted.	[1] + referral: prescription
[2] So, she sends me to a person I know and a person that she knows and this doctor was just, she was a medical doctor but a quack. I'm just like, "You don't know anything." [3] And, I'm like, she was testing, which is fine, testing me for all these, testing my blood, testing my liver and all this. And, she's like, [4] "Well, I don't know what to do." I'm like, "What about that medication, you know, doctor, she suggested?" "Well, I could put you on that and I think that's the best thing, but I just don't know what's going on with you."	[2] − doctor: "quack" [3] + testing: "fine" [4] − doctor: "don't know what to do"
[5] And, I'm like, it's all like going back to the medieval days for me. It's like, I'm like, I spent time with my doctor and we've been treating this and we want results to just kick it. [6] But, she's all, doctors have that ego. Like, "I'm God, I know better than anyone."	[5] rec: doctor's support [6] − doctor: "ego"
[7] And it's like, so I took the drugs. Literally, it happened Friday night until Sunday evening, I was in-, I was incapacitated. I've, I've never been, I can't call it sick, I think I was in a coma. I could, the only thing I could do was get up to pee, I couldn't even get water. It was, and what happened was, what I researched and what my chiropractor kind of already knew, she's pretty intuitive, is [8] it killed a parasite in my liver and it caused that reaction. [9] Now had I known in ad-, had I actually known this in advance, and in hindsight, there's a tea you can drink that'll counter that and I would have been fine. But, you only know this stuff through experience. …	[7] − drugs: negative reaction [8] + drugs: killed parasite [9] rec: give alternative treatment info

[10] And I' m, I' m doing all of this out of pocket because my insurance company won' t pay for what I had. I got rid of my insurance. They wouldn' t pay for it. [I: Why wouldn' t the insurance company cover that?] They won' t pay for a chiropractor, they won' t pay for a nutritionist. They' re just something society doesn' t deem as important.	[10] – insurance: "won' t pay"

Analysis

Patton (2008, p. 478) notes that four distinct processes are used to make sense of evaluation findings: analysis of the data for their patterns; interpretation of their significance; judgment of the results; and recommendations for action. “In the simplest terms, evaluations are said to answer three questions: What? So what? Now what?” (p. 5)

Clients and constituents for evaluation research most often want to know, first, what is working and what is not. Hence, the + and − Magnitude Codes receive priority for quick categorization by the researcher, followed by the specific topic, subtopic, and comment. For example, from the data above:

Positive comments

REFERRAL: PRESCRIPTION

TESTING: “FINE”

DRUGS: KILLED PARASITE

Negative comments

DOCTOR: “QUACK”, “DON’T KNOW WHAT TO DO”, “EGO”

DRUGS: NEGATIVE REACTION

INSURANCE: “WON’T PAY”

Categorizing REC codes by personnel or topic helps organize the flow of the evaluator’s recommendations and follow-up:

REC: DOCTOR’S SUPPORT

REC: GIVE ALTERNATIVE TREATMENT INFO

For inductive work, evaluator analysts explore changes in individuals and programs in the form of impacts and outcomes (if any). Types of change to examine are shifts in participant skills, attitudes, feelings, behaviors, knowledge, program ideology, policy, and procedures, to name just a few. The example above can be analyzed at the micro level for a doctor’s or clinic’s exclusive use to reflect on and possibly change its treatment regimens after a sufficient number of comparable individuals have been interviewed for comparison. But the analysis can also extend to the macro level by utilizing grounded theory coding to explore medical sociology’s concepts of “cure” and “uncertainty” (Tavory & Timmermans, 2014, p. 83) and how the nation’s health care system and insurance programs may or may not be serving the needs of patients.

Animating Democracy (n.d.) recommends six families of outcomes and indicators for assessing program impact, which might also serve as general categories for study-specific Evaluation Codes. Look for changes in:

1. Awareness and knowledge—what people know

2. Attitudes and motivation—what people think and feel
3. Behavior and participation—what people do
4. Discourse—what is being said and heard
5. Capacity—know-how and resources
6. Systems, policies, and conditions—changes that are lasting.

Evaluation data can derive from individual interviews, focus groups, participant observation, surveys, and documents. Individuals each have their own opinions, so expect to find, and thus analyze and present, a wide range of responses, not just an overall assessment. There are several forms of evaluation: outcome, implementation, prevention, summative, formative, etc. See Patton (2008, 2015) for an authoritative and full description of qualitative approaches, particularly for processual evaluation, and Stringer (2014) for the facilitation and implementation of change as part of action research projects.

Some recommended ways to further analyze Evaluation Codes are (see Appendix B):

- action and practitioner research (Altrichter et al., 1993; Coghlan & Brannick, 2014; Fox et al., 2007; Stringer, 2014)
- assertion development (Erickson, 1986)
- case studies (Merriam, 1998; Stake, 1995)
- decision modeling (Bernard, 2018)
- discourse analysis (Bischoping & Gazso, 2016; Gee, 2011; Rapley, 2018; Willig, 2015)
- framework policy analysis (Ritchie & Spencer, 1994)
- frequency counts (LeCompte & Schensul, 2013)
- graph-theoretic techniques for semantic network analysis (Namey et al., 2008)
- grounded theory (Bryant, 2017; Bryant & Charmaz, 2007, 2019; Charmaz, 2014; Corbin & Strauss, 2015; Stern & Porr, 2011)
- illustrative charts, matrices, diagrams (Evergreen, 2020; Miles et al., 2020; Morgan et al., 2008; Northcutt & McCoy, 2004; Paulston, 2000; Wheeldon & Åhlberg, 2012)
- interactive qualitative analysis (Northcutt & McCoy, 2004)
- logic models (Knowlton & Phillips, 2013)
- longitudinal qualitative research (Giele & Elder, 1998; McLeod & Thomson, 2009; Saldaña, 2003, 2008)
- memo writing about the codes/themes (Charmaz, 2014; Corbin & Strauss, 2015; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)
- mixed methods research (Creamer, 2018; Creswell, 2014; Creswell & Plano Clark, 2018; Tashakkori & Teddlie, 2010)
- political analysis (Hatch, 2002)
- polyvocal analysis (Hatch, 2002)
- qualitative evaluation research (Patton, 2008, 2015)

- sentiment analysis (Ignatow & Mihalcea, 2017; Liu, 2015)
- situational analysis (Clarke et al., 2015a, 2018)
- social media analysis (Kozinets, 2020; Paulus & Wise, 2019; Rogers, 2019; Salmons, 2016)
- splitting, splicing, and linking data (Dey, 1993)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998; Smith & Osborn, 2015)
- within-case and cross-case displays (Miles et al., 2020; Shkedi, 2005).

Notes

“Change” is a slippery and contested term, with some research methodologists preferring more subtle or precise terms such as “impact,” “shift,” “transformation,” “evolution,” and so on, and several of these principles also relate to Longitudinal Coding (discussed in Chapter 14). Acknowledge that change exists by how the researcher and, most importantly, the participants define it.

Evaluation research may have political and hidden agendas depending on how it is contracted between the client and analyst. It is not possible to be an “objective” evaluator, but it is possible to remain systematic in your collection and analysis of data to assess merit and worth. Rely primarily on what the participants themselves—the primary stakeholders—say and do. Evaluation research is a context-specific enterprise dependent on how (and whose) values and standards are employed. As Stake (1995) notes, “All evaluation studies are case studies” (p. 95).

8 LITERARY AND LANGUAGE CODING METHODS

Chapter Summary

Literary and language coding methods borrow from established approaches to the analysis of literature, and a contemporary approach to the analysis of oral communication to explore underlying sociological, psychological, and cultural concepts.

Dramaturgical Coding approaches life as performance and its participants as characters in social dramas.

Motif Coding applies folk literature's symbolic elements as codes for an evocative approach to analysis.

Narrative Coding incorporates literary terms as codes to discover the structural properties of participants' stories.

Metaphor Coding identifies the metaphors and comparison imagery and ideas used by participants.

Verbal Exchange Coding is H. L. (Bud) Goodall, Jr.'s signature ethnographic approach to analyzing conversation through reflecting on social practices and interpretive meanings.

DRAMATURGICAL CODING

Sources

Feldman, 1995; Goffman, 1959; Lune & Berg, 2018; Saldaña, 2005a, 2011a

Description

Dramaturgical Coding approaches naturalistic observations and interview narratives as "social drama" in its broadest sense. Life is perceived as performance with humans interacting as a cast of characters in conflict. Interview transcripts become monologue, soliloquy, and dialogue. Field notes and video of naturalistic social action represent improvised scenarios with stage directions. Environments, participant dress, and artifacts are viewed as scenery, costumes, and hand properties.

Dramaturgical Codes apply the terms and conventions of character, play script, and production analysis to qualitative data. For character, these terms include such items as:

1. OBJ: participant-actor *objectives*, motives in the form of action verbs
2. CON: *conflicts* or *obstacles* confronted by the participant-actor which prevent him or her from achieving his or her objectives (see Versus Coding)
3. TAC: participant-actor *tactics* or *strategies* to deal with conflicts or obstacles and to achieve his or her objectives
4. ATT: participant-actor *attitudes* toward the setting, others, and the conflict (see Values Coding)
5. EMO: *emotions* experienced by the participant-actor (see Emotion Coding)
6. SUB: *subtexts*, the participant-actor's unspoken thoughts or impression management, usually in the form of gerunds (see Process Coding).

These six elements of character are what a playwright, director, and actor attempt to realize through theatrical

performance. Bogdan and Biklen (2007) refer to the above generally as “strategy codes.”

Applications

Dramaturgical Coding is appropriate for exploring intrapersonal and interpersonal participant experiences and actions in case studies, particularly those leading toward narrative or arts-based presentational forms (Cahnmann-Taylor & Siegesmund, 2018; Knowles & Cole, 2008; Leavy, 2015). The method is also applicable to field note data in which two or more participants act, react, and interact in daily routines or are observed in conflict with each other. Comparing and contrasting their individual objectives and tactics as actions and reactions cyclically progress deepens your understanding of power relationships and the processes of human agency.

Dramaturgical Coding is most applicable to media analysis, particularly advertising—with its coercive objective to persuade consumption through subliminal tactics such as visual arrest and emotional appeal. Political scientists may also find utility with the method by analyzing campaign speeches, political discourse, and official government texts for their manifest and latent contents (Saldaña & Mallette, 2017).

Dramaturgical Coding attunes the researcher to the qualities, perspectives, and drives of the participant. It also provides a deep understanding of how humans in social action, reaction, and interaction interpret and manage conflict. Lindlof and Taylor (2019) note that "We gain insight into people's *motives* for their *actions* by probing their *understanding* of how that action accomplishes an *act*" (p. 55, emphasis in original). Lincoln and Denzin (2003) propose that not just individuals but even the broader concept of culture is "an ongoing performance, not a noun, a product, or a static thing. Culture is an unfolding production, thereby placing performances and their representations at the

center of lived experience" (p. 328). Feldman (1995) adds that while "dramaturgical analysis is generally used to explicate very public performances such as organizational rituals, it can also be used to understand relatively private performances such as the execution of parental roles" (p. 41).

Dramaturgical Coding is best applied to self-standing, inclusive vignettes, episodes, stories, or documents in the data record. One could even subdivide the storied data into stanzas as "scenes," which may include such plotting devices as a curtain-raising prologue and climax (Riessman, 2008, pp. 110–11).

Example

A female researcher interviews a veteran female high school teacher about her practice by asking, “How do you deal with conflict and discipline in the classroom?” The teacher responds with a personal anecdote and then describes her general ways of working:

Code example 8.1

(chuckles) [1] I laugh because this last week has been a big discipline week for me. [2] Why is it our freshmen are so unruly and disrespectful? … Anyways, how do I deal with discipline? [3] I am very forward, straight, and up-front. So, [4] I don’ t take crap from anybody. And [5] I call kids on their behavior. And this happened today in class as [6] a kid sat there and rolled his eyes at me—[7] again. And [8] I just stopped him and I said, [9] “When you roll your eyes, you are basically saying “F You” to the person you’ re talking to, and that is disrespectful and not acceptable in my room. [10] So you either be gone or get written up for disrespect and dis-, insubordination.” Here on campus it’ s [11] two days suspension off campus.	[1] att: ironic [2] sub: burning out [3] tac: “up-front” [4] tac: “don’ t take crap” [5] tac: accountability [6] con: disrespect [7] emo: frustration [8] obj: confront

	[9] tac: admonish [10] tac: ultimatum [11] tac: suspension
So, here [12] we are very, um, disciplined on the basis of respect as a number one issue. And so, [13] I enforce that and [14] I teach that in my classroom every day by being [15] honest and calling kids. Now, [16] some kids get freaked out but eventually they get used to [17] my style and they appreciate it, and they always come back and say, “Wow. I never looked at it that way.” So, it’s a cool thing. But it’s funny you bring it up because [18] this week has just been a nightmare week and I don’t know why. [19] Isn’t that weird?	[12] obj: discipline [13] obj: “i enforce” [14] obj: teach respect [15] tac: honesty [16] con: student “freak out” [17] tac: “my style” [18] emo: frazzled [19] att: ironic

Analysis

After a series of vignettes, episodes, or stories have been collected, separate coded data into the six categories of character analysis by listing and reflecting on the objectives, conflicts/obstacles, tactics/strategies, attitudes, emotions, and subtexts:

OBJECTIVES: CONFRONT, DISCIPLINE, "I ENFORCE", TEACH RESPECT

CONFLICTS: DISRESPECT, STUDENT "FREAK OUT"

TACTICS: "UP-FRONT", "DON'T TAKE CRAP", ACCOUNTABILITY, ADMONISH, ULTIMATUM, SUSPENSION, HONESTY, "MY STYLE"

ATTITUDES: IRONIC, IRONIC

EMOTIONS: FRUSTRATION, FRAZZLED

SUBTEXTS: BURNING OUT

Take note of the types of actions (objectives and tactics/strategies) taken in response to the types of conflicts/obstacles the participant-actor confronts. String the related codes together to discern storylines of actions, reactions, and interactions (→ means "initiates"):

CON: DISRESPECT → EMO: FRUSTRATION → OBJ: CONFRONT → TAC: ADMONISH → TAC: ULTIMATUM

Also acknowledge that an objective might include not just what the participant-actor wants but what she wants *other*

people to do. The attitudes, emotions, and subtexts clue you to the internal perspectives of the participant-actor during these situations. A provocative question to answer as you reflect on the overall dramaturgical elements about a participant-actor is "What kind of trouble is this person in?" Write a vignette (Erickson, 1986; Graue & Walsh, 1998) as a first-person or omniscient narrative revealing the inner thoughts of the participant-actor; or create a descriptive profile of the participant-actor highlighting her personality characteristics (or, in dramaturgical parlance, her characterization in social performance).

One can even extend the dramaturgical approach to qualitative data analysis and presentation by transforming an interview transcript into a stage monologue or adaptation into stage dialogue (Saldaña, 2011a). The researcher/ethnodramatist envisions a participant-actor's performance and recrafts the text into a more aesthetic form by editing unnecessary or irrelevant passages, rearranging sentences as necessary for enhancing the structure and flow of the story, and recommending appropriate physical and vocal action through italicized stage directions. The 230-word verbatim transcript above (excerpted from a 310-word passage) has been transformed into a 121-word monologue below for an actor to portray in front of an audience, and deliberately includes references to the participant's objectives, conflicts/obstacles, tactics/strategies, attitudes, emotions, and subtexts:

(to the audience, as she cleans up her classroom after a long day)

DIANNE: Why are freshmen so unruly and disrespectful? One of my students today rolled his eyes at me—again. I stopped him and said,

(as if talking to the student)

“When you roll your eyes at me, you are basically saying ‘F you’ to the person you’re talking to. And that is disrespectful and not acceptable in my room.”

(to the audience)

I don’t take crap from anybody. At this school, respect is the number one issue. I enforce that and I teach that in my classroom every day by being honest. Now, some kids get freaked out by that, but they eventually get used to my style and they appreciate it. They always come back to me and say,

(as if portraying a dense student)

“Wow, I never looked at it that way.”

(as herself, shakes her head, sighs and chuckles)

Isn’t that weird? (adapted from Saldaña, 2010, p. 64)

Another dramaturgical character concept is the *superobjective*—the overall or ultimate goal of the participant in the social drama. Respect—exhibited both in the classroom and for the teacher herself—may be the participant’s superobjective in the monologue profiled above. But additional stories culled from interviews and observations, coded appropriately, may reinforce that superobjective as the primary theme or reveal a different one at work within her.

Goffman (1963) notes that we tend to assign a person we first meet with categories and attributes that impute a “social identity.” Reciprocally, that person is implicitly requesting of others that the impression—the managed presentation of self—fostered before them is a “character

[who] actually possesses the attributes he appears to possess" (Goffman, 1959, p. 17). These first impressions change as fieldwork continues and we come to know our participant's "character." And if enough rapport has been developed between the researcher and participant-actor, the latter will reveal "backstage" knowledge of him- or herself that discloses what is genuine behind the managed impression of self.

Acknowledge that inferences about others' actions and motives are from the perspective of researcher as audience member of the social drama. These inferences can sometimes be incorrect, so a follow-up interview with the participant-actor may be necessary for confirmation. Psychology cautions us, however, that humans do not always understand their own motives for action, and they cannot always rationalize and articulate why they acted and reacted in certain ways.

There are two additional performative aspects of Dramaturgical Coding if you wish to explore these and have ample data for analysis, culled from participant observation or audio/video recordings:

1. PHY: participant-actor *physical actions*, the body's movements, gestures, appearance, conditioning, clothing, use of space, etc.
2. VER: *verbal* aspects of the participant-actor's voice: tone, articulation, fluency, volume, rate, emphasis, vocabulary, etc.

Coding and analyzing a participant-actor's performative features can tell you much about his or her presentation of self to others, and reveal additional insights into subtexts, body image, self-concept, confidence, impression management, social interaction, intelligence, status, work ethic, health, and other details through observing the routine business of daily living and working. See Denham and Onwuegbuzie (2013)

for an excellent literature review of non-verbal communication data and analysis.

Some recommended ways to further analyze Dramaturgical Codes are (see Appendix B):

- case studies (Merriam, 1998; Stake, 1995)
- discourse analysis (Bischoping & Gazso, 2016; Gee, 2011; Rapley, 2018; Willig, 2015)
- narrative inquiry and analysis (Bischoping & Gazso, 2016; Clandinin & Connelly, 2000; Coffey & Atkinson, 1996; Cortazzi, 1993; Coulter & Smith, 2009; Daiute & Lightfoot, 2004; Holstein & Gubrium, 2012; Murray, 2015; Riessman, 2008)
- performance studies (Madison, 2012; Madison & Hamera, 2006)
- phenomenology (Giorgi & Giorgi, 2003; Smith et al., 2009; Vagle, 2018; van Manen, 1990; Wertz et al., 2011)
- poetic and dramatic writing (Denzin, 1997, 2003; Glesne, 2011; Knowles & Cole, 2008; Leavy, 2015; Saldaña, 2005a, 2011a)
- political analysis (Hatch, 2002)
- portraiture (Lawrence-Lightfoot & Davis, 1997)
- social media analysis (Kozinets, 2020; Paulus & Wise, 2019; Rogers, 2019; Salmons, 2016)
- vignette writing (Erickson, 1986; Graue & Walsh, 1998).

Notes

Since Dramaturgical Coding can reflect a participant's needs and wants, also see Values Coding. For complementary methods related to dramaturgical analysis, see Narrative Coding; Birch's (2019) theoretical discussion of dramaturgical methods; Cannon's (2012) discussion of Dramaturgical Coding leading toward ethnodramatic playwriting; Caldarone & Lloyd-Williams' (2004) thesaurus of action verbs for objectives; Honeyford and Serebrin's (2015) additional Dramaturgical Codes such as SET (settings) and REF (reflexive soliloquies); and Lieblich, Zilber, and Tuval-Mashiach's (2008) model of "agency, structure, communion, and serendipity."

Eclectic Coding, a method profiled in Chapter 9, illustrates another example of Dramaturgical Coding as a follow-up to initial data analysis of an interview transcript.

MOTIF CODING

Sources

Mello, 2002; Narayan & George, 2002; Stith Thompson, *Motif-Index of Folk-Literature* (ruthenia.ru/folklore/thompson/index.htm); Thompson, 1977

Description

For this profile, Motif Coding is the application to qualitative data of previously developed or original index codes used to classify types and elements of folk tales, myths, and legends. A motif as a literary device is an element that sometimes appears several times within a narrative work, and in Motif Coding the motif or element might appear several times or only once within a data excerpt.

A *type* refers to the complete tale and can include such general titles as "superhuman tasks," "religious stories," and "stories about married couples." "A type is a traditional tale that has an independent existence. It may be told as a complete narrative and does not depend for its meaning on any other tale" (Thompson, 1977, p. 415). A *motif* is "the smallest element in a tale" that has something unique about it, such as characters (fools, ogres, widows, etc.), significant objects or items in the action of the story (a castle, food, strange customs, etc.), and single incidents of action (hunting, transformation, marriage, etc.) (pp. 415–16). An alphanumeric example of a Thompson *Motif-Index of Folk Literature* mythological motif reads: "P233.2 Young hero rebuked by his father." The *Motif-Index* contains thousands of detailed entries such as these.

Applications

Motif Coding is appropriate for exploring intrapersonal and interpersonal participant experiences and actions in case studies, particularly those leading toward narrative or arts-based presentational forms (Cahnmann-Taylor & Siegesmund, 2018; Knowles & Cole, 2008; Leavy, 2015), plus identity studies and oral histories. If a particular element, incident, characteristic, trait, action, or unique word/phrase reoccurs throughout a data set, consider Motif Coding as one possible application to the patterned observations.

Motif Coding may be better applied to narrative, story-based data extracted primarily but not exclusively from interview transcripts or participant-generated documents such as journals or diaries. Each story analyzed should be a self-standing unit of data—a vignette or episode—with a definite beginning, middle, and end. The same story (with variants) that has become canonized among various individuals may lend itself to Motif Coding—for example, each participant sharing where he or she was and how he or she first heard the news of what happened in the USA on September 11, 2001. Narrative inquiry and analysis have also discerned particular types or genres of stories that may each include their own unique motifs—for example, *chaos narratives* with motifs of illness, multiple setbacks, futile efforts to regain control, and an unresolved ending (Frank, 2012, p. 47). Zingaro (2009) outlines the "Amazing Grace" plot trajectory for survivor stories of healing and recovery ("I once was lost" / "Then I found …" / "Now I'm found").

Thompson's *Motif-Index* is a specialized system primarily for folklorists and anthropologists, but the website is worth browsing by researchers from other disciplines to acquaint

themselves with the breadth of topics about the human experience.

Example

The data below are a mix of field site observations with occasional participant quotes. A 62-year-old, morbidly obese, diabetic, housebound male on disability speaks to the researcher about his home life. Motif Coding using the Thompson *Motif-Index* has been applied to classify the tale type and several significant elements of this story (although original researcher-generated Motif Codes or even Vladimir Propp's folk tale functions could also have been applied). For reference only, the Thompson *Motif-Index* code labels have been added in square brackets after the alphanumeric codes:

Code example 8.2

TALE TYPE / MAJOR MOTIF—H1502 [TEST: ENDURING HARDSHIP]	
[1] Michael, dressed in a gray, floor-length nightgown, covers himself with a large comforter as he sits in his recliner. The small apartment is deliberately dark and cold yet feels lived-in. A wooden bookcase/shelving unit lies on the right side of the recliner; two kitchen-size trash cans (one for organic trash, the other for recyclables) sit on the left side. The recyclable bin is near full with empty 12-pack soft drink cardboard cases. An unwrapped package of 24 or so bottles of water rests by his feet.	[1] r40 [places of captivity]
[2] "I keep everything I need next to me on these shelves so I don't have to get up as	[2] r53 [captivity

much.” The top shelving unit contains a small lamp, bottles of water, two phones (one of which may not work), several remote control units, a box of tissues, two bottles of prescription medication (one of them an anti-depressant), and two near-empty jars of jelly. “I keep salt and pepper shakers here, too.” The middle shelf holds his tablet, handkerchiefs, small towels, and an array of other small items in overstuffed cardboard shoeboxes.	as refuge for the captive]
[3] “If something falls on the floor, I probably won’t be able to pick it up.” Things get lost frequently in the apartment, like his cell phone. “I could call the number to find it, but the battery’s dead.” [4] Michael often uses a cane or walker to get around his apartment, especially when he has to go outside for any reason. [5] He gets assistance approximately twice a week from a female friend who will empty the trash cans next to his recliner in the outdoor receptacles and move them to the curb. Michael is unable to do that task with a walker. [6] He once fell doing so and was trapped on the ground for hours, unable to get himself back up to a standing position. [7] Afraid something like that might happen again inside his apartment, he keeps his front door unlocked at all times with the porch light always on so that emergency assistance is accessible. “I don’t have the key to the door anyway. I lost it somewhere.	”3 n350 [accidental loss of property] [4] h1110 [tedious tasks] [5] n825.3 [old woman helper] [6] h220 [ordeals] [7] j100 [wisdom (knowledge) taught by necessity]

Analysis

Whether using an established index or your original creations for Motif Coding, the goal is to label both ordinary and significant elements of a story that have the potential for rich symbolic analysis. The work of Jerome Bruner's narrative universals, Joseph Campbell and his "Hero's Journey," or Carl Jung's discussions of archetypes, dreams, and symbols, are worth reviewing for understanding the mythic properties at work in a story's motifs in addition to Stith Thompson's writings on folklore. One could even refer to Bruno Bettelheim's (1976) treatise, *The Uses of Enchantment*, to discern how a contemporary participant's story, coded and analyzed with classic folk tale motifs, possesses deep psychological meaning. The elder man in the example above is not unlike the folk tale character Rapunzel, trapped in captivity (his small apartment) by evil forces (illness and disability), with occasional kind assistance by others (an older female friend and neighbors). The tale, according to Bettelheim, "illustrates fantasy, escape, recovery, and consolation" (p. 149).

As an analytic tactic, one might even consider what life lesson, in the form of a proverb, has been learned from the participant's story. For Michael, there will most likely be no royal figure or *deus ex machina* (godlike intervention) to save him from entrapment in this chaos narrative. By the end of the tale, Michael expresses his own moral or the wisdom he's learned to survive: keep the front door unlocked and the porch light on—ironically, optimistic and hopeful symbols suggesting trust for a magical rescue in the future. Unfortunately, Michael passed away in July 2020 from complications brought on by COVID-19.

Shank (2002) outlines how the participant's story and the researcher's retelling of it can be structured as a myth, fable, folk tale, and legend (pp. 148–52), while Poulos

(2008) illustrates the use of archetypal themes and mythically informed autoethnographic writing for narrative inquiry (pp. 143–73). Berger (2014a) explores how Vladimir Propp's folk tale functions (e.g., violation, trickery, rescue, victory, punishment) can be utilized for media analyses of TV programs (pp. 20–4), but the method is also quite applicable to interview transcripts and participant-generated written narratives.

Motif Coding is a creative, evocative method that orients you to the timeless qualities of the human condition, and represents contemporary, even mundane, social life with epic qualities. The "ogres" in our lives range from demanding bosses through abusive spouses to violent bullies on the playground. We "transform" ourselves on occasion, not just from one human type to another, but from human to animal-like personas. Motifs are part literary element and part psychological association, and their inclusion in a particular tale type crystallizes "an ethos or a way of being" (Fetterman, 2010, p. 65). These symbolic representations are layered with meaning, revealing values and "insight into the secular and sacred and the intellectual and emotional life of a people" or an individual case study (p. 65).

When I conducted my own memory work about my student life and teaching career (in Saldaña, 2018), I was intrigued to discover how many times "red ink" appeared as a significant motif in my recollections of learning and teaching vignettes from childhood onward. I concluded that the red ink I applied to correct student papers was symbolic of my masculinist need to fix things, to bring more color to my perceived colorless life, and to reinforce that I value answers more than questions. As I advise for a life course, oral history, or autoethnographic study, "Don't connect someone's 'dots'—connect his or her *motifs*."

Some recommended ways to further analyze Motif Codes are (see Appendix B):

- Narrative Coding, Metaphor Coding
- case studies (Merriam, 1998; Stake, 1995)
- life course mapping (Clausen, 1998)
- metaphoric analysis (Coffey & Atkinson, 1996; Lakoff & Johnson, 2003; Todd & Harrison, 2008)
- narrative inquiry and analysis (Bischoping & Gazso, 2016; Clandinin & Connelly, 2000; Coffey & Atkinson, 1996; Cortazzi, 1993; Coulter & Smith, 2009; Daiute & Lightfoot, 2004; Holstein & Gubrium, 2012; Murray, 2015; Riessman, 2008)
- phenomenology (Giorgi & Giorgi, 2003; Smith et al., 2009; Vagle, 2018; van Manen, 1990; Wertz et al., 2011)
- poetic and dramatic writing (Denzin, 1997, 2003; Glesne, 2011; Knowles & Cole, 2008; Leavy, 2015; Saldaña, 2005a, 2011a)
- portraiture (Lawrence-Lightfoot & Davis, 1997)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998; Smith & Osborn, 2015)
- vignette writing (Erickson, 1986; Graue & Walsh, 1998).

Notes

Stith Thompson's alphanumeric *Motif-Index of Folk-Literature* was a groundbreaking work, but selected future scholars found the massive indexing system unwieldy, incomplete, and unrepresentative of the diverse canons of the world's folk literature. If you are unfamiliar with the *Motif-Index*, the search for just the right motif can be tedious and time-consuming as you wade through numerous entries. Additional indexing systems developed after Thompson's can be found in reference libraries and websites. One of the best descriptions of the system can be accessed from: talesunlimited.com

For related methods, see Narrative, Metaphor, and OCM (Outline of Cultural Materials) Coding. Narrative Coding in particular will illustrate a repetitive motif within the data example.

NARRATIVE CODING

Sources

Andrews, Squire, & Tamboukou, 2008; Cortazzi, 1993; Coulter & Smith, 2009; Daiute, 2014; Daiute & Lightfoot, 2004; Gubrium & Holstein, 2009; Holstein & Gubrium, 2012; Murray, 2015; Polkinghorne, 1995; Riessman, 2002, 2008

Description

Andrews et al. (2008) emphasize that not only are there "no overall rules about suitable materials or modes of investigation, or the best level at which to study stories," there is not even a consensual definition of "narrative" itself (p. 1).

In this profile, Narrative Coding applies the conventions of (primarily) literary elements and analysis to qualitative texts most often in the form of stories. "Stories express a kind of knowledge that uniquely describes human experience in which actions and happenings contribute positively and negatively to attaining goals and fulfilling purposes" (Polkinghorne, 1995, p. 8). Narrative Coding—and analysis—blend concepts from the humanities, literary criticism, and the social sciences since the coding and interpretation of participant narratives can be approached from literary, sociological/sociolinguistic, psychological, and anthropological perspectives (Cortazzi, 1993; Daiute & Lightfoot, 2004).

Some methodologists assert that the process of narrative analysis is "highly exploratory and speculative" (Freeman, 2004, p. 74), and its "interpretive tools are designed to examine phenomena, issues, and people's lives holistically" (Daiute & Lightfoot, 2004, p. xi). Nevertheless, there may be occasions when the researcher wishes to code participant narratives from a *literary* perspective as a preliminary approach to the data to understand its storied, structured forms, and to potentially create a richer aesthetic through a retelling. Bischoping and Gazso (2016) note that "The structure of the narrator's story … becomes a clue to the state of the narrator's self" (p. 27).

Applications

Narrative Coding is appropriate for exploring intrapersonal and interpersonal participant experiences, relationships, and actions to understand the human condition through story, which is justified in and of itself as a legitimate way of knowing: “some … stories should be sufficiently trusted to be left unaccompanied by critique or theory” (Hatch & Wisniewski, 1995, p. 2). Telling stories is a way that people reflect in order to make sense or make meaning of significant events in their lives. Stories and storytelling are particularly critical cultural attributes of indigenous peoples as pedagogical tools, witnessing and remembering, and supports to spirituality (Iseke, 2013). Social scientist Brené Brown muses, “Maybe stories are just data with a soul.”

Riessman (2008) notes that narrative analysis includes diverse methods (e.g., thematic, structural, dialogic, performative). Narrative analysis is particularly suitable for such inquiries as identity development; psychological, social, and cultural meanings and values; critical/feminist studies; and documentation of the life course (e.g., through oral histories). Nuances of narrative can become richly complex when the researcher explores the participant’s subject positioning and presentation of self (Goffman, 1959), works with the participant in therapeutic contexts (Murray, 2015), or experiments with arts-based presentational and representational forms (Cahnmann-Taylor & Siegesmund, 2018; Knowles & Cole, 2008; Leavy, 2015).

Example

A second-year teacher in an elementary/middle school discusses her professional development and her relationships with fellow faculty and students in this verbatim interview transcript. Prosaic, poetic, and dramatic elements are used as codes to highlight the structure and properties of this narrative excerpt. Also note how the data are divided into small stanzas for analysis:

Code example 8.3

TITLE: “CONFIDENT … MAYBE”	
GENRE: A HERO’S JOURNEY IN PROGRESS	
PROTAGONIST’S VOCAL TONE: REFLEXIVE, TINGED WITH SELF-DOUBT	
RECURRENT MOTIF: “UM”	
I: How else are you different or changed here? NANCY: [1] I, uh, I think the first year I was just trying to get through. It was a lot to be thrown at as a first year teacher. [2] And now I think I’m much more, um, I don’t know if it’s relaxed in the classroom? I’m still, I still keep moving a lot and doing	[1] conflict [2] flashback/forward: then and now [3] vignette [4] resolution [5] aside

things, but [3] I' m not going to sit and scream at them to be quiet. I' ll just sit there and stare and go, "What are you doing? Well, I' m waiting, you know, for you." [4] I think I feel more in control that way, instead of the kids being in control all the time. I feel more in control in a lot of ways. Um, I' m more, [5] what' s the word I' m looking for? [6] Confident, maybe, in what I' m doing.	[6] juxtaposition: "confident, maybe"
[7] Last year I was always worried about pleasing all the other teachers and doing what they wanted. Now, I' m more like, [8] "Well I' m here for a reason and I have my curriculum, and I' m sorry if that doesn' t fit in, but I' m the specialist in this area" [9] *(slight laugh)*, you know? [10] And so last year I was, like, I did whatever they wanted. And this year I do have to fight for it, but I can also say, "I don' t think so," now.	[7] flashback/forward: then and now [8] resolution [9] subtext: resentment [10] flashback/forward: then and now
[11] Um, what else has changed? [12] Just probably my relationship with the kids. I: How so?	[11] reflexive aside [12] co-protagonists
NANCY: Um, a lot them, especially the	[13] foreshadowing

junior high, they know that they can almost come to me with anything. [13] But they know that there are boundaries, too, and that when they cross that boundary that there are consequences for it, um, as far as behavior and, you know, detentions, stuff like that.[14] Um, and I've gotten to know them more, um, their age level, I guess, so that helps out a lot.	[14] resolution

Analysis

Through Narrative Coding of the above example, the analyst notices that three flashback/flashforward "then and now" structures appear as a motif throughout the tale that track the protagonist's journey with her fellow characters in the school setting. The subtextual self-doubt vocal tone heard on the interview recording, and her continuous utterances of "um" throughout the narrative, cohere with a significant moment in the text: the teacher's ironic juxtaposition of calling herself "confident, maybe"—a phrase worthy as the title of this piece. She states resolution to her three major dilemmas, but there is a subtext of uncertainty that seems to foreshadow that more trials lie ahead for Nancy—which in the back of her mind she probably knows.

A narrative adaptation of the interview sentence coded as a vignette ("I'm not going to sit and scream at them to be quiet. I'll just sit there and stare and go, 'What are you doing? Well, I'm waiting, you know, for you'"), coupled with actions drawn from the researcher's classroom observation field notes, might be rendered this way for a research report, with its final sentence as foreshadowing of Nancy's continuing professional development:

> Nancy scanned her classroom of seventh graders chatting loudly to each other as the hallway period bell rang. She rose from her worn wooden desk, walked in front of it, and looked calmly at the group. She stared in silence for about five seconds at the boys and girls still conversing loudly about their weekend adventures. "Um, I'm waiting for you," she announced above the din so that all could hear.
>
> One-by-one, students quickly brought their laughter and gossip to a close then turned away from each

other to look at Nancy. A few even hushed their friends with “Shhh” and “Shut up, guys, teacher’s starting.” She smiled and waited another five seconds for silence and attention to focus the twenty-six junior high schoolers. It was Nancy’s new, second year, beginning-of-each-class-period ritual: Stand confidently in front of the group and don’t begin until everyone’s quiet and listening. She had learned that lesson the hard way from her out-of-control, first year of teaching. Yet there was still much more for her to learn about student relationships, boundaries, and disciplinary consequences at Martinez School.

Patterson (2008) elegantly describes one of the most classic approaches to narrative analysis: the six-part Labovian model. Clauses from transcripts are classified into one of six elements, purported as a nearly universal story structure when humans provide an oral narrative:

1. ABSTRACT—what is the story about?
2. ORIENTATION—who, when, where?
3. COMPLICATING ACTION—then what happened?
4. EVALUATION—so what?
5. RESULT—what finally happened?
6. CODA—a “sign off” of the narrative (p. 25)

The teacher’s transcript example above could have been coded instead with the six Labovian elements, and there would have been somewhat close alignment with this classic structure. But Patterson notes that in her work and the work of other researchers, verbatim narratives are not always temporally ordered, and many contain nuances, densities, and complexities that rival traditional story grammars and paradigmatic coding systems. Even Labovian elements can repeat, cycle back, appear in different orders, and be missing.

Polkinghorne (1995) differentiates between *paradigmatic* and *narrative* cognition. The former may include such approaches as grounded theory, which seeks the inductive development of categories from the data, particularly if large collections of stories are available for analyzing patterns (Cortazzi, 1993, p. 7). But these types of findings are "abstractions from the flow and flux of experience" (Polkinghorne, 1995, p. 11); instead, narrative cognition seeks to understand individual and unique human action. And among postmodernists, the process of narrative inquiry is not a solitary research act but a collaborative venture between the researcher and participants.

Gubrium and Holstein (2009) advise that researchers analyzing narrative texts should consider not just the psychological but the sociological contexts of stories collected from fieldwork: "stories operate *within* society as much as they are about society" (p. 11). Environments such as close relationships, local culture, jobs, and organizations influence and affect the individual's telling of personal tales: "Approach the big and little stories as reflexively related, not categorically distinct, dimensions of narrativity" (p. 144).

The frequent use of motifs in the participant's telling of her stories might also be woven into the recrafted narrative as motifs for literary impact. Introspective memory work (Grbich 2013; Liamputtong, 2013; McLeod & Thomson, 2009), conducted by an individual or a group, generates not just many personal stories but possibly their recurring motifs, and thus their connected meanings and through-line—essentials for the structural arcs of extended narrative retellings.

"The unit of analysis is often big gulps of text—entire stories" (Daiute & Lightfoot, 2004, p. 2). To most narrative inquirers, insight into the meanings of participant stories

depends on deep researcher reflection through careful reading of the transcripts and extensive journaling. Clandinin and Connelly (2000) attest that they adhere to "*fluid inquiry*, a way of thinking in which inquiry is not clearly governed by theories, methodological tactics, and strategies" (p. 121). Their approach to narrative inquiry is to "find a form to represent … storied lives in storied ways, not to represent storied lives as exemplars of formal categories" (p. 141). The write-up requires rich descriptive detail and a three-dimensional rendering of the participant's life, with emphasis on how participant transformation progresses through time. The ultimate goal is to create a stand-alone story as research representation that may depict "how and why a particular outcome came about" (Polkinghorne, 1995, p. 19), but other approaches to narrative inquiry might also deliberately stress open-ended structures to the researcher's recrafted narratives, structures that leave the reader with evocative closure and provocative questions rather than fixed answers (Barone, 2000; Poulos, 2008).

Bamberg (2004) notes, "it simply is not enough to analyze narratives as units of analysis for their structure and content, though it is a good starting point" (p. 153). Just some of the many prosaic, poetic, and dramatic elements available as coding and subcoding schemes for Narrative Coding are:

- Story type (survivor narrative, epiphany narrative, resistance story, redemption story, confessional tale, coming-out story, *testimonio*, etc.)
- Form (monologue, soliloquy, dialogue, song, etc.)
- Genre (tragedy, comedy, romance, melodrama, satire, etc.)
- Tone (optimistic, pessimistic, poignant, rant, etc.)

- **Purpose** (historical, cautionary, persuasive, emancipatory, therapeutic, etc.)
- **Setting** (locale, environment, local color, artifacts, etc.)
- **Time** (season, year, order, duration, frequency, etc.)
- **Plot** (episodic, vignette, chapter, scene, prologue, subplot, etc.)
- **Storyline** (chronological, Labovian, conflict/complication, turning point, rising action, climax, etc.)
- **Point of view** (first-person, third-person, omniscient, witness, etc.)
- **Character type** (narrator, protagonist, antagonist, composite, secondary, choral, trickster, *deus ex machina* (godlike intervention), etc.)
- **Characterization** (gender, race/ethnicity, physical description, personality, status, motivations, change/transformation, etc.)
- **Theme** (moral, life lesson, proverb, significant insight, theory, etc.)
- **Literary elements** (foreshadowing, flashback, flashforward, juxtaposition, irony, motif, imagery, symbolism, allusion, metaphor, simile, coda, etc.)
- **Spoken features** (volume, pitch, emphasis/stress, fluency, pausing, parsing, dialect, idiom, etc.)
- **Conversation interactions** (greetings, turn-taking units, adjacency pairs, questions, acknowledgement tokens, repair mechanisms, etc.).

Just as symbols and rituals are forms of "cultural shorthand" (Fetterman, 2008, p. 290), the combined and sometimes unconscious use of selected prosaic, poetic, and dramatic elements above in our everyday and structured communication patterns are our stylistic signatures of individual identity and values—"voiceprints" as they are called in theatre performance practice.

Jerome Bruner notes that Western narratives generally serve three functions: *solving problems*, *reducing tension*, and *resolving dilemmas* (Ignatow & Mihalcea, 2017, p. 91). But narrative researchers should also be attuned to story structures from the non-European canons and how that influences and affects a retelling. For example, the use of symbolism in Mexican stories from a Eurocentric perspective might be perceived as "overt," "heavy-handed," or "exotic," whereas from Mexican perspectives the symbolic associations are "bold," "strong," and "brave." For stories that recount hegemonic and oppression narratives related to race/ethnicity, gender, and other social divisions, see Bell's (2010) typology of *stock stories*, *concealed stories*, *resistance stories*, and *emerging/transforming stories*.

Some recommended ways to further analyze Narrative Codes are (see Appendix B):

- case studies (Merriam, 1998; Stake, 1995)
- discourse analysis (Bischoping & Gazso, 2016; Gee, 2011; Rapley, 2018; Willig, 2015)
- life-course mapping (Clausen, 1998)
- metaphoric analysis (Coffey & Atkinson, 1996; Lakoff & Johnson, 2003; Todd & Harrison, 2008)

- narrative inquiry and analysis (Bischoping & Gazso, 2016; Clandinin & Connelly, 2000; Coffey & Atkinson, 1996; Cortazzi, 1993; Coulter & Smith, 2009; Daiute & Lightfoot, 2004; Holstein & Gubrium, 2012; Murray, 2015; Riessman, 2008)

- performance studies (Madison, 2012; Madison & Hamera, 2006)

- phenomenology (Giorgi & Giorgi, 2003; Smith et al., 2009; Vagle, 2018; van Manen, 1990; Wertz et al., 2011)

- poetic and dramatic writing (Denzin, 1997, 2003; Glesne, 2011; Knowles & Cole, 2008; Leavy, 2015; Saldaña, 2005a, 2011a)

- polyvocal analysis (Hatch, 2002)

- portraiture (Lawrence-Lightfoot & Davis, 1997)

- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998; Smith & Osborn, 2015)

- vignette writing (Erickson, 1986; Graue & Walsh, 1998).

Notes

Narrative inquiry ranges from systematic methods to open-ended explorations of meaning. Rather than trying to find the "best" way to approach your own narrative analysis, acquaint yourself with the breadth of methodologies available and then choose selectively from the literature. See Frost (2009) for an example of four different narrative analysis approaches to the same interview transcript; and Teman and Saldaña (2019) for prosaic, poetic, and dramatic arts-based adaptations of the same case study's life stories.

Also see *NTC's Dictionary of Literary Terms* (Morner & Rausch, 1991) as a reference for classic literary elements; Goodall (2008) for pragmatic advice on structuring written narratives; Poulos (2008) for evocative autoethnographic writing; Gibbs (2018) for a concise overview of narrative forms; and Holstein and Gubrium (2012) for an eclectic collection of approaches to narrative analysis. Also see Crossley (2007) for a superb autobiographical (and biographical) interview protocol for narrative analysis in psychology. For supplementary methods related to Narrative Coding, see Dramaturgical Coding, Motif Coding, Metaphor Coding, and Themeing the Data.

To exercise your ability to discern classic literary elements, read Tennessee Williams' play *The Glass Menagerie* or view one of its film versions and identify the playwright's uses of symbolism, metaphor, irony, juxtaposition, motif, allusion, foreshadowing, and so on.

METAPHOR CODING

Sources

Coffey and Atkinson (1996); Lakoff and Johnson (2003); Todd and Harrison (2008); Tracy, Lutgen-Sandvick, and Alberts (2006)

Description

Metaphor Coding identifies the participants' use of metaphors or vivid comparisons to related ideas and imagery in narrative and visual data. Similes (comparison through the use of "like" or "as") and other comparable literary devices that compare or represent one thing to another (analogy, allusion, synecdoche, metonymy, symbol, etc.) are also considered part of Metaphor Coding.

Metaphors are linguistic or visual symbols of expression—a form of "verbal shorthand"—to communicate experiences, meanings, and understandings through comparison and evocative imagery. "The primary function of metaphor is to provide a partial understanding of one kind of experience in terms of another kind of experience" (Lakoff & Johnson, 2003, p. 154). For example, when someone says his or her workplace is a "war zone," a comparison is made between a person's environment and a perceived comparable referent.

A culture's rituals are metaphoric. Graduation ceremonies, for example, are metaphors for achievement and transition, or what is known anthropologically as *status-passage*. Material objects can be metaphoric as well as symbolic, such as films and theatre productions as artistic metaphors for life, or an adolescent's first driver's license as a metaphor for or symbol of emerging adulthood.

Applications

“Metaphor is one of our most important tools for trying to comprehend partially what cannot be comprehended totally: our feelings, aesthetic experiences, moral practices, and spiritual awareness” (Lakoff & Johnson, 2003, p. 193). Metaphors and comparable literary devices can sometime put into words that which we have difficulty expressing: “I don’t know. He was like an undependable machine that could break down at any moment.” Many participants use metaphors naturally in everyday speech and thus they manifest themselves in researcher-generated materials such as interview transcripts. Our ability to discern and analyze the metaphors people construct provides a window into their perceptions of their worlds and the ways they think. An example would be one person who regards the kitchen as simply a space to “cook food,” while another conceives the kitchen as “the soul of our house.”

Ethnography, phenomenology, case studies, content and discourse analysis, narrative inquiry, and arts-based research studies may find utility with Metaphor Coding. The method is particularly useful for affective and emotional inquiries. Tracy et al. (2006) used the method with their study on workplace bullying. Individual and focus group interviews plus participant-created artwork were employed to interpret the bullying process metaphors as “battles” or “nightmares,” adult bullies as “dictators” or “demons,” and victims/targets as “slaves” or “prisoners,” among others.

An individual’s data record might include only occasional metaphor use, but this may provide rich insights into the case. A collected corpus of different participants responding to the same research topic provides a more substantive database for Metaphor Coding and analysis. A researcher might initiate his or her investigation as an exclusive search for

metaphor use, but most often the method is utilized when a noticeable amount of metaphors appears in the data record after initial readings and reflection. Appropriately clustered metaphor groups might also suggest selected themes at work.

Example

Open-ended survey data were collected from adults of various ages who participated in high school theatre/speech classes and related extracurricular activities (e.g., debate clubs, musical productions). Participants responded to an e-mail questionnaire that solicited their memories and perceptions of their experiences (McCammon & Saldaña, 2011; McCammon et al., 2012). Examples of prompts included: "Looking back, what do you think was the biggest challenge you overcame/faced in high school theatre/speech?" and "In what ways do you think your participation in theatre/speech as a high school student affected the adult you have become?"

A descriptive, content analytic approach was first used to code and analyze the data, but upon recommendation by a mentor, the data were reanalyzed with a search for metaphor use by participants. In Vivo Coding serves as a critical supplementary method to employ with Metaphor Coding since the participants themselves provide the metaphors and imagery. Below are eight examples from the written survey data base with corresponding In Vivo/Metaphor Codes:

Code example 8.4

[Theatre] gave me confidence that continues with me through today. It also expanded my worldview and [1] led me to new and exciting places.	[1] "led me to"
Who we are in the present is made up of our experiences. Theatre was a huge part of my high school career. I cannot separate one from the other. High school	[2] "growth period" [3] "shaped"

is a big [2] growth period in any young adult life so it has definitely [3] shaped me.	
I don’ t think every drama student has this reaction, most will come away from it with a great confidence and with an enriched ability to work as part of a team. But for the scattered few of us that are very serious about making the theatre our life’ s work, its effect is outstanding. It [4] acted as a bridge from “Oh this is fun, I enjoy doing this” to pursuing it seriously as a career.	[4] “acted as a bridge”
My teacher was very personable and taught me not to let things happen but make things an [5] adventure. She did not want us to just sit around and let our lives be the way they are, she wanted us to go out there and travel and get the full experience of life.	[5] “adventure”
I believe that you are [6] born a theatre person. It’ s [7] in your blood. My high school theatre experiences only served to reinforce my choice to devote myself to the form. It’ s very possible of course, that I’ m taking my opportunities for granted. Had I not been given the chance to take theatre, is it very possible that I may have lost interest. I’ m not entirely sure how it [8] shaped me, only that it kept me passionate.	[6] “born a theatre person” [7] “in your blood” [8] “shaped”

It helped me get [9] back on the right path and stay out of trouble.	[9] “back on the right path”
I went on to [County] Community College and earned a film degree within two years due to my interest in the industry, the [10] seeds of which were planted in my high school theatre classes.	[10] “seeds planted”
I have a great deal of self-confidence and self-esteem now. If I can get up in front of an audience and act as part of a cast, I can do anything. I avoided drugs in school because they couldn’t offer me the kind of high I could get on a stage. My creativity in writing, acting and design [11] blossomed in so many different ways that have practical applications throughout my life.	[11] “blossomed”

Analysis

Todd and Harrison (2008) advise that at least two coders work jointly on data for metaphor analysis, as the interpretation of figurative language can be slippery and vary from person to person.

Metaphors are found in texts not just as isolated word units but as part of a narrative. Metaphors "allow us to understand one domain of experience in terms of another. This suggests that understanding takes place in terms of entire domains of experience and not in terms of isolated concepts" (Lakoff & Johnson, 2003, p. 117). Therefore, the analysis and interpretation must ask not just what the metaphors are, but "What are these metaphors *about*?"

Similar to how Moje and Luke (2009) classified metaphors of identity into five categories (identity as *difference*, *sense of self/subjectivity*, *mind or consciousness*, *narrative*, and *position*), analysts can also categorize the metaphors coded from their data. Metaphor Codes that seem comparable are clustered together for analytic reflection, suggesting not just categories but potential themes. The 11 codes in the examples above fell into two categories:

Category 1

"GROWTH PERIOD"

"SHAPED"

"SHAPED"

"BORN A THEATRE PERSON"

"IN YOUR BLOOD"

“SEEDS PLANTED”

“BLOSSOMED”

Category 2

“LED ME TO”

“ACTED AS A BRIDGE”

“ADVENTURE”

“BACK ON THE RIGHT PATH”

“An inductive approach is especially worthwhile for making sense of messy interactive processes … that have no definite ‘face.’ Such an analysis serves to name and make tangible a process that can be invisible” (Tracy et al., 2006, p. 158). The analyst now reflects on each set of grouped codes to interpret the core metaphors at work. The goal is to discern how the topic of the data (high school theatre and speech experiences) is perceived metaphorically by the participants. Category 1 (“growth period”, “shaped”, “shaped”, “born a theatre person”, “in your blood”, “seeds planted”, “blossomed”) suggests an *organic development* in the participants. Category 2 (“led me to”, “acted as a bridge”, “adventure”, “back on the right path”) suggests a *journey* of some kind. An analytic memo expands on the connotations through codeweaving:

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24 March 2014

EMERGENT PATTERNS: METAPHORS

> Theatre is a *parent* and her participants are her *children*. Some may feel naturally-born to be part of the art form, while others get adopted into a theatrical family. The rigorous demands of the art provide a place where her children can grow, develop, and become shaped to blossom to their full potential.
>
> Participation in theatre is also a *journey*. The art form takes its participants on an adventure through life, providing pathways "to new and exciting places" and bridges to transition their learned skills to future occupations—theatrical or not.

"Metaphors and similes can enhance your readers' understanding by making the local and particular more generalizable, or at least comprehensible. The literary devices kick your study up a notch by venturing into the aesthetic realms of analysis" (Saldaña, 2015, p. 73). For those who have never participated in live theatrical productions, or for those who perceive few intrinsic and extrinsic benefits from arts education programs, the metaphors of theatre as a nurturing parent who takes her children on a life-long journey seem easier to grasp. Miles et al. (2020) also assert that metaphors function as data-condensing and pattern-making devices and, in some cases, can help connect findings to theory.

Researchers might also construct their own metaphors for the inquiry process. Analytic memo writing can reflect on what metaphors or analogies are evoked. The preparation, fieldwork, analysis, and writing stages of a project suggest a period of gestation and birth. A literature review might be perceived as finding needles in haystacks. A difficult IRB application process can be a trial by fire. Fieldwork is detective work, data analysis is untying a Gordian knot, writing is bleeding on the keyboard, and publishing is a triumphant crossing of the finish line. Each researcher will

develop his or her own unique metaphors and analogies for a specific qualitative study.

Finally, metaphors are also culturally specific, though a few do have a sense of universality about them. Lakoff and Johnson (2003) offer that orientation metaphors such as upward references refer to positive experiences, while downward references are generally negative (e.g., soaring to great heights, feeling low) (pp. 15, 24). An example of a culturally specific metaphor would be Christianity's conception of *heaven* as an afterlife union with God, an angelic paradise, or as a spiritual reward for good deeds done on Earth, among others.

Some recommended ways to further analyze Metaphor Codes are (see Appendix B):

- Narrative Coding
- case studies (Merriam, 1998; Stake, 1995)
- content analysis (Krippendorff, 2013; Neuendorf, 2017; Schreier, 2012; Wilkinson & Birmingham, 2003)
- discourse analysis (Bischoping & Gazso, 2016; Gee, 2011; Rapley, 2018; Willig, 2015)
- narrative inquiry and analysis (Bischoping & Gazso, 2016; Clandinin & Connelly, 2000; Coffey & Atkinson, 1996; Cortazzi, 1993; Coulter & Smith, 2009; Daiute & Lightfoot, 2004; Holstein & Gubrium, 2012; Murray, 2015; Riessman, 2008)
- metaphoric analysis (Coffey & Atkinson, 1996; Lakoff & Johnson, 2003; Todd & Harrison, 2008)

- phenomenology (Giorgi & Giorgi, 2003; Smith et al., 2009; Vagle, 2018; van Manen, 1990; Wertz et al., 2011)
- poetic and dramatic writing (Denzin, 1997, 2003; Glesne, 2011; Knowles & Cole, 2008; Leavy, 2015; Saldaña, 2005a, 2011a)
- vignette writing (Erickson, 1986; Graue & Walsh, 1998).

Notes

Lakoff and Johnson (2003) offer indispensable conceptual guidance for Metaphor Coding. For exemplars of metaphor analysis, see Patchen and Crawford (2011), and Tracy et al. (2006).

VERBAL EXCHANGE CODING

Source

Goodall, 2000

Description

Verbal Exchange Coding is the verbatim transcript analysis and interpretation of the types of conversation and personal meanings of key moments in the exchanges. To Goodall (2000), coding is determining the "generic type" of conversation; reflection examines the meaning of the conversation. The goal is to develop fundamental analytic skills to create an "*evocative representation* of the fieldwork experience," the "writing of a *story of culture*" (p. 121, emphasis in original).

Coding begins with a precise transcription of the verbal exchange (which includes non-verbal cues and pauses) between the speakers. The coder then draws from a typology/continuum of five forms of verbal exchange to identify the unit(s):

1. *Phatic communion* or *ritual interaction*, a "class of routine social interactions that are themselves the basic verbal form of politeness rituals used to express social recognition and mutuality of address". An example is:

   A: Hey.

   B: ' Morning.

   A: How' s it going?

   B: OK. You?

   A: Yeah, OK too.

   B: Good, good, good.

   Simple social bonding exchanges such as these communicate cultural patterns such as status, gender, race/ethnicity, class differences, etc.

2. *Ordinary conversation*, "patterns of questions and responses that provide the interactants with data about personal, relational, and informational issues and concerns, as well as perform the routine 'business' of … everyday life."
3. *Skilled conversation*, which represents "a 'higher' or 'deeper' level of information exchange/discussion" between individuals, and can include such exchanges as debates, conflict management, professional negotiations, etc.
4. *Personal narratives*, consisting of "individual or mutual self-disclosure" of "pivotal events in a personal or organizational life."
5. *Dialogue*, in which conversation "transcends" information exchange and the "boundaries of self," and moves to higher levels of spontaneous, ecstatic mutuality. (Goodall, 2000, pp. 103–4)

The second level of Verbal Exchange Coding's categorization and analysis explores the personal meanings of key moments by first examining such facets as speech mannerisms, non-verbal communication habits, and rich points of cultural knowledge (slang, jargon, etc.). The categorization then proceeds to examine the *practices* or the "*cultural performances* of everyday life" (p. 116). Notice that these five also suggest a continuum ranging from everyday matters to the epiphanic episode:

1. *Routines and rituals* of structured, symbolically meaningful actions during our day
2. *Surprise-and-sense-making episodes* of the unanticipated or unexpected
3. *Risk-taking episodes* and *Face-saving episodes* of conflict-laden exchanges
4. *Crises* in a verbal exchange or as an overarching pattern of lived experience

5. *Rites of passage*, or what is done that significantly "alters or changes our personal sense of self or our social or professional status or identity" (pp. 116–19)

Selected questions assist the ethnographer in coding, interpreting, and reflecting on the content and meaning of the verbal exchange. Sample questions include: What is the nature of the relationship? What are the influences of fixed positionings (gender, race/ethnicity, social class, etc.)? What are the rhythms, vocal tones, and silences contributing to the overall meaning? (pp. 106–7).

Applications

Verbal Exchange Coding is appropriate for a variety of human communication studies and studies that explore cultural practices through dialogic interaction. Verbal Exchange Coding can also be applied to pre-existing (secondary data) ethnographic texts such as autoethnographies.

The guidelines listed above should not suggest an overly systematic approach to analyzing verbal exchanges. Goodall's "coding" is a narrative rather than margined words and phrases. Goodall's text evocatively explores "the new ethnography"—storied accounts grounded in the data that weave "the personal experience of the researcher into meaning in ways that serve as analyses of cultures" (p. 127). Verbal Exchange Coding serves as an introductory approach for novices to closely examine the complexity of talk through focused parameters of conversation types and everyday cultural practices. Interpretive meaning through extensive written reflection (comparable to an analytic memo) rather than traditional margined coding methods is encouraged.

Example

Since Verbal Exchange Coding does not rely on margined entries, the example will scan across the entire page. The coding and reflection narratives follow. Notice how descriptive, contextual, and explanatory action, plus emphasized words during conversation, are italicized. The dialogic exchange utilizes a play script format for myself and another ex-smoker's conversation.

(I stand waiting for my flight to New York-LaGuardia at a Delta Airlines gate at the Raleigh-Durham airport on Friday, July 26, 2013, approximately 5:30 p.m. I am separated from the other seated passengers' waiting area, occasionally puffing on my electronic (e-)cigarette. The gate agent makes an announcement over the speaker system. An average-build white man in his late 50s with salt-and-pepper hair and a neatly trimmed goatee, dressed in a light gray suit but with no tie, approaches me; I call him the SWEDE since we never exchanged our actual names and it was only later in our conversation that he revealed his nationality.)

SWEDE: What did she say? *(I detect a slight European accent in his voice, but am not sure which country he's from. His voice is medium pitched, moderate volume, and gentle in tone.)*

JOHNNY: She said that boarding was going to be delayed until the captain calls New York to find out if we can land OK and on time.

SWEDE: Oh. *(referring to my e-cigarette)* Are those things any good?

JOHNNY: *(making a grimace)* They're satisfactory but not satisfying.

SWEDE: I used to smoke, too.

JOHNNY: I smoked for 40 years before I quit.

SWEDE: I had to quit.

JOHNNY: Me, too. A friend of mine smoked the same amount of time as me, probably the same amount each day, and he ended up with lung cancer, he’s on chemo, so bad. Me, I stopped, got my lungs x-rayed and, thank God, I’m clean as a whistle.

SWEDE: I had cancer, too, spent a year in the hospital.

JOHNNY: Wow.

SWEDE: *(smiling)* They cut me from here to here *(pointing and moving from one side of his jaw to the other)* and took it out.

JOHNNY: *(almost apologetic)* Oh, I’m so sorry.

SWEDE: *(laughing)* No, that’s OK, it’s not your fault.

JOHNNY: I mean that I’m sorry for what happened to you.

SWEDE: It was hard. My wife had to take care of me for nine months in the hospital.

JOHNNY: Wow. *(in an affirming tone)* But you’re here, and that’s good!

SWEDE: *(smiling)* Yes.

JOHNNY: Do you live in New York?

SWEDE: I’m originally from Sweden and moved there to work.

JOHNNY: I’m going to New York to see some shows for a day, then going right back home. I’m from Arizona.

SWEDE: I was here for just the day, and flying back. I've been here since eight o'clock this morning.

JOHNNY: Wow.

SWEDE: And you?

JOHNNY: I was teaching at one of the universities here for a week.

SWEDE: Lots of universities here.

JOHNNY: Yes.

SWEDE: What did you teach?

JOHNNY: Research methods for an institute. What do you do for a living?

SWEDE: I'm an investment planner.

JOHNNY: Are you with a bank or an investment firm?

SWEDE: Investment firm.

JOHNNY: Yeah, I've been thinking a lot about investments and savings lately. I'm going to retire from my job in May 2014.

SWEDE: *(looking interested)* What kind of plan are you on?

JOHNNY: I'm on a pension plan with my state.

SWEDE: *(rolling his eyes slightly)* Good luck with that.

JOHNNY: It's a pretty good plan but it's not going to be the same as what I'm making now. It's both scary and exciting. …

(We continue chatting about our jobs for awhile, and the conversation veers back to smoking.)

SWEDE: I still like to be around smokers and smell it.

JOHNNY: Me, too. The smell of it comforts me even if I can't smoke.

SWEDE: My wife doesn't like the smell of it at all. She goes away from it, makes a face, "Ah, that smells terrible!" She hated it when the smell of smoke was in my clothes, in my coat.

JOHNNY: I know, I got so self-conscious of the way I smelled, but now that's not a problem.

SWEDE: I look at people smoking and I miss it.

JOHNNY: I like to hang around smokers and just smell it. I don't need to smoke, I just want to be around them. I know that if I had just one more cigarette, I'd probably get hooked again. I have a very addictive personality.

SWEDE: I quit once for two weeks long ago. But a friend of mine said, "Ah, just have a cigarette with me," we were in a bar. So I smoked one from him, and when I was on my way home, I thought, "Ah, I'll just buy a pack," and I started up again.

JOHNNY: I couldn't do that. I know that all it'll take is just one cigarette and I'll be hooked again.

SWEDE: Yes, well.

JOHNNY: I have nicotine tablets, too, because you can't smoke these *(referring to and holding my e-cigarette)* on the plane.

(The gate agent makes an announcement for first class and priority passengers to line up. The SWEDE smiles at me and says “Here we go. See you.” *Later when my section of seats is called to board, I enter the plane and pass the SWEDE sitting in first class on my way to the coach section. We make eye contact; he grins and reaches out to grasp my arm and pats it strongly; I quickly grin back and pat his arm with the same strength.)*

CODING: Our initial exchange bypassed introductory *phatic communion* and began with *ordinary conversation* through information exchange about flights. Our discussions of work and retirement matters were brief interludes of *skilled conversation*, but it was our smoking and smoking-related illness stories that dominated and took us rather quickly and easily into assorted *personal narratives* throughout our exchanges. I would classify our final moment of arm patting on the plane as a significant moment of non-verbal *dialogue*, explained below.

Analysis

REFLECTION: Ex-smokers readily share with each other their *ritual* stories of addiction, the trials of quitting, and their nostalgia for a former bad habit. Strangers quickly bond when they share the habit/culture of smoking, and non-smoking exes gravitate to each other to discuss with a person who truly understands an experience they genuinely miss. Smoking, quitting, and its constituent elements (length of habit, non-smokers' annoyances, withdrawal strategies, etc.) are frequent and easily generated topics for conversation. The *surprise-and-sense-making episode* of the Swede's bout with cancer was followed by my apologetic *face-saving episode*, but the Swede graciously laughed it off. The stigma of carrying a bad "smell" (uttered frequently in one conversation section) and, sometimes, recovery from severe illness brought on by smoking, are shared not as chaos narratives (Frank, 2012, p. 47) but as survival tales with badges of honor. The Swede smiled and even seemed to brag a bit when he gestured and told me, "They cut me from here to here," as if proudly showing off a scar he got from a knife fight.

The Swede might never have spoken to me had he not seen me with my nicotine substitute prop: an electronic cigarette—a cultural pseudo-artifact of days gone by but still retained in memory and in the hand. He was an investment planner, dressed in a suit, well groomed, and had a first-class seat on the plane. I was dressed in very casual clothing and destined for coach, but he had no problem striking up a conversation with me, of a different ethnicity and social class—yet each of us within the same age

range and with graying facial hair. We both shared a former bad habit, and this transcended all other demographic attributes. His line, “I look at people smoking and I miss it,” is *exactly* what I myself feel. If we can no longer smoke together and share the bonding that comes with mutual engagement in the habit, then former smokers can at least find comfort and empathetic understanding with someone who shares the memory of what it used to be like.

Our shared stories of addiction and withdrawal are our emotional nicotine substitutes. A patch, lozenge, and electronic cigarette satisfy our ongoing psychological and physical needs for a mild high. But the human affirmation of someone who’s been there gives us a sense of community, of cultural belonging. Virtually nothing connects recovering addicts more than sharing a (former) bad habit. The Swede and I never told each other our names, but that didn’t matter. Our identities were rooted in and revealed through a similar past experience.

The *rite of passage* moment of patting each other’s arm strongly while grinning on the plane was a “dialogic” moment that capped two strangers’ fleeting conversation, cemented our temporary yet quickly formed relationship, and reinforced a sense of kinship, brotherhood, and an affirmation of triumph: “We’re here, and that’s good!” Two men in their late 50s, occasionally reflecting on our mortality as we grow older, were still being “bad boys” by symbolically high-fiving our shared pasts, shared accomplishments, shared ex-smoker’s culture, and shared longevity.

Goodall (2000) states that “analysis and coding of conversations and practices—as well as interpretive

reflections on the meaning of them—are really parts of the overall process of finding patterns that are capable of suggesting a story, an emerging story of your interpretation of a culture" (p. 121). Continued reflection on the meanings of the verbal exchanges documented above can address aspects such as the culture of addiction, cancer survivors, addiction withdrawal and recovery, and their complex interrelationships and overlaps. Verbal Exchange Coding serves as a preliminary analytic step toward a more evocative write-up, perhaps drafted as vignettes or profiles (Erickson, 1986; Seidman, 2019).

Goodall's introductory interpretive approach to the analysis of talk is just one of many extensive and systematic approaches to conversation and discourse analysis (see Agar, 1994; Drew, 2015; Frank, 2012; Gee, 2011; Gee et al., 1992; Jones, Gallois, Callan, & Barker, 1999; Lindlof & Taylor, 2019; Rapley, 2018; Scollon & Scollon, 2004; Silverman, 2006), some of which include detailed notation systems for transcription that indicate speech patterns such as pauses, word stress, overlapping dialogue, and other facets of conversation. Transana CAQDAS software enables Jeffersonian notation of transcribed speech.

Some recommended ways to further analyze Verbal Exchange Codes are (see Appendix B):

- action and practitioner research (Altrichter et al., 1993; Coghlan & Brannick, 2014; Fox et al., 2007; Stringer, 2014)
- discourse analysis (Bischoping & Gazso, 2016; Gee, 2011; Rapley, 2018; Willig, 2015)
- metaphoric analysis (Coffey & Atkinson, 1996; Lakoff & Johnson, 2003; Todd & Harrison, 2008)

- narrative inquiry and analysis (Bischoping & Gazso, 2016; Clandinin & Connelly, 2000; Coffey & Atkinson, 1996; Cortazzi, 1993; Coulter & Smith, 2009; Daiute & Lightfoot, 2004; Holstein & Gubrium, 2012; Murray, 2015; Riessman, 2008)

- performance studies (Madison, 2012; Madison & Hamera, 2006)

- phenomenology (Giorgi & Giorgi, 2003; Smith et al., 2009; Vagle, 2018; van Manen, 1990; Wertz et al., 2011)

- poetic and dramatic writing (Denzin, 1997, 2003; Glesne, 2011; Knowles & Cole, 2008; Leavy, 2015; Saldaña, 2005a, 2011a)

- social media analysis (Kozinets, 2020; Paulus & Wise, 2019; Rogers, 2019; Salmons, 2016)

- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998; Smith & Osborn, 2015)

- vignette writing (Erickson, 1986; Graue & Walsh, 1998).

Notes

Other evocative methods of analyzing talk and text exist. Gilligan, Spencer, Weinberg, and Bertsch (2006), “in response to the uneasiness and growing dissatisfaction with the nature of coding schemes typically being used [in the 1980s] to analyze qualitative data” (p. 254), developed the *Listening Guide*, “a method of psychological analysis that draws on voice, resonance, and relationship as ports of entry into the human psyche” (p. 253). The four-step reading and notation of verbatim text examines plot, first-person references as poetic structures, and contrapuntal voices (e.g., melodic signatures, silence), followed by an interpretive synthesis based on the research question of interest. See Sorsoli and Tolman (2008) for a clear and detailed example of a case study’s transcript analysis using the *Lisening Guide*.

9 EXPLORATORY CODING METHODS

Chapter Summary

Exploratory coding methods are just that—exploratory and preliminary assignments of codes to the data before more refined coding systems are developed and applied. Since qualitative inquiry is an emergent, inductive, and evolutionary process of investigation, these coding methods use tentative labels as the data are initially reviewed. After they have been analyzed in this manner, researchers might proceed to more specific first cycle or second cycle coding methods.

Holistic Coding applies a single code to each large unit of data in the corpus to capture a sense of the overall contents and the possible categories that may develop.

Provisional Coding begins with a "start list" of researcher-generated codes based on what preparatory investigation suggests might appear in the data before they are analyzed.

Hypothesis Coding applies researcher-developed "hunches" of what might occur in the data before or after they have been initially analyzed. As the corpus is reviewed, the hypothesis-driven codes confirm or disconfirm what was projected, and the process can refine the coding system itself.

Eclectic Coding illustrates how an analyst can start with an array of different coding methods for a "first pass" of analysis, then transition

to a more focused recoding based on the learnings of the experience.

HOLISTIC CODING

Source

Dey, 1993

Description

Holistic Coding has also been labeled “macro-level coding” in selected methods literature. In this manual, Holistic Coding will be used since the term “level” conflicts with “cycle”.

Holistic Coding is an attempt “to grasp basic themes or issues in the data by absorbing them as a whole [the coder as ‘lumper’] rather than by analyzing them line by line [the coder as ‘splitter’]” (Dey, 1993, p. 104). The method is a preparatory approach to a unit of data before a more detailed coding or categorization process through first or second cycle methods. A middle-order approach, somewhere between holistic and line-by-line, is also possible as a Holistic Coding method. There are no specific maximum length restrictions for data given a Holistic Code. The coded unit can be as small as one-half a page in length, to as large as an entire completed study.

Applications

Holistic Coding is appropriate for beginning qualitative researchers learning how to code data, and studies with a wide variety of data forms (e.g., interview transcripts, field notes, journals, documents, diaries, correspondence, artifacts, video).

Holistic Coding is applicable when the researcher already has a general idea of what to investigate in the data, or to categorize the text into broad topics as a preliminary step before more detailed analysis. It is also a time-saving method for those with massive amounts of data and/or a short period for analytic work. But be aware that with less time to analyze often comes a less substantive report. In most cases, Holistic Coding is preparatory groundwork for more detailed coding of the data.

Holistic Coding may be more applicable to what might be labeled self-standing units of data—vignettes or episodes—such as interview excerpts of a participant's story with a definite beginning, middle, and end; a short one- to two-page document; or a field note excerpt of social life with bounded parameters such as time, place, action, and/or content (e.g., a 15-minute playground recess, a transaction at a sales counter, a congregation's participation during a portion of worship service).

Example

The following excerpt comes from an interview with a grades K-8 urban elementary school principal discussing her school's curriculum:

Code example 9.1

[1] It's, um, it's a very different kind of environment because what we're trying to do here is create whole people, give them the opportunity to become lifetime learners, um, to think that learning is joyful, to support them and to, um, be respectful of the backgrounds they bring to us. And that's very different from having a school in which there is a curriculum and these are, these things you have to learn. We haven't been able to find any single thing that people have to learn. You don't have to know the alphabet, you can always just put it down. You don't have to know the multiplication tables, you can carry them in your hip pocket. What you have to learn is attitudes. You know, we want them to have a taste for comprehensive elegance of expression. A love of problem solving. These, these are attitudes, and those are what we're teaching. And we try to teach them very respectfully and joyfully. And that's different—I know it's different. We don't claim to be a typical school. Our kids are multi-age grouped, they're in family groupings. All of the kids are	[1] a "different" school

involved in family kinds of activities. All the kids from K-3, um, have Spanish-language activities every Wednesday with their lunch. They all meet together, regroup, um, do joyful kinds of Spanish-language activities, whether they speak Spanish or English, to honor that language, they're all learning two languages. Um, it is different, and seems to work.	

The single Holistic Code applied to represent this entire data excerpt was an In Vivo-based code, a "different" school, since the word "different" appeared three times in the transcript. Another possible Holistic Code might be more descriptive or conceptual in nature: school philosophy. If middle-order codes or categories are necessary for more detailed analysis, a few that might be constructed from the data above for school philosophy would read:

TEACHING AND LEARNING ATTITUDES [a Holistic Process Code]

"JOYFUL" EDUCATION [A Holistic In Vivo and Conceptual Code]

Analysis

After a first review of the data corpus with Holistic Codes applied, “all the data for a category can be brought together and examined as a whole before deciding upon any refinement” (Dey, 1993, p. 105). Thus, all data coded as a “different” school, school philosophy, teaching and learning attitudes, and “joyful” education in the study described above would be collected for closer scrutiny before more detailed coding or for consolidation, perhaps generating a new Holistic Code that subsumes all the related data, titled a “different, joyful” curriculum.

Rather than coding datum by datum as soon as transcripts or field notes have been prepared for analysis, it is a worthwhile investment of time and cognitive energy to simply read and reread the corpus to see the bigger picture. Dey (1993) suggests that “time spent becoming thoroughly absorbed in the data early in the analysis may save considerable time in the later stages, as problems are less likely to arise later on from unexpected observations or sudden changes in tack” (p. 110).

Some recommended ways to further analyze Holistic Codes are (see Appendix B):

- first cycle coding methods
- action and practitioner research (Altrichter et al., 1993; Coghlan & Brannick, 2014; Fox et al., 2007; Stringer, 2014)
- memo writing about the codes/themes (Charmaz, 2014; Corbin & Strauss, 2015; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)

- qualitative evaluation research (Patton, 2008, 2015)
- quick ethnography (Handwerker, 2001)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998; Smith & Osborn, 2015).

Notes

For an inquiry-based method related to Holistic Coding, see Structural Coding.

PROVISIONAL CODING

Sources

Dey, 1993; Miles et al., 2020

Description

Provisional Coding has also been labeled “a priori coding,” but the former term will be used in this manual.

Provisional Coding establishes a predetermined start list of codes prior to fieldwork. These codes can be developed from anticipated categories or types of responses/actions that may arise in the data yet to be collected. The provisional list is generated from such preparatory investigative matters as: literature reviews related to the study, the study’s conceptual framework and research questions, previous research findings, pilot study fieldwork, the researcher’s previous knowledge and experiences (experiential data), and researcher-formulated propositions, hypotheses, or hunches. As qualitative data are collected, coded, and analyzed, Provisional Codes can be revised, modified, deleted, or expanded to include new codes.

Applications

Provisional Coding is appropriate for qualitative studies that build on or corroborate previous research and investigations. Miles et al. (2020) recommend a start list ranging from approximately 12 to 60 codes for deductive-oriented qualitative studies. Creswell and Poth (2018) begin with a shorter list of five or six that begins the process of "lean coding." This expands to no more than 25 to 30 categories that then combine into five or six major themes.

Layder (1998) encourages the search for "key words, phrases and concepts that spring to mind in thinking about the area under consideration before any data collection or even a literature search has begun" (p. 31). Not only can this list serve as a possible series of Provisional Codes, but the items can be codewoven (see Chapter 3) to explore possible interrelationships related to the phenomenon.

Example

McCammon et al. (2012) conducted an online survey of adults' memories of their high school speech and theatre experiences in classes and extracurricular activities. The preliminary literature review of over 50 related studies in educational theatre suggested that just some of the following outcomes might also be observed in the survey participants' responses:

- oral communication skills
- development of self-confidence
- identity, including the formation of one's personal value, attitude, and belief systems
- leadership skills (broadly construed, which include attributes ranging from problem-solving to personal agency)
- awareness of group and collaboration dynamics, including conflict resolution and interpersonal intelligence.

These findings from other studies were transformed into Provisional Codes for application to the new survey data:

- ORAL COMMUNICATION
- SELF-CONFIDENCE
- IDENTITY
- LEADERSHIP

- COLLABORATION

Once in the field or midway through coding and analysis, however, a start list of codes generated from previous research may be modified if the researcher observes that different or more specific codes may be needed to more accurately summarize the data. oral communication served as a sufficient entry code for the study described above, but as more surveys were returned and analyzed, oral communication was revised to reflect two distinctive *types* of communication, as described by the participants:

- PUBLIC SPEAKING SKILLS
- PERFORMATIVITY

The leadership Provisional Code was maintained but revised and unpacked into several related codes and subcodes to better symbolize the respondents' perceived outcomes from their participation in high school speech and theatre activities:

- LEADERSHIP SKILLS
    - TIME MANAGEMENT
    - WORK ETHICS
        - ORGANIZATION
        - RESPONSIBILITY

- PROFESSIONALISM
- PERSEVERANCE

Analysis

Other research team members, a colleague not involved with the study, or even the participants themselves can provide the coder with a "reality check" of Provisional Codes as they are initiated and modified. Obviously, when Provisional Codes are first applied to qualitative data, the researcher may soon learn whether each item from the start list has relevance or not.

Researchers should exercise caution with Provisional Codes. A classic fieldwork saying goes, "Be careful: If you go looking for something, you'll find it," meaning that your preconceptions of what to expect in the field may distort your fact-finding yet interpretive observations of what is "really" happening there. If you become too enamored with your original Provisional Codes and become unwilling to modify them, you run the risk of trying to fit qualitative data into a set of codes and categories that may not apply: "Premature coding is like premature closure; it can prevent the investigator from being open to new ideas, alternative ways of thinking about a phenomenon, and divergent—and sometimes quite correct—explanations for events" (LeCompte & Schensul, 2013, p. 146). A willingness to tolerate ambiguity, flexibility, and the ability to remain honest with oneself are necessary personal attributes for researchers and Provisional Coding: "As we encounter more data we can define our categories with greater precision. … Even an established category set is not cast in stone, but subject to continual modification and renewal through interaction with the data" (Dey, 1993, p. 124).

A small but vital investment of time and energy will go toward the development of Provisional Codes. Preparatory pilot study through participant observation and interviews at the actual fieldwork site may yield a more relevant set of

Provisional Codes than previously published research. The context-specific nature of qualitative inquiry suggests customized (or what might be facetiously labeled "designer") coding systems and methods.

CAQDAS programs allow the development and entry of Provisional Codes in their code management systems. As documents are reviewed, a pre-established code from the list can be directly assigned to a selected portion of data. CAQDAS code lists can also be imported from and exported to other projects and users.

Some recommended ways to further analyze Provisional Codes are (see Appendix B):

- content analysis (Krippendorff, 2013; Neuendorf, 2017; Schreier, 2012; Wilkinson & Birmingham, 2003)
- mixed methods research (Creamer, 2018; Creswell, 2014; Creswell & Plano Clark, 2018; Tashakkori & Teddlie, 2010)
- qualitative evaluation research (Patton, 2008, 2015)
- quick ethnography (Handwerker, 2001)
- survey research (Fowler, 2014; Wilkinson & Birmingham, 2003)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998; Smith & Osborn, 2015).

Notes

For a second cycle method that employs a set of Provisional Codes, see Elaborative Coding (Chapter 14).

HYPOTHESIS CODING

Sources

Bernard, 2018; Weber, 1990

Description

Hypothesis Coding is the application of a researcher-generated, predetermined list of codes to qualitative data specifically to assess a researcher-generated hypothesis. The codes are developed from a theory/prediction about what will be found in the data before they have been collected or analyzed. Weber (1990) advocates that the "best content-analytic studies use both qualitative and quantitative operations on texts" (p. 10; cf. Schreier, 2012). The statistical applications can range from simple frequency counts to more complex multivariate analyses.

Applications

Hypothesis Coding is appropriate for hypothesis testing, content analysis, and analytic induction of the qualitative data set, particularly the search for rules, causes, and explanations in the data.

Hypothesis Coding can also be applied midway or later in a qualitative study's data collection or analysis to confirm or disconfirm any assertions, propositions, or theories developed thus far (see Chapters 13 and 14 on second cycle coding methods). Seasoned researchers will often enter a fieldwork setting or approach a body of data with some idea of what will be present and what will most likely be happening. However, this does not necessarily suggest that Hypothesis Coding is warranted. The method is a strategic choice for an efficient study that acknowledges its focused or sometimes tightly defined parameters of investigation. Ethnographer Martyn Hammersley (1992) admits, "we cannot but rely on constructing hypotheses, assessing them against experience and modifying them where necessary," even when we "adopt a more informal and broader approach in which we sacrifice some of the sharpness of the test in order to allow more of our assumptions to be thrown open to challenge" (p. 169). DeCuir-Gunby et al. (2011) also make the case for the development of predetermined *theory-driven codes* in addition to emergent or *data-driven codes* as a strategy for coding and codebook development.

Example

A mixed methods study (Saldaña, 1992) was conducted to assess how Hispanic and white fourth-grade child audience members would respond to a bilingual play production featuring two characters—one Hispanic and one white. I hypothesized before the study began that Hispanic children would identify and empathize more with their Hispanic counterpart in the play, while white children would be more likely to empathize with both characters but identify more with their white counterpart.

After viewing the production, interviews were conducted with children of similar ethnicity and gender clustered in small focus groups to collect their responses to such questions as: " 'John felt that Juan should speak English because they lived in America. But Juan felt that if they wanted to be friends, John would have to learn Spanish. Who was right?' [collect initial response, then ask] 'Why do you feel that way?' " (Saldaña, 1992, p. 8). The research team was trained to expect five types of responses to the first forced-choice question, which were also Hypothesis Codes applied to the transcript data: john, juan, both, neither, and nr (no response/"i don't know").

It was predicted that Hispanic children would most likely select juan as "right" while white children would be more likely to select both or neither. I predicted this outcome based on the hypothesis that Hispanic children's perceived similarities with Juan's ethnicity and language dilemmas in the play would influence and affect them to deliberately "take sides" with the Spanish-speaking character. Frequency counts moderately supported this hypothesis in terms of likelihood, but there was no statistically significant difference between the ethnic groups' choices. Thus the original hypothesis was not deleted but modified as data

analysis continued. (For example, when the data were analyzed by *gender* rather than ethnicity, girls chose Juan's side significantly more than boys.)

As for the follow-up question, "Why do you feel that way?", it was hypothesized that selected types of justifications would emerge *both similar and unique* to each ethnic group of children. Based on common ideologies about language issues in the USA, the following codes (and their inclusive meanings) were developed before analysis began:

RIGHT—We have the right to speak whatever language we want in America

SAME—We need to speak the same language in America—English

MORE—We need to know how to speak more than one language

NR—No response or "I don't know"

Thus, interview excerpts below were coded according to the hypothesized set of responses:

Code example 9.2

HISPANIC BOY: [1] John should learn Spanish, and Juan should learn English better.	[1] more
WHITE GIRL: [2] It's a free country and you can talk any language you want.	[2] right
HISPANIC GIRL: [3] Everybody should know more than one language. It wasn't fair enough that John	[3] more

wanted Juan to speak English, and he, he didn't want to speak Spanish.	

No data were coded SAME, most likely due to its perception as a "politically incorrect" perspective to share during interviews. However, as analysis continued, one unanticipated category and thus code evolved—the existence of many languages in the USA:

Code example 9.3

HISPANIC BOY: [4] All the people in America speak different languages.	4 many
HISPANIC GIRL: [5] There's a lot of people that speak all kinds of language and they come from all places.	5 many

It was hypothesized that the code more (We need to know how to speak more than one language) would appear in both ethnic groups' responses, but right (We have the right to speak whatever language we want in America) would appear with more frequency among Hispanic children. The results disconfirmed one portion of the hypothesis. Both groups with somewhat equal measure advocated that Americans needed to know how to speak more than one language. Though Hispanics attested with more frequency than whites that Americans have the right to speak whatever language they wish, the difference was not statistically significant. In fact, it was the unforeseen code many (the existence of many languages in America) that was significantly more prominent among Hispanics' responses than whites. This discovery led to a new observation: although both Hispanic and white youth in this study supported the ideology that one has the right to speak

whatever language one chooses in America, Hispanic children were more attuned to speaking a non-English language not just as a “right” but as a pre-existing “given” in the USA.

Analysis

Whether quantitative and/or qualitative, an analysis of Hypothesis Codes tests the hypothesis under investigation. Even if you discover, like I did in the study described above, that some of your proposed hypotheses are disconfirmed through discrepant cases or statistical analysis, that in itself is a major learning and forces you to more closely examine the content of your data and thus develop more trustworthy findings. Educational researchers LeCompte and Preissle (1993) promote this as an ongoing process of qualitative inquiry: "ethnographers formulate and systematically test successive hypotheses throughout the research project, generating and verifying successive explanations, both mundane and theoretical, for the behavior exhibited and attitudes held by the people under study" (p. 248).

Hypothesis Coding is a mixed methods approach to data analysis most often applied to content analysis but with some transferability to other qualitative studies. As positivist as the method appears, Weber (1990) assures researchers that "there is no single right way to do content analysis. Instead, investigators must judge what methods are appropriate for their substantive problems" (p. 69). CAQDAS programs with statistics options are well suited for Hypothesis Coding since the proposed codes can be entered a priori into their code management systems, and their search functions can help the researcher investigate and confirm possible interrelationships among the data. Excel can also store qualitative data, codes, and quantitative data simultaneously in different rows and columns, and calculate user-identified statistics needed.

Some recommended ways to further analyze Hypothesis Codes are (see Appendix B):

- assertion development (Erickson, 1986)
- content analysis (Krippendorff, 2013; Neuendorf, 2017; Schreier, 2012; Wilkinson & Birmingham, 2003)
- data matrices for univariate, bivariate, and multivariate analysis (Bernard, 2018)
- frequency counts (LeCompte & Schensul, 2013)
- logic models (Knowlton & Phillips, 2013)
- longitudinal qualitative research (Giele & Elder, 1998; McLeod & Thomson, 2009; Saldaña, 2003, 2008)
- mixed methods research (Creamer, 2018; Creswell, 2014; Creswell & Plano Clark, 2018; Tashakkori & Teddlie, 2010)
- qualitative evaluation research (Patton, 2008, 2015)
- quick ethnography (Handwerker, 2001)
- social media analysis (Kozinets, 2020; Paulus & Wise, 2019; Rogers, 2019; Salmons, 2016).

Notes

Hypothesis Coding differs from Protocol Coding in that the former’ s set of codes is usually developed by the researcher him- or herself, while Protocol Coding’ s codes have been developed by other researchers.

ECLECTIC CODING

Sources

All sources cited in first cycle coding methods.

Description

Eclectic Coding could be considered a form of "open coding," as it was originally conceived by Glaser and Strauss (1967). But I label this approach Eclectic Coding since it draws from the specific methods profiled in this book.

Twenty-nine first cycle coding/themeing methods are included in this manual, but each one is profiled separately. There are many occasions when qualitative data can be appropriately coded using a repertoire of methods simultaneously. Eclectic Coding profiles the process, then demonstrates how it could proceed toward a more focused cycle of coding.

Eclectic Coding employs a select and compatible combination of two or more first cycle coding methods. Ideally, the methods choices should not be random but purposeful to serve the needs of the study and its data analysis. Nevertheless, any "first-impression" responses from the researcher can serve as codes, with the understanding that analytic memo writing and second cycles of recoding will synthesize the variety and number of codes into a more unified scheme.

Applications

Eclectic Coding is appropriate for virtually all qualitative studies, but particularly for beginning qualitative researchers learning how to code data, and studies with a wide variety of data forms (e.g., interview transcripts, field notes, journals, documents, diaries, correspondence, artifacts, video). Eclectic Coding is also appropriate as an initial, exploratory technique with qualitative data; when a variety of processes or phenomena are to be discerned from the data; or when combined first cycle coding methods will serve the research study's questions and goals.

Example

A university research project is conducted with PhD students to assess their perceptions of their programs of study. A second-year doctoral student shares his thoughts on his degree plan in progress. The following illustrates how Eclectic Coding is applied to an interview transcript excerpt. For reference only, the specific first cycle coding methods that relate to the codes are placed in square brackets:

Code example 9.4

A SENSE OF URGENCY: “I’ VE GOT TO” [Holistic/In Vivo Code]	
PARTICIPANT’ S GENDER: MALE [Attribute Code]	
PARTICIPANT’ S AGE: 27 [Attribute Code]	
PARTICIPANT’ S ETHNICITY: WHITE [Attribute Code]	
PARTICIPANT’ S DEGREE PROGRAM: PhD, SECOND YEAR [Attribute Code]	
[1] I’ m 27 years old and I’ ve got over $50,000 in student loans that I have to pay off, and that [2] scares the hell out of me. I’ ve got to finish my dissertation next year because I can’ t afford to keep	[1] student debt [descriptive code]

going to school. [3] I’ve got to get a job and start working. [I: What kind of job do you hope to get?] [4] A teaching job at a university someplace. [I: Any particular part of the country?] I’d like to go back to the east coast, work at one of the major universities there. But I’m keeping myself open to wherever there’s a job.	[2] scared [emotion code] [3] “i’ve got to” [in vivo code] [4] career goals [descriptive code]
[5] It’s hard listening to some of the others [in the current graduating class] like Jake and Brian interviewing for teaching jobs and being turned down. [6] As a white male, that lessens my chances of getting hired. [I: I think most employers really do look for the best person for the job, regardless of color.] [7] Maybe. [8] If I can get some good recs [letters of recommendation], that should help. My grades have been real good and I’ve been getting my name out there at conferences. [I: All of that’s important.] [9] The prospectus is the first step. Well, the IRB [Institutional Review Board	[5] worry [emotion code] [6] privileged status vs limited job opportunities [versus code] [7] doubt vs hope [versus code] [8] tac: success strategies [dramaturgical code] [9] dissertation planning [process code]

approval] is the first step. I'm starting the lit review this summer, doing the interviews and participant observation in the fall, writing up as I go along, and being finished by spring. [I: What if more time is needed for the dissertation?] [10] I've got to be finished by spring.	[10] motif: "i've got to" [narrative/in vivo code]

Analysis

Recall that codes can serve as prompts or triggers for reflection through analytic memo writing on the deeper and complex meanings they evoke. Below is one such memo that initially interprets the eclectically coded interview excerpt, then a follow-up memo on the planned recoding of the data:

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22 June 2011

EMERGENT THEMES: “I’VE GOT TO”

The participant’s emotional state at this point in his doctoral program is negative (SCARED, WORRY, DOUBT). He has not yet even begun his capstone dissertation project, but is already worried about his future job prospects. “I’VE GOT TO” is his objective, his drive. He does not mention anything about the process of the dissertation’s professional development experience, except in terms of time, just the end product.

With this pessimistic mind-set, he has set himself specific goals and even a compressed timetable to complete the work. The financial debt seems to be looming large in his mind. The Versus Codes suggest that he is torn within, and sees his white male identity as a liability, almost a self-defeating prophecy, for future employment. But he is problem/solution-oriented. When there’s an obstacle, the doubt and fear can be lessened when he has a plan. He’s not so much driven by fear as he is by urgency. Doubt VS hope, past VS future. He’s not just accumulated debt, he’s accumulated doubt.

There's minimal talk of what he wants; the majority is what he has to do: "I've got" and "I've got to." Because he's got this, he's got to do that.

24 June 2011

FUTURE DIRECTIONS: DRAMATURGICAL CODING

After reflecting on this transcript, the content is filled with objectives, conflicts, emotions, and subtext—sounds like Dramaturgical Coding to me. Reapply it to the data and see what I get.

Basic recoding, categorization, and/or analytic memo techniques described thus far can be applied to Eclectically Coded data to bring together what may seem richly diverse but disparately analyzed text. Below is a second cycle recoding of the same transcript excerpt with more focused first cycle coding methods—Dramaturgical and In Vivo Coding—followed by an analytic memo. As a reminder, Dramaturgical Codes consist of (see Chapter 8):

1. OBJ: participant *objectives* or motives in the form of action verbs (the *superobjective* is the overall or ultimate goal of the participant)
2. CON: *conflicts* or *obstacles* confronted by the participant which prevent him or her from achieving his or her objectives
3. TAC: participant *tactics* or *strategies* to deal with conflicts or obstacles and to achieve his or her objectives
4. ATT: participant *attitudes* toward the setting, others, and the conflict
5. EMO: *emotions* experienced by the participant
6. SUB: *subtexts*, the participant's unspoken thoughts or impression management, in the form of gerunds.

SUPEROBJECTIVE: “I’VE GOT TO GET A JOB”

Code example 9.5

[1] I’m 27 years old and I’ve got over $50,000 in student loans that [2] I have to pay off, and that [3] scares the hell out of me. [4] I’ve got to finish my dissertation next year because[5] I can’t afford to keep going to school. [6] I’ve got to get a job and start working. [I: What kind of job do you hope to get?] [7] A teaching job at a university someplace. [I: Any particular part of the country?] [8] I’d like to go back to the east coast, work at one of the major universities there. [9] But I’m keeping myself open to wherever there’s a job.	[1] con: student debt [2] obj: repay loans [3] emo: scared [4] obj: “finish my dissertation” [5] con: limited finances [6] obj: “get a job” [7] obj: teach at a university [8] obj: move to the east coast [9] tac: “keeping myself open”
[10] It’s hard listening to some of the others [in the current graduating class]	[10] emo: anxiety

[11] like Jake and Brian interviewing for teaching jobs and being turned down. [12] As a white male, [13] that lessens my chances of getting hired. [I: I think most employers really do look for the best person for the job, regardless of color.] [14] Maybe. [15] If I can get some good recs [letters of recommendation], that should help. My grades have been real good and I' ve been getting my name out there at conferences. [I: All of that' s important.] [16] The prospectus is the first step. Well, the IRB [Institutional Review Board approval] is the first step. I' m starting the lit review this summer, doing the interviews and participant observation in the fall, writing up as I go along, and [17] being finished by spring. [I: What if more time is needed for the dissertation?] [18] I' ve got to be finished by spring.	[11] sub: comparing and projecting [12] att: affirmative action is against me [13] con: no job opportunities [14] sub: doubting but hoping [15] tac: self-promotion [16] tac: tasks and timetable [17] obj: finish by spring [18] sub: denying and insisting

Dramaturgical code array

SUPEROBJECTIVE: "I' VE GOT TO GET A JOB"

OBJECTIVES: REPAY LOANS, “FINISH MY DISSERTATION”, “GET A JOB”, TEACH AT A UNIVERSITY, MOVE TO THE EAST COAST, FINISH BY SPRING

CONFLICTS: STUDENT DEBT, LIMITED FINANCES, NO JOB OPPORTUNITIES

TACTICS: “KEEPING MYSELF OPEN”, SELF-PROMOTION, TASKS AND TIMETABLE

ATTITUDES: AFFIRMATIVE ACTION IS AGAINST ME

EMOTIONS: SCARED, ANXIETY

SUBTEXTS: COMPARING AND PROJECTING, DOUBTING BUT HOPING, DENYING AND INSISTING

Analytic Memo

24 June 2011

THEME: STAYING ON TRACK(S)

I’m reminded of a track and field race course in which multiple tracks lined in white are placed next to each other, but there’s only one runner per track allowed. This student seems as if he’s racing on all tracks simultaneously toward the finish line. The goal, the prize, is a university teaching position. But the multiple tracks consist of dealing with negative emotions such as anxiety about the future, limited financial resources, achieving good grades in current course work, soliciting letters of recommendation, attendance and self-promotion at professional conferences, and the dissertation itself, which could be further subdivided into tracks

of IRB application, prospectus, fieldwork, writing, etc.

To this student, the destination (a teaching job) rather than the journey seems more important. And the possibility of spreading oneself too thin exists, especially when pushing oneself at a rapid pace. There's not just multi-tasking here, there's MULTI-TRACKING, multi-worrying. Perhaps, like the male that he is, there's a plan: procedural steps to achieve his goal. Never mind the fact that his peers don't seem to be getting jobs, or that the time to complete the dissertation is limited. Deny the failure of others, deny the possibility of additional semesters in school. (Maybe this is a horse race while wearing blinders so as not to be distracted?) There's a track of tasks to complete, all simultaneously and as quickly as possible.

Check with other doctoral students midway through their programs to see if MULTI-TRACKING is the process they experience. And see how men and women, and those from various disciplines, may perceive their experiences differently.

Side note: the root of "curriculum" is also a race track, a course to be run. Job hunting is a curriculum. Life is a curriculum. The question now is: What kind(s)?

The second coding example above utilized Dramaturgical Coding with a "dash" of In Vivo Coding. A different qualitative data analyst may have chosen a completely different method(s) after the first cycle of Eclectic Coding; or may have proceeded toward a categorization of the codes through second cycle coding; or may have discovered prominent themes and proceeded directly toward intensive analytic memo writing as

preparation for a report. These options reinforce the principle that coding is not a precise science; it is primarily an interpretive act.

Since Eclectic Coding can employ a variety of methods, recommended ways to further analyze the coded data (aside from analytic memo writing) cannot be listed here. See the analytic recommendations for the specific coding methods you employ and refer to Appendix B.

Notes

Eclectic Coding differs from first cycle Exploratory Methods and Initial Coding (a grounded theory method) in that the latter usually codes *and* tentatively categorizes data in detailed line-by-line analysis with preliminary attention to the categories' properties and dimensions. Eclectic Coding does not necessarily follow these recommended parameters. It is intended as a "first draft" or first cycle of coding with multiple methods, followed by a "revised draft" of coding with a more purposeful and select number of methods.

10 PROCEDURAL CODING METHODS

Chapter Summary

Procedural coding methods are prescriptive. They consist of pre-established coding systems or very specific ways of analyzing qualitative data. Though some leeway is provided for context- and site-specific studies, the methods profiled in this section contain directed procedures to follow by their developers.

Protocol Coding outlines the general methods, advantages, and disadvantages of following pre-established coding systems developed by other researchers in subject areas related to your own inquiry.

OCM (Outline of Cultural Materials) Coding uses an extensive index of cultural topics developed by anthropologists for the classification of fieldwork data from ethnographic studies. It is a systematic coding system which has been applied to a massive database for the discipline.

Domain and Taxonomic Coding presents some of the signature analytic methods of anthropologist James P. Spradley for the systematic search for and categorization of cultural terms. This method is also primarily for ethnographic studies.

Causation Coding recommends procedures for extracting attributions or causal beliefs from participant data about not just how but why particular outcomes came about. This method searches for combinations of antecedent conditions and mediating variables that lead toward certain pathways and outcomes.

PROTOCOL CODING

Sources

Boyatzis, 1998; Schensul, LeCompte, Nastasi, & Borgatti, 1999a; Shrader & Sagot, 2000 (as an exemplar)

Description

Protocol Coding has also been labeled “a priori coding” in selected methods literature. In this manual, Protocol Coding will be used since its sources have labeled it as such.

A *protocol* in research with human participants refers to detailed and specific procedural guidelines for conducting an experiment, administering a treatment or, in qualitative inquiry, conducting all aspects of field research and data analysis. Protocol Coding is the collection and, in particular, the coding of qualitative data according to a pre-established, recommended, standardized, or prescribed system. The generally comprehensive list of codes and categories provided to the researcher is applied after his or her own data collection. Some protocols also recommend specific qualitative (and quantitative) data analytic techniques with the coded data.

Applications

Protocol Coding is appropriate for qualitative studies in disciplines with pre-established and field-tested coding systems if the researcher's goals harmonize with the protocol's outcomes. Boyatzis (1998) cautions, "the use of prior data and research as the basis for development of a code means that the researcher accepts another researcher's assumptions, projections, and biases" (p. 37). Since standardized ways of coding and categorizing data are provided to the researcher, the coder should ensure that all definitions are clear and inclusive of all the possible types of responses to be collected. Some protocols, depending on their transferability and trustworthiness, may also contribute to the reliability and validity (i.e., credibility) of the researcher's new study.

Schensul et al. (1999a) recommend using pre-existing or modified coding schemes for team coders when reviewing video-taped data and focus group interview transcripts. Altheide and Schneider (2013) do not recommend fixed Protocol Coding methods for qualitative media analyses, instead preferring more inductive approaches to electronic materials to discern subtleties and meanings (p. 130).

Example

Shrader and Sagot (2000) co-authored a richly detailed qualitative research protocol for the investigation of violence against women, with the ultimate goal of developing strategies to improve their conditions—that is, an action research model. Service providers, community members, and women personally affected by family violence are interviewed with a recommended list of questions. Examples asked of women during individual interviews are: “Can you tell me about the violent situation that you are, or were, living with?” (Follow-up: ask when the violence occurred and what type of violence the respondent experienced.) Two focus group questions with women are: “Which family members abuse/attack/mistreat other family members?” and “Why does this violence occur?” (pp. 45, 48).

Researchers are provided with a specific series of codes *qua* (in the role of) categories to apply to interview transcripts and documents. After coding, the data are then analyzed through such techniques as matrices, taxonomies, explanatory networks, and decision modeling to assess the outcomes and plan strategic interventions. Shrader and Sagot note that their coding and categorization system was tested in 10 Latin American countries, yet it maintains flexibility for additional categories to be integrated by other researchers. For example, one major code and its cluster of subcodes applied to responses gathered from women affected by family violence include (adapted from Shrader & Sagot, 2000, p. 63):

Code example 10.1

Category	Code	Definition
Causes of family violence	CAUSES.	Reasons that the respondent perceives as the causes of family violence
Subcategory	*Subcode*	*Family violence due to:*
alcohol	.ALCOH	alcoholism or drinking
drugs	.DRUG	drug use
money	.MONEY	lack of money or financial problems
education	.EDUC	lack of education
conditioning	.COND	social conditioning or learned behavior
personality	.PERS	personality of the abuser or the abused
machismo	.MACHO	intrinsic traits of men or “machismo”
control	.CONTR	controlling behavior of the abuser

A woman speculating on the reason behind her husband’s abusive behavior might respond, “He was a just a sick, twisted man, born that way.” This response would receive the code: causes.pers. Another woman might offer, “Well, his daddy beat his mama, and now he’s beating me.” This response would be coded: causes.cond.

Analysis

Pre-established research protocols will most often prescribe or recommend specific researcher training, data-gathering, coding, and analytic methods. The protocol may also include such parameters as a required minimum number of participants, a desired statistical range for assessing intercoder reliability, and other guidelines. Depending on the protocol, the procedures and instrumentation may appear inflexible and thus restrictive to certain researchers. But other protocols, such as Shrader and Sagot's, acknowledge the context-specific nature of qualitative inquiry and have built-in allowances for unique settings and cases.

A disadvantage of using others' systems is that the original developers may not always be available to clarify a vague passage in their protocol for you, or to answer unique questions that may arise during the course of your own study. Standardization is often perceived as antithetical to the qualitative paradigm. Protocols provide much of the preparatory work for the new investigator, but he or she should be cautious of accepting every prescription at face value. Assess a protocol critically and, if necessary, adapt the guidelines to suit your own research contexts.

On the plus side, substantive contributions to a specific area of study may be made if your particular study follows a protocol and builds on previous research to confirm and/or disconfirm the original findings, and expands the data and knowledge bases in the subject (see Elaborative Coding). If you yourself develop a research protocol for other qualitative researchers, make certain that all codes are distinctly clear: "If your code is too difficult to learn, other researchers will avoid it" (Boyatzis, 1998, p. 10).

Some works, such as dissertations or longer published journal articles, may not advocate replication of their studies, but if the topic, research questions, or goals of those studies have the potential for transferability to your own investigation, explore the possibilities of adapting their works' suggested protocols.

Since CAQDAS code lists can be imported from and exported to other projects and users, the programs lend themselves well to Protocol Coding.

Analytic applications with Protocol Coding should follow the source's specific procedures.

Notes

Educational research has developed several instruments for the observation, recording, and coding of children's behavior in natural settings and semi-structured participatory activities (Greig et al., 2013; O'Kane, 2000). Mukherji and Albon (2015, pp. 139–40) offer a coding shorthand for children's tasks and social interactions such as:

SOL—the target child is playing on their own (solitary)

SG—the target child is within a small group (three to five children)

LMM—large muscle movement

PS—problem-solving

DB—distress behavior

Other social science fields such as psychology also maintain a series of coding schemes applied to qualitative data for quantitative transformation and analysis (e.g., collecting family narratives to evaluate the transmission of moral values and socialization—see Fiese & Spagnola, 2005). An interesting protocol that codes and transforms qualitative interview data for statistical analysis is the Leeds Attributional Coding System (Munton, Silvester, Stratton, & Hanks, 1999), which assesses a participant's causal beliefs (see Causation Coding). Other interesting protocols to examine are the detailed categories in the "Coding Lexicon" files of the American Time Use Survey (bls.gov/tus/), "The Question Appraisal System" for questionnaire design (Willis, 2015, pp. 78–83), and content analysis methodologist Kimberly A. Neuendorf's website collection of codebooks and coding forms at: academic.csuohio.edu/neuendorf_ka/content/. See Brooks (2015) for an elegant use of Protocol Coding with five components of "trust" to generate categories and themes, and Bartlett, Jang, Feng, and Aderibigbe (2020) for Protocol Coding with a preestablished set of positive leadership behaviors culled from the research literature.

Protocol Coding differs from Hypothesis Coding in that the former's set of codes has been developed by other researchers, while the Hypothesis Coding's set of codes is generally developed by the researcher him- or herself.

OCM (OUTLINE OF CULTURAL MATERIALS) CODING

Sources

Bernard, 2018; DeWalt & DeWalt, 2011; Murdock et al., 2004

Description

The OCM was developed in the mid-twentieth century by social scientists at Yale University as a topical index for anthropologists and archeologists. “The OCM provides coding for the categories of social life that have traditionally been included in ethnographic description: history, demography, agriculture” and is “a good starting point for the parts of field notes that deal with descriptions of cultural systems” (DeWalt & DeWalt, 2011, p. 184). The index, consisting of thousands of entries, serves to organize the database of the Human Relations Area Files (HRAF), a massive collection of ethnographic field notes and accounts about hundreds of world cultures. Each domain and subdomain of the OCM are assigned specific reference numbers, for example:

290 CLOTHING

291 NORMAL GARB

292 SPECIAL GARMENTS

Each index entry includes a description with cross-references to other relevant entries; for example:

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292 SPECIAL GARMENTS Clothing of special occasions (e.g., festive apparel, rain gear, bathing costumes); headgear and footwear not ordinarily worn; costumes associated with special statuses and activities; special methods of wearing garments; etc.

Ceremonial attire 796 ORGANIZED CEREMONIAL

Drama costumes 536 DRAMA

Dance costumes 535 DANCE

Military uniforms 714 UNIFORM AND ACCOUTERMENT

Dance and dramatic costumes 530 ARTS

For more on the OCM and HRAF, access: hraf.yale.edu/resources/reference/outline-of-cultural-materials/

Applications

OCM coding is appropriate for ethnographic studies (cultural and cross-cultural) and studies of artifacts, folk art, and human production.

The OCM is a specialized indexing system primarily for anthropologists, but the website is worth browsing by researchers from other disciplines to acquaint themselves with the breadth of possible topics about human experience for field note development. DeWalt and DeWalt (2011) note that “indexing is probably going to be more important than coding in the analysis of field notes. Coding is a more common activity when the researcher is working with interview transcripts and other documents” (p. 195). Database management software, particularly for artifact and document coding, is strongly recommended by Bernard (2018).

Example

The following is a descriptive field note excerpt of a Native American hoop dancer's garments. The four OCM numeric codes listed at the beginning apply to the entire excerpt. Portions of the codes' definitions and their included items are placed in square brackets for reader reference:

---

292 SPECIAL GARMENTS (costumes associated with special … activities)

301 ORNAMENT (types of ornament worn … mode of attachment)

535 DANCE (information on dance styles … dance costumes and paraphernalia)

5311 VISUAL ARTS (material objects whose expressive dimension is primarily visual in nature … information on genres in visual arts (e.g., beadwork, …) … design and pattern)

The Ho-chunk hoop dancer's long-sleeved shirt is almost lemon-yellow in color, full at the wrists, and appears to be made out of silk. His closed but loose-fitting vest has intricate reflective beading of triangular-shaped and jagged-edged motifs. This same beading pattern appears sewn as elbow patches on his shirt, headband, and skirt overlay. The bead colors are blue, dark red, light purple, and silver. A lemon-yellow silk neck scarf is tied once in front and hangs down to his stomach. The skirt appears to be constructed out of heavy rough leather but is also lemon-yellow in color. Eight-inch long and one-inch wide fringe strips follow along the edge of the skirt, which bounce freely and solidly as he stamps his feet and quickly rotates. A six-inch wide strip of fringe at the front and back of the skirt is dyed burnt orange. The skirt's sides are cut to his upper thigh while the front and back are knee-length. The oval-shaped beaded skirt overlay in front and back is also knee-length. His hoops are saffron-yellow with the same reflective beading patterns and colors at quarter portions of each one, which unifies his basic garments with the hoops.

OCM Codes can also be applied in the margins of field notes when the specific topic changes:

Code example 10.2

[1] Eight-inch long and one-inch wide fringe strips follow along the edge of the skirt, which bounce freely and solidly as [2] he stamps his feet and quickly rotates. [3] A six-inch wide strip of fringe at the front and back of the skirt is dyed burnt orange. The skirt's sides are cut to his upper thigh while the …	[1] 292 [2] 535 [3] 292

Analysis

Bernard (2018) notes that context-specific studies may require highly specific topical codes that are not in the OCM, so decimals or words can be added after a number to adapt, customize, and extend the subdomains even further. For example, if special garments is OCM Code 292, I can add extensions to "Drama Costumes" for quantitative applications and analysis such as:

292.1 PASTORELA COSTUMES

292.11 SHEPHERDS' COSTUMES

292.12 KINGS' COSTUMES

292.13 DEVIL COSTUME

LeCompte and Schensul (2013, p. 121) note that the traditional category domains of the OCM will need additional supplements for contemporary media and technology (e.g., mobile phones, tablets), evolving social relationships (e.g., same-sex marriage, polyamory), and newer forms of communication (e.g., social media, vlogs).

Bernard (2018) recommends predetermined hypotheses before drawing representative cross-cultural samples from the HRAF through OCM Codes, then administering appropriate statistical tests to confirm or disconfirm the hypotheses. DeWalt and DeWalt (2011) offer non-quantitative display strategies such as quotes, vignettes, time flow charts, and decision modeling (pp. 196 – 203).

Some recommended ways to further analyze OCM Codes are (see Appendix B):

- content analysis (Krippendorff, 2013; Neuendorf, 2017; Schreier, 2012; Wilkinson & Birmingham, 2003)
- cross-cultural content analysis (Bernard, 2018)
- data matrices for univariate, bivariate, and multivariate analysis (Bernard, 2018)
- descriptive statistical analysis (Bernard, 2018)
- domain and taxonomic analysis (Schensul et al., 1999b; Spradley, 1979, 1980)
- frequency counts (LeCompte & Schensul, 2013)
- memo writing about the codes/themes (Charmaz, 2014; Corbin & Strauss, 2015; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)
- mixed methods research (Creamer, 2018; Creswell, 2014; Creswell & Plano Clark, 2018; Tashakkori & Teddlie, 2010)
- quick ethnography (Handwerker, 2001).

Notes

There are other established coding schemes developed by anthropologists for ethnographic studies, but the OCM is the largest and perhaps the best known among several academic disciplines. DeWalt and DeWalt (2011), however, note that the OCM has an inherent bias that assumes universal, cross-cultural comparability. Contemporary ethnographies that focus more on their unique urban or cyberspace sites, socio-politically driven questions, and participatory social change agendas, rather than traditional, holistic cultural description, have made “the OCM less applicable for many researchers” (p. 184).

DOMAIN AND TAXONOMIC CODING

Sources

McCurdy et al. 2005; Spradley, 1979, 1980

Description

Domain and Taxonomic Coding is an ethnographic method for discovering the cultural knowledge people use to organize their behaviors and interpret their experiences (Spradley, 1980, pp. 30–1). "Every culture creates hundreds of thousands of categories by taking unique things and classifying them together" (p. 88), but this knowledge is mostly tacit. Hence, the ethnographer relies primarily on extensive interviews composed of strategic questions to discern these categories of meaning.

Domain and taxonomic analysis are separate steps combined into a single process. "We call categories that categorize other categories *domains* and the words that name them *cover terms*. … Taxonomies are simply [hierarchical] lists of different things that are classified together under a domain word by members of a microculture on the basis of some shared certain attributes" (McCurdy et al., 2005, pp. 44–5). For example, the domain of this manual and its cover term might be labeled *coding methods*. The taxonomy begins under the cover term with two separate categories: First Cycle Coding Methods and Second Cycle Coding Methods. The taxonomy continues with subcategories since under each category is a more specific set of coding methods (see Figure 4.4 or this manual's Contents—those are taxonomies). Put another way, a written grocery list may just be a random listing of things you need to buy at the grocery store, but when you get to the store, each aisle is an organized taxonomy of categories with related subcategories.

To obtain these cultural categories, it is presumed that

> knowledge, including shared cultural knowledge, is stored as a system of categories in the human brain. … [If] we can find the words that name things when informants talk with other members of their microculture, we can infer the existence of the group's cultural categories. We call these informant-generated words *folk terms*. (McCurdy et al., 2005, pp. 35–6)

A verbatim data record to extract folk terms is mandatory for Domain and Taxonomic Coding. But when no specific folk terms are generated by participants, the researcher develops his or her own—called *analytic terms*.

To Spradley, nine possible *semantic relationships* exist within domains, which include these types (Spradley, 1979, p. 111), followed by examples related to codes and coding:

Table 10.1

Form	Semantic Relationship
1 Strict inclusion	X is a kind of Y (Process Coding is a kind of first cycle coding method)
2 Spatial	X is a place in Y, X is a part of Y (*wide margin space* is a part of *hard-copy coding*)
3 Cause–effect	X is a result of Y, X is a cause of Y (*analysis* is a result of *coding*)

Form	Semantic Relationship
4 Rationale	X is a reason for doing Y (*transcribing interviews* is a reason for *coding them*)
5 Location for action	X is a place for doing Y (*a desk* is a place for *coding*)
6 Function	X is used for Y (*a computer* is used for *coding*)
7 Means–end	X is a way to do Y (*reading data carefully* is a way to *code them*)
8 Sequence	X is a step (stage) in Y (*first cycle coding* is a stage in *coding data*)
9 Attribution	X is an attribute (characteristic) of Y (*quotation marks* are an attribute of *In Vivo Codes*)

Strict inclusion forms are generally nouns in the data; *means–end* forms are generally verbs.

For analysis, a semantic relationship is chosen first. Data are then reviewed to find examples of the semantic relationship, and the related folk or analytic terms are listed in a worksheet. From this, a *folk taxonomy*, "a set of categories organized on the basis of a single semantic relationship," is developed. The taxonomy "shows the relationships among *all* the folk terms in a domain" (Spradley, 1979, p. 137). Bernard et al. (2017, p. 409) advise that items mentioned by at least 10% of participants merit consideration for inclusion in a taxonomy.

Spradley did not recommend in his early published works specific codes or coding procedures for constructing domains and taxonomies. The search for folk terms or development of analytic terms was completed simply by reviewing the data, highlighting the terms, observing and interviewing participants further for verification or additional data collection, and compiling the information on separate worksheets. The methods outlined here adapt Spradley's procedures into a more code-based system for data organization and management and, if needed, further analysis.

Applications

Domain and Taxonomic Coding is appropriate for ethnographic studies and constructing a detailed topics list or index of major categories or themes in the data.

Domain and Taxonomic Coding is a thorough yet time-intensive method for organizing categories of meaning from participants, provided there are sufficient data for analysis. It is particularly effective for studying microcultures with a specific repertoire of folk terms—for example, homeless youth terms may include “street rat,” “sp’ange,” “make bank,” “green,” “squat,” “schwillies” (Finley & Finley, 1999). The approach, however, may be perceived by some as imposing too much organization on the messiness of social life, as anthropologist Clifford Geertz (2003) cautioned:

> Nothing has done more, I think, to discredit cultural analysis than the construction of impeccable depictions of formal order in whose actual existence nobody can quite believe. … [The] essential task of theory building here is not to codify abstract regularities but to make thick description possible, not to generalize across cases but to generalize within them. (pp. 157, 165)

Example

A field experiment in theatre of the oppressed (i.e., theatre for social change) with fourth- and fifth-grade children began by observing, interviewing, and surveying children about the types of oppressions or bullying they encountered in school and at home (Saldaña, 2005b). The excerpts below are taken from group interviews and written, open-ended surveys, prompted by the researcher's inquiry of "what you've seen or heard of how kids hurt other kids—oppression." Folk terms (which become In Vivo Codes) within the verbatim text are coded by bolding them and noting them in quotes in the margin for organizational access. Researcher-generated analytic terms/codes are also noted in the margin. After initially reviewing the transcripts and survey responses, I noticed that oppressions occurred physically (PHY), verbally (VER), or a combination of both (PHY/VER). This was the beginning of a taxonomy, albeit a tentative one. Thus, the coding also classified the folk and analytic terms accordingly. Coding focuses *exclusively* on finding data that relate to the semantic relationship:

> *Semantic relationship*: Means–end (X is a way to do Y): What children describe below are ways to "hurt" (oppress) others
>
> *Cover term*: Children's folk term for the domain: "HURTING"; researcher's analytic term for the domain: OPPRESSING
>
> *Taxonomy (major categories)*: Ways to hurt (oppress) others: PHYSICALLY, VERBALLY, and PHYSICALLY AND VERBALLY COMBINED

Code example 10.3

FIFTH-GRADE GIRLS [group interview]: GIRL 1: There was this one boy, he was trying to [1] **push** another boy into two other boys. I: Yes?	[1] phy: "push"
GIRL 2: Some girls [2] **fight** and you can get [3] **scratched** in the face, and they [4] **call you names.** GIRL 3: This guy tried to do a [5] **wrestling** thing to his friend, and then they did it to another kid and he got hurt.	[2] phy: "fight" [3] phy: "scratched" [4] ver: "call you names" [5] phy: "wrestling"
FOURTH-GRADE BOY [group interview]: Sometimes when we're playing games and stuff, and this one boy comes over and he says, "Can I play with you guys?", and people say, [6] **"No, you're not our kind of people, so [7] you better get out now."**	[6] phy/ver: exclude [7] ver: threaten

FIFTH-GRADE BOY [written survey response]: One day I was at schhol I was playing soccer then I came back inside and almost everybody started [8] **messing up** my hair when it was messed up everybody started [9] **laughing** and [10] **saying** your hair is messed up I got really made they were still messing with my hair I closed my fist and pretended like I was going to [11] **punch** him	[8] phy: "messing up my hair" [9] ver: "laughing" [10] ver: teasing [11] phy: "punch"
FIFTH-GRADE GIRL [written survey response]: I was [12] **made fun of my fatness.** I was [13] **called** fat, huge fatso are you going to have a baby. I was sad all the time. I' m trying to luse wiaght but I just gain, gain and gain. Wiaght. I have not lose eney wight. I have not stoped being appresed.	[12] ver: "made fun of my fatness" [13] ver: name-calling
FIFTH-GRADE BOY [written survey response]: Some times my brother [14] **calls me names.** And we don' t play with each other. We get made at each other. Sometimes he is a poor sport when we play games.	[14] ver: "calls me names"

Analysis

The codes representing the domain (including repeated terms, which may suggest a major category rather than subcategory) are then assembled into their respective lists (Table 10.2). Folk terms, if not uniquely a part of the microculture, can be modified into analytic terms (e.g., “push” becomes “pushing”):

Table 10.2

Physically	Verbally	Physically and Verbally
pushing	name-calling	excluding
fighting	threatening	
scratching	laughing	
wrestling	teasing	
messing up hair	making fun of fatness	
punching	name-calling	
	name-calling	

Since *name-calling* is a frequent category, the researcher can return to the field to ask participants (if they are willing to divulge, that is) the types of names children call each other and create a pool of subcategories—for example, “dork,” “wuss,” “fatso,” etc.

As the study continued, more data were collected through other methods, and gender differences in children’s perceptions and enactment of oppression became strikingly apparent. The taxonomy’s initial three categories were eventually reduced to two, based on the children’s folk categories that seemed to resonate with gender-based observations: oppression through physical *force* (primarily, but not exclusively, by boys) and oppression through hurting others’ *feelings* (primarily, but not exclusively, by girls).

Taxonomic diagrams can be developed as a simple outline, box diagram, or tree diagram in the form of lines and nodes. Taxonomic analysis helps in finding data subsets and their relationships. Using some of the categories extracted above, together with additional data from the study, the terms are reorganized into a taxonomic tree diagram (excerpt), as illustrated in Figure 10.1.

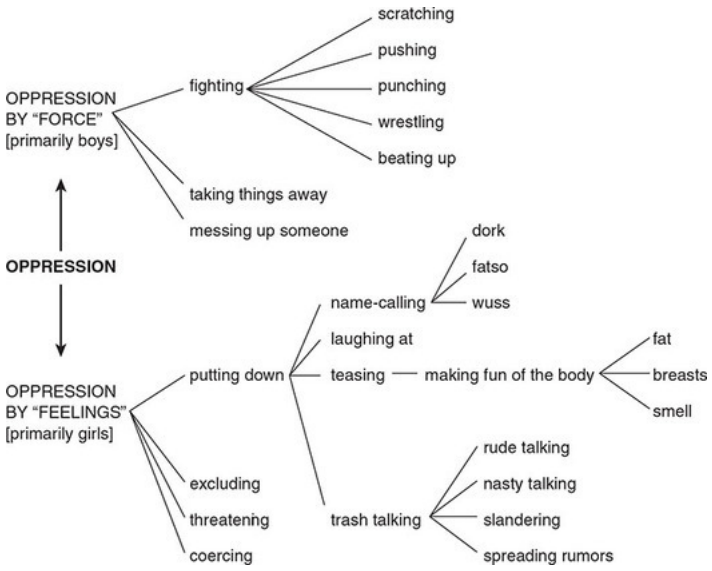

Figure 10.1 Excerpts from a taxonomic tree diagram of the ways children oppress others

Spradley's methods for domain and taxonomic analysis are the foundation for two advanced stages:

> *Componential analysis* involves a search for the attributes that signal differences among symbols in a domain. … *Theme analysis* involves a search for the relationships among domains and how they are linked to the culture as a whole. … All of these types of analysis lead to the discovery of cultural meaning. (1979, p. 94)

Componential and theme analysis do not necessarily require second cycle coding, but instead rely on synthesizing the analytic work from domains and taxonomies developed thus far, coupled with any necessary additional data collection to clarify and confirm the categories' relationships.

Most CAQDAS programs include graphic capabilities to draw domains and taxonomies. Some programs such as Quirkos can display a visual model that illustrates your codes' organizational arrangement based on their frequency and researcher-initiated linkages. CAQDAS programs can also arrange and manage your codes into hierarchies and trees, based on your input.

Some recommended ways to further analyze Domain and Taxonomic Codes are (see Appendix B):

- cognitive mapping (Miles et al., 2020; Northcutt & McCoy, 2004)
- componential and cultural theme analysis (McCurdy et al., 2005; Spradley, 1979, 1980)
- content analysis (Krippendorff, 2013; Neuendorf, 2017; Schreier, 2012; Wilkinson & Birmingham, 2003)
- cross-cultural content analysis (Bernard, 2018)
- domain and taxonomic analysis (Schensul et al., 1999b; Spradley, 1979, 1980)

- graph-theoretic techniques for semantic network analysis (Namey et al., 2008)
- illustrative charts, matrices, diagrams (Evergreen, 2020; Miles et al., 2020; Morgan et al., 2008; Northcutt & McCoy, 2004; Paulston, 2000; Wheeldon & Åhlberg, 2012)
- memo writing about the codes/themes (Charmaz, 2014; Corbin & Strauss, 2015; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)
- meta-ethnography, metasummary, and metasynthesis (Finfgeld, 2003; Major & Savin-Baden, 2010; Noblit & Hare, 1988; Sandelowski & Barroso, 2007; Sandelowski, Docherty, & Emden, 1997)
- quick ethnography (Handwerker, 2001)
- situational analysis (Clarke et al., 2015a, 2018)
- splitting, splicing, and linking data (Dey, 1993)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998; Smith & Osborn, 2015)
- within-case and cross-case displays (Miles et al., 2020; Shkedi, 2005).

Notes

Domain and Taxonomic Coding differs from In Vivo Coding in that the former method systematically searches for specific hierarchical organization of folk and analytic terms, while In Vivo Coding is an open-ended coding method for grounded theory and other coding methods.

For an amusing taxonomy of chocolate candies in infographic form, see fastcompany.com/1787228/infographic-day-visual-taxonomy-every-chocolate-candy-ever

CAUSATION CODING

Sources

Franzosi, 2010; Maxwell, 2012; Miles et al., 2020; Morrison, 2009; Munton et al., 1999; Vogt et al., 2014; Wong, 2012

Description

Do not confuse Attribute Coding (see Chapter 5) with *attribution* as it is used in this particular coding method. Attributes in Attribute Coding refer to descriptive variable information such as age, gender, race/ethnicity, etc. *Attribution* in Causation Coding refers to reasons or causal explanations.

Causation Coding adopts yet adapts the premises of the Leeds Attributional Coding System (Munton et al., 1999), quantitative applications for narrative analysis outlined by Franzosi (2010), fundamental principles and theories of causation (Maxwell, 2012; Morrison, 2009; Vogt et al., 2014), and selected explanatory analytic strategies of Miles et al. (2020). The goal is to locate, extract, and/or infer causal beliefs from qualitative data such as interview transcripts, participant observation field notes, and written survey responses. Causation Coding attempts to label the mental models participants use to uncover "what people believe about events and their causes. … An attribution is an expression of the way a person thinks about the relationship between a cause and an outcome," and an attribution can consist of an event, action, or characteristic (Munton et al., 1999, pp. 5–6).

At its most basic, an attribution answers the question "Why?", though there can be any number of possible answers to any "why" question. Munton et al. (1999) add: "Beliefs about causality can, and often do, involve multiple causes and multiple outcomes. … In sequences of attributions, an outcome in one attribution can become a cause in the next" (p. 9). Morrison (2009) supports these principles and adds that we should carefully consider the nuanced differences between a cause, a reason, and a motive, and to keep our focus primarily on people's intentions, choices, objectives, values, perspectives, expectations, needs, desires, and agency within their particular contexts and circumstances: "It is individuals, not variables [like social class, sex, race/ethnicity, etc.], which do the acting and the causing" (p. 116).

Three sources for Causation Coding agree that there are a minimum of three aspects to identify when analyzing causality. Munton et al. (1999) specify the three elements of an attribution as: the cause, the outcome, and the link between the cause and the outcome (p. 9). Miles et al. (2020) put forth a comparable model that documents: antecedent or start conditions, mediating variables, and outcomes. And Franzosi (2010) posits that "an action also has a reason and an outcome" (p. 26), a sequence he labels a "triplet." Thus, Causation Coding attempts to map a three-part process as a CODE 1 → CODE 2 → CODE 3 sequence (where → means "leads to"). But since multiple causes and multiple outcomes can factor into the equation, the three-part process can include subsets such as CODE 1A + CODE 1B → CODE 2 → CODE 3A + CODE 3B + CODE 3C. As will be shown later, some of these factors can be two- and three-dimensionally networked; do not always assume strict linearity with causation. Even quantitative research models acknowledge intricate interrelationships with variables and their links (Vogt et al., 2014, p. 200).

Franzosi (2010) asserts that "narrative sequences imply causal sequences" (p. 13) and "a story grammar is nothing but a coding scheme and each constituent element of the grammar nothing but a coding category in the language of content analysis" (p. 35). But a linear sequence is not always apparently obvious or fully contained within narrative data. Certainly, we can first look for participant statements that identify factors or conditions that lead to a particular outcome. Sometimes such cluing words and phrases as "because," "so," "therefore," "since," "if it wasn't for," "as a result of," "the reason is," "and that's why," etc., will be used by participants. But analysts will also have to look for *processes* embedded within data narratives to storyline a three-part sequence.

In other words, you will have to decode and piece together the process because participants may tell you the outcome first, followed by what came before or what led up to it, and

sometimes explain the multiple causes and outcomes in a reverberative, back-and-forth manner. Deducing these processes is like the childhood exercises in logic in which we had to determine from randomly arranged pictures what happened first, then second, then third. And complicating the analysis is that sometimes participants may not overtly state the "mediating variable" or the details of what happened between the cause and the outcome (or the *agent* and *target*), and whether the effects were short-term or long-term (Hays & Singh, 2012, pp. 316, 329). In this case, the researcher will have to follow up participants for additional data or plausibly infer how CODE 1 led to CODE 3.

Munton et al. (1999) operationalized a set of dimensions to examine for the Leeds Attributional Coding System. Qualitative data do not have to be labeled as such for Causation Coding, but they may be helpful during analytic memo writing. The dimensions of causality are:

- internal/external—whether the cause is from self or others
- stable/unstable—an individual's prediction of successful outcome
- global/specific—the effect on a range of many or particular situations
- personal/universal—how unique the situation is to the individual or generalizable to most people
- controllable/uncontrollable—an individual's perception of control over the cause, outcome, and link.

Applications

When we as researchers inquire into participants' rationale for why they think something is as it is, we obtain their speculations and perspectives on what they believe to be probable or "true" as they construct it. According to Munton et al. (1999):

> Attribution theory concerns the everyday causal explanations that people produce when they encounter novel, important, unusual or potentially threatening behaviour and events. According to attribution theorists, people are motivated to identify the causes of such events, because by doing so they render their environment more predictable and potentially more controllable. (p. 31)

Attribution can also provide sense, meaning, and sometimes comfort to individuals. We have difficulty wrestling with the unresolved, irrational, and unexplained. When we find and attribute cause, reason, or purpose (whether it be logical or not) to something that happened, especially in our narratives, we regain a sense of order in our personal lives. "Our brains crave *why* stories" (Lieberman, 2013, p. 288).

Causation Coding is appropriate for discerning motives (by or toward something or someone), belief systems, worldviews, processes, transitions, recent histories, interrelationships, and the complexity of influences and affects (my qualitative equivalent for the positivist "cause and effect") on human actions and phenomena. The method may serve grounded theorists in meticulous searches for causes, conditions, contexts, and consequences. Yin (2018) promotes that case study research lends itself well to explanations (the how and why) of social phenomena (p. 4). The method is also appropriate if you are trying to evaluate the efficacy of a particular program, or as preparatory work before diagramming or modeling a process through visual means such as decision modeling and causal networks (Miles et al., 2020). Tavory and Timmermans (2014) emphasize that causation analysis is particularly critical in searches for data *variation*, which becomes a necessary component of theory construction (p. 87).

Causation Coding is also relevant for inquiries that explore participants' perceptions of "imputation" or "attributing responsibility or blame" (Vogt et al., 2014, p. 269). Of course, Causation Coding is geared toward exploring why questions in research endeavors, but the method should not be considered a foolproof algorithm for deducing the "correct" answers. Instead, it should be used as a heuristic for considering or hypothesizing about *plausible* causes of particular outcomes, and *probable* outcomes from particular causes.

We should always remain firmly grounded in the particulars of participants' experiences and perspectives, but causality is not always local or linked with specific nearby events in time. As I reflect on the origins of some of my gestural habits and even thinking processes as a senior adult, I realize they had familial and educational roots decades ago during childhood and adolescence. Also, today's global and interconnected world suggests that macro and meso levels of influence and affect from national government policies, international crises, and the ubiquitous impact of technology can trickle down rapidly to the individual micro level. Causation can range from actual people (e.g., a beloved high school teacher) to conceptual phenomena (e.g., the economy) to significant events (e.g., September 11, 2001) to natural phenomena (e.g., hurricanes) to personal ethos and agency (e.g., self-motivation to advance one's career), to a myriad of other factors in various combinations.

Both quantitative (e.g., regression and path analysis) and qualitative methods are available for discerning causation, but Morrison (2009) advocates that the latter may be more

“ideal” for identifying causation’s processes and mechanisms through action narratives and structural accounts (pp. 99, 105). Causation Coding attempts to discern not only then-and-now conditions but the transitional journey between them.

Example

Open-ended survey data were collected from adults of various ages who participated in high school speech/communication classes and related extracurricular activities (e.g., debate clubs, forensic tournaments). Participants responded to an e-mail questionnaire that solicited their memories and perceptions of their experiences (McCammon & Saldaña, 2011; McCammon et al., 2012). Two of the prompts were: "Looking back, what do you think was the biggest challenge you overcame/faced in high school speech?" and "In what ways do you think your participation in speech as a high school student has affected the adult you have become?"

The researcher observed during initial coding and data analysis that several respondents mentioned specific causes and outcomes in their written reflections. Note how the participant narratives are not always linear in terms of storyline, but the coding sequences in the right-hand column rearrange the attributions and outcomes into a chronological sequence. Also, not all participants mentioned a three-part sequence—most provided only two. Multiple examples are included below to illustrate the possible coding variances and how a large number of codes and triplets are necessary for Causation Coding analysis. Maxwell (2012) emphasizes that coding for causation should not fragment the data but instead examine the processual links embedded within extended excerpts (p. 44). In this coding system, → means "leads to":

Code example 10.4

[1] I was incredibly shy during high school, and the way I learned to think on my feet and to speak in front of other people helped me come out of my shell by the time I was a senior—so that I could do things like run organizations as president or editor of the high school paper and interview better for scholarships. [2] Without speech training, I may have been an anti-social mess. It also gave me the confidence I needed to start college on the right foot.	[1] shy → "think on my feet" + speak in front of others → "come out of my shell" → leadership skills + interview skills [2] speech training → confidence → college prep
[1] A need to be accepted by my peers. Speech tournaments provided that to me every Saturday. Making friends from other schools; [2] competing and winning also tremendously helped build my staggering self-esteem issues that were completely related to school peer relationships.	[1] speech tournaments → peer acceptance + friends [2] competition → winning → self-esteem
[1] Without a doubt, it was a fear of speaking in front of others. My	[1] "fear of

ultimate career as an adult was in the field of journalism. Early fears I had about approaching strangers and speaking in front of a group of people were overcome due to involvement in speaking events. As I mentioned above, I think speech class and the events that I participated in due to taking that class, probably led directly to my choosing journalism as a career. My success in the field of journalism would have never come about without those speech classes in high school.	speaking" → speaking events + speech class → journalism career + success
[1] I have a measure of confidence and composure that would not exist were it not for speech.[2] I wouldn't have the same set of job skills and abilities. [3] I would not have the same set of friends and acquaintances (most of whom I met through speech and theatre). [4] I wouldn't have had the same influences that created my political ideologies and many of my individual beliefs. [5] I believe that my participation in speech and theatre in high school has influenced who I am as an adult more than any other single influence in my entire life. Of all the things that matter, it has mattered the most.	[1] speech → confidence + composure [2] speech → job skills [3] speech + theatre → friendships [4] speech → personal ethos [5] speech + theatre → major influence on adulthood
Several things: [1] Speaking skill set that has made it much easier for me to tackle, staff management, negotiating and business presentation. [2] Built confidence through achieving success and experiencing the rewards of hard work (of course everyone did not have as good a coach as we did). [3] Increased skills in forming relationships since we were sort of a ready made group.	[1] speaking skills → business skills [2] success + hard work rewards + good coach → confidence [3] sense of group → interpersonal relationships
[1] I went into speech-language pathology, partly because of the positive experience I had in speech competitions. [2] When I became a professor, I relied heavily on what I learned from [my teacher] to get up in front of the class and perform. I've presented research all over the county and have had roles at my college where I had to give presentations to all-campus meetings with the faculty and administrators. I could not have done all of this if [my teacher] had not worked her magic on me.	[1] "positive experience" in speech competitions → speech-related career

	[2] speech teacher → teacher modeling → presentation skills
[1] The constant rehearsing and memorizing lines was difficult, especially when your teacher requires nothing less than perfection, but performing in front of the crowd was the scariest part to overcome, but it taught me to be a powerful leader.	[1] expectations of perfection + performance skills → leadership skills
[1] We all also developed some close friends at competing schools. [2] And, it's always fun when you're on a winning team and we won a lot.[3] Speech was my main source of positive feedback in school (looking back I was/am probably a bit ADD) and [4] I didn't live up to my potential. Part of that is due to many of the faculty either being burned out or ambivalent about teaching.[5] Winning is among the fondest memories—[6] everybody needs to excel at something. This was the only group that most of us fit into and where some of us excelled. [7] Even those who were not the top performers were accepted unconditionally by our group and the groups from most of the other schools. Maybe it's part of the "nerd herd" mentality. [8] The "popularity" that comes with winning also had its own rewards.	[1] speech competitions → friends [2] winning → fun [3] speech → "positive feedback" [4] poor faculty → students not up to potential [5] winning → fond memories [6] belonging → excelling [7] belonging → acceptance [8] winning → "popularity"
[1] I am not worried about speaking persuasively to others and attempting to draw them into agreement with my position. I can also speak on an impromptu basis with little anxiety. I feel more confident if I am presenting something in a formal setting as a result of the experiences I had in high school.	[1] speech experiences → persuasive speaking + impromptu speaking + confidence
[1] My work ethic was formed during that time; balancing academic work with	[1] speech →

the demands of speech required a lot of concentration and multitasking. [2] Of course the skills I learned in extemporaneous speaking have been invaluable in my work where quick thinking and entertaining presentation are essential. I have the capacity to talk to almost anyone. [3] In terms of entering college, I was a league ahead of many of my peers. I could speak confidently in front of a class, or quickly form my thoughts into structured and reasonable answers for essay questions.	concentration + multitasking → work ethic [2] extemp speaking → quick thinking + presentation skills + social skills [3] speech → confident speaking + quick thinking

Analysis

After the corpus has been coded, one tactic to analyze the aggregate is to plot the attribution sequences in a chronological matrix or flow chart to assess what generally leads to what, according to participants and researcher inferences, and to categorize the codes accordingly based on similarity. A minimum of three columns to differentiate between antecedent conditions (i.e., pre-existing, baseline, or initiating factors), mediating variables (i.e., causes, contexts, actions), and outcomes (i.e., consequences) is strongly recommended. Tables 10.3 – 10.9 show the array of codes from the survey data examples above, reorganized manually into seven categories according to comparable variables and/or outcomes —a method and process that educational researcher Howard Gardner once termed in a public lecture "a sort of subjective factor analysis." Also note how the first survey example had a four-part code sequence, rather than three. Thus, both possible three-way combinations of codes were placed into the array below:

Table 10.3

ANTECEDENT CONDITIONS	→ MEDIATING VARIABLES	→ OUTCOME CATEGORY: CAREER SKILLS
SPEECH TRAINING	CONFIDENCE	COLLEGE PREP
	SPEAKING SKILLS	BUSINESS SKILLS
SPEECH		JOB SKILLS
SPEECH	CONCENTRATION + MULTITASKING	WORK ETHIC
"FEAR OF SPEAKING"	SPEAKING EVENTS + SPEECH CLASS	JOURNALISM CAREER + SUCCESS
	"POSITIVE EXPERIENCE" IN SPEECH COMPETITIONS	SPEECH-RELATED CAREER

Table 10.4

ANTECEDENT CONDITIONS	MEDIATING VARIABLES	OUTCOME CATEGORY: PRESENTATION SKILLS
SPEECH TEACHER	TEACHER MODELING	PRESENTATION SKILLS
	EXTEMP SPEAKING	QUICK THINKING + PRESENTATION SKILLS
SPEECH		QUICK THINKING

ANTECEDENT CONDITIONS	MEDIATING VARIABLES	OUTCOME CATEGORY: PRESENTATION SKILLS
	SPEECH EXPERIENCES	PERSUASIVE SPEAKING + IMPROMPTU SPEAKING

Table 10.5

ANTECEDENT CONDITIONS	MEDIATING VARIABLES	OUTCOME CATEGORY: LEADERSHIP SKILLS
“THINK ON MY FEET” + SPEAK IN FRONT OF OTHERS	“COME OUT OF MY SHELL”	LEADERSHIP SKILLS + INTERVIEW SKILLS
	EXPECTATIONS OF PERFECTION + PERFORMANCE SKILLS	LEADERSHIP SKILLS

Table 10.6

ANTECEDENT CONDITIONS	MEDIATING VARIABLES	OUTCOME CATEGORY: CONFIDENCE
SPEECH		CONFIDENCE + COMPOSURE
SPEECH EXPERIENCES		CONFIDENCE
	SUCCESS + HARD WORK REWARDS + GOOD COACH	CONFIDENCE
SPEECH		CONFIDENT SPEAKING

Table 10.7

ANTECEDENT CONDITIONS	MEDIATING VARIABLES	OUTCOME CATEGORY: WINNING PAYOFFS
COMPETITION	WINNING	SELF-ESTEEM
	WINNING	FUN

ANTECEDENT CONDITIONS	MEDIATING VARIABLES	OUTCOME CATEGORY: WINNING PAYOFFS
	WINNING	FOND MEMORIES
	WINNING	POPULARITY

Table 10.8

ANTECEDENT CONDITIONS	MEDIATING VARIABLES	OUTCOME CATEGORY: SOCIAL BELONGING
	EXTEMP SPEAKING	SOCIAL SKILLS
SPEECH + THEATRE		FRIENDSHIPS
	SPEECH TOURNAMENTS	FRIENDS
	SPEECH COMPETITIONS	FRIENDS
	BELONGING	EXCELLING
	BELONGING	ACCEPTANCE
	SPEECH TOURNAMENTS	PEER ACCEPTANCE
	SENSE OF GROUP	INTERPERSONAL RELATIONSHIPS

Table 10.9

ANTECEDENT CONDITIONS	MEDIATING VARIABLES	OUTCOME CATEGORY: PERSONAL AFFECTS
SHY	“THINK ON MY FEET” + SPEAK IN FRONT OF OTHERS	“COME OUT OF MY SHELL”
SPEECH		PERSONAL ETHOS
SPEECH	“POSITIVE FEEDBACK”	

ANTECEDENT CONDITIONS	MEDIATING VARIABLES	OUTCOME CATEGORY: PERSONAL AFFECTS
SPEECH + THEATRE		MAJOR INFLUENCE ON ADULTHOOD
POOR FACULTY	STUDENTS NOT UP TO POTENTIAL	

After initial categorizing, similar outcomes can be categorized even further. The researcher developed two major categories from the seven initially generated:

- Workforce Preparation (composed of Career Skills, Presentation Skills, and Leadership Skills)
- Lifeforce Preparation (composed of Confidence, Winning Payoffs, Social Belonging, and Personal Affects)

Analytic memos should now examine the researcher's assessment of the attributions that led to the outcomes. Codeweaving (see Chapter 3) is one tactic that insures the analyst remains grounded in the data and does not rely too heavily on speculation. Language that incorporates chronological processes (first, initial, then, next, future, etc.) provides a sense of storylined influences and affects. But also note that causation can be "multiply conjunctural" (Becker, 1998, p. 190), meaning that a particular *combination* of factors, rather than discrete, isolated events in a linear path, can lead to a particular outcome(s). Supportive evidence with participant quotes or field note excerpts help make the case:

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16 November 2010

ATTRIBUTIONS FOR WORKFORCE PREPARATION

An adolescent may first enter a SPEECH CLASS with an initial FEAR OF SPEAKING in front of others, but under the direction of an expert TEACHER with high EXPECTATIONS for SPEECH EXPERIENCES that shape not just the voice but the mind, the student gains the ability to mentally CONCENTRATE and MULTITASK. Survey respondents testify that EXTEMP/IMPROMPTU and PERSUASIVE SPEAKING tasks, particularly at speech COMPETITIONS with POSITIVE outcomes, establish QUICK THINKING and PRESENTATION SKILLS. These initial outcomes contribute to a strong WORK ETHIC for future COLLEGE and BUSINESS careers and, for some, LEADERSHIP roles: "My work ethic was formed during that time; balancing academic work with the demands of speech required a lot of concentration and multitasking. Of course the skills I learned in extemporaneous speaking have been invaluable in my work where quick thinking and entertaining presentation are essential."

Graphic models are another effective way to plot the flow of antecedent conditions, mediating variables, and outcomes. Morrison (2009) posits that "an effect is a consequence of a net or network of conditions, circumstances, intentionality and agency that interact in a myriad of ways" (p. 12), and linear models are only one form of plotting causation. Figure 10.2 illustrates the Lifeforce Preparation codes and categories at work in the examples above.

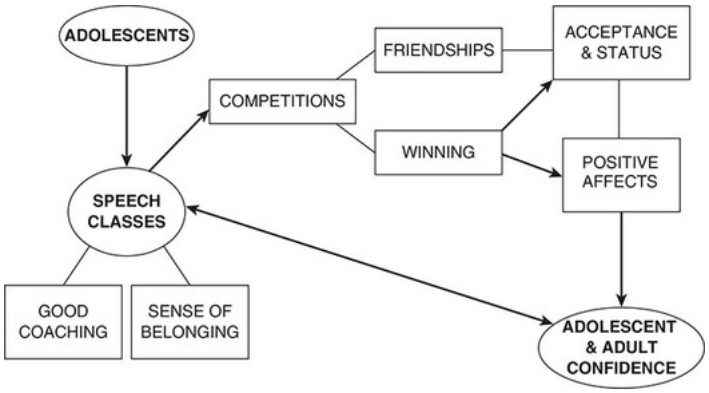

Figure 10.2 A causation model of speech classes as Lifeforce Preparation

confidence arose as the primary outcome from the majority of the 234 survey respondents in this particular study, but not every participant was involved in competitive speech events. Thus, the model illustrates the trajectories for those who did and did not compete in forensics tournaments. The choice of connecting lines and arrows was also carefully considered, based on researcher assessment of interrelationship (indicated by a line) and influence and affect (indicated by one-way or two-way arrows), as suggested by the data corpus. A CAQDAS-coded set of data with its Simultaneous Coding feature can more intricately examine what types of interrelationships may exist among conditions, variables, and outcomes.

But models do not speak for themselves. Since Causation Coding tackles a "why" question, you should tackle a "because" answer. An explanatory narrative from the full report of the study discusses not just how but *why* students gain confidence from speech classes, presentations, and competitive events. A coherent storyline that outlines a process is the goal:

> The most prominent outcome for most high school speech participants is lifelong *confidence*—outgoing, independent expressiveness with an openness to ideas and people. The nature of speech programming demands that students physically, vocally, and mentally transcend their comfort zones and make themselves open to performance and presentation experiences with poise and composure. Confidence reverberates with the ability to excel at public speaking/communication, leadership, and cognitive/thinking affects. Along with confidence, or as a necessary antecedent, come opportunities for one's potential and talent to be nurtured (if not "pushed" by a speech teacher with high expectations), to achieve significant accomplishment and "shine" on stage or at the forensic event, and to receive validation from peers and adults. Through these processes, a student discovers her voice, enhances her self-esteem, and expresses her evolving identity with passion. (McCammon & Saldaña, 2011, p. 100)

Explaining "why" something happens is a slippery task in qualitative inquiry (and even in some quantitative research). Kahneman (2011) cautions us that our human minds are biased toward causal reasoning and may even be hardwired to seek causality. But the impulsive System 1 and rationalizing System 2 of our brains may be at odds with each other when formulating reasonable and grounded explanations (pp. 76, 182). For example, some religious extremists believe that natural disasters such as drought, floods, and earthquakes are divinely caused by perceived breakdowns in the contemporary social and moral order (e.g., abortion rights, gay marriage equality).

Gubrium and Holstein (1997) put forward that "the *whats* of the social world always inform our understanding of the *hows*. … Taken together, these reciprocal *what* and *how* concerns offer a basis for answering a variety of *why* questions" (p. 196). During this cycle of coding and analysis, if you seem to have only a tentative explanation for why something is happening or has happened, return to the data to examine participant "whats" and "hows." Participant use of *linguistic connectors* (Bernard et al., 2017, pp. 108–9), or relationships between one thing and another, functions as cues for interpreting causality (e.g., conditional or contingent relations such as "if/then," time-oriented relations such as "first/second").

Becker (1998) suggests that researchers think of an intricate *machine* as an image for the causal process they are trying to convey. Our "reverse engineering" of the events helps us reconstruct the sequences of action that led to particular outcomes (pp. 39–40). He also advises that researchers reflect carefully on whether their explanations of causality show "*why* something was or became *necessary*," or "*how* something was or became *possible*" (pp. 62–3). Critical realism also advises that "Causes can exist and not produce effects, and effects may have many unidentified causes" (Martin, 2020, p. 159)

Wong (2012) intricately details how complex interventions consist of chains of events of varying lengths and mental "mechanisms" (decision-making) that produce particular outcomes. But human agency is influenced by multiple contextual conditions which do not always produce the same outcomes but patterns of "demi-regularities." At its most basic, the Context plus Mechanism equals the Outcome (C + M = O). Yet the number of possible pathways toward a number of different outcomes can consist of intricately interwoven and embedded models, as illustrated in this Causation Coding profile:

> Human agency is an important "cause" for change in such interventions but human agency is also unpredictable. Thus, at best, we have demi-regularities, and this means that it is not always possible to "predict" what any one (or group of) participants will behave under certain context—that is, a context may not always fire the same mechanism in the same way due to the presence and influence of other mechanisms. So, once again, the strength of any claims made needs to be moderated to reflect the non-deterministic nature of human agency. (p. 108)

The data we collect may contain some sense of chronological order (even if the participant tells us his or her story in a fluid sequence), but we may not always be able to demarcate what happened *when*, specifically. Participants themselves are usually unable to recall specific dates, turning points, or periods, referring instead to changes or outcomes as gradual, evolutionary processes. The exception to this is if some sort of sudden, epiphanic, or revelatory event occurred that enables a participant to pinpoint an exact moment or period of time (e.g., "That's a day I'll never forget, because it was from that point on that I vowed I would never, ever get myself into those kinds of situations again"; "I just turned 40, and I felt as if my life had suddenly kicked into mid-life crisis").

Franzosi's (2010) narrative methods encourage the specifications of time periods for causal analysis since "Narrative time has three aspects: order, duration, and frequency, dealing with three different questions: When? For how long? And how often?" (p. 26). But such documentation is sparse in the data unless qualitative researchers can solicit more precise information from participants, or if they conduct a longitudinal fieldwork project that includes dated references that accompany participants' actions. If time is a critical component of your research study's questions, make sure that your data collection includes information that addresses when, for how long, and how often.

Finally, Vogt et al. (2014) offer several applications from quantitative reasoning with relevance and transferability to qualitative data analysis should the researcher need nuance

and detail in the construction of causation narratives or diagrams. These nuances include the identification of causal conditions that are “probabilistic,” “necessary,” and “sufficient,” plus methods of “process tracing” for case studies (pp. 405, 411). Several sources for this profile also suggest that attributions can be dimensionalized or rated with accompanying measures such as Magnitude Coding, since the influences and affects of some causal factors and outcomes may be considered greater than others.

Some recommended ways to further analyze Causation Codes are (see Appendix B):

- action and practitioner research (Altrichter et al., 1993; Coghlan & Brannick, 2014; Fox et al., 2007; Stringer, 2014)
- assertion development (Erickson, 1986)
- case studies (Merriam, 1998; Stake, 1995)
- cognitive mapping (Miles et al., 2020; Northcutt & McCoy, 2004)
- decision modeling (Bernard, 2018)
- discourse analysis (Bischoping & Gazso, 2016; Gee, 2011; Rapley, 2018; Willig, 2015)
- grounded theory (Bryant, 2017; Bryant & Charmaz, 2007, 2019; Charmaz, 2014; Corbin & Strauss, 2015; Stern & Porr, 2011)
- illustrative charts, matrices, diagrams (Evergreen, 2020; Miles et al., 2020; Morgan et al., 2008; Northcutt & McCoy, 2004; Paulston, 2000; Wheeldon & Åhlberg, 2012)
- interrelationship (Saldaña, 2003)
- logic models (Knowlton & Phillips, 2013)
- memo writing about the codes/themes (Charmaz, 2014; Corbin & Strauss, 2015; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)
- phenomenology (Giorgi & Giorgi, 2003; Smith et al., 2009; Vagle, 2018; van Manen, 1990; Wertz et al., 2011)
- qualitative evaluation research (Patton, 2008, 2015)
- situational analysis (Clarke et al., 2015a, 2018)
- social media analysis (Kozinets, 2020; Paulus & Wise, 2019; Rogers, 2019; Salmons, 2016)
- splitting, splicing, and linking data (Dey, 1993)
- within-case and cross-case displays (Miles et al., 2020; Shkedi, 2005).

Notes

Eatough and Smith (2006) take issue with "attribution approaches, with their reliance on matching cause with effect, [because they] are simply unable to explain the complexity of a person's meaning making" (p. 129). And, as discussed in other portions of this manual, qualitative data analysis should explore temporal processes or multifaceted influences and affects in human agency and interaction.

O'Dwyer and Bernauer (2014) posit that true experimental research in the classic tradition is perhaps the quantitative empiricist's only way to truly assert cause and effect (p. 59). Qualitative Causation Coding carries with it the risk of too easily assuming surface and positivist-driven causes and effects, most of which are actually human constructions and thus illusory (Packer, 2018). Participants may also voice their perceptions with *attribution error*—that is, linking an outcome to the wrong cause (a form of apophenia). Some solutions to these dilemmas are gathering large amounts of data for enhancing credibility and trustworthiness through nuanced analysis, and/or strategic, in-depth interviewing that explores with participants the subtle dynamics of attributions in action. Despite its slippery nature, do not be afraid to ask participants *why* they believe something is as it is. Some may reply "I don't know"; some may venture only a guess; some may merely philosophize; and others may provide quite insightful answers.

For methods related to or for use in conjunction with Causation Coding, see Magnitude, Simultaneous, Process, Values, Evaluation, Dramaturgical, Hypothesis, and Focused Coding. For time- and process-oriented vocabulary to employ in analytic memos and write-ups, see Analytic Storylining in Chapter 15. Regardless of your discipline or field of study, read Morrison's (2009) outstanding work, *Causation in Educational Research*, for an extended discussion on the intricacies and nuances of the subject; Handwerker's (2015) treatise on culture's influences ("choice frames") on an individual's and group's actions; Maxwell's (2012) provocative thoughts on the nature of and search for causation in qualitative materials; and Wong's (2012) masterful description of human agency and non-linear causality in complex interventions.

11 METHODS OF THEMEING THE DATA

Chapter Summary

Symbolizing portions of data with an extended thematic statement rather than a shorter code, as it is defined in this manual, is a viable analytic option. Hence, *Themeing the Data* (*Categorically* and *Phenomenologically*) provides profiles of those processes, with follow-up descriptions about its applications for qualitative *metasummary* and *metasynthesis*.

THEMES IN QUALITATIVE DATA ANALYSIS

Generally, a theme is an *extended phrase* or *sentence* that identifies what a unit of data is *about* and/or what it *means*. To Rubin and Rubin (2012), themes are statements *qua* (in the role of) ideas presented by participants during interviews that summarize what is going on, explain what is happening, or suggest why something is done the way it is (p. 118). Qualitative methodologist David L. Morgan promotes that themes are not descriptions but researcher *interpretations* that summarize our beliefs about the data. Kozinets (2020) advises that social media research (netnography) should employ a blend of the analytic with the interpretive. Almost half of all published research studies in netnography utilize thematic analysis.

DeSantis and Ugarriza (2000), after an extensive literature review on the use of theme in qualitative research, discovered that the term was often used interchangeably with words such as "category," "domain," "phrase," "unit of analysis," and others (p. 358). Ultimately, they proposed that a theme (similar to a code and category) "brings meaning and identity to a recurrent [patterned] experience and its variant manifestations. As such, a theme captures and unifies the nature or basis of the experience into a meaningful whole" (p. 362). As an example, security is a code, and Home Security might be a category; but securing one's safety and property, or denial means a false sense of security are themes. A sizeable number of qualitative journal articles represent their findings through major themes (though some authors have actually constructed categories *qua* (in the role of) themes, as the terms are defined in this manual).

Clarke, Braun, and Hayfield (2015b) offer that thematic analysis is appropriate for research questions on:

- People's lived experiences about …
- People's perspectives on …
- Factors and social processes that underpin particular phenomena
- Practices—i.e., the things people do in the world
- Representations of particular subjects, topics, and objects in particular contexts
- The social construction of a particular topic or issue. (p. 227)

Themes that help answer the research question of interest is one of the core criteria for their place in the analysis. The co-authors admit that there is no precise formula for the final number of resulting core themes, but they recommend a maximum of six (p. 241). Other published studies, however, include several more, such as 10.

Themes can consist of descriptions of behavior within a culture, iconic statements, and morals from participant stories. These themes are discerned during data collection and initial analysis, and then examined further as interviews continue. The analytic goals are to winnow down the number of themes to explore in a report, and to develop an overarching theme (also termed a metatheme) from the data corpus, or an integrative theme that weaves various themes together into a coherent, storylined narrative.

In Chapter 2 of this manual, I included a section titled "What Gets Coded?" For this particular method one might ask, "What gets themed?" Bernard et al. (2017, pp. 121–2) recommend that themes can be found in the data by looking for qualities such as:

- repetition of ideas
- participant or indigenous terms and categories
- metaphors and analogies
- naturally occurring transitions or shifts in topic, linguistic connectors (“because,” “since,” “then,” etc.)
- missing data
- theory-related material such as sociological concepts.

Spradley (1979) offers that tensions in the data are excellent opportunities for constructing themes. Moments of social conflict, cultural contradictions, social control, and problem-solving provide rich fodder for thematic analysis. I myself propose that, rather than “troubling the data,” researchers should instead go “looking for trouble” by answering these questions to generate thematic statements:

- What worries or concerns are the participants expressing?
- What unresolved issues are the participants raising?
- What do the participants find intriguing, surprising, or disturbing?
- What types of tensions, problems, or conflicts are the participants experiencing?
- What kinds of trouble are the participants in?

Themeing the Data is not an expedient method of qualitative analysis. It is just as intensive as coding and requires comparable reflection on participant meanings and outcomes. But it is important to note that coding and themeing are not either/or procedures. Analysts, if they wish, can code their data first, cluster the codes according to commonality, and construct an extended thematic statement rather than a short category label from the assemblage. Themes do not mysteriously or magically “emerge,” as some writers state in their reports; themes are researcher constructions and interpretations.

Two approaches to Themeing the Data are profiled in this chapter. The first, *categorically*, creates themes related to general topics and ideas suggested by the data. The second, *phenomenologically*, focuses on meanings suggested by the data through the use of “is” and “means” as prompts for symbolic capture. The same interview excerpt is used in the Example sections for both approaches to illustrate how the same data set can be analyzed in different ways to achieve different thematic outcomes.

THEMEING THE DATA: CATEGORICALLY

Sources

Auerbach & Silverstein, 2003; Bernard et al., 2017; Braun & Clarke, 2006; King & Brooks, 2017; Rubin & Rubin, 2012; Ryan & Bernard, 2003; Thomas, 2019

Description

Themeing the Data: Categorically provides descriptive detail about the patterns observed and constructed by the analyst. Rather than using a short code or category label, a theme expands on the major ideas through the use of an extended phrase or sentence. Friendships, for example, is both a major code and categorical outcome of adults who participated in high school arts experiences. But sentence-length themes that elaborate on the same pattern may include: lifelong friendships are initiated, or high school friendships endure throughout adulthood. Think of categories as pages or sections of a news website (e.g., Politics, Entertainment, Business) and themes as descriptive news "headlines" for a research report (e.g., "World must protect land to avoid climate disaster," "COVID-19 casts uncertainty in stock market"). Kozinets (2020) wisely observes that themes are like "macro-pattern codes that combine pattern codes together" (p. 366; see Pattern Coding in Chapter 14).

Applications

Like coding, thematic analysis or the search for themes in the data is a strategic choice as part of the research design that includes the primary questions, goals, conceptual framework, and literature review. Brinkmann and Kvale (2015) label this "thematizing" or describing the concept of the topic under investigation before interviews begin.

Themeing the Data: Categorically is perhaps more applicable to interview transcripts and participant-generated documents and artifacts, rather than researcher-generated field notes alone. However, if field notes contain an abundance of participant quotes and actions as part of the evidentiary warrant, themes could be developed validly from the data corpus. Green and Thorogood (2018) offer that "thematic content analysis is perhaps the most common approach used in qualitative research reported in health journals" since the method provides summation of the data's content, topics, regularities, and variation (p. 258). Themes are also applicable for case study research, small-scale ethnographic projects, and social media inquiry. Mixed methods studies have utilized thematic statements for quantitative data results to enable comparison and integration with themes generated from qualitative data analysis.

Interview methodologists attest that, through carefully planned questioning techniques, participants construct the meanings of what the researcher is trying to explore. One might even construct In Vivo Themes or thematic statements culled directly from the participants' own language that succinctly capture and summarize a major idea (e.g., "I Think I've Learned a Lot" and "What's In It for Me?" (Fredricks et al., 2002)). Themes should be stated as simple examples of something during the first cycle of analysis, then woven together during later cycles to detect metapatterns, processes, tensions, explanations, causes, consequences, and/or conclusions (Rubin & Rubin, 2012, p. 206).

Example

A middle-aged man with COPD (Chronic Obstructive Pulmonary Disease) speaks to an interviewer about his health maintenance, particularly his respiratory functions and CPAP (Controlled Positive Air Pressure) machine. Notice how the themes listed are extended phrases or sentences that address the research question: How do people with early stage COPD manage and cope with the disease?

Code example 11.1

[I: What medications are you taking for COPD?] WILLIAM: [1] I'm on Montekulast, Dulera, the gray thing, what's it called? Spiriva, and the ProAir rescue inhaler. And, if it matters, I sleep with a CPAP machine, but that was long before I was diagnosed with COPD. [I: How are the medications working for you?] WILLIAM: OK, I guess. My condition's constant but at least it's not getting worse.	[1] copd management requires various treatments
[I: What's constant?] WILLIAM: [2] A shortness of breath, sometimes climbing up stairs, and sometimes just bending over to pick something up. There's a mild tightness in my chest, I have to take some deep breaths now and then to catch my breath. Sometimes I feel tired all day, but I think that's more my sleep than the COPD. I had a bout recently with atelectasis, I think it's called, and I had to go on antibiotics for that for a few weeks, had x-rays, it cleared up. No problems since then.	[2] constant daily breathing restrictions
[I: How has COPD affected your daily life?] WILLIAM: I'm not exercising as much as I should, but not because of the COPD, but just because I just tend to sit around a lot. [3] I do notice that when I go outside sometimes my breathing gets more labored, so I guess that's stuff in the air that's affecting me. I try to stay indoors as much as possible. It hasn't really debilitated me in any way, but I know I'm not going to be running marathons, so. [I: Has there …] WILLIAM: [4] Like, right now, there's a slight tightness in this part of my chest (moves hands across upper chest area), but it's not painful, it's just noticeable. [5] And I don't have as much air power as I used to have for speaking. My breath sometimes runs out at the end of a sentence. I have to breathe a little more air in to speak.	[3] environmental effects and restrictions [4] noticeable physical effects [5] limited air power affects speech
[I: How often do you use the rescue inhaler?] WILLIAM: [6] Not all that often, really, maybe just once every two weeks or so. That's when I feel my chest is real tight and I'm having some	[6] medications provide

difficulty breathing and I need some relief. It really works, the ProAir, it' s good.	physical relief
[I: How does the CPAP machine work for you?] WILLIAM: [7] It' s OK. Sometimes I feel like the pressure isn' t strong enough, but I know what it' s like to have a higher pressure than you need. There' s always that adjusting when you first turn it on, you have to sync your breathing to the pressure, gasp in some deep breaths, get into a rhythm of breathing through your mouth or nose. I' ve been using it for years, maybe 10 years now, but it' s still a nightly thing. [8] I do know what it' s like to not have the machine, so it works, for sure, and helps me feel better when I wake up in the morning. [I: In what ways?]	[7] synchronizing with breathing equipment [8] cpap benefits cognitive functions
WILLIAM: A clearer head, like I' m more alert. I got the machine for a snoring problem originally. I used to be a smoker and I snored loud, woke up really foggy. My doctor had me go through some sleep studies and they felt it best that I go on the machine. It really made a difference in the way I felt when I woke up in the morning. Not as muddled or drowsy. [9] I used to be on prescription meds for sleep, but none of those worked or had weird side effects, so I just use over-the-counter sleep meds now.	[9] medications require trial and error
[I: What concerns, if any, do you have about your COPD?] WILLIAM: [10] Is it going to get worse, which from what I understand, it will. So far so good, it' s not excellent but it' s good. [11] I worry if I' m ever going to have a really bad attack where I can' t breathe at all. I worry about whether I' ll ever need an oxygen tank. [12] I just take it easy now, don' t strain myself, but I can' t control what happens inside my lungs. So, I' ve just gotta live with that.	[10] facing the future truth about copd [11] people with copd worry about future health [12] a lack of respiratory control

Analysis

Generally, the researcher looks for how various themes are similar, how they are different, how they vary, and what kinds of relationships may exist between them (Gibson & Brown, 2009, pp. 128–9). Sources for Themeing the Data propose various ways of analyzing or reflecting on themes after they have been generated. Basic categorization as an initial tactic is the one most often prescribed, so it will be illustrated here.

First, the themes are extracted from the data and listed for text editing:

COPD MANAGEMENT REQUIRES VARIOUS TREATMENTS

CONSTANT DAILY BREATHING RESTRICTIONS

ENVIRONMENTAL EFFECTS AND RESTRICTIONS

NOTICEABLE PHYSICAL EFFECTS

LIMITED AIR POWER AFFECTS SPEECH

MEDICATIONS PROVIDE PHYSICAL RELIEF

SYNCHRONIZING WITH BREATHING EQUIPMENT

CPAP BENEFITS COGNITIVE FUNCTIONS

MEDICATIONS REQUIRE TRIAL AND ERROR

FACING THE FUTURE TRUTH ABOUT COPD

PEOPLE WITH COPD WORRY ABOUT FUTURE HEALTH

A LACK OF RESPIRATORY CONTROL

After “eyeballing” or analytically browsing through the list of themes, an analytic memo may arise. An excerpt stimulated by the above list reads:

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13 August 2019

CENTRAL THEME: LIMITATIONS

There’s an overall negative tone to the word choices for my themes: REQUIRES, CONSTANT, RESTRICTIONS, LIMITED, TRIAL AND ERROR, LACK, and WORRY. LIMITATIONS arises as a prominent category that might serve as the centralizing theme for my analysis. It’s not just physical limitations but emotional limitations as well. WORRY clouds a positive future for William, as if he’s resigned to it.

Themeing lends itself to selected CAQDAS programs, but themes are also intriguing to simply “cut and paste” in multiple arrangements on a basic text editing page to explore possible categories and relationships. First, the 12 themes are clustered into smaller groups according to how they “look alike” and “feel alike.” Five clusters were developed:

1. COPD MANAGEMENT REQUIRES VARIOUS TREATMENTS
2. MEDICATIONS PROVIDE PHYSICAL RELIEF; MEDICATIONS REQUIRE TRIAL AND ERROR

3. CONSTANT DAILY BREATHING RESTRICTIONS; ENVIRONMENTAL EFFECTS AND RESTRICTIONS; LIMITED AIR POWER AFFECTS SPEECH; A LACK OF RESPIRATORY CONTROL; NOTICEABLE PHYSICAL EFFECTS
4. SYNCHRONIZING WITH BREATHING EQUIPMENT; CPAP BENEFITS COGNITIVE FUNCTIONS
5. FACING THE FUTURE TRUTH ABOUT COPD; PEOPLE WITH COPD WORRY ABOUT FUTURE HEALTH

Next, just as codes are hierarchically arranged and organized in outline format to discern possible categories, so are the themes ordered based on how they initially clustered (King & Brooks, 2017). One outline reads:

I. NOTICEABLE PHYSICAL EFFECTS
    A. CONSTANT DAILY BREATHING RESTRICTIONS
        1. ENVIRONMENTAL EFFECTS AND RESTRICTIONS
        2. LIMITED AIR POWER AFFECTS SPEECH
        3. A LACK OF RESPIRATORY CONTROL
II. COPD MANAGEMENT REQUIRES VARIOUS TREATMENTS
    A. MEDICATIONS REQUIRE TRIAL AND ERROR
        1. MEDICATIONS PROVIDE PHYSICAL RELIEF
    B. SYNCHRONIZING WITH BREATHING EQUIPMENT
        1. CPAP BENEFITS COGNITIVE FUNCTIONS
III. PEOPLE WITH COPD WORRY ABOUT FUTURE HEALTH
    A. FACING THE FUTURE TRUTH ABOUT COPD

Braun and Clarke (2006) recommend visual thematic mapping as another approach to organizing and exploring evolving themes, subthemes, and thematic relationships. Figure 11.1 illustrates the themes (in truncated form) outlined above.

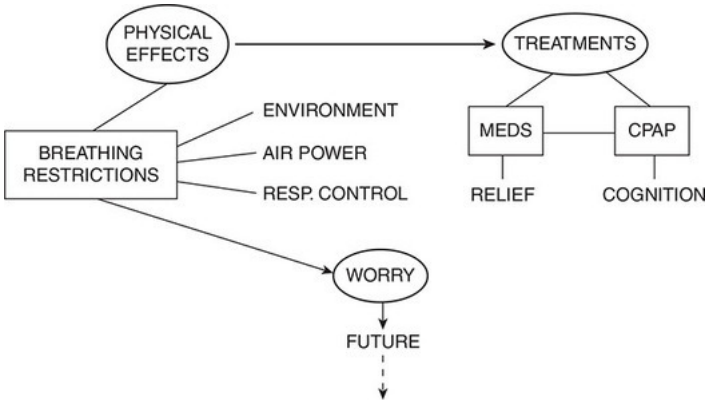


Figure 11.1 A thematic map

Shaw (2019) recommends two cycles of theme development. The first cycle is a list of purely descriptive themes, as illustrated above. The second cycle is a reconfiguration and synthesis of descriptive themes into a more *interpretive* array, as illustrated below. The three major outline headings are now transformed into thematic statements that incorporate the contents of their subordinate themes. The central research question serves as a frame for composing the themes: How do people with early stage COPD manage and cope with the disease? Three themes are proposed.

Theme 1. COPD RESTRICTS DAILY RESPIRATORY FUNCTIONS

Supporting Themes:

I. NOTICEABLE PHYSICAL EFFECTS

A. CONSTANT DAILY BREATHING RESTRICTIONS
1. ENVIRONMENTAL EFFECTS AND RESTRICTIONS
2. LIMITED AIR POWER AFFECTS SPEECH
3. A LACK OF RESPIRATORY CONTROL

Theme 2. PROPER MEDICATIONS AND MEDICAL EQUIPMENT CAN ALLEVIATE SYMPTOMS ASSOCIATED WITH COPD

Supporting Themes:

II COPD MANAGEMENT REQUIRES VARIOUS TREATMENTS

A. MEDICATIONS REQUIRE TRIAL AND ERROR

1. MEDICATIONS PROVIDE PHYSICAL RELIEF

B. SYNCHRONIZING WITH BREATHING EQUIPMENT

1. CPAP BENEFITS COGNITIVE FUNCTIONS

Theme 3. PEOPLE WITH COPD ACKNOWLEDGE AN UNCONTROLLABLE WORSENING OF THEIR HEALTH

Supporting Themes:

III PEOPLE WITH COPD WORRY ABOUT FUTURE HEALTH

A. A FACING THE FUTURE TRUTH ABOUT COPD

The analytic write-up would then discuss each one of these three themes and how they integrate or relate with each other. The subordinate themes and their related data serve as illustrative examples to support the interpretations.

A different approach to the themes would involve categorization in order to develop researcher-generated *theoretical constructs*—a way of clustering sets of related themes and labeling each cluster with a "thematic category" of sorts (Auerbach & Silverstein, 2003). Note how the initial categorization of the 12 themes in Table 11.1 is different from the way they were organized above.

Table 11.1

CONSTANT DAILY BREATHING RESTRICTIONS
ENVIRONMENTAL EFFECTS AND RESTRICTIONS
NOTICEABLE PHYSICAL EFFECTS
A LACK OF RESPIRATORY CONTROL

LIMITED AIR POWER AFFECTS SPEECH
COPD MANAGEMENT REQUIRES VARIOUS TREATMENTS MEDICATIONS REQUIRE TRIAL AND ERROR MEDICATIONS PROVIDE PHYSICAL RELIEF SYNCHRONIZING WITH BREATHING EQUIPMENT CPAP BENEFITS COGNITIVE FUNCTIONS
FACING THE FUTURE TRUTH ABOUT COPD PEOPLE WITH COPD WORRY ABOUT FUTURE HEALTH

The three clusters of themes are then each assigned a theoretical construct label that subsumes them. Here, the analyst might use some of the thematic words or employ more evocative or creative labels suggested by the clusters:

Theoretical Construct 1. How COPD “Suffocates”

Supporting Themes:

CONSTANT DAILY BREATHING RESTRICTIONS

ENVIRONMENTAL EFFECTS AND RESTRICTIONS

NOTICEABLE PHYSICAL EFFECTS

A LACK OF RESPIRATORY CONTROL

LIMITED AIR POWER AFFECTS SPEECH

Theoretical Construct 2. Medically Managing COPD

Supporting Themes:

COPD MANAGEMENT REQUIRES VARIOUS TREATMENTS

MEDICATIONS REQUIRE TRIAL AND ERROR

MEDICATIONS PROVIDE PHYSICAL RELIEF

SYNCHRONIZING WITH BREATHING EQUIPMENT

CPAP BENEFITS COGNITIVE FUNCTIONS

Theoretical Construct 3. A Worrisome Future with COPD

Supporting Themes:

FACING THE FUTURE TRUTH ABOUT COPD

PEOPLE WITH COPD WORRY ABOUT FUTURE HEALTH

The analytic write-up would then discuss each one of these three theoretical constructs (**How COPD "Suffocates", Medically Managing COPD, A Worrisome Future with COPD**) and how they integrate or relate with each other. The subordinate themes and their related data serve as illustrative examples to support the interpretations.

Keep in mind that the initial analysis above is only of one excerpt from one participant's interview transcript. Additional participants with COPD may generate different as well as similar themes that will be integrated into a fuller analysis. The themes developed thus far can be referenced as interviews continue to assess their validity and to shape the researcher's interview questions. Some themes from the particular example above may be dropped as more data are collected and analysis continues. Some may be subsumed under broader categories, and some themes may be retained.

Hammersley and Atkinson (2019) caution that a list of themes, though well developed, is not the end but the beginning of interpreting a phenomenon. "The intellectual danger is that the analyst merely searches for 'themes' in the data, collects together an array of illustrative material, and then merely recapitulates those 'themes' as if that were the end of analysis, rather than a stepping-stone towards it" (p. 146). What follows after theme construction is a narrative that weaves them together into a cogent storyline with an interpretive explication of their ideas.

Some recommended ways to further analyze themes categorically are (see Appendix B):

- assertion development (Erickson, 1986)
- case studies (Merriam, 1998; Stake, 1995)
- discourse analysis (Bischoping & Gazso, 2016; Gee, 2011; Rapley, 2018; Willig, 2015)
- memo writing about the themes (Charmaz, 2014; Corbin & Strauss, 2015; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)
- meta-ethnography, metasummary, and metasynthesis (Finfgeld, 2003; Major & Savin-Baden, 2010; Noblit & Hare, 1988; Sandelowski & Barroso, 2007; Sandelowski et al., 1997)
- metaphoric analysis (Coffey & Atkinson, 1996; Lakoff & Johnson, 2003; Todd & Harrison, 2008)
- narrative inquiry and analysis (Bischoping & Gazso, 2016; Clandinin & Connelly, 2000; Coffey & Atkinson, 1996; Cortazzi, 1993; Coulter & Smith, 2009; Daiute & Lightfoot, 2004; Holstein & Gubrium, 2012; Murray, 2015; Riessman, 2008)

- phenomenology (Giorgi & Giorgi, 2003; Smith et al., 2009; Vagle, 2018; van Manen, 1990; Wertz et al., 2011)
- poetic and dramatic writing (Denzin, 1997, 2003; Glesne, 2011; Knowles & Cole, 2008; Leavy, 2015; Saldaña, 2005a, 2011a)
- portraiture (Lawrence-Lightfoot & Davis, 1997)
- social media analysis (Kozinets, 2020; Paulus & Wise, 2019; Rogers, 2019; Salmons, 2016)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998; Smith & Osborn, 2015)
- vignette writing (Erickson, 1986; Graue & Walsh, 1998).

Notes

Themeing the Data: Categorically is an inductive, open-ended approach to theme construction. The next method below has prescribed parameters to achieve different analytic outcomes.

THEMEING THE DATA: PHENOMENOLOGICALLY

Sources

Auerbach & Silverstein, 2003; Boyatzis, 1998; Brinkmann & Kvale, 2015; Butler-Kisber, 2018; DeSantis & Ugarriza, 2000; Giorgi & Giorgi, 2003; Shaw, 2019; Smith & Osborn, 2015; van Manen, 1990

Description

Boyatzis (1998) explains that a theme "may be identified at the manifest level (directly observable in the information) or at the latent level (underlying the phenomenon)" (p. vii). At its manifest level, a theme functions as a way to categorize a set of data into "an implicit topic that organizes a group of repeating ideas" (Auerbach & Silverstein, 2003, p. 38). At its latent level, themes serve phenomenology, "the study of the lifeworld—the world as we immediately experience it pre-reflectively rather than as we conceptualize, categorize, or reflect on it. … Phenomenology aims at gaining a deeper understanding of the nature or meaning of our everyday experiences" (van Manen, 1990, p. 9). Sandelowski (2008) clarifies that "phenomenological research questions tend to address what it is like to be, to have, or to live" (p. 787).

Themeing the Data: Phenomenologically symbolizes data through two specific prompts: what something *is* (the manifest) and what something *means* (the latent). For example, if the phenomenon in a study is how people experience "belonging," themes that describe the manifest or observable would be labeled belonging is (e.g., belonging is knowing the details of a culture). Themes that evoke the latent or conceptual would be labeled belonging means (e.g., belonging means feeling "grounded"). This foundation work leads to the development of higher-level *theoretical constructs* (explained later) when similar themes are clustered together.

To van Manen (1990), a theme is "the form of capturing the phenomenon one tries to understand" (p. 87). He recommends the winnowing down of themes to what is "essential" rather than "incidental," the former making the phenomenon "what it is and without which the phenomenon could not be what it is" (p. 107). Butler-Kisber (2018, pp. 60–70) advises that the phenomenological process consists of extracting verbatim significant statements from the data, formulating meanings about them through the researcher's interpretations, clustering those meanings into a series of organized themes, then elaborating on the themes through rich written description.

Applications

Themeing the Data: Phenomenologically is perhaps more applicable to interviews and participant-generated documents and artifacts, rather than researcher-generated field notes alone. However, if field notes contain an abundance of participant quotes and actions as part of the evidentiary warrant, themes could be developed validly from the data corpus. Vagle (2018) proposes that non-traditional sources such as artworks, fictional literature, and films that directly address the phenomenon of interest are also valid as supplemental data.

Themeing the Data: Phenomenologically is appropriate for, of course, phenomenological studies and those exploring a participant's psychological world of beliefs, constructs, identity development, and emotional experiences (Giorgi & Giorgi, 2003; Smith & Osborn, 2015; Smith et al., 2009; Wertz et al., 2011).

Example

A middle-aged man with COPD (Chronic Obstructive Pulmonary Disease) speaks to an interviewer about his health maintenance, particularly his respiratory functions and CPAP (Controlled Positive Air Pressure) machine. Notice how the themes listed are sentences that address the research question, How do people with early stage COPD manage and cope with the disease? This is the same interview transcript used for Themeing the Data: Categorically, but note how the experience of COPD Management (abbreviated to CM) is the analytic focus, with "is" (the observable) and "means" (the conceptual or abstract) as thematic prompts. A few themes are repeated throughout the analysis.

Code example 11.2

[I: What medications are you taking for COPD?] WILLIAM: [1] I' m on Montekulast, Dulera, the gray thing, what' s it called? Spiriva, and the ProAir rescue inhaler. And, if it matters, I sleep with a CPAP machine, but that was long before I was diagnosed with COPD. [I: How are the medications working for you?] WILLIAM: [2] OK, I guess. My condition' s constant but at least it' s not getting worse.	[1] cm is taking prescribed medications [2] cm means awareness of personal condition
[I: What' s constant?] WILLIAM: A shortness of breath, sometimes climbing up stairs, and sometimes just bending over to pick something up. [3] There' s a mild tightness in my chest, I have to take some deep breaths now and then to catch my breath. [4] Sometimes I feel tired all day, but I think that' s more my sleep than the COPD. I had a bout recently with atelectasis, I think it' s called, and I had to go on antibiotics for that for a few weeks, had x-rays, it cleared up. No problems since then.	[3] cm is breathing regulation [4] cm means vulnerability
[I: How has COPD affected your daily life?] WILLIAM: [5] I' m not exercising as much as I should, but not because of the COPD, but just because I just tend to sit around a lot. [6] I do notice that when I go outside sometimes my breathing gets more labored, so I guess that' s stuff in the air that' s affecting me. I try to stay indoors as much as possible. It hasn' t really debilitated me in any way, but I know I' m not going to be running marathons, so. [I: Has there …]	[5] cm is restricted activity [6] cm means awareness of personal condition
WILLIAM: Like, right now, there' s a slight tightness in this part of my chest *(moves hands across upper chest area)*, but it' s not painful, it' s just noticeable. [7] And I don' t have as much air power as I used to have for speaking. My breath sometimes runs out at the end of a sentence. I have to breathe a little more air in to speak.	[7] cm is breathing regulation

[I: How often do you use the rescue inhaler?] WILLIAM: [8] Not all that often, really, maybe just once every two weeks or so. That's when I feel my chest is real tight and I'm having some difficulty breathing and I need some relief. It really works, the ProAir, it's good.	[8] cm is taking prescribed medications
[I: How does the CPAP machine work for you?] WILLIAM: [9] It's OK. Sometimes I feel like the pressure isn't strong enough, but I know what it's like to have a higher pressure than you need. There's always that adjusting when you first turn it on, you have to sync your breathing to the pressure, gasp in some deep breaths, get into a rhythm of breathing through your mouth or nose. I've been using it for years, maybe 10 years now, but it's still a nightly thing. [10] I do know what it's like to *not* have the machine, so it works, for sure, and helps me feel better when I wake up in the morning. [I: In what ways?]	[9] cm is breathing regulation [10] cm means awareness of personal condition
WILLIAM: A clearer head, like I'm more alert. I got the machine for a snoring problem originally. I used to be a smoker and I snored loud, woke up really foggy.[11] My doctor had me go through some sleep studies and they felt it best that I go on the machine. [12] It really made a difference in the way I felt when I woke up in the morning. Not as muddled or drowsy. I used to be on prescription meds for sleep, but none of those worked or had weird side effects, so I just use over-the-counter sleep meds now.	[11] cm is diagnostic testing [12] cm means awareness of personal condition
[I: What concerns, if any, do you have about your COPD?] WILLIAM: [13] Is it going to get worse, which from what I understand, it will. So far so good, it's not excellent but it's good. I worry if I'm ever going to have a really bad attack where I can't breathe at all. I worry about whether I'll ever need an oxygen tank. I just take it easy now, don't strain myself, but [14] I can't control what happens inside my lungs. So, I've just gotta live with that.	[13] cm means worrying about the future [14] cm means lack of control

Analysis

After the data have been themed phenomenologically, the themes are listed in various arrays to explore possible patterns, connections, and higher-order themes. I advise first clustering them into IS and MEANS statements and reflect on what each of the two groups suggest:

CM IS BREATHING REGULATION

CM IS BREATHING REGULATION

CM IS BREATHING REGULATION

CM IS TAKING PRESCRIBED MEDICATIONS

CM IS TAKING PRESCRIBED MEDICATIONS

CM IS DIAGNOSTIC TESTING

CM IS RESTRICTED ACTIVITY

CM MEANS AWARENESS OF PERSONAL CONDITION

CM MEANS AWARENESS OF PERSONAL CONDITION

CM MEANS AWARENESS OF PERSONAL CONDITION

CM MEANS AWARENESS OF PERSONAL CONDITION

CM MEANS VULNERABILITY

CM MEANS WORRYING ABOUT THE FUTURE

CM MEANS LACK OF CONTROL

An analytic memo then reflects on first impression “takes” of the two clusters:

---

15 August 2019

THEMES: IS/MEANS

I notice that the IS statements have physical/action-oriented themes, while the MEANS cluster emphasizes AWARENESS and emotional aspects of living with COPD. William is quite aware of his health status—how can one not be when BREATHING REGULATION is persistent throughout the course of the day and even during sleep with a CPAP machine?

Generally, the researcher looks for how various themes are similar, how they are different, and what kinds of relationships may exist between them (Gibson & Brown, 2009, pp. 128–9). The 14 themes listed next to the transcript above are now categorized according to commonality, and ordered in superordinate and subordinate outline format to reflect on their frequency, possible groupings and relationships, storyline, etc. The analyst’s array appears thusly:

I CM MEANS AWARENESS OF PERSONAL CONDITION

CM MEANS AWARENESS OF PERSONAL CONDITION

CM MEANS AWARENESS OF PERSONAL CONDITION

CM MEANS AWARENESS OF PERSONAL CONDITION

A. CM IS TAKING PRESCRIBED MEDICATIONS

CM IS TAKING PRESCRIBED MEDICATIONS

1 CM IS DIAGNOSTIC TESTING

B. CM IS BREATHING REGULATION

CM IS BREATHING REGULATION

CM IS BREATHING REGULATION

II CM MEANS VULNERABILITY

A. CM IS RESTRICTED ACTIVITY

B. CM MEANS LACK OF CONTROL

C. CM MEANS WORRYING ABOUT THE FUTURE

As with Themeing the Data: Categorically, the hierarchical outline stimulates memos and write-ups about the case, with awareness and vulnerability as two primary thematic ideas of the phenomenon. Alternatively, the themes can also be reconfigured yet again in different clusters to create more evocative, researcher-generated *theoretical constructs*—a way of clustering sets of related themes and labeling each cluster with a "thematic category" of sorts (Auerbach & Silverstein, 2003). Note how the initial categorization of the 14 themes here is different from the way they were organized above:

Theoretical Construct 1. CM AS RESPIRATORY REGULATION

Supporting Themes

CM IS DIAGNOSTIC TESTING

CM MEANS AWARENESS OF PERSONAL CONDITION

CM MEANS AWARENESS OF PERSONAL CONDITION

CM MEANS AWARENESS OF PERSONAL CONDITION

CM MEANS AWARENESS OF PERSONAL CONDITION

CM IS TAKING PRESCRIBED MEDICATIONS

CM IS TAKING PRESCRIBED MEDICATIONS

CM IS BREATHING REGULATION

CM IS BREATHING REGULATION

CM IS BREATHING REGULATION

CM IS RESTRICTED ACTIVITY

Theoretical Construct 2. CM AS A VULNERABLE FUTURE

Supporting Themes

CM MEANS WORRYING ABOUT THE FUTURE

CM MEANS LACK OF CONTROL

CM MEANS VULNERABILITY

Here, cm as respiratory regulation and cm as a vulnerable future serve not just as metathemes (Durbin, 2010) but as prompts for the analytic write-up on how people with early stage COPD manage and cope with the disease. Also notice how the use of "as," linking the phenomenon to the interpretation, utilizes simile as a device to bring the thematic theoretical contructs to an evocative level of imagery (see Metaphor Coding in Chapter 8).

Emerson et al. (2011) note that, aside from frequency, the themes ultimately developed and selected for analysis are those that resonate with personal or disciplinary concerns. Vagle (2018, p. 17) wisely counsels that the nature of the phenomenon itself should determine how the data are both gathered and analyzed. Since COPD is a medical condition, its daily effects on the body, mind, and emotions, its necessary medical treatments, and any related matters such as costs, family involvement, and so on, should be considered for theme development. The related research literature on COPD (e.g., Goldman, Mennillo, Stebbins, & Parker, 2017) can also provide evidentiary support and additional findings for integration with the current study's themes.

Keep in mind that the initial analysis above is only of one excerpt from one participant's interview transcript. Additional participants may generate different as well as similar themes related to COPD that will be integrated into a fuller analysis. The themes developed thus far can be referenced as interviews continue to assess their validity and to shape the researcher's interview questions. Some themes from the particular example above may be dropped as more data are collected and analysis continues. Some may be subsumed under broader categories, and some themes may be retained.

Some recommended ways to further analyze themes phenomenologically are (see Appendix B):

- assertion development (Erickson, 1986)
- case studies (Merriam, 1998; Stake, 1995)

- discourse analysis (Bischoping & Gazso, 2016; Gee, 2011; Rapley, 2018; Willig, 2015)
- memo writing about the themes (Charmaz, 2014; Corbin & Strauss, 2015; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)
- meta-ethnography, metasummary, and metasynthesis (Finfgeld, 2003; Major & Savin-Baden, 2010; Noblit & Hare, 1988; Sandelowski & Barroso, 2007; Sandelowski et al., 1997)
- metaphoric analysis (Coffey & Atkinson, 1996; Lakoff & Johnson, 2003; Todd & Harrison, 2008)
- narrative inquiry and analysis (Bischoping & Gazso, 2016; Clandinin & Connelly, 2000; Coffey & Atkinson, 1996; Cortazzi, 1993; Coulter & Smith, 2009; Daiute & Lightfoot, 2004; Holstein & Gubrium, 2012; Murray, 2015; Riessman, 2008)
- phenomenology (Giorgi & Giorgi, 2003; Smith et al., 2009; Vagle, 2018; van Manen, 1990; Wertz et al., 2011)
- poetic and dramatic writing (Denzin, 1997, 2003; Glesne, 2011; Knowles & Cole, 2008; Leavy, 2015; Saldaña, 2005a, 2011a)
- portraiture (Lawrence-Lightfoot & Davis, 1997)
- social media analysis (Kozinets, 2020; Paulus & Wise, 2019; Rogers, 2019; Salmons, 2016)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998; Smith & Osborn, 2015)
- vignette writing (Erickson, 1986; Graue & Walsh, 1998).

Notes

For a useful online resource on Themeing the Data, access:
psych.auckland.ac.nz/en/about/thematic-analysis.html

METASUMMARY AND METASYNTHESIS

What follows is a brief overview of qualitative metasummary and metasynthesis, research enterprises that can employ unique combinations of coding *and* themeing qualitative data.

Metasummary and metasynthesis are methodological approaches that collect, compare, and synthesize the key findings of a number of related interpretive/qualitative studies (Major & Savin-Baden, 2010; Noblit & Hare, 1988; Sandelowski & Barroso, 2007). A primary goal of these techniques is inductive and "systematic comparison of case studies to draw cross-case conclusions. … It reduces the accounts while preserving the sense of the account through the selection of key metaphors and organizers" such as themes, concepts, ideas, and perspectives (Noblit & Hare, 1988, pp. 13–14).

Metasummary and metasynthesis are the qualitative cousins of quantitative research's meta-analysis, and rely on the researcher's strategic collection and comparative analysis of phrases and sentences—that is, themes—that represent the essences and essentials of previous studies. The number of different yet related studies needed for such ventures varies among methodologists, ranging from as few as 2 to as many as 20, but Major and Savin-Baden (2010) recommend that "between 6 and 10 studies is optimal to provide sufficient yet manageable data" (p. 54).

Some researchers apply a mix of Descriptive, Holistic, and Simultaneous Codes, for example, to represent the gist of an entire study. These codes may be based on an a priori or inductively developed set of themes when reviewing a collected body of related studies for metasummary. Au (2007), for example, reviewed 49 qualitative educational studies and employed a six-code template to classify each study's site-specific curricular changes in response to high-stakes testing. Two of the six curriculum-based codes representing "dominant themes" were "PCT—Pedagogic change to teacher-centered" and "KCF—Form of knowledge changed, fractured" (p. 260).

Other researchers do not initially code but instead carefully search for and extract thematic statements and extended assertions from the collected studies' findings and, if necessary, abstract the statements for comparison and metasummary or metasynthesis. Sandelowski and Barroso (2003), for example, reviewed 45 qualitative studies on HIV-positive mothers and compiled an initial set of almost 800 thematic statements that represented the studies' major observations. These "raw data" themes were then compared and collapsed to 93 statements based on similarity, then coded and classified under 10 major categories about the women, such as "stigma and disclosure" and "mothering the HIV-negative and HIV-positive child." Though not necessary for metasynthesis, both Au (2007) and Sandelowski and Barroso (2003, 2007) calculated percentages of selected data to assess such phenomena as participant effect sizes and major theme occurrences. Au's Simultaneous Coding system enabled him to infer "potentially significant relationships between dominant themes" (2007, p. 263).

But unlike codes and categories extracted in the studies above, Maher and Hudson (2007) metasynthesized 15 qualitative studies and identified "six key [meta]themes that captured the nature and experience of women's participation in the illicit drug economy" (p. 812). The 15 studies' combined 60 summary themes were categorized into six key themes; then, like codeweaving (see Chapter 3), they were "theme-woven" into an elegant concluding narrative. The key themes are bolded to highlight their integration into the text:

> The qualitative evidence reviewed here suggests that **the illicit drug economy and, in particular, street-based drug markets, are gender stratified and hierarchical** and that **women primarily access and sustain economic roles through their links with men** who act as gatekeepers, sponsors, and protectors. Within these markets,

> female roles continue to be sexualized, but some women utilize “feminine” attributes and institutional sexism to their advantage. Our metasynthesis also found that family and kinship ties are important resources for women engaged in drug sales and that successful women dealers appear to have increased access to social capital. Finally, our results suggest that while women rely on a diverse range of income sources and juggle different roles both within the drug economy and in relation to dealing and domestic responsibilities, most women in most drug markets remain confined to low level and marginal roles. (p. 821)

Metasummary and metasynthesis can employ a unique combination of coding *and* themeing the data. This approach seems necessary since “Metasynthesis is not a method designed to produce oversimplification; rather, it is one in which differences are retained and complexity enlightened. The goal is to achieve more, not less. The outcome will be something like a common understanding of the nature of a phenomenon, not a consensual worldview” (Thorne, Jensen, Kearney, Noblit, & Sandelowski, 2004, p. 1346). Major and Savin-Baden (2010) code and theme at both the descriptive and interpretive levels to create new syntheses and perspectives on the issues, employing such first cycle methods as Descriptive and Initial Coding, and second cycle methods such as Axial Coding, to find “bigger picture” ideas through metaphors and concepts that link across several studies (pp. 62–3).

For more on the synthesis of qualitative research (such as meta-narrative, meta-study, meta-interpretation, Bayesian meta-analysis, etc.), see Finfgeld-Connett (2018) for domestic violence studies, Hannes and Lockwood (2012) for medicine and health care, and Saini and Shlonsky (2012) for social work.

PART THREE SECOND CYCLE CODING METHODS

12 TRANSITIONING FROM FIRST TO SECOND CYCLE CODING METHODS

Chapter Summary

This chapter reviews transitional analytic processes after first cycle coding. It illustrates two data management techniques: code mapping and code landscaping. A section on creating operational model diagrams follows, then additional transition methods are profiled. The chapter concludes with the purposes and goals of second cycle coding.

POST-CODING TRANSITIONS

Transitions can be awkward. Whether it be physical or mental, the journey from one space to another can range from smooth and seamless to disruptive and disjointed. The transition from first cycle coding to second cycle coding or other qualitative data analytic processes is no exception. This chapter examines those shifts after the initial review of the corpus and provides additional methods for reorganizing and reconfiguring your transformed work. The goal is not to "take you to the next level," but to cycle back to your first coding efforts so you can strategically cycle forward to additional coding and qualitative data analytic methods.

As you have been applying one or more coding methods to the data and writing analytic memos, you have hopefully been making new discoveries, insights, and connections about your participants, their processes, or the phenomenon under investigation. But after you have finished coding your data set, the primary question that may be running through your mind is "Now what?" The discussion of analytic memoing in Chapter 3 offered several subtopics for reflection and writing before, during, and after coding or theming. Selected methods profiles in Chapters 5 – 11 illustrated several post-coding heuristics such as:

- counting code frequencies
- alphabetizing the codes to search for patterns
- categorizing codes or themes
- outlining the codes or themes in categorical, hierarchical, or processual order
- coding and categorizing data simultaneously
- recoding numerous "splitter" codes into fewer "lumper" codes
- transforming codes and categories into concepts, or themes into theoretical constructs
- codeweaving in analytic memos
- diagramming (e.g., emotional arcs, Values Coding Venn diagrams, process and causation networks)
- creating found poetry with In Vivo Codes
- adapting data into dramatic monologues or narrative vignettes
- recoding data with a different coding method(s).

This chapter focuses on analytic transitions such as: constructing concepts from categories; outlining based on code frequencies; drawing preliminary models of the primary actions at work in your data; and reorganizing and reassembling the transformed data to better focus the direction of your study. Remember Robert E. Stake's (1995) keen observation: "Good research is not about good methods as much as it is about good thinking" (p. 19). There are certainly new methods included in this chapter to guide you on your analytic journey, but techniques and examples can only take you so far. It is up to you to select and adapt the recommendations below for your own unique research project, and to exercise good thinking in your continued exploration of and reflection on the data. Lindlof and Taylor (2019) remind us that our analytic ventures are a "wonderful blend of strategic mindfulness and unexpected discovery" (p. 309).

CODE MAPPING AND LANDSCAPING

Before new second cycle methods are presented, let us explore two ways of manually organizing and assembling the codes developed from first cycle processes: *code mapping* and *code landscaping*. These are just two techniques that you may find useful as preparatory work for preliminary analysis before or concurrent with second cycle coding, if needed.

Code mapping

Several qualitative data display strategies exist for enhancing the credibility and trustworthiness—not to mention the organization—of your observations as analysis proceeds toward and progresses during second cycle coding. The detailed example below is a way of illustrating one approach to how coding progresses from the first through second cycles "to bring meaning, structure, and order to data" (Anfara, 2008, p. 932).

Versus Coding (see Chapter 7) was employed for a qualitative study of teachers responding to state-developed fine arts standards for educational achievement. Unfortunately, the process was rife with conflict, and participants we interviewed and observed resisted the new document, which was written with virtually no teacher input. In all, 52 Versus Codes were generated from and applied to individual interview transcripts, focus group transcripts, e-mail correspondence, participant observation field notes, documents, and artifacts. The 52 codes were extracted from the data set and listed randomly as the *first iteration* of code mapping.

FIRST ITERATION OF VERSUS CODING: A Simple List of the 52 Versus Codes

STANDARDS VS "WE KNOW WHAT WE WANT"

"GRASSROOTS" COMMITTEE VS TEACHER INPUT

INTERDISCIPLINARY VS PERFORMANCE/PRODUCTION

"KNOW AND BE ABLE TO DO" VS "DIFFERENT STRENGTHS"

"TEACH TO THE TEST" VS "FUN"

"TOP-DOWN" VS BOTTOM-UP

PRODUCT VS PROCESS

"WHO WROTE THIS?" VS OWNERSHIP

ADMINISTRATOR VS TEACHER

ENDORSEMENT VS BOYCOTT

PRESCRIPTION VS AUTONOMY

US VS THEM

YOU KNOW VS "WE KNOW"

PERFORMANCE OBJECTIVES VS "WORK BACKWARDS"

ASSESSMENT VS "HOW DO YOU TEST THAT?"

BENCHMARKS VS "I' M NOT GOING TO"

ROADMAP VS "CHOOSE YOUR OWN ADVENTURE"

AIMS TEST VS CREDITS

IVORY TOWER VS INNER CITY

CLASSROOM VS EXTRA-CURRICULAR

SPECIFIC VS VAGUE

ADVOCACY VS “DON’ T MEAN A THING TO ME”

CONFORMITY VS INDIVIDUALITY

YOUR WAY VS OUR WAY

THEATRE CONFERENCES VS THESPIAN SOCIETY

REQUIRED VS “CHOSEN NOT TO”

CONSERVATIVE VS LIBERAL

WRITERS’ GOALS VS TEACHERS’ GOALS

URBAN VS RURAL

“A FAIR AMOUNT OF WRITING” VS CONSENSUS

DISCIPLINE-BASED VS “LIFE SKILLS”

REPUBLICAN VS DEMOCRAT

AMBITIOUS VS REALITIES

DISTRICT VS SCHOOL

“RUSHED” VS TAKING TIME

ELITISM VS MEDIOCRITY

FUNDING VS “NOT ONE DOLLAR”

QUANTITATIVE VS QUALITATIVE

STATE VS DISTRICT

ART FORM VS LIFE FORM

GRADUATION REQUIREMENT VS ELECTIVE

PROGRESSIVE LEVEL DESIGN VS MULTIPLE DISTRICTS

INFORMED VS “?”

LANGUAGE ARTS VS THEATRE STANDARDS

“BASICS” VS THE ARTS

MANDATES VS LOCAL GOVERNMENT

PERFORMANCE OBJECTIVES VS “STRICTLY UP TO YOU”

FIRST PRIORITY VS SECOND PRIORITY

REVISION VS RATIONALIZATION

ATP [Arizona Teacher Proficiency] EXAM VS COLLEGE CREDIT

RUBRICS VS PERSONAL JUDGMENT

STATE SCHOOL BOARD VS ARIZONA UNIVERSITIES

The *second iteration* of code mapping now categorizes the initial codes. The categories in this particular study range from the real (People) to the conceptual (Political Ideologies). The eight categories and their labels that were developed came from nothing more difficult than simply comparing and sorting (i.e., cutting and pasting on a text editing page) all 52 codes to determine which ones seemed to go together, a task that is sometimes quite easy and sometimes quite slippery.

SECOND ITERATION OF VERSUS CODING: Initial Categorization of the 52 Versus Codes

Category 1: People

Related codes:

US VS THEM

ADMINISTRATOR VS TEACHER

Category 2: Institutions

Related codes:

DISTRICT VS SCHOOL

STATE VS DISTRICT

STATE SCHOOL BOARD VS ARIZONA UNIVERSITIES

URBAN VS RURAL

THEATRE CONFERENCES VS THESPIAN SOCIETY

Category 3: Political Ideologies

Related codes:

REPUBLICAN VS DEMOCRAT

CONSERVATIVE VS LIBERAL

IVORY TOWER VS INNER CITY

Category 4: Curricula

Related codes:

YOUR WAY VS OUR WAY

LANGUAGE ARTS VS THEATRE STANDARDS

“BASICS” VS THE ARTS

PERFORMANCE OBJECTIVES VS “WORK BACKWARDS”

“KNOW AND BE ABLE TO DO” VS “DIFFERENT STRENGTHS”

INTERDISCIPLINARY VS PERFORMANCE/PRODUCTION

CLASSROOM VS EXTRA-CURRICULAR

PRODUCT VS PROCESS

ART FORM VS LIFE FORM

Category 5: Arts Standards Development

Related codes:

SPECIFIC VS VAGUE

REVISION VS RATIONALIZATION

“RUSHED” VS TAKING TIME

DISCIPLINE-BASED VS “LIFE SKILLS”

PROGRESSIVE LEVEL DESIGN VS MULTIPLE DISTRICTS

MANDATES VS LOCAL GOVERNMENT

Category 6: Testing and Graduation Requirements

Related codes:

GRADUATION REQUIREMENT VS ELECTIVE

ATP EXAM VS COLLEGE CREDIT

AIMS TEST VS CREDITS

“TEACH TO THE TEST” VS “FUN”

ASSESSMENT VS “HOW DO YOU TEST THAT?”

RUBRICS VS PERSONAL JUDGMENT

QUANTITATIVE VS QUALITATIVE

Category 7: Exclusion and Marginalization

Related codes:

FIRST PRIORITY VS SECOND PRIORITY

AMBITIOUS VS REALITIES

ELITISM VS MEDIOCRITY

INFORMED VS “?”

“TOP-DOWN” VS BOTTOM-UP

“GRASSROOTS” COMMITTEE VS TEACHER INPUT

WRITERS’ GOALS VS TEACHERS’ GOALS

“A FAIR AMOUNT OF WRITING” VS CONSENSUS

FUNDING VS “NOT ONE DOLLAR”

Category 8: Teacher Resistance

Related codes:

CONFORMITY VS INDIVIDUALITY

PRESCRIPTION VS AUTONOMY

ENDORSEMENT VS BOYCOTT

“WHO WROTE THIS?” VS OWNERSHIP

YOU KNOW VS “WE KNOW”

STANDARDS VS “WE KNOW WHAT WE WANT”

REQUIRED VS “CHOSEN NOT TO”

ADVOCACY VS “DON’ T MEAN A THING TO ME”

BENCHMARKS VS “I’ M NOT GOING TO”

PERFORMANCE OBJECTIVES VS “STRICTLY UP TO YOU”

ROADMAP VS “CHOOSE YOUR OWN ADVENTURE”

The *third iteration* of code mapping now *categorizes the categories* even further from eight to three. Notice that new category names are applied:

THIRD ITERATION OF VERSUS CODING: Recategorizing the Eight Initial Categories

Category 1: Human and Institutional Conflicts—The “Fighters”

Subcategories:

People

Institutions

Political Ideologies

Category 2: Standards and Curriculum Conflicts—The “Stakes”

Subcategories:

Curricula

Arts Standards Development

Testing and Graduation Requirements

Category 3: Results of Conflicts—The “Collateral Damage”

Subcategories:

Exclusion and Marginalization

Teacher Resistance

Now that three major categories have been constructed, Versus Coding explores how they fit into the concept of “moieties”—as one of two, and only two, divisions within a group—for the *fourth iteration* of code mapping, transforming the categories into an X VS Y format:

FOURTH ITERATION OF VERSUS CODING: Three “Moiety” Concepts Phrased in Versus Terms

Concept 1: US VS THEM (teachers VS all other personnel, such as principals, school districts, the state department of education, state universities, etc.)

Concept 2: YOUR WAY VS OUR WAY (mandated yet poorly written state standards VS experienced educators working at the local level who know their art and their students)

Concept 3: CON-FORM VS ART-FORM (conformity to prescribed and standardized curricula VS creative expression in the subject area and its practice)

Code mapping also serves as part of the auditing process for a research study. It documents how a list of codes gets categorized, recategorized, and conceptualized throughout the analytic journey. Not all second cycle coding methods may employ code mapping, but it is a straightforward technique that gives you a condensed textual view of your study, and potentially transforms your codes first into organized categories, and then into higher-level concepts.

Code landscaping

A lack of sophisticated CAQDAS or content analysis software does not prevent you from using simple but innovative ways to organize and examine your codes through basic text editing programs. Code landscaping integrates textual and visual methods to see both the forest and the trees. It is based on the visual technique of "tags" in which the most frequent word or phrase from a text appears larger than the others. As the frequency of particular words or phrases decreases, so does its visual size.

Internet tools such as TagCrowd (tagcrowd.com), WordItOut (worditout.com), Wordclouds.com (wordclouds.com), and Wordle (wordle.net) enable you to cut and paste large amounts of text into a field. The online software then analyzes its word count frequencies and displays the results in a randomized "cloud" design with the more frequent words in a larger font size. Figure 12.1 illustrates the TagCrowd results for the interview transcript text from Chapter 11.

Figure 12.1 A word cloud graphic of an interview transcript (created with tagcrowd.com)

Some of these word cloud programs provide a detailed word count of your entered text, but the program does not analyze data beyond the descriptive level. Nevertheless, this initial data entry gives you a "first-draft" visual look of your text's most salient words and thus potential codes, categories, themes, and concepts. Several CAQDAS programs feature such comparable methods as tag clouds and cluster analyses. Code landscaping is a manual yet systematic method that replicates these ideas in a similar way.

Basic outlining formats enable you to organize codes into subcodes and sub-subcodes as needed. Figure 12.2 illustrates an array of codes assigned to portions of 234 qualitative survey responses that asked participants, "My participation in high school speech and/or theatre has affected the adult I am now. In what ways do you think your participation in speech and/or theatre as a high school student has affected the adult you have become?" (McCammon & Saldaña, 2011; McCammon et al., 2012).

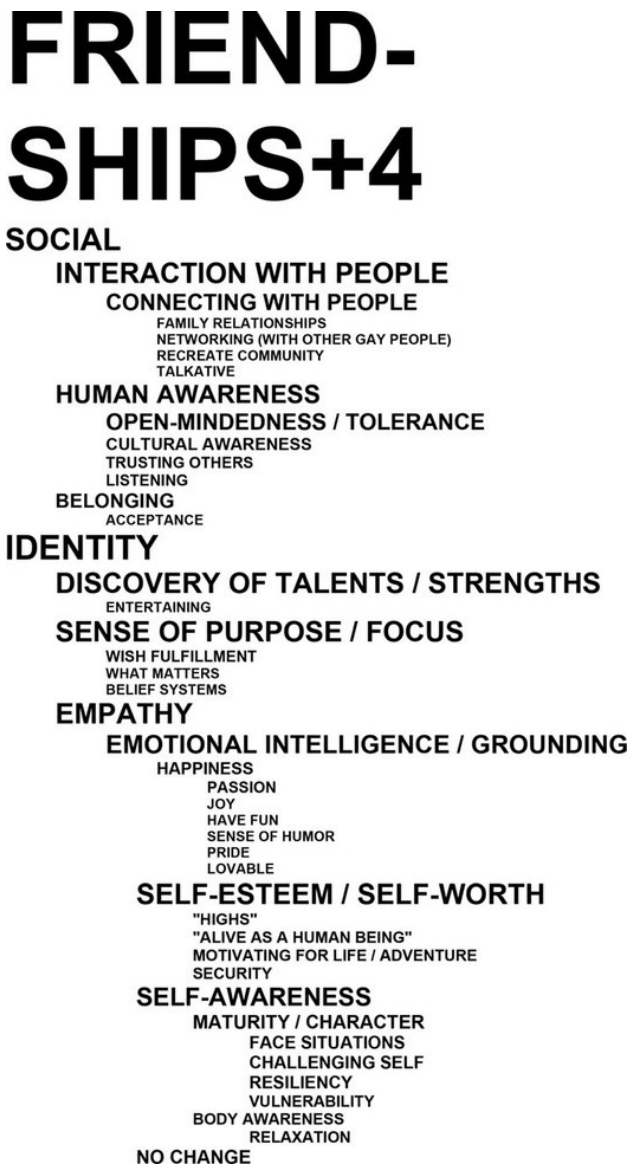


Figure 12.2 Code landscaping of a major category and its subcategories and sub-subcategories

One of the major categories developed from their responses was Lifelong Living and Loving, and Figure 12.2 spatially outlines the category's related codes. Notice how font size is used to convey the frequency of codes and thus their magnitude. The font size of a code was increased once for each time it appeared in the data corpus. The number of times friendships was mentioned by survey respondents was so large that I had to use "+4" after the code because my text editing program's font size could only go up so far. The font size and +4 after the friendships code means that 18 people total mentioned this as an outcome of their high school experiences. The social code font size indicates eight responses; interaction with people seven responses; connecting with people five responses; and family relationships one response.

Simple outlining methods through indents organized the major codes and their related subcodes and sub-subcodes further. The words with no indents (friendships, social, and identity) suggested that these were the major elements for discussion in my analytic memos

and final report. The indented words and phrases under them enabled me to "flesh out" the meanings of the primary codes further with detail and nuance. Of course, quotes from the data themselves lend evidentiary support to your assertions. The code landscape serves as a thumbnail sketch, of sorts, for the final write-up. An excerpt from the related report based on Figure 12.2 reads (and notice how many of the code words themselves are woven into the analytic narrative):

Lifelong Living and Loving

Even though I'm not currently doing theatre, I still feel an element of the theatrical in my bones. It comes out in my personality from time to time. Working in theatre in high school actually helped me become alive as a human being as well as a student. (Male, Adjunct Professor of Art, High School Class of 1978)

This category is composed of the affective, intra-, and interpersonal domains of learning. Like earlier survey findings, some respondents noted the lifelong friendships that were initiated during their high school years. But also prominent here is the formation of one's personal identity. Theatre and speech were opportunities to discover one's talents and strengths, and thus to find one's focus or purpose:

During my time in the theatre, I became the person I always wanted to be. Throughout my life I was struggling to find my niche, as well as finding who I truly was. Theatre, and all the people involved, helped me find these two things. Theatre made me. (Female, University Theatre Design Major, High School Class of 2009)

Selected respondents attest that they experienced emotional growth through such conceptual processes as self-esteem, self-worth, values clarification, maturity, and personal character development. For some, speech and theatre were conduits for discovering "what matters," particularly in domains of human awareness and social interaction:

Theatre created me. It's almost impossible to think of who I might have been without it. I honestly don't know that I could have survived without the outlet. I learned how to express myself in the only environment I ever felt accepted into. With that, my confidence grew, my mind opened, and I was pushed to explore more of myself. (Female, Flight Attendant, High School Class of 1992)

Code landscaping is recommended if you have no access to CAQDAS and particularly if you code as a "splitter" (see Chapter 2). Code landscaping will also help you transition from first to second cycle coding, if needed. I caution that simple code frequency is not always a trustworthy indicator of what may be significant in the data. Use this technique as an exploratory heuristic for *qualities*, not as an algorithm for mere quantities.

OPERATIONAL MODEL DIAGRAMMING

Miles et al.'s (2020) advice to "think display" can assist our concurrent coding, categorizing, and analytic memo-writing efforts. Dey (1993) notes that when "we are dealing with complex and voluminous data, diagrams can help us disentangle the threads of our analysis and present results in a coherent and intelligible form" (p. 192). Friese (2014) adds that diagrams in the form of networks display not only our analytic categories, but also the answers to our research questions. Aside from manual paper-and-pencil sketches, which work well as first drafts, CAQDAS programs enable you to map or diagram the developing sequences or networks of your codes and categories related to your study in sophisticated ways, and permit related comments and memos linked to the visual symbols for explanatory reference.

A few operational model diagrams are included in this book (see Figures 1.1, 3.2, 6.1, 10.2, 11.1). This section includes a more complex operational model diagram (see Figure 12.3) from the author's ethnographic study of a white female theatre teacher at an urban grades K–8 school for the arts (Saldaña, 1997). It is provided here to demonstrate how participants, codes, categories, variables, phenomena, processes, and concepts can be mapped for the researcher's analytic synthesis and the reader's visual grasp of the study.

Notice how the bins or nodes (both plain and bolded and in various shapes and masses), connecting lines or links (both solid and dashed), and arrows (both one- and two-directional) not only illustrate the space and flow, and the stream and convergence of action/reaction/interaction, but also suggest a sense of quality and magnitude. Three criteria are used to determine what merits a bin: a concept's *salience*, *ubiquity*, and *centrality* to other concepts (Bernard et al., 2017, p. 181).

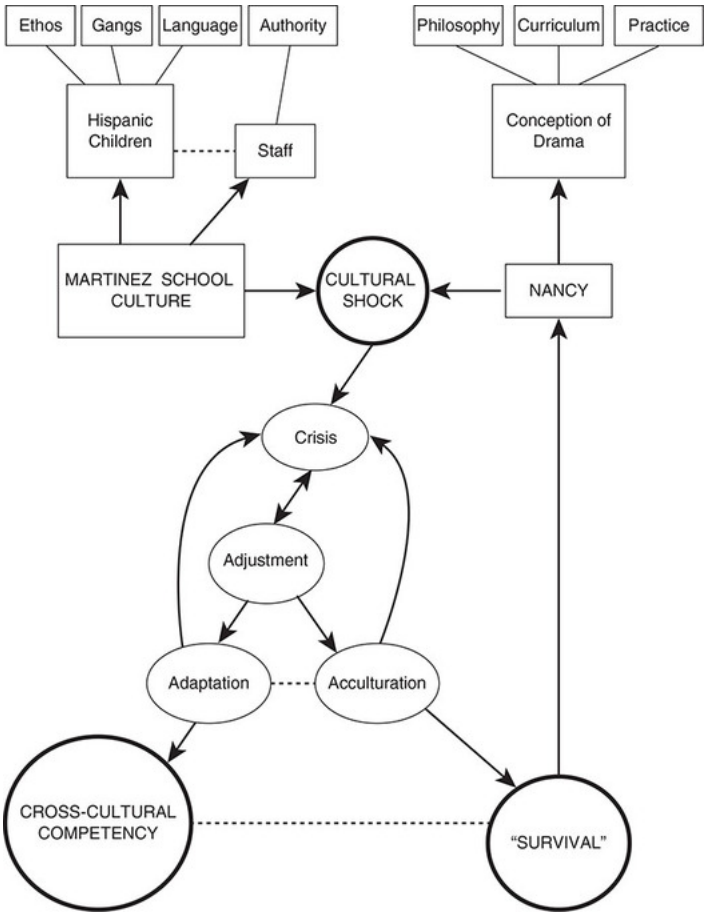


Figure 12.3 An operational model diagram of an urban teacher's cultural shock and survival processes

The diagram illustrates the key participants in rectangular nodes: *Martinez School's Children and Staff* (a cultural group) and *Nancy*, the theatre instructor. Their convergence created the phenomenon of *cultural shock* (DeWalt & DeWalt, 2011; Winkelman, 1994) for Nancy. The salient categories of Martinez School culture most difficult for her to deal with as a beginning teacher were the Hispanic children's *ethos* (value, attitude, and belief systems), *gang* subculture, and Spanish *language*. From the *staff*, Nancy had to submit to older and tenured faculty colleagues' presumed *authority* over her as a novice educator.

Nancy's actions, reactions, and interactions to function in the school adhered to the processual and cyclical patterns of cultural shock and adaptation outlined by DeWalt and DeWalt and by Winkelman and represented in the diagram with oval nodes. In one example of cultural shock, Nancy dealt with a *crisis* (e.g., not being able to speak Spanish) by *adjusting* to it (e.g., learning a few key Spanish words and phrases). A successful *adaptation* to the crisis (e.g., Spanish language oral fluency) would have led to what multicultural education scholar James A. Banks (2007) labels *cross-cultural competency*. But half-hearted or insufficient coping strategies (e.g., overreliance on student translators, a small Spanish language vocabulary, accepting the limitations of classroom communication) were *acculturation*, not adaptation, to her teaching context. This process was not as effective as cross-cultural competency; it was merely *"survival"* (note that the three major concepts of the study are in bolded circular nodes). During Nancy's first two years as a teacher, new crises led to new adjustments; once she adapted successfully to something, a new crisis would emerge, and so on.

Whether Nancy successfully adapted and exhibited cross-cultural competency, or whether she acculturated and exhibited mere survival, across time the process influenced and affected her *conception of drama* with Hispanic children, which changed her teaching *philosophy*, *curriculum*, and *practice*. For example, rather than having them read plays from a Eurocentric canon, as she had done in her first year, Nancy later chose material with more cultural relevance to the population. Some veteran staff members made unreasonable demands on her program with stage performance expectations. Nancy's cultural shock and adaptation processes to this led to poor theatre production work in her first year of teaching ("survival"), but more successful outcomes in her second year (cross-cultural competency).

This diagram was not created at the beginning of the ethnographic study. Its development evolved across three years of literature reviews, fieldwork, data analysis, and writing. I have observed in my research methods courses that students new to qualitative data analysis tend to diagram their conceptual bins in basic linear or circular arrangements. Though nothing is wrong with this as an initial tactic, social interaction is rarely linear or perfectly circular. Most empirically based diagrams are asymmetrically clustered and rhizomatous. Review some of the intricately detailed diagram displays in Knowlton and Phillips (2013), Miles et al. (2020), Wheeldon and Åhlberg (2012), and the user manuals of CAQDAS programs to heighten your awareness of complex interaction, interplay, and interrelationship among participants and phenomena. Access Evergreen's (2018, 2020) *Presenting Data Effectively* and *Effective Data Visualization* for detailed, masterful guidance on such matters as graphics, type, color, and arrangement for visual presentation; "A Periodic Table of Visualization Methods" for a fascinating online overview of representing data in various visual forms (visual-literacy.org/periodic_table/periodic_table.html); and explore free downloadable software for constructing concept maps from CmapTools (cmap.ihmc.us/).

Regardless of the length or scope of your study, think display. Explore how your codes, categories, themes, and concepts can be represented visually to supplement your analysis, clarify your thoughts, and enhance your written presentation. Models are "reductions of complex realities. We build models to better understand these complexities and to help others understand them as well" (Bernard et al., 2017, p. 179).

ADDITIONAL TRANSITION METHODS

Below are six practical suggestions from my research methods course, dissertation supervision, and other published sources that students have found most helpful as they transition from first cycle coding to more conceptual levels of analysis.

Coding the codes

Recall that analysts can code as a "splitter" or as a "lumper" (see Chapter 2). Splitting is meticulous line-by-line coding, while lumping codes larger units of data such as paragraphs or extended sections of interview transcripts, documents, and field note texts. Coding the codes (Charmaz, 2014, pp. 127–8; Gibson and Hartman, 2014, p. 162) condenses a larger number of sequential split codes into a more manageable lump for analysis. Below is an excerpt from the Initial Coding example in Chapter 6. Five different codes were assigned to this one passage of interview text:

Code example 12.1

TIFFANY: [1] I hang out with everyone. Really, [2] I choose. Because I've been [living] here for so long, you get, [3] I can look back to kindergarten, and at some point I was[4] best friends with everybody who's been here, [5] practically.	[1] "hanging out with everyone" [2] "choosing" who you hang out with [3] recalling friendships [4] "best friends with everybody" [5] qualifying: "practically"

The five sequential split codes above are then reviewed to code them further into one lump code. The resulting lump code could consist of one of the above five if it seems to adequately subsume the rest; it could consist of a woven combination of selected code words; or it could be a new code altogether. In this case, the analyst decided on enduring friendships, a Concept Code, to condense and represent the above five.

Remaining portions of sequential split codes in the data can be lump-coded to condense the meanings even further. This technique also lends itself to rising to more abstract and conceptual levels of analysis (see Concept and Pattern Coding). In sum, if you feel overwhelmed by the initial number of codes you assigned to the data, then code the codes to condense them further for analysis or second cycle processes.

Code charting

Harding (2019) advises *summarizing* and *comparing* as fundamental analytic techniques after data have been coded. Simple tables array a condensed paragraph of the participant's primary data set (e.g., an interview transcript, observations) in one column, with the accompanying major codes in an adjoining column. This is particularly helpful when there are multiple participants in a study—as individual cases who have been separately interviewed/observed, or as individuals from a focus group discussion. Charting enables the analyst to scan and construct patterns from the codes, to develop initial assertions or propositions, and to explore the possible dimensions which might be found in the range of codes.

Participant	Observation Summary	Primary Codes
Geniene	Gentle spirit with her class, maintains an atmosphere conducive to arts learning. Participates with children in activities. University minor in dance. Welcoming of arts experiences, supportive of artists-in-residence.	EMBRACES ART ARTIST'S SENSIBILITY PARTICIPATES WELCOMING
Andrea	Perceives some value to the classroom activities, but wants more arts integration with "traditional" curriculum (math, language arts, etc.). Concerned about children's ability to focus on arts activities. Has a collegial quality about her and the artists-in-residence.	CURRICULUM-BASED "TRADITIONAL" COOPERATIVE
Martha	Concerned about arts experiences taking up class time. Intervenes a lot when artists-in-residence have management issues with children. Visitors inherit Martha's classroom dynamics and culture. Lots of cliques among the children.	MISMANAGED CLASS FRACTURED COMMUNITY CONTROLLING
Anne	Strict disciplinarian in classroom, does not want daily routine disrupted. Speaks sternly to children. Limits amount of time artists-in-residence can spend in classroom. Withdrew from program four weeks into the study.	DISCIPLINARIAN RESISTANT WITHDREW

Figure 12.4 A data and codes summary table

Figure 12.4 illustrates summaries of four classroom teachers' general participation in an artist-in-residence program at their school, based on researcher observations of their interactions with children and the artists. The summaries have been qualitatively ranked from top to bottom, progressing from the most receptive teacher to the most resistant to the program. The summaries in the central column address primary issues in the study such as classroom management, rapport with students, willingness to participate in the arts program, and so on. The right column lists the most salient codes from the data corpus (greatly assisted through the summaries). Concurrent scanning of the summaries and codes led the researcher to construct a preliminary proposition for further testing as the study continued: *Elementary school teachers who establish and maintain positive and welcoming classroom environments are more receptive to arts programming in their curriculum.*

Pie-chart coding

Willis (2015, pp. 104–5) illustrates "pie-chart coding," a visual method for displaying major codes, categories, concepts, or themes from an analysis into proportionate slices that summarize the study's "table of elements." Figure 12.5 transforms the Operational Model Diagram of the four most salient bins of cultural shock and adaptation in Figure 12.3 (Crisis, Adjustment, Adaptation, Acculturation) into areas that the researcher interpreted best represented (with "approximate accuracy") Nancy's processes during her first years of teaching. It is an admittedly subjective transformation of qualitative phenomena into semi-quantitative representations. But it provides an "at-a-glance" summative picture of the case study's experiences for analytic memo reflection and possible member-checking for credibility. Mixed methods studies might apply this method of display to better integrate both qualitative and quantitative data analyses.

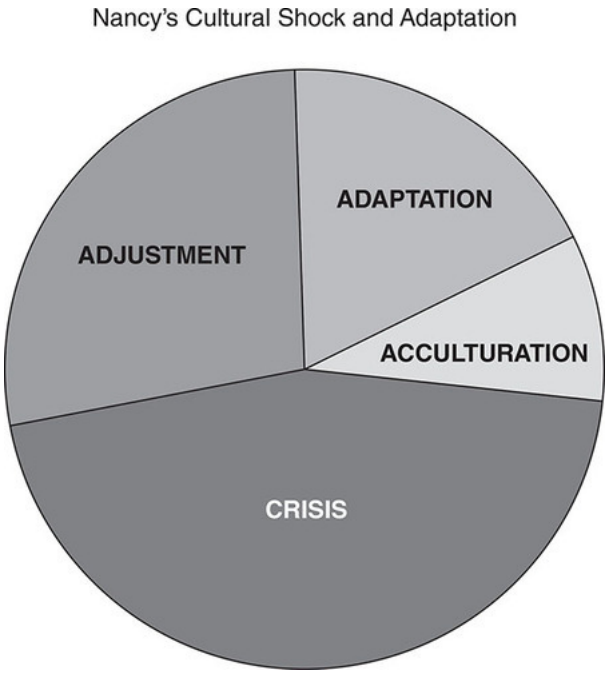


Figure 12.5 A pie-chart representation of a teacher's cultural shock and adaptation

Tabletop categories

One exercise in my qualitative research methods course involves the literal spatial arrangement on a table of coded and categorized data. We first code the data in the margins of hard copy, cut each coded unit of data into separate pieces of paper, pile them together into appropriate categories, staple or clip each category's pile of coded data together, label each pile with its category name, then explore how they can be arranged on a tabletop to map the categories' processes and structures (see Figure 12.6).

Figure 12.6 An arrangement of tabletop categories

Depending on the data we use, some category piles are arranged in a single column from top to bottom according to numeric frequency of their codes. Sometimes the categories are grouped together in superordinate and subordinate arrangements, like an outline or taxonomy on paper. Other times, selected categories may be clustered together in separate piles because they share a broader theme or concept. Yet at other times the categories may be placed in linear or networked arrangements on the tabletop because they suggest a sequence or process of influences and affects. And at other times some category piles overlap each other in Venn diagram-like fashion because they share some similar traits while retaining their unique features.

Students remark that "touching the data" and physically moving categories on a tabletop in multiple arrangements help them better discover and understand such organizational concepts as hierarchy, process, interrelationship, themeing, causation, and structure. Ironically, this manual method is faster and more flexible than CAQDAS software's modeling functions. You can manipulate paper with two hands quicker than you can computer graphics with one mouse.

If you are encountering difficulty with how your developing or final sets of categories, themes, or concepts work together, try this tabletop technique and spatially arrange the items (written on index cards, sticky notes, or separate half sheets of paper) in various combinations until a structure or process emerges that "feels right" and can be supported by the data. Use the layout as a visual template for your writing. If possible, adapt the layout into an accompanying operational model diagram for the study. There is more on this topic discussed and illustrated in the section on categories of categories in Chapter 15.

From codes to themes

If you have coded your data with only words or short phrases and feel that the resultant codes are elusive, transform the final set of codes or categories into longer-phrased themes (see Themeing the Data in Chapter 11). Themeing may allow you to draw out a code's truncated essence by elaborating on its meanings. Methodologist Paul Mihas cleverly quips that richly worded themes can be "a cure for the common code."

For example, a major Process Code from your analysis might be negotiating. Though the word might indeed identify the general types of social actions you observed among participants, the term is too broad to provide any analytic utility. A recommended strategy for Themeing the Data: Phenomenologically adds the verbs "is" and "means" after the phenomenon under investigation. Thus, expanding on "Negotiating is …" and "Negotiating means …" keeps you grounded in the data as you transcend them. By rereading and reflecting on the data categorized under negotiating, you may observe, for example, that "Negotiating is manipulating others," or "Negotiating means the path of least resistance." These are more substantive and evocative prompts for further analysis and writing.

“Shop talking” through the study

Talk regularly with a trusted peer, colleague, advisor, mentor, expert, or friend about your research and data analysis. This person can ask provocative questions the researcher has not considered, discuss and talk through the analytic dilemmas you are facing, and offer fresh perspectives on future directions with the study. If you are lucky, the person may also intentionally or inadvertently say that one thing to you that pulls everything together.

Many of my students working on their dissertation projects tell me that our one-on-one conversations about their studies are most productive because they have to verbally articulate for the first time “what’s going on” with their data and analysis. Through our “shop talk” exchanges, they often arrive at some sense of focus and clarity about their analytic work, enabling them to better write about the studies.

Some inquiry approaches, such as critical ethnography, action, and feminist research, encourage participant ownership of the data. Talking with the people you observed and interviewed about your analytic reflections can also provide a “reality check” for you and possibly stimulate additional insights.

TRANSITIONING TO SECOND CYCLE CODING METHODS

Second cycle coding methods, if needed, are advanced ways of reorganizing and reanalyzing data coded through first cycle methods. They each require, as Morse (1994, p. 25) puts it, "linking seemingly unrelated facts logically, … fitting categories one with another" to develop a coherent synthesis of the data corpus. Before categories are assembled, your data may have to be recoded because more accurate words or phrases were discovered for the original codes; some codes will be merged together because they are conceptually similar; infrequent codes will be assessed for their utility in the overall coding scheme; and some codes that seemed like good ideas during first cycle coding may be dropped altogether because they are later deemed marginal or redundant after the data corpus has been fully reviewed (Silver & Lewins, 2014, p. 227).

The primary goal during second cycle coding is to develop a sense of categorical, thematic, conceptual, and/or theoretical organization from your array of first cycle codes. But some of the methods outlined in the next two chapters may occur during the initial as well as latter coding periods. Basically, your first cycle codes (and their associated coded data) are reorganized and reconfigured to eventually develop a smaller and more select list of broader categories, themes, concepts, assertions, and/or propositions. For example, if you generated 50 different codes for your data corpus during first cycle coding, those 50 codes (and their associated coded data) are then recoded as needed, then categorized according to similarity during second cycle coding, which might result in 25 codes for one category, 15 codes for a second category, and the remaining 10 codes for a third category. These three categories and their collective meaning then become the major components of your research study and write-up. Keep in mind that this is a very simple and clean example. Your actual process might generate different numbers or even different approaches altogether. Methodologist Ruthellen Josselson astutely reminds us that "Categories that are too separate are artificial. Human life is of a piece, multilayered, contradictory, and multivalent, to be sure, but the strands are always interconnected" (in Wertz et al., 2011, p. 232).

The goal is not necessarily to develop a perfectly hierarchical bullet-pointed outline or list of permanently fixed coding labels during and after this cycle of analysis. Let me offer an analogy. Imagine buying a large piece of furniture such as a table that comes unassembled in a box which says "assembly required." The instructions state that you take out all of the packaged items, such as the bolts, washers, nuts, table legs, and table top, then gather the necessary tools, such as a wrench and screwdriver. The instructions recommend that you *inventory all parts* to make certain everything you need is there, and that you *arrange the parts appropriately on the floor before assembling*. You have probably determined by now where this analogy is going. The individual pieces of inventoried hardware and wood are the first cycle coded data; and their appropriate arrangement into organized categories on the floor, the tools, and the assembly process are the second cycle coding methods of how everything fits together.

The analogy fails in one regard, however. There is a *specific and prescribed* set of instructions for how the table is to be assembled. Any deviation from the directions or substitution of materials and the integrity of the furniture is compromised. In qualitative data analysis, some interpretive leeway is necessary—indeed, imagination and creativity are essential to achieve new and hopefully striking perspectives about the data. A bolt is a bolt, a wrench is a wrench, and a tabletop is a tabletop. But after assembly, consider what would happen if you brought in an electric sander to reshape or smooth the wood's edges, or a brush and varnish to change the table's finish, or various tablecloths and centerpieces to experiment with and capture a certain look. Second cycle coding methods are neither prescriptive nor inflexible. They are guidelines for basic assembly with opportunities for

the researcher's elaboration. Wolcott (1994) and Locke (2007) remind us that our ultimate analytic goal is not just to transform data but to transcend them—to find something else, something more, a sum that is greater than its parts.

Acknowledge that with each successive cycle of coding, the codes should become fewer in number, not more. Figure 12.7 (a repeat of Figure 1.1) illustrates that codes and subcodes are eventually transformed into categories (and subcategories, if needed), which then progress toward major themes or concepts, and then into assertions or possibly a new theory.

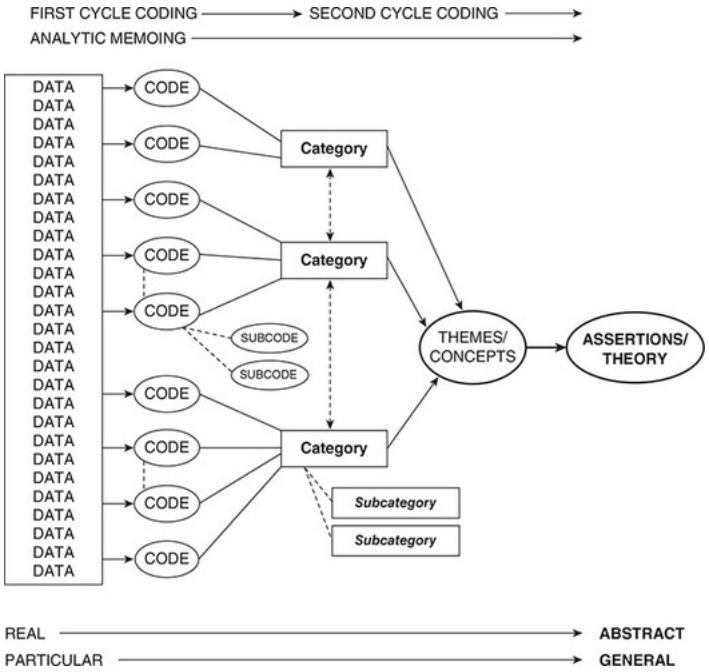


Figure 12.7 A streamlined codes-to-theory model for qualitative inquiry

Second cycle coding is reorganizing and condensing the vast array of initial analytic details into a "main dish." To propose another analogy: When I shop for groceries (i.e., visit a site for fieldwork), I can place up to 20 different food items (data) in my shopping cart (field note journal). When I go to the cashier's stand (computer) and get each item (datum) with a bar code scanned (first cycle coding), the bagger (analyst) will tend to place all frozen foods in one bag (category one), fresh produce in another bag (category two), meats in another bag (category three), and so on.

As I bring my food items home, I think about what I might prepare (reflection and analytic memo writing). I unpack the food items (second cycle coding), and organize them appropriately in the kitchen's refrigerator (concept one), pantry (concept two), freezer (concept three), and so on. And when I am ready to make that one special dish (a key assertion or theory), I take out only what I need (the essence and essentials of the data corpus) out of everything I bought (analyzed) to cook it (write up). Lindlof and Taylor (2019) extend the metaphor by offering that "data analysis is not something that can be rushed or forced. … Qualitative research is a dish that tastes better cooked in a crockpot than a microwave" (p. 342).

Remember that data are not coded—they are *re*coded. A second cycle of coding does not necessarily have to utilize one of the methods profiled in the next two chapters. You may find that, like Eclectic Coding, a recoding of your data with a first cycle method will suffice to tighten or condense the number of codes and categories into a more compact set

for analysis. So, depending on which first cycle coding method(s) you have chosen, and how your preliminary data analyses have progressed, you may or may not need to proceed to second cycle coding. But do not let that stop you from reading the profiles, for you may discover that one of the methods, for example Focused or Pattern Coding, can help you categorize and crystallize your analytic work even further. If your project involves constructing grounded theory, building on previous researchers' work, or exploring longitudinal change in participants or systems, then second cycle coding is necessary to explore the complexity at work in the corpus.

Good thinking through analytic memo writing, coupled and concurrent with the processes of coding and categorizing, can lead toward higher-level themes, concepts, assertions, propositions, and theory. The remaining chapters are intended to map that journey with some recommended pathways, but it is up to you to decide which road(s) to take. *Be prepared to cycle back to this chapter's methods after second cycle coding because some of these strategies may still be helpful during the latter stages of analysis.*

13 SECOND CYCLE GROUNDED THEORY CODING METHODS

Chapter Summary

The three coding methods profiled in this chapter originate from the canon of grounded theory methodologies.

Focused Coding categorizes coded data based on categorical, thematic, or conceptual similarity.

Axial Coding describes a category's properties and dimensions and explores how the categories and subcategories relate to each other.

Theoretical Coding progresses toward discovering the central/core category that identifies the primary theme of the research.

In these three methods, reflective analytic memo writing is a code-, category-, theme-, concept-, and theory-generating heuristic.

ON GROUNDED THEORY

In Vivo, Process, and Initial Coding (see Chapter 6) are first cycle grounded theory methods—coding processes for the beginning stages of data analysis that fracture or split the data into individually coded segments. Focused, Axial, and Theoretical Coding are second cycle methods—coding processes for the latter stages of data analysis that both literally and metaphorically constantly compare, reorganize, or "focus" the codes into categories, prioritize them to develop "axis" categories around which others revolve, and synthesize them to formulate a central or core category that becomes the foundation for explication of a grounded theory. Categories also have "properties" and "dimensions"—variable qualities that display the range or distribution within similarly coded data. Figure 13.1, originally displayed as Figure 3.2, is repeated in this chapter to remind the reader of traditional grounded theory's cyclical processes of data collection, coding, and analytic memo writing, and their evolution toward a central/core category as the stimulus for developing the theory itself.

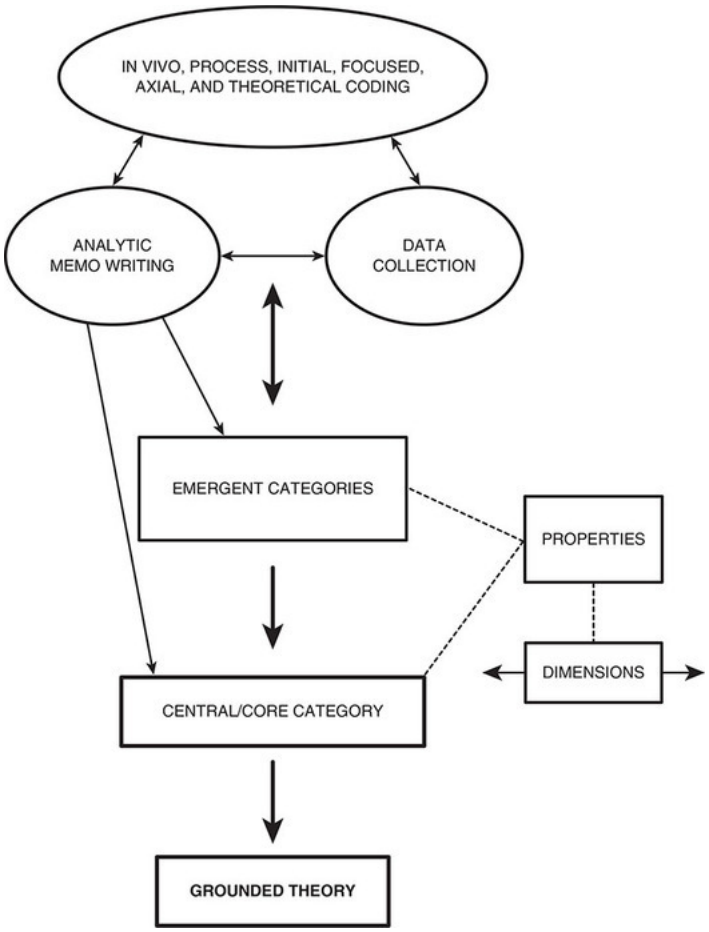


Figure 13.1 An elemental model for developing "classic" grounded theory

Strauss and Corbin (1998) advise that at least 10 interviews or observations with detailed coding are necessary for building a grounded theory (p. 281), but other methodologists have recommended a minimum of 20, 30, or even 40 separate interviews. One of my grounded theory studies (Saldaña, 1995) utilized interview data from 15 young participants, and the data corpus provided sufficient variability to construct the core category and its properties and dimensions.

Holton and Walsh (2017) emphasize that grounded theory is an act of conceptual abstraction: “what matters are the concepts, the relationships among those concepts, and their power to offer … a conceptual explanation of significant behavior within the social setting under study” (p. 10). Morse (2012) notes that the method is particularly applicable for noting “changes that occur in illness transitions—from health to illness to dying, from illness to health—or in the process of maintaining health” (p. 23). Thousands of studies have employed grounded theory heuristics as their methodology, but not every study achieves the methodology’s ultimate goals: a central/core category and the theory itself with an accompanying explanatory narrative.

FOCUSED CODING

Source

Charmaz, 2014

Description

Some publications in grounded theory refer to Focused Coding as “selective coding” or “intermediate coding.” Focused Coding will be used in this manual since it derives from Charmaz’s work.

Focused Coding follows In Vivo, Process, and/or Initial Coding—first cycle grounded theory coding methods—but it can also be applied with other coding methods to categorize the data. Focused Coding searches for the most frequent or significant codes to develop the most salient categories in the data corpus and “requires decisions about which initial codes make the most analytic sense” (Charmaz, 2014, p. 138).

Applications

Focused Coding is appropriate for virtually all qualitative studies, but particularly for studies employing grounded theory methodology, and the development of major categories, themes, or concepts from the data.

Focused Coding, as a second cycle analytic process, is a streamlined adaptation of grounded theory's Selective and Axial Coding. The goal of this method is to develop categories without distracted attention at this time to their properties and dimensions. Dey (1999), however, cautions that categories, particularly in qualitative inquiry, do not always have their constituent elements sharing a common set of features, do not always have sharp boundaries, and that "there are different degrees of belonging" (pp. 69–70).

Example

The interview transcript excerpt from the Initial Coding profile in Chapter 6 is used again to show how the codes transformed from the first to the second cycles; refer to that first before proceeding. In the example below, data similarly (not necessarily exactly) coded are clustered together and reviewed to create tentative category names with an emphasis on process through the use of gerunds (“-ing” words; see Process Coding). Note that just one coded excerpt is the only one in its category:

Code example 13.1

Category: DEFINING ONESELF AS A FRIEND	
I think people, [31] people define me as popular	[31] defining self through others: “popular”

Code example 13.2

Category: MAINTAINING FRIENDSHIPS	
[1] I hang out with everyone. Really. [3] I can look back to kindergarten, and at some point I was[4] best friends with everybody who’ s been here. And so there are[7] certain people that I’ ve just been[8] friends with since forever	[1] “hanging out with everyone” [3] recalling friendships [4] “best friends with everybody” [7] friends with “certain people” [8] friends with “since forever”

Code example 13.3

Category: LABELING THE GROUPS	
[10] really super popular pretty girls are all mean [14] geeky people [16] strange-psycho-killer-geek-people-who-draw-swastikas-on-their-backpacks [23] jocks	[10] labeling: “really super popular pretty girls” [14] labeling: “geeky people” [16] labeling: “strange-psycho-killer-geek” [23] labeling: “jocks”

Code example 13.4

Category: QUALIFYING THE GROUPS	
[5] practically	[5] qualifying: “practically”
[6] Almost everybody in my grade	[6] qualifying: “almost”
[15] Some of them though	[15] qualifying: “some of them”
[17] kind of geeks	[17] qualifying: “kind of”
[18] some of them are kind of	[18] qualifying: “some of them”
[19] But then again	[19] qualifying: “but then …”
[21] not all of them are completely, like	[21] qualifying: “not all of them”

Code example 13.5

Category: DISPELLING STEREOTYPES OF THE GROUPS	
[9] not fair of me to stereotype either	[9] “not fair to stereotype”
[11] they’ re all snobby and they all talk about each other	[11] identifying stereotypes
[12] ’ cause they don’ t. Some of them, some of them don’ t	[12] dispelling stereotypes
[20] there’ s not the complete stereotype	[20] dispelling stereotypes
[24] not all of the guys are idiots	[24] dispelling stereotypes

Code example 13.6

Category: SETTING CRITERIA FOR FRIENDSHIPS	
[2] I choose	[2] “choosing” who you hang out with
[13] those are the ones I’ m friends, friends with	[13] choosing friends: “super popular pretty girls”
[22] I’ m friends with those people	[22] choosing friends: “geeks”
[25] I’ m friends with the ones who can carry on a conversation	[25] choosing friends: jocks “who can carry on a conversation”
[26] I’ m friends with someone because of who they are,	[26] criteria for friendship: “who they are”

[27] not because of what group they, they hang out in basically. ’Cause I think [28] that’s really stupid to be, like,	[27] criteria for friendship: not group membership [28] ethics of friendship
[29] “What would people think if they saw me walking with this person?” or something. [I: So you wouldn’t define yourself with any specific group?] [30] No. I would rather hang out with someone who’s [32] good hearted but a little slow, compared to someone [33] very smart but very evil	[29] not concerned with what others think [30] maintaining individuality [32] criteria for friendship: “good hearted but slow” [33] criteria for friendship: not those “very smart but very evil”

Analysis

The codes *qua* (in the role of) categories are now listed for a review:

DEFINING ONESELF AS A FRIEND

MAINTAINING FRIENDSHIPS

LABELING THE GROUPS

QUALIFYING THE GROUPS

DISPELLING STEREOTYPES OF THE GROUPS

SETTING CRITERIA FOR FRIENDSHIPS

Rubin and Rubin (2012) recommend that simple organizational or hierarchical outlining of the categories and subcategories gives you a handle on them. Using the major categories from above, the outline might read:

I. I DEFINING ONESELF AS A FRIEND
   A. Maintaining Friendships
      1. Setting Criteria for Friendships
   B. Dispelling Stereotypes of the Groups
      1. Labeling the Groups
      2. Qualifying the Groups

The same categories and subcategories can also be plotted as a tree diagram for a visual "at-a-glance" representation of the phenomenon or process (see Figure 13.2).

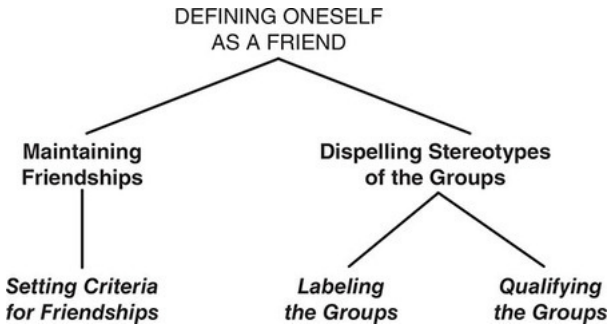


Figure 13.2 A tree diagram from categories and subcategories

An analytic memo reveals the researcher's thinking process about the codes and categories developed thus far. Notice that *memo writing also serves as a code-, category-, theme-, and concept-generating method*. The deliberate linking or weaving of codes and categories within the narrative is a heuristic to integrate them semantically and systematically (see Chapter 3). Dey (2007) reminds us of the integrated nature of the theory-building process by advising that we "do not categorize and then connect; we connect by categorizing" (p. 178).

CODING: FOCUSING THE CATEGORIES

After reviewing the categories, I feel that QUALIFYING THE GROUPS can be subsumed under DISPELLING THE STEREOTYPES OF THE GROUPS. Tiffany provides exceptions to the stereotypes through her use of qualifiers. DEFINING ONESELF AS A FRIEND seems to have some connection with how adolescents go about MAINTAINING FRIENDSHIPS. Perhaps DEFINING ONESELF AS A FRIEND might be more accurately recoded as PERCEIVING ONESELF AS A FRIEND. According to Tiffany, others perceive her as "popular," so that's how she may perceive herself, which in turn influences and affects how she goes about MAINTAINING FRIENDSHIPS both in the past and present.

Students in high school culture adopt the social group labels and stereotypes passed on to them from oral tradition, influences of media, and personal observation. Tiffany seems very aware of the social group names and how the group becomes stereotyped with particular attributes. But she negates the stereotyped images by finding exceptions to them. And it is those in the exceptions category who become her friends. She seems to be ACCEPTING THROUGH EXCEPTING. She acknowledges that some of her friends belong to the social groups with subcultural labels and that they carry stereotypical baggage with them. Labels are for baggage, not for friends.

The earlier Initial Coding memo on DISCRIMINATING as a process seems to still hold during this cycle of coding. Once I get more data from other students, I can see if this category does indeed hold.

Focused Coding enables you to compare newly constructed codes during this cycle across other participants' data to assess comparability and transferability. The researcher can ask other high school participants how they construct friendships, then compare their coded data to Tiffany's to develop categories that represent participants' experiences. Also note that categories are constructed from the reorganization and recategorization of participant data: "Data should not be forced or selected to fit pre-conceived or pre-existent categories or discarded in favor of keeping an extant theory intact" (Glaser, 1978, p. 4).

CAQDAS programs lend themselves very well to Focused Coding since they simultaneously enable coding, category construction, and analytic memo writing.

Some recommended ways to further analyze Focused Codes are (see Appendix B):

- Axial Coding and Theoretical Coding
- grounded theory (Bryant, 2017; Bryant & Charmaz, 2007, 2019; Charmaz, 2014; Corbin & Strauss, 2015; Stern & Porr, 2011)
- interactive qualitative analysis (Northcutt & McCoy, 2004)
- memo writing about the codes/themes (Charmaz, 2014; Corbin & Strauss, 2015; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)
- situational analysis (Clarke et al., 2015b, 2018)
- social media analysis (Kozinets, 2020; Paulus & Wise, 2019; Rogers, 2019; Salmons, 2016)
- splitting, splicing, and linking data (Dey, 1993)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998; Smith & Osborn, 2015).

Notes

See Themeing the Data: Categorically and Phenomenologically, and Pattern Coding as methods related to Focused Coding.

AXIAL CODING

Sources

Boeije, 2010; Charmaz, 2014; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987; Strauss & Corbin, 1998

Description

Axial Coding extends the analytic work from Initial Coding and, to some extent, Focused Coding. The goal is to strategically reassemble data that were "split" or "fractured" during the Initial Coding process (Strauss & Corbin, 1998, p. 124). Boeije (2010) succinctly explains that Axial Coding's purpose is "to determine which [codes] in the research are the dominant ones and which are the less important ones … [and to] reorganize the data set: synonyms are crossed out, redundant codes are removed and the best representative codes are selected" (p. 109). Sigauke and Swansi (2020) cleverly label Axial Coding a form of "*re*focused coding" (p. 18).

The "axis" of Axial Coding is a *category* (like the axis of a wooden wheel with extended spokes) discerned from first cycle coding. This method "aims to link categories with subcategories and asks how they are related," and specifies the properties and dimensions of a category (Charmaz, 2014, p. 148). Properties (i.e., characteristics or attributes) and dimensions (the location of a property along a continuum or range) of a category refer to such components as the contexts, conditions, interactions, and consequences of a process—actions that let the researcher know "if, when, how, and why" something happens (p. 62).

Applications

Axial Coding is appropriate for studies employing grounded theory methodology, and studies with a wide variety of data forms (e.g., interview transcripts, field notes, journals, documents, diaries, correspondence, artifacts, video). Codes developed from Process Coding or Concept Coding (see Chapter 6) might also serve as second cycle Axial Codes.

Grouping similarly coded data reduces the number of In Vivo, Process, and/or Initial Codes you developed while sorting and relabeling them into conceptual categories. During this cycle, "the code is sharpened to achieve its best fit" (Glaser, 1978, p. 62), and there can be more than one Axial Code developed during this process—termed "multiaxial." Axial Coding is the transitional cycle between the First Cycle and Theoretical Coding processes of grounded theory, though the method has become somewhat contested and downplayed in later writings (see the Notes at the end of this profile).

Example

The categories from the Focused Coding example in this chapter will be used here; refer to that first before proceeding. Keep in mind that only one participant's data are analyzed as an example, along with the experiential data (i.e., personal knowledge and experiences) of the researcher. The analytic memo is an uncensored and permissibly messy opportunity to let thoughts flow and ideas emerge. Also notice that *memo writing serves as a code-, category-, theme-, and concept-generating method*. The deliberate linking or weaving of codes and categories within the narrative is a heuristic to integrate them semantically and systematically (see Chapter 3).

There are two Axial Codes explored below: socializing and accepting through excepting. These two new codes were created by pooling the six major categories developed during Focused Coding:

1. DEFINING ONESELF AS A FRIEND
2. MAINTAINING FRIENDSHIPS
3. LABELING THE GROUPS
4. QUALIFYING THE GROUPS
5. DISPELLING STEREOTYPES OF THE GROUPS
6. SETTING CRITERIA FOR FRIENDSHIPS

Figure 13.3 illustrates how socializing and accepting through excepting became the two Axial Codes around which the other six revolve.

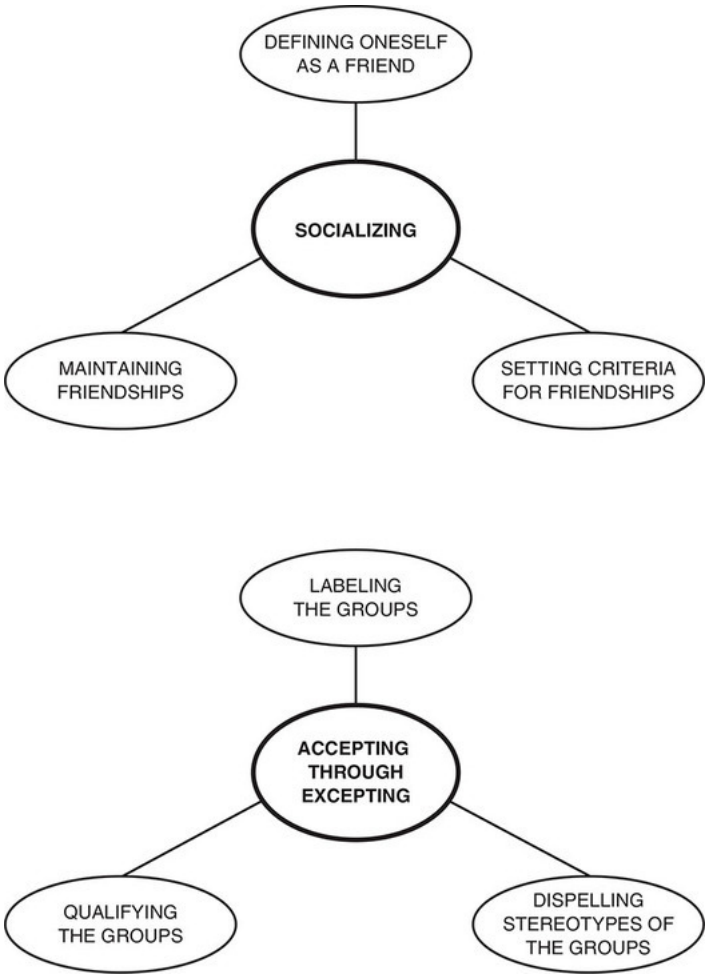


Figure 13.3 Two Axial Codes and their related categories

Analysis

Analytic memo writing is a critical component of Axial Coding. The focus, however, is placed on the codes themselves, along with the categories' properties and dimensions. Glaser (2014) advises that memos about properties should:

- define the code's or category's *boundaries*;
- propose the *empirical criteria* on which the code or category rests;
- explicate the *conditions* under which properties emerge or become evident;
- describe their *connections* to other codes; and
- assert the properties' *significance* in the overall analysis. (p. 126)

An extended analytic memo reads:

---

3 July 2014

AXIAL CODE: BEING SOCIALLY ACCEPTABLE/EXCEPTABLE

The high school as social system is, to both adults and adolescents, a place to *socialize*. SOCIALIZING by adults happens when they indoctrinate young people to the cultural knowledge and ethos of the country, while SOCIALIZING by adolescents is an opportunity to establish and maintain possibly lifelong friendships. I remember reading an article that said adolescents who participate in extracurricular athletics and arts activities like first and foremost the opportunities these activities provide to socialize with friends—check out the specific reference and log it in a memo later. (I could have used an Axial Code labeled FRIENDING instead of SOCIALIZING, but that's traditionally associated with online Facebook interaction, and the participant's referring to her in-school and live experiences.)

ACCEPTING THROUGH EXCEPTING was one of the Focused Codes that could possibly transform into a category during this cycle of memo writing and analysis. ACCEPTING is a bit broader as a code and category, but I feel ACCEPTING THROUGH EXCEPTING has a conceptual "ring" to it.

BEING SOCIALLY ACCEPTABLE is not just adhering to expected norms of behavior. To adolescents, BEING SOCIALLY ACCEPTABLE/EXCEPTABLE are the action/interaction patterns of friendships—who's in and who's out.

The *properties* (characteristics or attributes) of BEING SOCIALLY ACCEPTABLE:

- Adolescents accept peers with whom they find *perceived similarities*.
- Adolescents accept those with whom they feel *compatible*.
- Adolescents accept those with whom they feel *safe*, or at least *secure*.
- Adolescents accept those with whom they have *shared interests*.

- Adolescents accept those who are *doing something they want to get into* (e.g., drugs, sports).
- Adolescents accept those with whom they have *fun*.

If you're none of the above, you're most likely SOCIALLY EXCEPTABLE.

The *dimensions* (the location of a property along a continuum or range; the conditions, causes, and consequences of a process that tell if, when, how, and why something happens) of BEING SOCIALLY ACCEPTABLE/EXCEPTABLE:

- Popularity: You can be perceived as popular by some people, and disliked by others (e.g., some people admire Charlie Sheen while others feel he is "socially unacceptable").
- Popularity: Teens perceived as popular can come from several subcultures/cliques, not just the "popular pretty girls" and "jocks" (e.g., a popular goth, even a popular geek).
- Popularity: Some gravitate toward the popular because it builds their own self-esteem; others gravitate toward the popular because they're trendy; others gravitate toward the popular because "there's just something about them"—charisma?
- Acceptability: We can accept some people but not be their friends—we except them.
- Exceptability: Even the "outcasts" seem to find a group somewhere.
- Acceptable while exceptable: Some groups will let "that one kid" hang out with them even though he may not be particularly well liked.
- Stereotypes: We can acknowledge the stereotypes, but can find exceptions to the rule. "They're usually like this. But ...."

My psychologist buddy shared with me that the human need to BELONG is to be part of something (like clubs, organizations). But to be ACCEPTED means to be validated, that I'm OK, that I'm a person, I have worth. *If somebody belongs to something they are being accepted. If you're excepted, you don't belong. But even the excepted can find acceptance somewhere.* I know that I'm ACCEPTED by some and EXCEPTED by others for such SOCIAL CATEGORIES as my ethnicity, sexual orientation, age, size, etc. But it's being with your own kind, like with like, that makes me feel comfortable, compatible. However, I can physically BELONG to a group without feeling fully ACCEPTED by them—I feel EXCEPTED by them.

Glaser and Strauss (1967) advise that "categories should not be so abstract as to lose their sensitizing aspect, but yet must be abstract enough to make [the emerging] theory a general guide to multi-conditional, ever-changing daily situations" (p. 242). Northcutt and McCoy (2004), in their signature qualitative analytic system, observe that a participant will sometimes unknowingly do the analytic work for the researcher when participant quotes in interview transcripts that lend themselves as Axial Codes are found: "Respondents will often describe how one [category] relates to another in the process of discussing the nature of one [category]" (p. 242).

Also note that analytic memos during Axial Coding explicate or "think through" four additive elements of process or causation suggested by the data—elements necessary for traditional grounded theory explication (Boeije, 2010, pp. 112–13):

- the *contexts*—settings and boundaries in which the action or process occurs ("The high school as social system is, to both adults and adolescents, a place to *socialize*"); plus
- the *conditions*—routines and situations that happen (or do not) within the contexts ("SOCIALIZING by adolescents is an opportunity to establish and maintain possibly lifelong friendships"); plus
- the *interactions*—the specific types, qualities, and strategies of exchanges between people in these contexts and conditions ("adolescents who participate in extracurricular athletics and arts activities like first and foremost the opportunities these activities provide to socialize with friends"); equals
- the *consequences*—the outcomes or results of the contexts, conditions, and interactions ("*If somebody belongs to something they are being accepted. If you're excepted, you don't belong*").

Creswell (2015) differentiates between *conditions* that are *causal* and *intervening*, the former influencing the yet-to-be-determined central/core category (see Theoretical Coding), and the latter influencing the interactions or strategies taken by participants to affect the consequences.

One of the ultimate goals during Axial Coding (along with continued qualitative data gathering and analysis) is to achieve *saturation*—"when no new information seems to emerge during coding, that is, when no new properties, dimensions, conditions, actions/interactions, or consequences are seen in the data" (Strauss & Corbin, 1998, p. 136).

Diagrams of the phenomena at work are also encouraged during the Axial Coding process (see Figure 13.4). These displays can be as simple as tables, charts, or matrices, or as complex as flow diagrams. Illustrative techniques bring codes and analytic memos to life and help the researcher see where the story of the data is going. One of Strauss's students shared that her "diagramming process would begin with a phrase of single code, perhaps even a hunch about what was important in the analysis at that point in time [with] arrows and boxes showing connections of temporal progression" (Strauss, 1987, p. 179). Clarke et al.'s (2018) situational, social worlds/arenas, and positional maps are highly advised as heuristics to explore the complexity of relationships among the major elements of the study.

ACCEPTABLE	EXCEPTABLE
Acknowledging Exceptions to the Stereotypes	Accepting the Stereotypes
Those with Common Interests	Those with Uncommon Interests
"Popular" and Liked by Some	"Popular" and Liked by Others
Belonging and Accepted	Belonging but Not Accepted	Not Belonging or Accepted
Accepted and Belonging	Accepted but Not Belonging	Not Accepted or Belonging

Figure 13.4 A simple properties and dimensions table derived from Axial Coding

To appreciate the breadth and depth of Strauss (1987) and Strauss and Corbin's (1998) discussion of Axial Coding, readers are referred to *Qualitative Analysis for Social*

Scientists and the 1998 second edition of *Basics of Qualitative Research* for a full explanation on such matters as action/interaction; structure and process; and causal, intervening, and contextual conditions (also discussed for longitudinal qualitative research studies in Saldaña, 2003).

Some recommended ways to further analyze Axial Codes are (see Appendix B):

- Theoretical Coding
- grounded theory (Bryant, 2017; Bryant & Charmaz, 2007, 2019; Charmaz, 2014; Corbin & Strauss, 2015; Stern & Porr, 2011)
- interrelationship (Saldaña, 2003)
- longitudinal qualitative research (Giele & Elder, 1998; McLeod & Thomson, 2009; Saldaña, 2003, 2008)
- memo writing about the codes/themes (Charmaz, 2014; Corbin & Strauss, 2015; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)
- meta-ethnography, metasummary, and metasynthesis (Finfgeld, 2003; Major & Savin-Baden, 2010; Noblit & Hare, 1988; Sandelowski & Barroso, 2007; Sandelowski et al., 1997)
- situational analysis (Clarke et al., 2015a, 2018)
- social media analysis (Kozinets, 2020; Paulus & Wise, 2019; Rogers, 2019; Salmons, 2016)
- splitting, splicing, and linking data (Dey, 1993)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998; Smith & Osborn, 2015).

Notes

Charmaz (2014) and Dey (1999) take issue with Axial Coding. Charmaz perceives it as a cumbersome step that may stifle analytic progress achieved from previous Initial Coding toward Theoretical Coding. Dey feels the logics of categorization and process were not fully developed by grounded theory's originators. Even as grounded theory evolved, the methodological utility of Axial Coding became a controversial issue between Glaser, Strauss, and Corbin (Kendall, 1999). Corbin herself downplays the method in her later editions of grounded theory's procedures, yet acknowledges that her late co-author employed the method to link two or more concepts together (Corbin & Strauss, 2015). All sources are worth examining as supplemental references before and during Axial Coding.

THEORETICAL CODING

Sources

Charmaz, 2014; Corbin & Strauss, 2015; Glaser, 1978, 2005; Stern & Porr, 2011; Strauss, 1987; Strauss & Corbin, 1998

Description

Some publications in grounded theory refer to Theoretical Coding as "selective coding" or "conceptual coding." Theoretical Coding will be used in this manual since it more appropriately labels the outcome of this analytic cycle.

A Theoretical Code functions like an umbrella that covers and accounts for all other codes and categories formulated thus far in grounded theory analysis. Integration begins with finding the primary theme of the research—what is called in grounded theory the *central* or *core category*—which "consists of all the products of analysis condensed into a few words that seem to explain what 'this research is all about'" (Strauss & Corbin, 1998, p. 146) through "what the researcher identifies as the major theme of the study" (Corbin & Strauss, 2015, p. 8). Stern and Porr (2011) add that the central/core category identifies the major conflict, obstacle, problem, issue, or concern to participants.

In Theoretical Coding, all categories and concepts now become systematically integrated around the central/core category, the one that suggests a theoretical explanation for the phenomenon (Corbin & Strauss, 2015, p. 13). The theoretical code—as a few examples: survival, positioning, adapting, personal preservation while dying, and so on—is not the theory itself, but an abstraction that models the integration (Glaser, 2005, p. 17). It is a key word or key phrase that triggers a discussion of the theory itself.

More about theory will be discussed in Chapter 15, but, for now, a theory (as it is traditionally conceived in social science research) is a generalizable statement with five main characteristics. A theory, such as *"friends are defined by shared psychological intimacies"* (Riley & Wiggins, 2019, p. 255, emphasis added),

1. expresses a patterned relationship between two or more concepts ("friends" and "psychological intimacies");
2. predicts and controls action through if-then logic ("are defined by");
3. accounts for parameters of and variation in the empirical observations (not explicitly stated in the theory but inferred: friends are the focus of the theory, as opposed to strangers, casual acquaintances, or enemies);
4. explains how and/or why something happens by stating its cause(s) ("shared psychological intimacies"); and
5. provides insights and guidance for improving social life (not explicitly stated in the theory but inferred: to cultivate a friendship, become psychologically intimate with another person).

If Kathy Charmaz calls codes the "bones" that form the "skeleton" of our analysis, then think of the central or core category as the *spine* of that skeleton, the "backbone" which supports the corpus and aligns it. Strauss (1987) expands the metaphor by noting that continuous and detailed coding cycles eventually put "analytic meat on the analytic bones" (p. 245). Glaser (2005) asserts that development of a Theoretical Code is not always necessary for every grounded theory study, and it is better to have none at all rather than a false or misapplied one.

Applications

Theoretical Coding is appropriate as the culminating step toward achieving grounded theory (but see the notes at the end of this profile for theory-building caveats). Sigauke and Swansi (2020) label this method the "third cycle" of coding.

Theoretical Coding integrates and synthesizes the categories derived from coding and analysis to now create a theory. At this cycle, categories developed thus far from In Vivo, Process, Initial, Focused, and Axial Coding "have relevance for, and [can] be applicable to, all cases in the study. It is the details included under each category and subcategory, through the specifications of properties and dimensions, that bring out the case differences and variations within a category" (Glaser, 1978, p. 145). A Theoretical Code specifies the possible relationships between categories and moves the analytic story in a theoretical direction (Charmaz, 2014, p. 150). In dramaturgical parlance, the central/core category identifies the major conflict that initiates trajectories of action (i.e., a process) by its character/participants to (hopefully) resolve the conflict (Stern & Porr, 2011).

Original theory development, however, is not always necessary in a qualitative study. Hennink et al. (2020) note that research that applies pre-existing theories in different contexts or social circumstances, or that elaborates or modifies earlier theories, can be just as substantive. But most important during this cycle of theory building is to address the "how" and "why" questions to explain the phenomena in terms of how they work, how they develop, how they compare to others, or why they happen under certain conditions.

Example

The example content from the Initial, Focused, and Axial Coding profiles will be applied here; refer to those first before proceeding. A well-developed analytic memo about theory can extend for pages, but only an excerpt is provided below. Notice that *memo writing serves as a code-, category-, theme-, and concept-generating method; and it is from carefully sorted memos themselves that the theoretical code is derived and the theory articulated* (Glaser, 2005, p. 8). By this cycle of Theoretical Coding, the primary shift in narrative is toward the confirmed central/core category and its related categories.

As a reminder, the major categories outline derived from the Focused Coding example included:

I. DEFINING ONESELF AS A FRIEND
    A. Maintaining Friendships
        1. Setting Criteria for Friendships
    B. Dispelling Stereotypes of the Groups
        1. Labeling the Groups
        2. Qualifying the Groups

And some of the major Axial Codes illustrated in the analytic profile included:

1. SOCIALIZING
2. BEING SOCIALLY ACCEPTABLE/EXCEPTABLE
3. ACCEPTING THROUGH EXCEPTING
4. EXCEPTING THROUGH ACCEPTING

Analysis

The researcher now reflects on all of these major codes and categories to determine the central/core process, theme, or problem. The central/core idea may lie in the name of one of the codes or categories developed thus far, but it may also be developed as a completely new word or phrase that subsumes all of the above (see Pattern Coding in Chapter 14). Previously written analytic memos become key pieces to review for possible guidance and synthesizing ideas. Graphics-in-progress that illustrate the central/core category and its related processes are also most helpful. Figure 13.5 shows the model for this particular case.

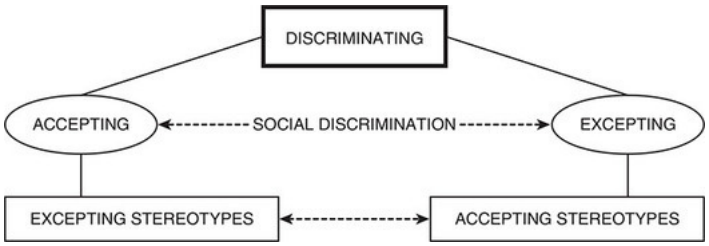


Figure 13.5 A diagram for a central/core category and its major processes

In the analytic memo below, the categories and subcategories are capitalized to emphasize their woven integration into the narrative:

---

5 June 2007

CENTRAL/CORE CATEGORY: DISCRIMINATING

The central/core category of this study is: DISCRIMINATING.

Adolescents DISCRIMINATE when they choose their friends. They DISCRIMINATE through a process of ACCEPTING AND EXCEPTING. Adolescents SOCIALLY DISCRIMINATE as an action, and *are* SOCIALLY DISCRIMINATE in their choice of friendships.

We have generally constructed the term DISCRIMINATION as an abhorrent quality in ourselves and in others. The term in negative contexts suggests racism, sexism, and other "-isms" based on learned yet STEREOTYPING attitudes, values, and beliefs about others. But to DISCRIMINATE also means to distinguish by examining differences, to carefully select based on quality.

When adolescents DISCRIMINATE (as a verb) they carefully select their friendships from a spectrum of peers BELONGING to various SOCIAL GROUP IDENTITIES. They are also DISCRIMINATE (as an adjective) when they observe the distinguishing SOCIAL SIMILARITIES AND DIFFERENCES between themselves and others.

ACCEPTING AND EXCEPTING suggests a continuum, ranging from full admission of an individual into one's personal confidence or SOCIAL GROUP; through neutrality or indifference about the individual; to overt exclusion, rejection, or avoidance of the individual. Adolescents ACCEPT others when the conditions for FRIENDSHIP are positive, including such properties as *compatibility* and *shared interests*. Adolescents EXCEPT others when the conditions for FRIENDSHIP lie on the opposite side of the spectrum.

> But regardless of where a teenager's choices about peers lie on the continuum, he or she is actively DISCRIMINATING. We DISCRIMINATE when we ACCEPT and we DISCRIMINATE when we EXCEPT. We DISCRIMINATE when we EXCEPT the STEREOTYPES of selected adolescent SOCIAL GROUPS (e.g., dumb jocks, killer geeks) and ACCEPT them as FRIENDS. But we can also ACCEPT the STEREOTYPES of these same SOCIAL GROUPS and EXCEPT them as candidates for FRIENDSHIP.
>
> So, after all this, what's my theory? At this time I'll put forth the following: *An adolescent's inclusion and exclusion criteria for friendships are determined by the young person's ability to discriminate both positively and negatively among socially constructed peer stereotypes.*

In some published grounded theory research, authors neglect to explicitly state, "The central/core category of this study is …" and "The grounded theory proposed is …." Make certain that your analytic memos and final report include these phrases; overtly name the category and state the theory in one italicized sentence with an accompanying narrative. If you cannot, then you most likely have not constructed a grounded theory. (More on theory development is discussed in Chapter 15.)

The central or core category may appear frequently in the data coded and recoded thus far, and is phrased as an abstract concept that permits it to "explain variation as well as the main point made by the data" (Strauss & Corbin, 1998, p. 147). By this cycle, "If all data cannot be coded, the emerging theory does not fully fit or work for the data and must be modified" (Glaser, 1978, p. 56). Analytic memos and the final written report should explain and justify—with references to the data themselves—how categories and subcategories relate to the central/core category. The narrative also describes its related components (e.g., contexts, conditions, interactions, and consequences) for the reader.

Additional or selective sampling of new or existing participant data is encouraged to identify any parameters and variations within the developing theory. Morse (2007) recommends that researchers ask participants themselves to title their own stories after an interview to capture analytic leads toward a "supercode" or "core variable" (p. 237). Diagram refinement of the categories, process, and theory (begun during Axial Coding) is encouraged during this cycle to develop an operational model of the phenomenon or process and to map the complexity of the story, though Glaser (2005) discourages graphic representation and feels a Theoretical Code should be constructed from analytic memos and explained solely through narrative.

Though centrality and frequency are two important criteria for a Theoretical Code (Holton & Walsh, 2017, pp. 88–9), I caution that numeric frequency of a code or category from data analysis and memos is not necessarily a reliable and valid indicator of a central/core category. In one of my ethnographic studies (Saldaña, 1997), the In Vivo Code "survival" appeared only four times in 20 months' worth of field notes and interview transcripts. Yet the code held summative power for all major and minor categories in the corpus and became the through-line for the study. So be conscious of a code's *qualities* as well as its quantity. In some cases, less is more (Saldaña, 2003, p. 115), for the criteria of a theory are its "elegance, precision, coherence, and clarity" (Dey, 2007, p. 186).

In Glaser's (1978, 2005) early and later work, he lists "coding families" to guide researchers labeling data at the conceptual level. These families were intended to sensitize the analyst to the many ways a category could be examined, and included such things to consider as: *unit* (e.g., family, role, organization), *degree* (e.g., amount, possibility, intensity), *strategy* (e.g., techniques, tactics, means), and *cutting point* (e.g., boundary, benchmark, deviance). The "bread and butter" coding families for sociologists are what he labels "The Six C's: Causes, Contexts, Contingencies, Consequences, Covariances and Conditions" (1978, p. 74). In his later work (2005), Glaser provides additional examples of

Theoretical Code families such as *symmetry – asymmetry*, *micro – macro*, *social constraints*, *levels*, and *cycling*.

Glaser also noted in his early work that one type of core category could be a sociological "basic social process" (BSP), which includes such examples as *becoming*, *career*, and *negotiating*. BSPs "are theoretical reflections and summarizations of the patterned, systematic uniformity flows of social life" (1978, p. 100). BSPs are processual, meaning that they occur over time and involve change over time, most often demarcated in stages. If emergent as a central/core category, BSPs should also exhibit properties and dimensions with a particular emphasis on the temporal aspects of action/interaction. Conversely, Strauss and Corbin (1998) caution that "one can usefully code for *a* basic social or psychological process, but to organize every study around the idea of steps, phases, or social-psychological processes limits creativity" (p. 294).

Some recommended ways to further analyze Theoretical Codes are (see Appendix B):

- assertion development (Erickson, 1986)
- grounded theory (Bryant, 2017; Bryant & Charmaz, 2007, 2019; Charmaz, 2014; Corbin & Strauss, 2015; Stern & Porr, 2011)
- illustrative charts, matrices, diagrams (Evergreen, 2020; Miles et al., 2020; Morgan et al., 2008; Northcutt & McCoy, 2004; Paulston, 2000; Wheeldon & Åhlberg, 2012)
- longitudinal qualitative research (Giele & Elder, 1998; McLeod & Thomson, 2009; Saldaña, 2003, 2008)
- memo writing about the codes/themes (Charmaz, 2014; Corbin & Strauss, 2015; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)
- situational analysis (Clarke et al., 2015a, 2018)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998; Smith & Osborn, 2015).

Notes

To appreciate the breadth and depth of Strauss (1987) and Corbin and Strauss' s (2015) discussion of central/core categories, memos, and process, readers are referred to *Qualitative Analysis for Social Scientists* and *Basics of Qualitative Research* for a full explanation and thorough examples of memo development and grounded theory explained in narrative (storyline) format, respectively. Glaser' s (2005) monograph on Theoretical Coding presents a more in-depth discussion of the subject from his perspective, while Stern and Porr (2011) and Holton and Walsh (2017) provide an elegant overview of "classic" grounded theory development with an excellent description of Theoretical Coding.

Analysts should also examine Clarke et al.' s *Situational Analysis* (2018), which does not approach data analysis as a reductive act, but as one that intentionally maps the complexity of it:

> We propose complicating our stories, representing not only difference(s) but also contradictions and incoherencies, noting other possible interpretations and some of our own anxieties. … We need to make the downright messiness of the empirical world part of our representational practices—not scrub it clean, make it hygienic … and dress it up for the special occasion of a presentation or a publication. (p. 38)

Researchers should also note postmodern and post-structural perspectives on theory building. Though Clarke et al. (2018) are advocates of grounded theory' s initial analytic methods and constructions, ultimately they feel that "It makes no sense to write a grand theory of something that is always changing" (p. 54). Methodologists such as Alvesson and Kärreman (2011) and Jackson and Mazzei (2012) also challenge the codification, categorization, themeing, and patterning of data, preferring more "problematizing" approaches to analysis.

Finally, examine Ian Dey' s (1999) *Grounding Grounded Theory*, which critiques the method and takes issue with finding a central/core category: "[T]he problem arises that data suggesting alternatives may be ignored. By focusing on a single core variable, the research agenda may become one-dimensional rather than multi-dimensional" (p. 43).

14 SECOND CYCLE CUMULATIVE CODING METHODS

Chapter Summary

Second cycle cumulative coding methods attempt to synthesize the analytic work from first cycle coding methods. These three approaches do not just build on previous codes but integrate them into richer, condensed forms of meaning.

Pattern Coding develops a "meta code"—the category/conceptual label that identifies similarly coded data. Pattern Codes not only organize the corpus but attempt to attribute meaning to that organization.

Elaborative Coding builds on a previous study's codes, categories, and themes while a current and related study is underway. This method employs additional qualitative data to support or modify the researcher's observations developed in an earlier project.

Longitudinal Coding is the attribution of selected change processes to qualitative data collected and compared across time. Matrices organize fieldwork observations, interview transcripts, and document excerpts into similar temporal categories that permit researcher analysis and reflection on their similarities and differences from one time period through another.

Like first cycle methods, some second cycle methods can be compatibly mixed and matched. Depending on the study, for example, Pattern Coding could be used as the sole second cycle method, or serve in conjunction with Elaborative or Longitudinal Coding.

PATTERN CODING

Source

Miles et al., 2020

Description

First cycle coding is a way to initially summarize segments of data. Pattern Coding, as a second cycle method, is a way of grouping those summaries into a smaller number of condensed categories, themes, or concepts. For qualitative researchers, it is analogous to the cluster analytic and factor analytic devices used in statistical analysis by our quantitative colleagues.

Pattern Codes are explanatory or inferential codes, ones that identify a theme, configuration, or explanation. They pull together a lot of material from first cycle coding into more meaningful and parsimonious units of analysis. They are a sort of “meta code.”

Applications

Pattern Coding does not belong to any one particular qualitative research methodology. According to Miles et al. (2020, pp. 79–86), Pattern Coding is appropriate for:

- condensing large amounts of data into a smaller number of analytic units (categories, themes, concepts)
- searching for causes and explanations in the data
- examining social networks and patterns of human relationships
- forming theoretical constructs and processes (e.g., “negotiating,” “bargaining”)
- laying the groundwork for cross-case analysis by generating common themes and directional processes.

Pattern Coding differs from grounded theory’s Focused Coding in that the latter generates primarily categories. Pattern Coding constructs categories as well, but also extends beyond classification toward higher-level themes, concepts, and other analytic abstractions such as theoretical constructs (see Chapter 11). Think of a Focused Code as an individual paper file folder (with each separate sheet of paper in the file representing a first cycle code), while a Pattern Code is the summative label attached to the front of a drawer full of related folders (i.e., categories) in a filing cabinet.

Example

Five staff members of a small office were interviewed separately about their administrative leadership. Each one remarked how internal communications from their director were occasionally haphazard, incomplete, or non-existent. Each passage below was initially Descriptive Coded or In Vivo Coded. Note that one sentence is bolded because, during coding, it struck the researcher as a strong statement.

Code example 14.1

SECRETARY: [1] I often have to go back to her and get more information about what she wants done because her first set of instructions weren't clear.	[1] unclear instructions
RECEPTIONIST: [2] It's kind of hard working for her, because she rushes in, tells you what needs to be done, then goes into her office. [3] After she's gone you start doing the job, and then you find out there's all these other things she didn't think of to tell you.	[2] rushed directions [3] incomplete directions
ADMINISTRATIVE ASSISTANT: [4] Sometimes I think she expects you to read her mind and know what she wants, or that she expects you to know everything that's going on without her having to tell you. [5] **I can't do my job effectively if she doesn't communicate with me.**	[4] expectations of info [5] "she doesn't communicate"
BUSINESS MANAGER: [6] I hate it when she tells me in the hallway or in a conversation what to do. I need it written in an e-mail so there's documentation of the transaction for the operations manager and the auditor.	[6] written directions needed
FACILITIES MANAGER: [7] Sometimes she doesn't always tell me what she needs, and then she gets upset later when it hasn't been done. Well, that's because you never told me to do it in the first place.	[7] "you never told me"

Similar codes were assembled together (see Figure 14.1) to analyze their commonality and to create a Pattern Code.

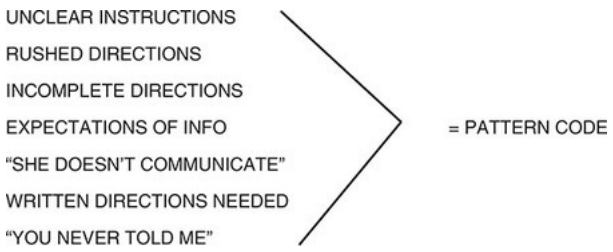


Figure 14.1 Codes assembled to determine their Pattern Code

Several ideas were then brainstormed for the Pattern Code, among them:

- “SHE DOESN’T COMMUNICATE” (an In Vivo Code from the Initial Coding cycle that seemed to hold summative power for the remaining codes)
- MISS-COMMUNICATION (a title reference to the female administrator—a flip yet sexist code).

But after researcher reflection, the final Pattern Code created and selected for the above data was:

- DYSFUNCTIONAL DIRECTION (a Pattern Code that suggests action with consequences).

Analysis

These interview excerpts contain consequential words and phrases such as "if," "and then," and "because," which alert the researcher to infer what Miles et al. (2020) state are causes and explanations in the data. Finally, the bolded sentence, **"I can't do my job effectively if she doesn't communicate with me,"** seems to holistically capture the spirit of the dysfunction theme at work.

The Pattern Code, in concert with the "if-then" actions and bolded statement, led the researcher to construct the assertion: *Poor communication from administrative leadership results in staff members who feel not just frustrated but personally unsuccessful at their jobs.* The explanatory narrative continues with evidence to support the claim, then describes the dysfunctional workplace dynamics for the reader.

For second cycle Pattern Coding, collect similarly coded passages from the data corpus. Pattern codes can be constructed from repeatedly observed routines, rituals, rules, roles, and relationships; local meanings and explanations; commonsense explanations and more conceptual ones; inferential clusters and "metaphorical" ones; and single-case and cross-case observations. CAQDAS searches, queries, and retrievals will assist greatly with this process. Review the first cycle codes to assess their commonality and assign them various Pattern Codes. Use the Pattern Code as a stimulus to develop a statement that describes a major theme, a pattern of action, a network of interrelationships, or a theoretical construct from the data. Daiute (2014) labels this the search for common "scripts" in data from multiple participants, "shared ways of knowing, interpreting, acting in the world … implicit shared orientations that organize people's perceptions and actions" (p. 142) that form a master narrative or dominant discourse.

Gibson and Brown (2009, p. 143) recommend an analytic process related to and useful for Pattern Coding called "super coding" (also found in some CAQDAS programs), which finds relationships between codes and saves the query for future reflection and continued analysis. Super coding searches for these relationships among coded data using Boolean search terms (*and*, *or*, *not*, *and/or*), or semantic or proximity operators (Friese, 2014, p. 34). Thus, if you wanted to pool the data units from the corpus coded incomplete directions *and* unclear instructions *and* rushed directions, you would enter these three codes for a CAQDAS Boolean search, then examine what possible relationship might exist between the three sets of coded data to develop a new super code. In this case, directions and instructions would be considered synonymous, but the goal is to determine what incomplete, unclear, and rushed have in common. Perhaps the super code that represents all three and emerges after analytic reflection would be labeled ineffective instructions or vague guidance.

"Many codes—especially pattern codes—are captured in the form of metaphors ('dwindling efforts' and 'interactive glue'), where they can synthesize large blocks of data in a single trope" (Miles et al., 2020, p. 326). Several Pattern Codes can arise from second cycle analysis of qualitative data. Each one may hold merit as a major theme to analyze and develop, but Pattern Codes are hunches; some pan out, others do not.

Some recommended ways to further analyze Pattern Codes are (see Appendix B):

- action and practitioner research (Altrichter et al., 1993; Coghlan & Brannick, 2014; Fox et al., 2007; Stringer, 2014)
- assertion development (Erickson, 1986)

- content analysis (Krippendorff, 2013; Neuendorf, 2017; Schreier, 2012; Wilkinson & Birmingham, 2003)
- decision modeling (Bernard, 2018)
- grounded theory (Bryant, 2017; Bryant & Charmaz, 2007, 2019; Charmaz, 2014; Corbin & Strauss, 2015; Stern & Porr, 2011)
- interactive qualitative analysis (Northcutt & McCoy, 2004)
- logic models (Knowlton & Phillips, 2013)
- mixed methods research (Creamer, 2018; Creswell, 2014; Creswell & Plano Clark, 2018; Tashakkori & Teddlie, 2010)
- qualitative evaluation research (Patton, 2008, 2015)
- situational analysis (Clarke et al., 2015a, 2018)
- social media analysis (Kozinets, 2020; Paulus & Wise, 2019; Rogers, 2019; Salmons, 2016)
- splitting, splicing, and linking data (Dey, 1993)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998; Smith & Osborn, 2015).

Notes

See Focused, Axial, and Theoretical Coding (Chapter 13) for analytic processes comparable to Pattern Coding. For an extended discussion and examples of Pattern Coding, see Miles et al. (2020).

ELABORATIVE CODING

Source

Auerbach & Silverstein, 2003

Description

Elaborative Coding “is the process of analyzing textual data in order to develop theory further” (Auerbach & Silverstein, 2003, p. 104). The method is called “top-down” coding because

> one begins coding with the theoretical constructs from [a] previous study in mind. This contrasts with the coding one does in an initial study (bottom-up), where relevant text is selected without preconceived ideas in mind [to develop grounded theory]. In elaborative coding where the goal is to refine theoretical constructs from a previous study, relevant text is selected with those constructs in mind. (p. 104)

Hence, a minimum of two different yet related studies—one completed and one in progress—is necessary for Elaborative Coding. Theoretical constructs are created from the themes of the coded data that are then grouped together into categories or “meaningful units” (p. 105).

Applications

Elaborative Coding is appropriate for qualitative studies that build on or corroborate previous research and investigations. Basically, the second study elaborates on the major theoretical findings of the first, even if there are slight differences between the two studies' research concerns and conceptual frameworks. Different participants or populations can also be used for the second study. This method can support, strengthen, modify, or disconfirm the findings from previous research. Mixed methods studies might also employ Elaborative Coding as a way of comparing then integrating the results of one stage (e.g., qualitative data analysis) with the succeeding one (e.g., quantitative data analysis).

Elaborative Coding is a method applicable to qualitative metasummary and metasynthesis (see Chapter 11). Heaton (2008) also suggests that secondary analysis of qualitative data—which includes such approaches as the reanalysis of data from a former study, the aggregation of two or more separate studies' data, and so on—might use Elaborative Coding for initial exploration.

Example

In the first project, a longitudinal case study was conducted with a boy named Barry (pseudonym) as he progressed from ages 5 through 18. During childhood, Barry developed a strong interest in classroom improvisational drama and formal theatre production that continued into his teenage years. Key adults in his life—his mother and theatre teachers—cultivated this interest because they perceived him as a talented and gifted performer. The presentation of this first life course study was constructed as an ethnodramatic performance with Barry portraying himself (Saldaña, 1998). Each play script scene represented a major theme in his life course development. In Vivo Codes were used for the eight scene titles, but more traditional descriptions to recognize the themes are listed in parentheses:

1. "I DEVELOPED MY PASSION" (CHILDHOOD EXPERIENCES AND INFLUENCES)
2. "I WAS COMPLETELY EMPTY" (TROUBLED AND EPIPHANIC EARLY ADOLESCENCE)
3. "I NEVER FOUND IT IN SPORTS" (EXTRACURRICULAR/CAREER OPTIONS)
4. "I THINK A GOOD ACTOR …" (DEVELOPMENT OF CRAFT)
5. "LOVE THE ART IN YOURSELF" (DEVELOPMENT OF ARTISTRY)
6. "THE SUPPORT OF PEOPLE" (INFLUENTIAL ADULTS)
7. "THEATRE' S A VERY SPIRITUAL THING" (PERSONAL MEANING DERIVED FROM THEATRE)
8. "I WANT THIS" (FUTURE CAREER/LIFE GOALS)

The magnitude of this case study is too complex to even summarize in this description, but for purposes of the method profile, one of the intended findings was the development of the participant's *through-line*, a statement "that captures the essence and essentials of a participant's journey and change (if any) through time" in longitudinal studies (Saldaña, 2003, p. 170). Barry's family church played a significant role in his life course, but during adolescence he became disenchanted with several congregational matters. Since Barry's most influential period of artistic development clustered during his high school years, the through-line *qua* (in the role of) key assertion from the first study reads:

> From his sophomore through senior years in high school, Barry gradually interchanged the insufficient spiritual fulfillment he received at church with the more personal and purposeful spiritual fulfillment he experienced through theatre. (Saldaña, 2003, p. 154)

The major theoretical construct for this first study was "passion," derived from an In Vivo Code that captured Barry's self-described affinity for his chosen art form: "I developed my passion for the arts and began seeing them as something as an idealistic career, an almost—a romantic, bigger than life—you know, *passion*—I don't know how else to put it—a *passion* for the arts!" (Saldaña, 1998, p. 92).

After this first study's presentation and completion, periodic contact with Barry was maintained from ages 18 through 26. During that period, I continued to collect data related to his life course, and his trajectory thus far—even with its multiple directions—appeared to harmonize with previous research in human developmental trends (Giele & Elder, 1998). But this period was also one of revelation for the researcher. I learned not only about current problems in Barry's life, but also about problems from his past not shared with me during the first study—among them, a late diagnosis of bipolar disorder and two unsuccessful suicide attempts.

Auerbach and Silverstein (2003) advise that, for Elaborative Coding:

> Sometimes the relevant text that you select [from your second study] will fit with your old theoretical constructs [from the first study]. This is helpful because it will lead you to develop your constructs further. On other occasions, however, the relevant text will not fit with one of your old theoretical constructs, but instead will suggest new ones. This is also helpful, because it will increase your understanding of your research concerns. (p. 107)

The original eight themes from the first study represent not only categories but roughly overlapping time periods—phases and stages in Barry's life course development up through age 18. The second study would profile his life from ages 18 through 26 (our mutually agreed stopping point for the study). Would the original eight themes endure as his life story progressed? Obviously, the past cannot be changed, but the past can be reinterpreted in new contexts as one's life progresses forward and new experiences accumulate.

Analysis

For the second study (Saldaña, 2008), the first theme, childhood experiences and influences, endured as a period that primarily included his theatrical and religious experiences and influences. But the second theme, troubled and epiphanic early adolescence, would now become the first phase of a cycle that generated a new theme for the second cycle: troubled and epiphanic early adulthood. Both of these periods included Barry's suicide attempts, but it was not until after the second attempt that the late diagnosis of bipolar disorder was made, placing the original second theme in a new context.

The third theme, extracurricular/career options, included football as a possible avenue of interest for Barry, but in retrospect the category was a minor theme during the first study and was thus deleted as an influence on his life course.

The original fourth and fifth themes, development of craft and development of artistry, were condensed into one theme for the second study: artistic development. Differentiation for the first study was made to show his progression from technician to artisan.

The first study's sixth theme, influential adults, is a "given" in life course research and endured for the second study.

The seventh theme, personal meaning derived from theatre (or its In Vivo Code, "theatre's a very spiritual thing"), was not deleted but modified as the second study progressed and its data were coded, which placed this theme in a new context (more on this below).

After high school, Barry's opportunities for performance waned due to such contextual and intervening conditions as higher education priorities and full- and part-time work for income needs. He majored in social work with a minor in religious studies, opting not to pursue theatre because of its limited chances for financial success. There were still times, though, when he felt (as In Vivo Coded) "i'm feeling kind of lost".

The Descriptive Code theatre participation decreased significantly during his college and university years, while the code youth ministry appeared with more frequency. In his mid-20s, another epiphany occurred that altered the eighth and final original theme, future life/career goals. During the second study, Barry received a spiritual calling from God to pursue the ministry. The theme took on new direction and meaning, for he no longer had "career goals" but a life calling. Nevertheless, he felt his theatrical experiences and training benefited his youth ministry's informal drama projects and his preaching skills. Though it was my In Vivo field note code, not Barry's, I inverted the original study's "theatre's a very spiritual thing" to become spirituality's a very theatrical thing.

To recap, the new seven thematic periods in Barry's life for the second study (ages 5–26) were revised as:

1. CHILDHOOD EXPERIENCES AND INFLUENCES ("I DEVELOPED MY PASSION")
2. TROUBLED AND EPIPHANIC EARLY ADOLESCENCE ("I WAS COMPLETELY EMPTY")
3. ARTISTIC DEVELOPMENT ("LOVE THE ART IN YOURSELF")
4. INFLUENTIAL ADULTS ("THE SUPPORT OF PEOPLE")
5. PERSONAL MEANING DERIVED FROM THEATRE ("THEATRE'S A VERY SPIRITUAL THING")
6. TROUBLED AND EPIPHANIC EARLY ADULTHOOD ("I'M FEELING KIND OF LOST")
7. LIFE CALLING (SPIRITUALITY'S A VERY THEATRICAL THING)

The second study also sought a through-line *qua* key assertion to capture Barry's life course development. The first through-line focused on just three years of his adolescence. This final one, however, now needed to place his entire life thus far in a longitudinal

context. Barry's life consisted of such successes as high academic achievement, recognition for his artistic accomplishments, leadership service roles, and spiritual fulfillment. But his life also consisted of a period of drug abuse, years of undiagnosed bipolar disorder, an alcoholic father once arrested for drug use, frequent bouts of depression, and two unsuccessful suicide attempts. Barry's life course now had new meaning, new direction, and the through-line needed to reflect that. The key assertion and accompanying narrative for the second study reads:

He ascends. From ages five through twenty-six, Barry has sought ascension in both literal and symbolic ways to compensate for and transcend the depths he has experienced throughout his life course. He has excelled in academics, towered above peers, stood up for victims of bullying, gotten high on drugs, performed up on stage, surpassed teammates on the football field, lifted weights, climbed rocks, risen above drug use, appeared upbeat, looked up to his teachers as father figures, surmounted bipolarity, lived up to his mother's expectations, exhibited higher levels of intra- and interpersonal intelligence, empowered church youth to reach new heights, sought advanced degrees, received a higher calling, grown in his faith, mounted the pulpit, uplifted others with his sermons, and exalted his God.

The primary theoretical construct for this case, which derived from the first study, would endure but take on new interpretive and ironic meaning for the second study. "PASSION" not only refers to a drive out of love for something, but also means suffering and outbreaks of intense, uncontrollable emotion. Barry experienced all of these passions in one form or another throughout his life course. His ups and downs, highs and lows, ascents and descents were the consistent yet erratic rhythms before his diagnosis of bipolarity. Even after receiving prescribed medication, he prefers not to take it when possible, relying instead on more natural aids for self-control, though he admits "some days are more difficult than others."

This example profiled the development and evolution of themes, through-lines, and the meaning of a major theoretical construct from one longitudinal period (ages 5–18) of a case study through the next (ages 18–26). The elaboration of codes and themes would obviously evolve across time for a life course project. But collection, comparison, and coding of these two major pools of data made the changes that did occur more apparent and generated a more provocative analysis.

Some recommended ways to further analyze Elaborative Codes are (see Appendix B):

- action and practitioner research (Altrichter et al., 1993; Coghlan & Brannick, 2014; Fox et al., 2007; Stringer, 2014)
- assertion development (Erickson, 1986)
- grounded theory (Bryant, 2017; Bryant & Charmaz, 2007, 2019; Charmaz, 2014; Corbin & Strauss, 2015; Stern & Porr, 2011)
- longitudinal qualitative research (Giele & Elder, 1998; McLeod & Thomson, 2009; Saldaña, 2003, 2008)
- memo writing about the codes/themes (Charmaz, 2014; Corbin & Strauss, 2015; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)
- meta-ethnography, metasummary, and metasynthesis (Finfgeld, 2003; Major & Savin-Baden, 2010; Noblit & Hare, 1988; Sandelowski & Barroso, 2007; Sandelowski et al., 1997)

- situational analysis (Clarke et al., 2015a, 2018)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998; Smith & Osborn, 2015)
- within-case and cross-case displays (Miles et al., 2020; Shkedi, 2005).

Notes

Elaborative Coding is more fully explained in Auerbach and Silverstein's (2003) elegant text, *Qualitative Data*. In their book, the researchers adopt and adapt grounded theory methodology for their studies on fathers and fatherhood among various populations. Readers are also advised to examine Layder (1998) for his "adaptive theory," which builds on grounded theory's principles yet "combines the use of prior theory to lend order and pattern to research data while simultaneously adapting to the order and pattern contained in [the] emerging data" (p. viii). Layder's framework is a construct-based variant of Elaborative Coding.

(For those concerned about the personal welfare of the case study described in this profile, as of December 2020, Barry is married, has two children, holds a master's degree in divinity, and serves as an ordained pastor for a mainstream denomination community church.)

LONGITUDINAL CODING

Sources

Giele & Elder, 1998; LeGreco & Tracy, 2009; McLeod & Thomson, 2009; Saldaña, 2003, 2008

Description

For brevity and clarity, this method profile focuses on life course studies. See the notes for recommended references in anthropology, sociology, human development, and education.

Longitudinal Coding is the attribution of selected change processes to qualitative data collected and compared across time. Holstein and Gubrium (2000), in *Constructing the Life Course*, conceptualize that:

> The life course and its constituent parts or stages are not the objective features of experience that they are conventionally taken to be. Instead, the constructionist approach helps us view the life course as a social form that is constructed and used to make sense of experience. … The life course doesn't simply unfold before and around us; rather, we actively organize the flow, pattern, and direction of experience in developmental terms as we navigate the social terrain of our everyday lives. (p. 182)

Long-term quantitative analysis of change examines statistical increase, decrease, constancy, and so on in selected measured variables of interest. Yet there can also be *qualitative* increase, decrease, constancy, and so on within data gathered from participants through time. Longitudinal Coding categorizes researcher observations into a series of matrices (Saldaña, 2008; see Figure 14.2) for comparative analysis and interpretation to generate inferences of change—if any.

Figure 14.2 A longitudinal qualitative data summary matrix (from Saldaña, 2003, courtesy of Rowman and Littlefield Publishing Group/AltaMira Press)

The analytic template in Figure 14.2 provides a method for summarizing vast amounts of qualitative data collected from long-term research projects:

> Imagine that one matrix page holds summary observations from three months' worth of fieldwork. And if the study progresses through two years, then there would be eight pages total of longitudinal qualitative data. … Think of each three-month page as an animator's cartoon cell, whose artwork changes subtly or overtly with each successive drawing to suggest movement and change. Or, imagine that each matrix sheet is a monthly page from a calendar, which suggests a chronological progression of time and change as each page is turned. Or, imagine that each matrix page is a photograph of the same child taken at different intervals across time, so that each successive photo reveals growth and development. (Saldaña, 2008, p. 299)

During the first cycle of collection and analysis, qualitative data collected through an extended period of time may have been coded descriptively, processually, etc., with a possible focus on participant emotions, values, and so on. In Longitudinal Coding, the data

corpus is reviewed categorically, thematically, and comparatively across time to assess whether participant change may have occurred. Seven descriptive categories first organize the data into matrix cells during second cycle coding (Saldaña, 2003, 2008). Briefly explained, they are:

1. Increase and Emerge: This cell includes both quantitative and qualitative summary observations that answer *What increases or emerges through time?* An increase in a participant's income is an example of quantitative change, but accompanying qualitative increases/emergences may include such related factors as "job responsibilities," "stress," and "reflection on career goals." This code documents change that occurs in smooth and average trajectories, unlike the next two codes.
2. Cumulative: This cell includes summary observations that answer *What is cumulative through time?* Cumulative effects result from *successive* experiences across a span of time. Examples include: a pianist's improved technique after a year of private lessons and independent practice, and acquired knowledge about interpersonal relationships after a few years of social activity and dating.
3. Surges, Epiphanies, and Turning Points: This cell includes summary observations that answer *What kinds of surges, epiphanies, or turning points occur through time?* These types of changes result from experiences of sufficient magnitude that they significantly alter the perceptions and/or life course of the participant. Examples include: graduation from high school, the terrorist attacks on the USA on September 11, 2001, and unexpected termination of employment.
4. Decrease and Cease: This cell includes summary observations that answer *What decreases or ceases through time?* Like increases, qualitative decrease cells can include both quantitative and qualitative summary observations. Examples include: a decline in workplace morale after a new incompetent administrator is hired, and a decrease and eventual cessation of illegal drug use.
5. Constant and Consistent: This cell includes summary observations that answer *What remains constant or consistent through time?* This is the largest cell since the "recurring and often regularized features of everyday life" (Lofland et al., 2006, p. 123) compose most data sets. Examples include: daily operations in a fast-food restaurant, and a participant's long-term marriage to the same spouse.
6. Idiosyncratic: This cell includes summary observations that answer *What is idiosyncratic through time?* These are events that are not of magnitude, such as epiphanies, but rather the "inconsistent, ever-shifting, multidirectional and, during fieldwork, unpredictable" actions in life (Saldaña, 2003, p. 166). Examples include: a teenager's experiments with an alternative wardrobe, a series of problematic automobile repairs, and occasional non-life-threatening illnesses.
7. Missing: This cell includes summary observations that answer *What is missing through time?* During fieldwork, the researcher should note not only what is present but also what is possibly and plausibly absent or missing so as to influence and affect participants—also known as "shadow trajectories." Examples include: a teacher's lack of knowledge on working with children with disabilities, no sexual activity during an adult's mid-life years, and incomplete standard operating procedures for an organization to run efficiently.

Throughout data entry, the researcher is encouraged to use *dynamic* descriptors. These are carefully selected verbs, adjectives, and adverbs that most "accurately" describe phenomena and change, even though the act is, at best, "approximate and highly interpretive" (Saldaña, 2003, p. 89). Dynamic descriptors extend beyond linear continua, such as "less" and "more" of something, and focus instead on the essential qualities of phenomena. For example, one might substitute a phrase such as "getting more conservative" with "adopting conservative ideologies." A global observation such as "growing older" becomes more specific with such descriptive phrases as "salt-and-pepper hair, soft grunts as he sits down and rises, arthritic bones that ache dully in cold or humid weather."

Finally, Kneck and Audulv (2019) wisely recommend that matrices for longitudinal qualitative data analysis and display should be constructed to accommodate the specific analytic question or research goals of the particular study. In their study of nursing, for example, they observed two unique patterns in their participants over long-term periods—“episodic” and “on-demand” health care behaviors—patterns not discernible through the generic descriptive categories in Figure 14.2.

Applications

A person's perceptions in relation to the social world around him or her evolve throughout the lifespan (Sherry, 2008, p. 415). Thus, Longitudinal Coding is appropriate for longitudinal qualitative studies that explore change and development in individuals, groups, and organizations through extended periods of time (for social change constructs see Massey, 2016). Studies in identity lend themselves to this method since identity is conceptualized as a fluid rather than static construct. "Qualitative longitudinal research enables us to capture personal processes that are socially situated, capturing psychological depth and emotional poignancy" (McLeod & Thomson, 2009, p. 77). Morse (2012) recommends for qualitative research studies in health, "it is important to record and identify changes over time, as conditions deteriorate or improve and as needs and abilities change" (p. 42). For studies that explore broader social processes, "including the facilitation of change and the institution of new routines" across micro, meso, and macro levels, *discourse tracing* examines chronologically emergent and transformative themes and issues (LeGreco & Tracy, 2009, p. 1516).

Giele and Elder (1998) note that recent life course study research has broken away from composing patterned models of general human development to acknowledge the unique character, unpredictable and diverse trajectories, and complex interrelationship of the gendered individual exercising agency within varying social contexts through particular eras of time. Life history extends beyond the sequential reporting of factual events, such as graduation from college, full-time employment, marriage, the birth of a first child, and so on, and now considers participant *transition* and *transformation* in such domains as worldview, life satisfaction, and personal values. Reporting the life course can be structured and mapped thematically and narratively as well as chronologically in unique analytic blends (Clausen, 1998). The coding and categorizing method presented here is just one of several qualitative and mixed methods models available for longitudinal data analysis.

Example

The example content presented here relates to the case profiled in Elaborative Coding; refer to that before proceeding.

Longitudinal qualitative data summary matrix pages do not have to be apportioned into standardized time blocks (e.g., each page holding six months of data). Each matrix can hold a portion (a large "pool" or smaller "pond") of data from the life course that adopts a traditional period we often allocate in social life, such as the elementary school years, secondary school years, and university education. The periods can also be separated by major turning points in the life course whenever they may occur (Clausen, 1998). Sometimes a division must be necessarily artificial, such as periods between scheduled follow-up interviews.

In the longitudinal study with Barry (Saldaña, 2008), the first data pool and matrix for ages 5–12 collected his major elementary school increases/emergences:

- additional theatre-viewing experiences beyond the treatment
- parental involvement in nurturing his theatre interest
- at ages 11–12, victim of bullying by peers
- at age 12, reflecting on career choices (actor, writer, "think tank")
- at age 12, counseling for withdrawal and depression.

Barry was not formally tracked from ages 12 through 16, but in retrospective accounts during later years he recalled two key epiphanies—an unsuccessful suicide attempt and his first formal stage performance experience. Related increases/emergences data from the second matrix included:

- new: smoking, illegal drug use
- hair length
- at ages 12–14, anxiety from peer bullying
- age 14, attitude "renaissance" from first and future performance opportunities.

Follow-up and direct participant observation were initiated during Barry's secondary school years. The third matrix, representing ages 16–18, listed the following increases/emergences:

- new: mentorship from theatre teachers
- new: questioning his spiritual faith/belief system
- roles in theatre productions
- concentration during performance work

- “passion” for the art form
- leadership skills.

The fourth matrix, at ages 18–23, included the following as increases/emergences:

- new: personal credit card
- new: prescription medication for bipolarity
- attending community college for general studies
- learning American Sign Language
- exploring drama therapy as a career
- service as a summer camp counselor for special populations
- attending a different church but same faith
- searching for “artful living”.

The fifth matrix, during age 23, listed the following as his increases/emergences in actions:

- new: eyebrow piercing, facial hair, spiked hair style
- deciding between social work and urban sociology as possible majors at the university
- providing urban ministry for youth.

The sixth and final matrix, during ages 24–26, listed as his increases/emergences:

- new: rock climbing as a hobby
- new: disclosure of his father’s past spiritual abuse
- new: tattoo on left arm—“fight, race, faith” (from 2 Tim 4:7)
- university education: pursuing a bachelor’s degree in social work with a minor in religious studies
- preaching occasionally at Sunday worship services
- working for “social justice”.

The portions of data listed above are just small excerpts from one data cell category summarizing 21 years of participant observation, interviews, and document collection about one human being whose life had been a relatively tumultuous journey thus far. A chronological scan from start to finish of salient aspects that increased and emerged in Barry’s life has an almost narrative and foreshadowing flow to it. Not included in this category, of course, are those data coded as SURGES, EPIPHANIES, AND TURNING POINTS in

Barry’s life course such as his two unsuccessful suicide attempts, his diagnosis of bipolarity, and his call to serve in the ministry.

Analysis

What follows after the coding and categorization of data into the matrices? Each of the seven descriptive coding cells are then chronologically compared to comparable cells from other longitudinal matrices (e.g., increases from the third matrix are compared to increases in the first and second matrices). Any differences inferred and interpreted are noted in the *differences above from previous data summaries* cells. There is also no need to keep analyses of increases completely separate from decreases, for example, or the cumulative completely separate from the idiosyncratic. As analysis continues, your observations and interpretations of interaction and interplay between these categories will become sharpened as you reflect on their possible overlap and complex interrelationships.

The next row of cells, *contextual/intervening conditions influencing/affecting changes above*, asks you to think how, how much, in what ways, and why the descriptive observations and noted differences may be present. Contextual conditions refer to social life's routine activities and daily matters, such as attending school, working, and parenting. Contextual conditions also refer to the "givens" of one's social identity or personal patterns, such as gender, race/ethnicity, and habits. Intervening conditions refer to those events or matters that can play a more substantive and significant role in activating change, such as a hostile work environment, the enactment of new laws, or writing a dissertation. Whether something is interpreted as a contextual or intervening condition is admittedly a matter of researcher perception. A hostile work environment might be a "given" contextual condition for some occupations, but if it activates participant change, such as deteriorating self-esteem, then the contextual becomes intervening.

Again, the columns of change processes do not have to remain isolated. In fact, by this time there should be an intricate weaving of the actions and phenomena inspected thus far for the next items of analysis.

The *interrelationships* cell notes observations and interpretations of direct connection or influences and affects (my qualitative equivalent for the positivist "cause and effect") between selected matrix items. For example, increases may correlate with decreases, the cumulative may correlate with the constant and consistent. Caution should be exercised here, as the cognitive constructions of data connections can run amok. This is testimony to the general observation that social life is complexly interconnected, but evidence from the data corpus should support any assertions of interrelationship.

Changes that oppose/harmonize with human development/social processes are the particulars of the case compared to previous studies and literature reviews in related areas. For example, does the case's life course seem to follow what might be generalized developmental trends or does it suggest alternative pathways? Does the participant's unique occupations throughout the life course suggest reconceptualizing a basic social process, such as "career"?

Participant/conceptual rhythms refers to observations of patterned periodicities of action, such as phases, stages, cycles, and other time-based constructs. If sequential observations of change seem to cluster together in somewhat distinct ways, this may suggest the apportionment of action into phases (separate but chronological action clusters), stages (cumulative action clusters across time), and cycles (repetitive action clusters through time). Attention should also be paid to analyzing the transitional processes in between these clusters, reminiscent of anthropologist Victor Turner's now-classic study of "liminal" social spaces.

Preliminary assertions as data analysis progresses are statements that "bullet-point" the various observations about the participants or phenomenon based on the analysis thus far.

This is a large critical space in the matrix for the researcher to reflect on the data and their synthesis. Analytic memos written elsewhere are necessary, but the matrix is the place where salient observations are summarized and listed. Researchers should be particularly attuned to noticeable repetitive motifs throughout the data corpus.

The *through-line* (see Elaborative Coding for examples) is comparable to a key assertion (Erickson, 1986) or a central/core category (Corbin & Strauss, 2015), though it is not necessarily the ultimate analytic goal for a longitudinal qualitative study. The through-line is generally a thematic statement that captures the totality of change processes in the participant.

Explore two unique facets of longitudinal qualitative data: irony and foreshadowing. As we review past data and their trajectories, researchers may notice poignant passages that suggest an "If he only knew back then what he knows now" flavor. You may also notice, in retrospect, earlier data that suggest a foreshadowing or foreboding sense of things yet to come. These are not necessarily accurate predictions of forthcoming events, they are retrospective researcher constructions of then-and-now patterns. Nevertheless, if a sufficient amount of data exist to support a plausible argument for transferable causation, forecasting, or a predictable longitudinal trajectory, explore how a case can be built for proposing a time-based model of human action. This is the basis for human development studies.

The presentation of longitudinal qualitative research results should also consider whether a chronological or thematic report structure is more appropriate. Some biographical and historic narratives describe events as they occurred through time. Contemporary historiography explores as one option a more thematic analysis and presentation of events. For example, a life is not profiled developmentally from childhood through adolescence then young adulthood, but according to the *patterns* of the life as discerned by the analyst. Thus, using this profile's case, the first part of the report might explore those events, regardless of when they occurred, related to forms of *artistic passion*. The next part might examine the *negative periods* of the life such as bullying, drug use, and suicide attempts. The next section describes the *spiritual* growth and aspects of the case, and so on.

CAQDAS programs become indispensable for longitudinal qualitative studies. The software's ability to manage massive amounts of data in organized files, and ability to maintain and permit complex coding changes as a project progresses, are beneficial advantages for the researcher. The ATLAS.ti program also features "snapshot coding," which represents an event at a particular moment in time (Silver & Lewins, 2014), enabling the analyst to create a progression of documented snapshot moments to assess participant change (if any).

By default, a discussion of longitudinal processes is lengthy. A complete illustration of all the principles tersely summarized above could easily fill several volumes. Observations and assertions of participant change can be credibly assumed only from long-term immersion in the field, extensive and reflective interviews with participants, and astute recognition of differences in data collected through time about the life course. Patton (2008), however, notes that in contemporary society and especially within organizations, "Rapid change is the norm rather than the exception" (p. 198).

Some recommended ways to further analyze Longitudinal Codes are (see Appendix B):

- assertion development (Erickson, 1986)
- case studies (Merriam, 1998; Stake, 1995)
- grounded theory (Bryant, 2017; Bryant & Charmaz, 2007, 2019; Charmaz, 2014; Corbin & Strauss, 2015; Stern & Porr, 2011)

- illustrative charts, matrices, diagrams (Evergreen, 2020; Miles et al., 2020; Morgan et al., 2008; Northcutt & McCoy, 2004; Paulston, 2000; Wheeldon & Åhlberg, 2012)
- interrelationship (Saldaña, 2003)
- life course mapping (Clausen, 1998)
- logic models (Knowlton & Phillips, 2013)
- longitudinal qualitative research (Giele & Elder, 1998; McLeod & Thomson, 2009; Saldaña, 2003, 2008)
- memo writing about the codes/themes (Charmaz, 2014; Corbin & Strauss, 2015; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)
- narrative inquiry and analysis (Bischoping & Gazso, 2016; Clandinin & Connelly, 2000; Coffey & Atkinson, 1996; Cortazzi, 1993; Coulter & Smith, 2009; Daiute & Lightfoot, 2004; Holstein & Gubrium, 2012; Murray, 2015; Riessman, 2008)
- portraiture (Lawrence-Lightfoot & Davis, 1997)
- situational analysis (Clarke et al., 2015a, 2018)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998; Smith & Osborn, 2015)
- within-case and cross-case displays (Miles et al., 2020; Shkedi, 2005).

Notes

Vogt et al. (2014, p. 457) wisely advise researchers not to confuse the weather for the climate—meaning, short-term observations do not give as complete a picture of the social setting as a long-term residency. And do not be wholly embedded to the term "change" as the sole metric of difference in longitudinal research and analysis. Sometimes the constructs of *impact*, *turning point*, *evolution*, and *new outlook* have comparable merit on the participants we study.

To learn more about Longitudinal Coding and research, refer to Giele and Elder (1998) and Saldaña (2003, 2008) for more procedural and analytic details about life course and longitudinal research, respectively. Excellent primers on the methodology include Derrington (2019) and Neale (2019). The best theoretical and epistemological discussions of life course research are Holstein and Gubrium (2000) and McLeod and Thomson (2009), while Bude (2004) proposes a "generation" as a reconceptualization of the "birth cohort" as a longitudinal unit of study.

Reports on long-term fieldwork in anthropology—some studies lasting up to 50 years—can be accessed from Kemper and Royce (2002). Theories of change in organizations, institutions, and systems are dynamically profiled in Massey (2016) and Patton (2008, Chapter 10). Sheridan, Chamberlain, and Dupuis (2011) describe "timelining" as an intriguing graphic-elicitation technique for longitudinal case study interview narratives, while Bastos (2017) offers the provocative construct and mapping of "shadow trajectories" (i.e., what could, should, or might have been) as a potentially impacting component of the life course. Calendar and time diary methods for long-term data collection, management, and analysis (of primarily "quantitized" qualitative data) are described in Belli, Stafford, and Alwin (2009). Sanip (2020) offers valuable guidance and recommendations for comparative longitudinal studies across geographic areas.

15 AFTER FIRST AND SECOND CYCLE CODING METHODS

Chapter Summary

This chapter reviews transitional processes after second cycle coding, yet most of these can be applied after first cycle coding as well. Strategies for focusing, theorizing, formatting, writing, ordering, networking, and mentorship are provided. The chapter concludes with reflections on our goals as qualitative researchers.

POST-CODING AND PRE-WRITING TRANSITIONS

If you have diligently applied first cycle coding methods to your data (several times) and—if needed—transitioned those codes through second cycle methods (again, several times), concurrently maintained a substantive corpus of insightful analytic memos, and employed one or more additional analytic approaches to the data, if all has gone well, you should now have several major categories, themes, concepts, assertions, propositions, or at least one theory (or through-line, key assertion, primary narrative, etc.). That, of course, is the ideal scenario. But what if you are not yet there? Or what if you are already there and do not know how to proceed?

This closing chapter offers a few recommendations for what might be labeled post-coding and pre-writing—the transitional analytic processes between coding cycles and the final write-up of your study. *And refer back to the methods in Chapter 12 since they may also be useful and applicable at this stage of your analysis.*

Where you are on your analytic journey does, to some degree, depend on which coding method(s) you have applied to your data. Versus Coding, for example, encourages you to find three major "moieties"; Themeing the Data and organizational techniques such as code landscaping recommend listing the outcomes in outline format; Axial Coding prescribes that you specify the properties and dimensions of a major category. But some find it difficult to make those final confirmatory assertions. Fear gets the better of us as we sometimes wonder after our analytic work is almost completed, "Have I gotten it right?", "Did I learn anything new?", "Now what do I do?"

Outcomes should answer your original central and related research questions, but we should always remain open to the unexpected discovery we might make as we synthesize our data, codes, categories, themes, assertions, and other analytic constructions. Just some of the outcomes found in qualitative research studies report:

achieving through

action research to

adaptation of/to

addressing the

adoption of

affordances of

analysis of

applications of/for

appraisal of

approaches to

aspects of

assertions about

attitudes toward

autoethnography of

awareness of

barriers and facilitators to/of

being a

beliefs about

benefits of

best practices of

case study of

categories of

causes of

cautions about

challenges of

changes in

characteristics of

collaboration of/between

comparison of

components/elements of

conceptions of

connections between

consequences of/when

considerations of

constraints of

constructions of

content analysis of

contexts for

contributions of/to

coordination of

coping among

creation of

critique of

culture/ethos of

decisions about

demands of

description of

designing a

development of

differences between

dimensions of

discourses of/about

dynamics of/between

effects of

efficacy/success of

emotions/feelings about

employment of

empowerment of

engagement with

enhancing the

ethics in/of

ethnography of

evaluation/assessment of

evidence from

examination of

examples of

expectations of

experiences of/with

exploration of

factors that/of

failure of

feasibility of

features of

findings from

framework for

grounded theory of

guidelines for

history of

how the

ideas about

identification of

identity of

images of

impact of

implementation of

implications for/of

importance of

improvement of

increasing the

influence(s) of/on

insights from

integration of

interactions between

interventions of

investigation of

involvement with

issues of

justification for

knowledge of/about

learning to/about

lessons learned

limitations of

links between

lived experiences of

living as

longitudinal study of

making sense of

maintenance of

management of

meanings of

metasummary of

metasynthesis of

methods of/for

models of

motivations for

narrative(s) about

nature of

needs of

observations of

operationalizing the

opinions about/on

opportunities for

outcomes of

participation in

pathways to

patterns of

perceptions of

perspectives about/on

phenomenology of

philosophies of

policies of

potential of

practices of

precipitants of

predictors of

preferences of/for

preparation of

prevention of

procedures for

process(es) of

production of

profile of

promotion of

protocol for

pursuit of

quality of

rationale for

reactions to

reasons for

recommendations for

reduction of

reenvisioning through

reflections on

relationship between

representations of

resources for

responses toward

results from

retention of

review of

role of

satisfaction with

self-efficacy of

sensemaking of

sequence of

significance of

solutions for

sources of

standards for

story(ies) of/about

strategies for

study of

support of

survey/review of

sustainability of

talk about

taxonomy of

tensions of

testing a

themes of/about

theory of/about

toward a

trajectory of

transformation of

treatment of

trends in

types/kinds of

understanding how

understandings of

uses of

utilization of

values of

voices of

ways of

I do not discuss how to craft and write the final report itself, for there are so many genres, styles, and formats of research reporting possible—ethnography, narrative short story, ethnotheatrical performance, academic journal article, dissertation, dedicated website, etc.—that I cannot adequately address them all (for guidance see Saldaña, 2018; Weaver-Hightower, 2019; Wolcott, 2009; Woods, 2006). Anthropologist Clifford Geertz (1983) charmingly mused, “Life is just a bowl of strategies” (p. 25). So, I offer a bowl of strategies in this final chapter that will hopefully crystallize your analytic work thus far and provide a template or springboard for your written document or mediated report. Pick one or more to guide you toward the final stages of your study’s write-up. Glesne (2011) astutely reminds us that “The proof of your coding scheme is, literally, in the pudding of your manuscript” (p. 197).

FOCUSING STRATEGIES

Sometimes we become overwhelmed by the magnitude of our studies and thus need to intentionally focus the parameters of our investigation in progress to find its core. Forcing yourself to select a limited number of various ideas that have emerged from your study encourages you to prioritize the multiple observations and reflect on their essential meanings.

The “top 10” list

Regardless of codes applied to them, extract no more than 10 quotes or passages (preferably no longer than half a page in length each) from your field notes, interview transcripts, documents, analytic memos, or other data that strike you as the most vivid and/or representational of your study. Print each excerpt on a separate page of paper or collect them into one single document on a text editing page.

Reflect on the content of these 10 items and arrange them in various orders: chronologically, hierarchically, telescopically, episodically, narratively, from the expository to the climactic, from the mundane to the insightful, from the smallest detail to the bigger picture, etc. I cannot predict what you may find since each study’s data are unique. But you may discover different ways of structuring or outlining the write-up of your research story by arranging and rearranging the most salient ideas from the data corpus.

The study's "trinity"

If you feel you are unable to identify the key issues of your study after second cycle coding, ask yourself what are the three (and only three) major codes, categories, themes, and/or concepts generated thus far that strike you, that stand out in your study.

Write each item in a separate bin on a piece of paper (or use CAQDAS graphics on a monitor) and arrange the three bins in a triangle. Which one of the three items, to you, is the apex or dominant item and why? In what ways does this apex influence and affect or interrelate with the other two codes, categories, themes, and/or concepts? Explore other possible three-way combinations with other major items from the study.

Another trinity configuration is to plot three major codes, categories, themes, and/or concepts within overlapping circles as a Venn diagram (see Figure 15.1). Reflect on what labels or properties can be attributed to the overlapped areas of two of the three items, and the label and properties for the center area that represents all three items. Soklaridis (2009) developed three themes from her qualitative study and attributed not just labels but dimensions or *magnitude* to her trinity, comparable to the method of discourse tracing (LeGreco & Tracy, 2009). The first was an organizational theme at the *macro* level; the second was an intergroup theme at the *meso* level; and the third was an individual theme at the *micro* level. Poth (2018) labels these three as global (macro), communal (meso), and proximal (micro) domains (p. 68). Explore whether your overlapped trinity also possesses comparable dimensions or magnitude. Charmaz (2014) notes that "ideological change can occur through micro processes while simultaneously specifying how macro structures limit its progress" (p. 254).

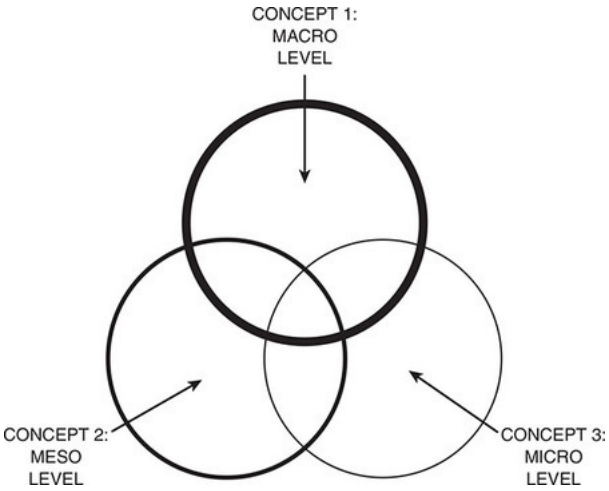


Figure 15.1 A trinity of concepts as a Venn diagram (based on Soklaridis, 2009)

Codeweaving

I noted in Chapter 3 that one of the most critical outcomes of qualitative data analysis is to interpret how the individual components of the study weave together. Codeweaving is the actual integration of key code words and phrases into narrative form to see how the puzzle pieces fit together. The technique may, at first, create a forced and seemingly artificial assertion, but use it as a heuristic to explore the possible and plausible interaction and interplay of your major codes.

Codeweave the primary codes, categories, themes, and/or concepts of your analysis into as few sentences as possible. Try writing several variations to investigate how the items might interrelate, suggest causation, indicate a process, or work holistically to create a broader theme. Search for evidence in the data that supports your summary statements, and/or disconfirming evidence that prompts a revision of those statements. Use the codewoven assertion as a topic sentence for a paragraph or extended narrative that explains the observations in greater detail (see Causation Coding in Chapter 10, and Code Landscaping in Chapter 12 for extended examples).

The “touch test”

Sometimes a preliminary set of codes or categories might seem uninspiring—a set of nouns that reveals only surface, descriptive patterns. The “touch test” is a strategy for progressing from topic to concept, from the real to the abstract, and from the particular to general. I tell my students that you can literally touch someone who is a mother, but you cannot physically touch the concept of “motherhood.” You can touch an old house in poor disrepair, but you cannot touch the phenomenon of “poverty.” And you can touch a painting an artist has rendered, but you cannot physically touch the artist’s “creative process.” Those things that cannot literally be touched are conceptual, phenomenological, and processual, and represent forms of abstraction that most often suggest higher-level thinking.

Examine the codes and categories you developed after the first cycle of coding and initial analysis. Can you physically touch what they represent? If so, then explore how those codes and categories can be reworded and transformed into more abstract meanings to transcend the particulars of your study. For example, one category from an adolescent case study might be the use and abuse of Drugs. But through richer Descriptive, Process, and/or Concept Code language, the higher-level concepts, phenomena, and processes might emerge as: *dependency*, *addiction*, *coping mechanism*, *searching for “highs”*, or *escaping from*.

I do advise restraint, however, in transcending too high with your conceptual ideas, lest you lose sight of their important and perhaps more insightful origins. Jackson and Mazzei (2012) wisely caution that a “focus on the macro produced by the codes might cause us to miss the texture, the contradictions, the tensions, and entangled becomings produced in the mangle” (p. 12). At the time of this writing, US billionaires in influential corporate, financial, and political positions possess what some call “a sense of entitlement” leading some to “an abuse of power.” These are phenomenological ideas or conceptual constructs, but they do not zero in on the *base motives and needs* that propelled these people’s actions. Also “a sense of entitlement” and “an abuse of power” are about something in retrospect—noun phrases rather than current verbs or drives. To me, “a sense of entitlement” is not as meaningful as something like *arrogant hoarding of wealth* or even a basic “deadly sin” such as *greed*. And “an abuse of power” has become a phrase so overused these days that it is almost trite. More clearly defined financial drives such as *unethical manipulation* or *exploiting with impunity* more closely delineate what is at work within humans. The lesson here is that once you have a word or phrase that you believe captures the conceptual or theoretical in your study, think again. For every choice there are many sacrifices. Think not only of what words you have chosen, but also of what related words you have not.

Findings “at a glance”

One-page visual displays help immensely with mapping a process or phenomenon, but they can only contain so many words. A simple text chart in as few pages as possible that outlines your findings and their connections provides an executive summary of sorts for you as the researcher and possibly for your readers as well. Henwood and Pidgeon (2003) recommend matrix data displays consisting of a major code or theme in one column, followed by an example (or two) of a datum that supports the major code or theme in the second column, then a short interpretive summary of how the major code or theme relates to the overall analytic scheme, or contributes to the study’s conclusions. An example of such a display might read:

Code example 15.1

COLUMN 1 - Code or Theme	COLUMN 2 - Datum Supporting the Code or Theme	COLUMN 3 - Researcher’s Interpretive Summary
RESISTANCE	“And I thought, ‘OK, if that’s the way you’re going to treat me, I am not budging one inch on this’.”	Employee RESISTANCE will be linked to ENTITLEMENT, based on his or her SENIORITY in the company.
DEFEATISM	“I wasn’t going to raise a stink. It just wasn’t worth the effort to get him to see it my way.”	DEFEATISM interrelates strongly with the participant’s total number of years working in the company, not necessarily his or her AGE. Selected employees ranging from their late 20s to early 50s were actively searching for other jobs during fieldwork.

FROM CODING TO THEORIZING

Theoretical Coding (see Chapter 13) profiles methods for progressing from codes toward a central/core category that suggests a grounded theory at work in the data. But Theoretical Coding is not the sole method that must be utilized to develop theory. This topic is very complex, yet I offer a few salient strategies that may assist you with what some perceive as a necessary outcome of qualitative inquiry. I myself believe that it is good when a researcher develops a theory, but it is all right if it does not happen.

Elements of a theory

From my perspective, a social science theory, as it is traditionally conceived, has five main characteristics. A theory

1. expresses a patterned relationship between two or more concepts;
2. predicts and controls action through if–then logic;
3. accounts for parameters of or variation in the empirical observations;
4. explains how and/or why something happens by stating its cause(s); and
5. provides insights and guidance for improving social life. (Gibson & Brown, 2009, p. 11; Saldaña, 2015, pp. 145–7; Saldaña & Omasta, 2018, pp. 257–61; Tavory & Timmermans, 2014, pp. 66–7)

An example of a conceptual, one sentence, sociological theory is: *Inequality is largely the cause of crime in society* (Charon, 2013, p. 158, emphasis added). In education, a practitioner theory for teachers is: *The more that students are engaged with the content of the lesson, the less management and discipline problems that may occur in the classroom.*

In general, a theory states what, how, and why something happens. Many theories are provisional; thus, language should be included that supports the tentative nature of our proposals (e.g., "largely," "may occur"). Also, I have observed that what is a sound theoretical proposition to one person may be perceived as a weak statement to another. Like beauty, theory is in the eye of the beholder. A theory is not so much a story as much as it is a classic proverb (e.g., "If you lie down with dogs, you'll wake up with fleas") or even a contemporary social media meme ("The world becomes what you teach"). It is a condensed lesson of wisdom we formulate from our experiences that we pass along to other generations. Aesop's fables have morals; our research tales have theories.

For exemplars of theories with detailed explanatory narratives, read Small's (2017) mixed methods study on social relationships, and James' (2012) humorously titled yet serious philosophical treatise on abrasive personalities.

Categories of categories

From my own research experiences, the stage at which I seem to find a theory emerging in my mind is when I create *categories of categories*. For example, in the code mapping illustration in Chapter 12, 52 codes were clustered into eight categories, which were then reorganized into three "meta" categories. It is at this point that a level of abstraction (i.e., concept development) occurs which transcends the particulars of a study, enabling generalizable transfer to other comparable contexts.

How multiple categories become condensed into fewer and more streamlined categories does have a repertoire of interrelationship arrangements from which I tend to draw, discussed in the tabletop categories strategy in Chapter 12 and in Figure 12.6. First, I look for possible *structures* such as:

- Superordinate and Subordinate Arrangement. Categories and their subcategories are arranged in outline format as a form of structural organization, suggesting discrete linearity and classification:

    I Category 1

        A Subcategory 1A

        B Subcategory 1B

        C Subcategory 1C

    II Category 2

        A Subcategory 2A

        B Subcategory 2B

- Taxonomy. Categories and their subcategories are grouped but without any inferred hierarchy; each category seems to have equal weight:

Category 1	Category 2	Category 3
Subcategory 1A	*Subcategory 2A*	*Subcategory 3A*
Subcategory 1B	*Subcategory 2B*	*Subcategory 3B*
	Subcategory 2C	

- Hierarchy. Categories are ordered from most to least in some manner—frequency, importance, impact, etc.:

  Category 1 – most

  Category 2 – some

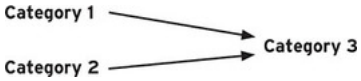
  Category 3 – least

- Overlap. Some categories share particular features with others while retaining their unique properties:

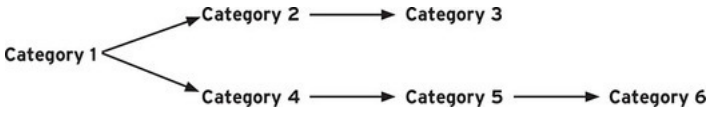
Second, I look for *processes*—the action-oriented influences and affects of one or more categories on another, such as:

- Sequential Order. The action suggested by categories progresses in a linear manner:

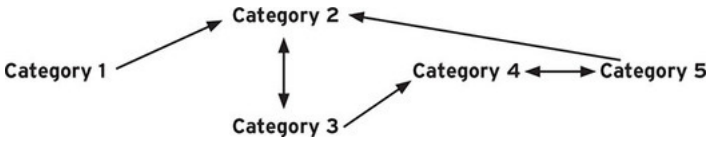
- Concurrency. Two or more categories operate simultaneously to influence and affect a third:



- Domino Effects. Categories cascade forward in multiple pathways:



- Networks. Categories interact and interplay in complex pathways to suggest interrelationship:



I do not mean to suggest that these are formulaic ways of constructing theory from categories, and these are not the only arrangements available to you. I present these oft-cited structures and processes as possible heuristics to explore with your own analytic work to determine whether anything "clicks" on paper or in your head. See Miles et al. (2020) for a sourcebook of matrix, network, and graphic displays; Richards (2015) for a more thorough discussion of category development and interrelationship; and Rosenbaum (2011) for

constructing additional graphic ideas such as strategy models, temporal ordering models, and causal–consequential models, particularly for grounded theory development.

Category relationships

The arrows linking the processes above (illustrated as sequential order, concurrency, domino effects, and networks) are not just linear connections between categories, but active and varied *relationships*. Urquhart (2013), a proponent of classic Glaserian grounded theory, reminds us that category relationships are needed to develop assertions, propositions, hypotheses, and theories. Instead of arrows, imagine if a word or phrase was placed in between two separate categories. Thus, Category 1 → Category 2 might be phrased as: Category 1 *accelerates* Category 2; or Category 1 *depends on the types of* Category 2; or Category 1 *increases the difficulty of* Category 2. Spradley's semantic attribute relationships (see Domain and Taxonomic Coding in Chapter 10) are other ways of connecting categories: Category 1 *is a way to do* Category 2; Category 1 *is a cause of* Category 2; Category 1 *is a reason for doing* Category 2; and so on.

If you have a list of categories but are having difficulty explaining and weaving their interrelationships, or if you have mapped out category relationships through operational model diagramming, integrate a word or phrase between categories that plausibly establishes their connection, as suggested by the data and your analytic memos. Urquhart (2013) illustrates several possible connectors in addition to Spradley's, such as:

accelerates

contributes toward

depends on the types of

drives

facilitates

harnesses

increases

increases the difficulty of

is affected by

is essential for

is necessary for

provides

reconciles

reduces

results in

results in achieving

triggers

varies according to

will help to

If you end up with categories as nouns or noun phrases (e.g., Self-Recognition, Changed Perspectives, Acquisition of Expertise), transform them into gerund phrases (Recognizing Oneself, Changing Perspectives, Acquiring Expertise). These will give you a better sense of process and action between categories. See also Analytic Storylining below for additional methods of connecting categories through narrative.

Analytic memos as sources for theory

Codes and coding are ways to progress toward a theory because they develop categories. And in your analytic memo writings of how these categories interrelate and transcend to themes or concepts, you build a foundation for theory development (see Figure 1.1). Since a theory is a rich statement with accompanying narrative to expand on its meaning, your ultimate goal is to write one sentence, based on the totality of your analysis, that captures insightful if-then and how/why guidance for as many relevant contexts as possible. If that seems like a formidable and daunting task, it is. To my knowledge, there is no magic algorithm that leads to a new theory. It is more likely accomplished through deep reflection on the categories and the concepts you have constructed, which symbolically represent particular patterns of human action derived from your data and codes.

Just as all research projects should begin with a one-sentence statement—"The purpose of this study is …"—some research projects culminate with another one-sentence statement—"The theory constructed from this study is …." Since I am a task- and goal-oriented researcher, I devote some analytic memo-writing time throughout the project to reflect on how I can complete that latter sentence, based on the analytic journey I am undertaking. But good ideas, like good coffee and good tea, need time to brew and steep. Sometimes I actively pursue how I can brew a theoretical statement; other times I simply let my mind steep in the data, codes, categories, concepts, and analytic memos thus far to see if there is serendipitous theoretical crystallization. Most of the time, the struggle is finding just the right words from the corpus and putting them in just the right order that pulls everything together for a theory. Codeweaving is just one way of integrating these categories and concepts together. Galman's (2013) FRAMES mnemonic (writing a *F*ocal sentence or theoretical statement, followed by *R*ich, thick description, then with an *A*nalysis, followed by a discussion of its *M*eaning, then *E*xpansion of the ideas or implications, and wrapping up with a *S*o what? conclusion) is another way to transcend from the particulars of a study to a broader discussion of their applicability and transferability to other social contexts (pp. 50-3).

If I cannot develop a theory, then I will be satisfied with my construction of a *key assertion* (Erickson, 1986), a summative and data-supported statement about the *particulars* of a research study, rather than the suggested generalizable and transferable meanings of my findings to other settings and contexts. McCammon et al. (2012) conducted an e-mail mixed methods survey of 234 adults ranging in age from 18 to over 70. Respondents provided testimony about their secondary school theatre and speech classes and extracurricular programming and how that may have made an impact on their adult careers and lives. We felt we could not credibly put forth a generalizable theory since we used purposive sampling and limited our survey to North Americans. But based on the evidentiary warrant and analysis of this database, we asserted that "*Quality high school theatre and speech experiences can not only significantly influence but even accelerate adolescent development and provide residual, positive, lifelong impacts throughout adulthood*" (p. 2, emphasis added). This key assertion meets the concept relationship and if-then criteria of a theory, and even accounts for parameters and suggests how social life can be improved, but it does not include "why." The accompanying analytic narrative with its related assertions and subassertions must do that job.

For more on theory development in qualitative research, see Alvesson and Kärreman (2011) who offer "disciplined imagination" as an alternative to codification and categorization; Tavory and Timmermans (2014) on the role of abduction in theory generation; and Jackson and Mazzei (2012) for various theoretical perspectives as frameworks for qualitative data analysis.

FORMATTING MATTERS

Text is a visual display. Hence, we can use simple formats and cosmetic devices available to us to highlight what matters most in a written account.

Rich text emphasis

I strongly recommend that *key assertions and theories should be italicized or bolded for emphasis in a final report*. The same advice holds for the first time significant **codes**, **categories**, **themes**, and **concepts** are addressed. This simple but rich text formatting better guarantees that salient and important ideas do not escape the reader's notice, especially if the reader should be scanning the report to quickly search for major findings, or conducting a metasummary or metasynthesis. Also, the tactic is a way of confirming for yourself that your data analysis has reached a stage of synthesis and crystallization. Non-print formats such as webpages and other digital materials can also explore cosmetic devices such as font size, color, and, of course, accompanying pictorial content through infographics for emphasizing what matters (Saldaña, 2011b, p. 144).

Headings and subheadings

Use code, category, theme, and concept labels themselves as headings and subheadings frequently in your written report. In a way, these italicized, bolded, left-justified, or centered devices are also forms of coding and categorizing the sections of your text. They serve as organizing frames for your own development of the research story, and using them often keeps the reader on track with the linear units of your write-up.

When I review a lengthy journal article manuscript or dissertation chapter undivided by headings and subheadings, I soon become lost without these cognitive signposts to help guide me on my private reading journey. I slyly note in the margin for the writer, “Subheadings are your friend.” Review this chapter alone and notice how frequently headings and subheadings are used to organize the post-coding and pre-writing recommendations. Imagine how difficult it would have been to read and stay focused had this chapter been written as one lengthy narrative.

Subheadings are your friend.

WRITING ABOUT CODING

Due to manuscript length restrictions in print journal articles, a discussion about codes and coding methods utilized for a study is usually brief—approximately three full paragraphs at most. But longer documents such as theses, dissertations, and technical reports can include more detailed descriptions of a researcher's analytic processes. Throughout your research study, document your coding and data analytic processes in analytic memos, yet integrate only the most relevant and salient portions of them into your final written report. Below are a few considerations for your write-ups.

Researchers provide brief storied accounts of what happened "backstage" at computer monitors and during intensive work sessions. After a description of the participants and the particular data collected for a study, descriptions of coding and analysis procedures generally include:

- references to the literature that guided the analytic work;
- qualitative data organization and management strategies for the project;
- the specific coding and data analytic methods employed and their general outcomes; and
- the types of software or CAQDAS programs and functions used.

Some authors may include accompanying tables or figures that illustrate the codes or major categories or themes constructed. Collaborative projects usually explain team coding processes and procedures for reaching intercoder agreement or consensus. Some researchers may also provide brief confessional anecdotes that highlight any analytic dilemmas they may have encountered. These passages are intended to demonstrate researcher accountability and trustworthiness (i.e., knowledge of acceptable procedures within a field) and to inform the readers of data analytic methods which may help them in their own future work.

As one example of a write-up, McCammon and Saldaña (2011) addressed in a technical report how accessible software was used for their coding and mixed methods data analysis, including references to specific program functions and techniques, which may provide little-known yet useful information for readers:

> Completed surveys were e-mailed or forwarded to Saldaña who cut-and-pasted and maintained the data in Excel spread sheets for qualitative coding and quantitative calculations (Hahn, 2008; Meyer & Avery, 2009). Descriptive information (e.g., date received, e-mail address of respondent, gender of respondent), quantitative ratings, and open-ended comments each received their own cells in a matrix, enabling comparison and analytic induction as rows and columns were scanned and later rearranged for queries. An eclectic combination of attribute, structural, descriptive, in vivo, process, initial, emotion, values, pattern, and elaborative coding were applied to the qualitative data (Saldaña, 2009). Cells were color-coded and narratives were given rich text features to enhance analysis "at-a-glance" (e.g., data rows of respondents not involved in theatre-related professions were highlighted in yellow; significant passages were bolded or assigned a red font for later citation).
>
> Descriptive statistics were calculated by Excel's AVERAGE function … ; inferential statistic gathering employed the TTEST application. Qualitative codes were manually

> assigned, organized, categorized, and assembled into hierarchical landscapes and formats for content analysis and pattern detection (Krippendorff & Bock, 2009) for the first 101 cases as a preliminary analysis, then later merged with Excel's CONCATENATE function for codes from cases 102-234. … Microsoft Word's functions such as SORT and FONT SIZE enhanced coding organization and management. Erickson's (1986) interpretive heuristics were employed to compose assertions and to search for confirming and disconfirming evidence in the data corpus. Quotes from respondents that supported the assertions were extracted from the data base for the evidentiary warrant. (pp. 19 – 20)

Since important points can get overlooked or lost when embedded in narrative, simple tables and figures, in addition to rich text features, headings, and subheadings, can highlight the resultant codes and/or categories for "at a glance" or "quick look" reader review (see Figure 15.2).

What advice would you give a university student about to become a high school speech or theatre teacher?
Lifelong Passion – love what you do, maintain energy, enthusiasm and passion; make experiences fun; the job requires commitment and sacrifice
Lifelong Challenges – challenge students as artists, maintain high standards for excellence, set up rich creative experiences, tackle issues, challenge status quo
Lifelong Relationships – develop an ethic of care, connect with students (encourage, respect, inspire); create inclusive, equitable, student focused "safe haven," community, and ensemble, especially for marginalized students; look beyond the immediate because a teacher can impact student's future
Lifelong Learning – need broad range of content knowledge and organized teaching; find and explore challenging scripts; keep learning and find a balance between process and product
Lifelong Resilience – because the job is hard work and time consuming, teachers should maintain physical and mental health, patience and perseverance, especially for political "battles"; remember "less is more" and have a back-up teaching plan

Figure 15.2 A sample table listing major categories and descriptions (derived from codes) from a research study (McCammon & Saldaña, 2011, p. 64)

As a second example from a different study, Steinberg and McCray (2012) conducted focus group interviews with middle schoolers to gather their perspectives about middle school life. The following excerpts describe the co-authors' data analytic strategies for code, category, and theme development:

> The focus group conversations were recorded and then transcribed by the first author, yielding 35 pages of single-spaced text. As suggested by Creswell (2007), two coders (the authors) individually read and coded the transcripts, and collaborated on concept meaning where there were discrepancies in interpretation, which resulted in highly stable responses.
>
> Concepts and subsequent codes emerged from patterns of students' responses. The readers analyzed each transcript twice to determine initial concepts, followed by more discrete codes. Each researcher typically assigned codes to the same units of text, but may have worded the code slightly differently, even if the essence was the same. For example, in one instance, the first author coded a student comment as STUDENT BEHAVIOR + DECISIONS and the second author coded the same unit as STUDENTS MAKE POOR DECISIONS. These differences were discussed to ensure the thought process was similar and the essence was consistent to ensure stability of the coding scheme. Five categories emerged from the analysis. The five categories that were formed from clustering the coded data were **teacher perception**, **teacher quality**, **class perception**, **technology**, and **reading**. Under the category of **teacher quality**, codes for students' responses included items like HELP, TEACHING FOR UNDERSTANDING, MODELING, and QUALIFIED TO TEACH CONTENT. Looking at the codes clustered under the

> category of **teacher perception**, students' coded responses included items like HELP, EXPECTATIONS, QUALITY, CARING, and TIME. After these five categories emerged, both researchers met and determined that the five categories should be further reduced due to overlapping concepts/ideas (e.g., HELP). The categories of teacher perception and teacher quality were then combined (or collapsed) into the theme of **Students' Perceptions of the Role of the Teacher**. The remaining categories were then collapsed into themes during data reduction (Merriam, 2009). This process yielded three themes (Miles & Huberman, 1994): (a) **Students Desire Caring Teachers**; (b) **Students Want Active Classrooms**; and (c) **Students' Technology Use Impacts Attitudes Towards Learning**. (p. 5, rich text features added)

As demonstrated above, emphasize for readers through introductory phrases and italicized or bolded text, if necessary, the major outcomes of your analysis: "The three major categories constructed from transcript analysis are …," "The core category that led to the grounded theory is …," "The key assertion of this study is …," "A theory I propose is …," and so on. Overt labeling such as this is not sterile writing but helpful, time-saving guidance for readers to grasp the headlines of your research story, particularly if they are conducting literature reviews or qualitative metasummaries or metasyntheses. McCammon and Saldaña (2011) put forth the following three-category conclusion, with italicized text, at the beginning and end of their technical report:

> According to survey respondent testimony, high school theatre and speech experiences: 1) empower one to *think and function improvisationally* in dynamic and ever-changing contexts; 2) deepen and accelerate development of an individual's *emotional and social intelligences*; and 3) expand one's verbal and nonverbal *communicative dexterity* in various presentational modes. (p. 6)

ORDERING AND REORDERING

A small list of just two to seven major codes, categories, themes, and/or concepts—or even just one new theory—can seem formidable when it comes time to writing about them in a report. The recommendations and strategies offered below are a few ways to plot (i.e., structure) their discussion.

Analytic storylining

A plot in dramatic literature is the overall structure of the play. The storyline is the linear sequence of the characters' actions, reactions, interactions, and episodic events within the plot. Kathy Charmaz (2001, 2015) is a masterful writer of process, or what playwrights call *storylining*, in grounded theory. Her analytic narratives include such active processual words and phrases as:

it means

it involves

it reflects

when

then

by

shapes

affects

necessitates

happens when

occurs if

occurs when

shifts as

contributes to

varies when

especially if

is a strategy for

because

differs from

does not … but instead

subsequently

consequently

hence

thus

therefore

Notice how these words and phrases suggest an unfolding of events through time. Charmaz (2010) also strategically chooses analytic "words that reproduce the tempo and mood of the [researched] experience," along with experiential rhythms that are reproduced within her writing (p. 201).

Not all qualitative reporting is best told through a storyline, and remember that the positivist construction of "cause and effect" can force limited parameters around detailed descriptions of complex social action (see Causation Coding in Chapter 10). Nevertheless, if there is a story with conditions and consequences to be told from and about your data, explore how the words and phrases quoted above can be integrated into your own written description of what is *happening* to your participants or what is *active* within the phenomenon (Saldaña, 2011b, pp. 142–3).

One thing at a time

If you have constructed several major categories, themes, concepts, or theories from your data, start by writing about them *one at a time*. After your exhaustive qualitative data analysis, you may have come to the realization of how intricately everything interrelates, and how difficult it is to separate ideas from their contexts. But rest assured that discussing one thing at a time keeps you focused as a writer, and keeps us focused as readers. After you have discussed each element separately, then you can begin your reflections on how these items may connect and weave complexly together.

But which item do you discuss first, then second, then third, and so on? Remember that numeric frequency of data related to a code, category, theme, or concept is not necessarily a reliable indicator of its importance or significance, so the item with the highest tally does not always merit first place in the write-up. Various ordering strategies exist for your analytic discussion: from major to minor, minor to major, particular to general, initiating incident to final consequence, etc. The sequence you choose will vary depending on the nature of your work and its audience, but I appreciate being told early in a report what the "headline" of the research news is, followed by the story's details.

When it comes to "one thing at a time," here is a small nugget of advice that has helped me tremendously in my own professional career, particularly when I became anxious about the magnitude of a research project: Write and edit at least one page a day, and in a year you have a book.

Begin with the conclusion

One of my dissertation students was a terrible procrastinator and suffered from severe writer's block. She told me after her fieldwork was completed and the formal writing stage began that she did not know where or how to start. I facetiously but strategically replied, "Then start by writing the conclusion." That advice actually triggered the development of a solid chapter that summarized the major outcomes of her study. All she had to do was now write the material leading up to those conclusions.

The same strategy may work for you. If you find yourself unable to start at the beginning, then begin with the conclusion. The final chapter of a longer work most often includes such conventional items as:

- a recap of the study's goals and research design;
- a review of the major outcomes or findings from fieldwork (albeit tentative if you start by writing the conclusion);
- recommendations for future research in the topic; and
- a reflection on how the researcher him- or herself has been influenced and affected by the project.

This thumbnail sketch of the study's details may provide you with better direction for writing the full-length report.

ASSISTANCE FROM OTHERS

A counseling folk saying I often pass along to others goes, “You can’t see the frame when you’re in the picture.” Sometimes we need an outside pair of eyes or ears to respond to our work in progress.

Peer and online support

Aside from local colleagues with whom you can converse about your study and analysis in progress, explore the ever-growing international network of peer support available through online sites such as Methodspace (methodspace.com), Social Science Space (socialsciencespace.com), ResearchGate (researchgate.net), and even special interest groups in qualitative research on Facebook. Organizational listservs are also ways in which you might connect with peers or mentors to get quick feedback on questions you may have about your study. If possible, arrange private one-on-one meetings or tutorials ahead of time at conferences with a colleague who has some knowledge about your subject area or research methodology.

Self-help sites such as Sage Research Methods Online (methods.sagepub.com) and Online QDA (onlineqda.hud.ac.uk) are also available for resource support with features such as textbook excerpts, references and, on Online QDA, video clips of research methods class lectures. Several qualitative research and analysis videos can be found on YouTube. Nova Southeastern University's *The Qualitative Report* (tqr.nova.edu) maintains a weekly newsletter, sponsors annual conferences, and maintains directories of online resources for researchers. *Forum: Qualitative Social Research* (www.qualitative-research.net/index.php/fqs) is an international, peer-reviewed, online journal with a breadth of articles, book reviews, and informational resources in several languages. Organizations such as ResearchTalk (researchtalk.com), the International Congress of Qualitative Inquiry (icqi.org), and the International Institute for Qualitative Methodology (https://www.ualberta.ca/international-institute-for-qualitative-methodology/index.html) hold annual multidisciplinary conferences and workshops for novices and established researchers.

Searching for “buried treasure”

When I read later drafts of my students’ dissertations, I am always on the lookout for what I call “buried treasure.” In their analysis chapters, they sometimes make statements that, to me, demonstrate remarkable analytic insight about the study. But these statements are often embedded in the middle of a paragraph or section when they should be placed as a topic sentence or summarizing idea. I circle the sentence in red ink and write in the margin such notes as “This is brilliant!” or “A major idea here,” and “Italicize this and move it to the beginning of the paragraph.” Perhaps the students have been so immersed in their studies’ data that they cannot see the forest for the trees. Perhaps they wrote what was, to them, just another part of the analytic story, but were unaware that they had developed an insight of relative magnitude.

When a substantive portion of your research is written, show it to a mentor or advisor and ask him or her to be on the lookout for “buried treasure” in the report.

CLOSURE

Researchers are offered varied yet sometimes contradictory advice in qualitative inquiry. We are told by some scholars that coding is an essential and necessary step in qualitative data analysis, while others tell us that the method is outdated and incompatible with newer paradigms and genres of research. We are told to capture the essence of our study's data, yet also told to write about the intricate complexity of what we observed in the field. We are advised to "reduce" our data to an elegant set of themes, yet also advised to render our accounts with thick description. We are cautioned to maintain a sense of scientific rigor in an era of evidence-based accountability, yet also encouraged to explore more progressive forms of academic research reporting such as poetic and autoethnographic representations. We are charged to contribute productively to the knowledge bases of our disciplines, yet also advised to leave our readers with more questions than answers through evocative ambiguity and uncertainty enhancement.

We do not need to reconcile the contradictions; we only need to acknowledge their multiplicity and become well versed in various methods and modes of working with qualitative (and quantitative) data. I am a pragmatic, eclectic researcher, and I sincerely feel everyone else should be one as well. Coding is just *one* way of analyzing qualitative data, not *the* way. There are times when coding the data is absolutely necessary, and times when it is most inappropriate for the study at hand. There are times when we need to write a 30-page article for an academic journal, and times when we need to write a 30-minute performance ethnography for the stage. There are times when we must crunch the numbers, and times when we must compose a poem. And there are times when it is more powerful to end a presentation with tough questions, and times when it is more powerful to end with thoughtful answers. But to be honest, we need much more of the latter.

My personal belief is: It is not the questions that are interesting, it is the *answers* that are interesting. As a student and teacher of qualitative inquiry, what remains with me after I read a report or experience a presentation, regardless of form or format, is its demonstration of the researcher's analytic prowess. When I silently think or verbally whisper "Wow!" at the conclusion of someone's work, I know that I have been given not just new knowledge but new *awareness*, and am now the better for it.

Permit me to close with a poetic adaptation and weaving of the late anthropologist Harry F. Wolcott's sage advice from his various writings, which I feel should serve as our ideal goals as qualitative researchers:

Only understanding matters.

We must not just transform our data, we must transcend them.

Insight is our forte.

The whole purpose of the enterprise is discovery and revelation.

We do it to be profound …

APPENDIX A A GLOSSARY OF CODING METHODS

Below are summaries of first and second cycle coding categories and methods. See the methods profiles for additional information (sources, descriptions, applications, examples, analyses, and notes).

Affective Coding Methods – These investigate participant emotions, values, conflicts, and other subjective qualities of human experience. See: Emotion, Values, Versus, and Evaluation Coding in Chapter 7, Affective Coding Methods.

Attribute Coding – Notation, usually at the beginning of a data set rather than embedded within it, of basic descriptive information such as the fieldwork setting, participant characteristics or demographics, data format, and other variables of interest for qualitative and some applications of quantitative analysis. Appropriate for virtually all qualitative studies, but particularly for those with multiple participants and sites, and studies with a wide variety of data forms. Provides essential participant information for future management, reference, and contexts for analysis and interpretation. Examples: participants—5th grade children; data format—p.o. field notes / set 14 of 22; date—6 october 2011. see Chapter 5, Grammatical Coding Methods.

Axial Coding – Extends the analytic work from Initial Coding and, to some extent, Focused Coding. Describes a category's properties (i.e., characteristics or attributes) and dimensions (the location of a property along a continuum or range) and explores how the categories and subcategories relate to each other. Properties and dimensions refer to such components as the contexts, conditions, interactions, and consequences of a process. Appropriate for studies employing grounded theory methodology (as the transitional cycle

between Initial and Theoretical Coding processes) and studies with a wide variety of data forms. Example: being socially acceptable/exceptable; sample property: Adolescents accept peers with whom they find perceived similarities; sample dimension: Acceptability—We can accept some people but not be their friends—we except them. see Chapter 13, Second Cycle Grounded Theory Coding Methods.

Causation Coding – Extracts attributions or causal beliefs from participant data about not just how but why particular outcomes came about. Searches for combinations of antecedent conditions and mediating variables that lead toward certain pathways. Attempts to map a three-part process as a code 1 → code 2 → code 3 sequence. Appropriate for discerning motives, belief systems, worldviews, processes, recent histories, interrelationships, and the complexity of influences and affects on human actions and phenomena. May serve grounded theorists in searches for causes, conditions, contexts, and consequences. Also appropriate to evaluate the efficacy of a particular program, or as preparatory work before diagramming or modeling a process through visual means such as decision modeling and causation networks. Examples: speech training → confidence → college prep; competition → winning → self-esteem; success + hard work rewards + good coach → confidence. see Chapter 10, Procedural Coding Methods.

Code – Most often a researcher-generated word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data. The data and thus coding processes can range in magnitude from a single word to a full paragraph or an entire page of text to a stream of moving images. Attributes specific meaning to each individual datum for purposes of pattern detection, categorization, and other analytic processes. Examples: sense of self-worth; stability;

“comfortable”. see Chapter 1, An Introduction to Codes and Coding.

Concept Coding – Assigns meso or macro levels of meaning to data or to data analytic work in progress. A concept is a word or short phrase that symbolically represents a suggested meaning broader than a single item or action, a “bigger picture” that suggests an idea rather than an object or observable behavior. Concepts can be phrased as nouns and processes in the form of gerunds—smaller observable actions that add up to a broader scheme. Applied to larger units or stanzas of data. Appropriate for studies focused on theory and theory development, and to more abstract or generalizable contexts. Appropriate for all types of data, studies with multiple participants and sites, and studies with a wide variety of data forms for research genres such as grounded theory, phenomenology, and critical theory. Examples: fragrancing culture; american “excess”; stylish uniformity. see Chapter 6, Elemental Coding Methods.

Cumulative Coding Methods – Second cycle methods that build on previous coding work to synthesize the data into broader and more comprehensive patterns of meaning. See: Pattern, Elaborative, and Longitudinal Coding in Chapter 14, Second Cycle Cumulative Coding Methods.

Descriptive Coding – Assigns labels to data to summarize in a word or short phrase—most often as a noun—the basic topic of a passage of qualitative data. Provides an inventory of topics for indexing and categorizing. Appropriate for virtually all qualitative studies, but particularly for beginning qualitative researchers learning how to code data, ethnographies, and studies with a wide variety of data forms. Perhaps more appropriate for social environments rather than social action, yet applicable for Evaluation and Longitudinal Coding. Examples: businesses; houses; graffiti. see Chapter 6, Elemental Coding Methods.

Domain and Taxonomic Coding – The systematic search for and categorization of cultural terms. An ethnographic method for discovering the cultural knowledge people use to organize their behaviors and interpret their experiences. Categories that categorize other categories are domains. Taxonomies are hierarchical lists of things classified together under a domain. A verbatim data record to extract folk terms is mandatory, but when no specific folk terms are generated by participants, the researcher develops his or her own analytic terms. Appropriate for ethnographic studies and constructing a detailed topics list or index of major categories or themes in the data. Particularly effective for studying microcultures with a specific repertoire of folk terms. Examples: Domain trash talking; taxonomy rude talking, nasty talking, slandering, spreading rumors. see Chapter 10, Procedural Coding Methods.

Dramaturgical Coding – Applies the terms and conventions of character, play script, and production analysis to qualitative data. For character, these terms include such items as participant objectives (obj), conflicts (con), tactics (tac), attitudes (att), emotions (emo), and subtexts (sub). Appropriate for exploring intrapersonal and interpersonal participant experiences and actions in case studies, power relationships, and the processes of human motives and agency. Examples: obj: confront; tac: admonish; att: ironic. see Chapter 8, Literary and Language Coding Methods.

Eclectic Coding – Employs a purposeful and compatible combination of two or more first cycle coding methods, with the understanding that analytic memo writing and second cycles of recoding will synthesize the variety and number of codes into a more unified scheme. Appropriate for virtually all qualitative studies, but particularly for beginning qualitative researchers learning how to code data, and studies with a wide variety of data forms. Also appropriate

as an initial, exploratory technique with qualitative data; when a variety of processes or phenomena are to be discerned from the data; or when combined first cycle coding methods will serve the research study's questions and goals. Examples: A few first cycle eclectic codes may consist of scared (Emotion Code), "i've got to" (In Vivo Code), and doubt vs. hope (Versus Code). Second cycle recoding of the same data set employs Dramaturgical Codes throughout: obj: "finish my dissertation"; tac: tasks and timetable. see Chapter 9, Exploratory Coding Methods.

Elaborative Coding – Builds on a previous study's codes, categories, and themes while a current and related study is underway to support or modify the researcher's observations developed in an earlier project. Hence, a minimum of two different yet related studies is necessary. Appropriate for qualitative studies that build on or corroborate previous research and investigations, even if there are slight differences between the two studies' research concerns, conceptual frameworks, and participants. Example: A case study's future career/life goals from the first study becomes a life calling in the second study. see Chapter 14, Second Cycle Cumulative Coding Methods.

Elemental Coding Methods – Foundation approaches to coding qualitative data. Basic but focused filters for reviewing the corpus to build a foundation for future coding cycles. See: Structural, Descriptive, In Vivo, Process, Initial, and Concept Coding in Chapter 6, Elemental Coding Methods.

Emotion Coding – Labels the emotions recalled and/or experienced by the participant, or inferred by the researcher about the participant. Appropriate for virtually all qualitative studies, but particularly for those that explore intrapersonal and interpersonal participant experiences and actions. Provides insight into the participants' perspectives, worldviews, and life conditions. Examples:

“tearing me apart”; mild surprise; relief. see Chapter 7, Affective Coding Methods.

Evaluation Coding – Application of (primarily) non-quantitative codes to qualitative data that assign judgments about the merit, worth, or significance of programs or policy. Appropriate for policy, critical, action, organizational, and evaluation studies, particularly across multiple sites and extended periods of time. Selected coding methods profiled can be applied to or supplement Evaluation Coding, but the method is also customized for specific studies. Examples: + testing: “fine”; – drugs: negative reaction; rec: doctor’s support. see Chapter 7, Affective Coding Methods.

Exploratory Coding Methods – Open-ended investigation and preliminary assignments of codes to the data before more refined coding systems are developed and applied. Can serve as preparatory work before more specific first cycle or second cycle coding methods. See: Holistic, Provisional, Hypothesis, and Eclectic Coding in Chapter 9, Exploratory Coding Methods.

Focused Coding – Follows In Vivo, Process, and/or Initial Coding. Categorizes coded data based on thematic or conceptual similarity. Searches for the most frequent or significant Initial Codes to develop the most salient categories in the data corpus. Appropriate for virtually all qualitative studies, but particularly for studies employing grounded theory methodology, and the development of major categories or themes from the data. Develops categories without attention at this time to Axial Coding’s properties and dimensions. Examples: Category maintaining friendships; Category setting criteria for friendships. see Chapter 13, Second Cycle Grounded Theory Coding Methods.

Grammatical Coding Methods – These refer not to the grammar of language but to the basic grammatical principles of coding

techniques. They enhance the organization, nuances, and texture of qualitative data. See: Attribute, Magnitude, Subcoding, and Simultaneous Coding in Chapter 5, Grammatical Coding Methods.

Grounded Theory Coding Methods – The canon of first and second cycle coding methods from classic and constructivist grounded theory. See: In Vivo, Process, and Initial Coding in Chapter 6, Elemental Coding Methods; and Focused, Axial, and Theoretical Coding in Chapter 13, Second Cycle Grounded Theory Coding Methods.

Holistic Coding – Applies a single code to a large unit of data in the corpus, rather than line-by-line coding, to capture a sense of the overall contents and the possible categories that may develop. A preparatory approach to a unit of data before a more detailed coding or categorization process through first or second cycle methods. The coded unit can be as small as one-half a page in length, or as large as an entire completed study. Appropriate for beginning qualitative researchers learning how to code data, and studies with a wide variety of data forms. Applicable when the researcher has a general idea of what to investigate in the data. Example: For a 140-word interview excerpt, the entire passage receives the code cautionary advice. see Chapter 9, Exploratory Coding Methods.

Hypothesis Coding – Application of a researcher-generated, predetermined list of codes to qualitative data specifically to assess a researcher-generated hypothesis. The codes are developed from a theory/prediction about what will be found in the data before they have been collected or analyzed. Statistical applications, if needed, can range from simple frequency counts to more complex multivariate analyses. Appropriate for hypothesis testing, content analysis, and analytic induction of the qualitative data set, particularly the search for rules, causes, and explanations in the data.

Can also be applied midway or later in a qualitative study's data collection or analysis to confirm or disconfirm any assertions or theories developed thus far. Example: It is hypothesized that the responses to a particular question about language issues in the USA will generate one of four answers from participants: right—We have the right to speak whatever language we want in America; same—We need to speak the same language in America—English; more—We need to know how to speak more than one language; and nr—no response or "I don't know." see Chapter 9, Exploratory Coding Methods.

In Vivo Coding – Uses words or short phrases from the participant's own language in the data record as codes. May include folk or indigenous terms of a particular culture, subculture, or microculture to suggest the existence of the group's cultural categories. Appropriate for virtually all qualitative studies, but particularly for beginning qualitative researchers learning how to code data, and studies that prioritize and honor the participant's voice. Part of and employed in other grounded theory methods (Process, Initial, Focused, Axial, and Theoretical Coding). In Vivo Codes are placed in quotation marks. Examples: "hated school"; "stopped caring"; "i don't know". see Chapter 6, Elemental Coding Methods.

Initial Coding – The first major open-ended stage of a grounded theory approach to the data. Can incorporate In Vivo and Process Coding, plus other methods. Breaks down qualitative data into discrete parts, closely examines them, and compares them for similarities and differences for categorization. Appropriate for virtually all qualitative studies, but particularly for beginning qualitative researchers learning how to code data, grounded theory studies, ethnographies, and studies with a wide variety of data forms. Examples: dispelling stereotypes; qualifying: "kind of"; labeling: "geeky people". see Chapter 6, Elemental Coding Methods.

Literary and Language Coding Methods – These borrow from established approaches to the analysis of literature and oral communication to explore underlying sociological, psychological, and cultural constructs. See: Dramaturgical, Motif, Narrative, Metaphor, and Verbal Exchange Coding in Chapter 8, Literary and Language Coding Methods.

Longitudinal Coding – The attribution of selected change processes to qualitative data collected and compared across time. Matrices organize data from fieldwork observations, interview transcripts, and document excerpts into temporal categories that permit researcher analysis and reflection on their similarities and differences from one time period through another to generate inferences of change, if any. Appropriate for studies that explore identity, change, and development in individuals, groups, and organizations through extended periods of time. Examples of change processes: increase and emerge; constant and consistent; cumulative. see Chapter 14, Second Cycle Cumulative Coding Methods.

Magnitude Coding – Consists of and adds a supplemental alphanumeric or symbolic code or subcode to an existing coded datum or category to indicate its intensity, frequency, direction, presence, or evaluative content. Magnitude Codes can be qualitative, quantitative, and/or nominal indicators to enhance description. Appropriate for mixed methods and qualitative studies in social science and health care disciplines that also support quantitative measures as evidence of outcomes. Examples: strongly (str); 1 = low; + = present. see Chapter 5, Grammatical Coding Methods.

Metaphor Coding – Identifies through In Vivo Coding the participants' use of metaphors or vivid comparisons to related ideas and imagery in narrative and visual data. Similes and other comparable literary devices that compare or represent one thing to another (analogy, allusion, synecdoche, metonymy, symbol, etc.) are also considered part

of Metaphor Coding. Appropriate for affective and emotional inquiries, and studies where metaphors function as data-condensing and pattern-making devices and to help connect findings to theory. Examples: theatre participation as a metaphoric *journey*, an "adventure" that "acted as a bridge" to get "back on the right path". see Chapter 8, Literary and Language Coding Methods.

Motif Coding - Application to qualitative data of previously developed or original index codes used to classify types and elements of folk tales, myths, and legends. A motif as a literary device is an element that appears several times within a narrative work, yet in Motif Coding the element might appear several times or only once within a data excerpt. Appropriate for exploring intrapersonal and interpersonal participant experiences and actions in case studies, particularly those leading toward narrative or arts-based presentational forms, together with identity studies and oral histories. Examples: places of captivity; tedious tasks; ordeals. see Chapter 8, Literary and Language Coding Methods.

Narrative Coding - Applies the conventions of (primarily) literary elements and analysis to qualitative texts most often in the form of stories. Appropriate for exploring intrapersonal and interpersonal participant experiences and actions to understand the human condition through narrative. Suitable for such inquiries as identity development, critical/feminist studies, documentation of the life course, and narrative inquiry. Examples: vignette; aside; foreshadowing. see Chapter 8, Literary and Language Coding Methods.

OCM (Outline of Cultural Materials) Coding - Uses the OCM, an extensive numbered index of cultural topics developed by anthropologists for the classification of fieldwork data from ethnographic studies. A systematic coding system which has

been applied to the Human Relations Area Files, a massive collection of ethnographic field notes and accounts about hundreds of world cultures. OCM coding is appropriate for ethnographic studies (cultural and cross-cultural) and studies of artifacts, folk art, and human production. Examples: 292 special garments; 301 ornament; 535 dance. see Chapter 10, Procedural Coding Methods.

Pattern Coding – A category label ("meta code") that identifies similarly coded data. Organizes the corpus into sets, themes, or constructs and attributes meaning to that organization. Appropriate for second cycle coding; development of major themes from the data; the search for rules, causes, and explanations in the data; examining social networks and patterns of human relationships; or the formation of theoretical constructs and processes. Example: dysfunctional direction as the Pattern Code for the related codes unclear instructions, rushed directions, "you never told me", etc. see Chapter 14, Second Cycle Cumulative Coding Methods.

Procedural Coding Methods – Prescriptive, pre-established coding systems or very specific ways of analyzing qualitative data. See: Protocol, OCM (Outline of Cultural Materials), Domain and Taxonomic, and Causation Coding in Chapter 10, Procedural Coding Methods.

Process Coding – Uses gerunds ("-ing" words) exclusively to connote observable and conceptual action in the data. Processes also imply actions intertwined with the dynamics of time, such as things that emerge, change, occur in particular sequences, or become strategically implemented. Appropriate for virtually all qualitative studies, but particularly for grounded theory research that extracts participant action/interaction and consequences, and the documentation of routines and rituals. Part of and employed in other grounded theory methods (In Vivo, Initial, Focused, Axial, and

Theoretical Coding). Examples: telling others; rejecting rumors; sticking by friends. see Chapter 6, Elemental Coding Methods.

Protocol Coding – The coding of qualitative data according to a pre-established, recommended, standardized, or prescribed system. The generally comprehensive lists of codes and categories provided to the researcher are applied after his or her own data collection. Some protocols also recommend specific qualitative (and quantitative) data analytic techniques with the coded data. Appropriate for qualitative studies in disciplines with previously developed and field-tested coding systems. Examples: alcoh = alcoholism or drinking; drug = drug use; money = lack of money or financial problems. see Chapter 10, Procedural Coding Methods.

Provisional Coding – Begins with a "start list" of researcher-generated codes based on what preparatory investigation suggests might appear in the data before they are collected and analyzed. Provisional Codes can be revised, modified, deleted, or expanded to include new codes. Appropriate for qualitative studies that build on or corroborate previous research and investigations. Example: Language arts and drama research suggest the following may be observed in child participants during classroom work: vocabulary development; oral language fluency; story comprehension; discussion skills. see Chapter 9, Exploratory Coding Methods.

Simultaneous Coding – The application of two or more different codes to a single qualitative datum, or the overlapped occurrence of two or more codes applied to sequential units of qualitative data. Appropriate when the content of the data suggests multiple meanings (e.g., descriptively and inferentially) that necessitate and justify more than one code. Examples: inequity simultaneously coded to a datum with school district bureaucracy; the hierarchical

code fundraising with four nested codes, delegating, motivating, promoting, and transacting. see Chapter 5, Grammatical Coding Methods.

Structural Coding - Applies a content-based or conceptual phrase to a segment of data that relates to a specific research question to both code and categorize the data corpus. Similarly coded segments are then collected together for more detailed coding and analysis. Appropriate for virtually all qualitative studies, but particularly for those employing multiple participants, standardized or semi-structured data-gathering protocols, hypothesis testing, or exploratory investigations to gather topics lists or indexes of major categories or themes. Example: Research question: What types of smoking cessation techniques (if any) have participants attempted in the past? Structural Code: unsuccessful smoking cessation techniques. see Chapter 6, Elemental Coding Methods.

Subcoding - A second-order tag assigned after a primary code to detail or enrich the entry. Appropriate for virtually all qualitative studies, but particularly for ethnographies and content analyses, studies with multiple participants and sites, and studies with a wide variety of data forms. Also appropriate when general code entries will later require more extensive indexing, categorizing, and subcategorizing into hierarchies or taxonomies, or for nuanced qualitative data analysis. Can be employed after an initial yet general coding scheme has been applied and the researcher realizes that the classification scheme may have been too broad, or added to primary codes if particular qualities or interrelationships emerge. Examples: houses–yards; houses–décor; houses–security. see Chapter 5, Grammatical Coding Methods.

Theme - Unlike a code, a theme is an extended phrase or sentence that identifies what a unit of data is about and/or what it means. Themes are researcher interpretations and

constructions about the ideas inherent in patterns of action. Also a strategic approach for metasummary and metasynthesis studies. Examples: teaching as social work; technology is now an embedded facet of education. see Chapter 11, Methods of Themeing the Data.

Themeing the Data: Categorically – Provides descriptive detail about the patterns observed and constructed by the analyst. Rather than using a short category label, a theme expands on the major ideas through the use of an extended phrase or sentence. The analytic goals are to develop an overarching theme from the data corpus, or an integrative theme that weaves various themes together into a coherent narrative. Appropriate for all studies but particularly case study research, small-scale ethnographic projects, and mixed methods studies for comparison and integration with themes generated from quantitative and qualitative data. Can also lead to the development of theoretical constructs. Examples: medications require trial and error; copd restricts daily respiratory functions; how copd "suffocates." see Chapter 11, Methods of Themeing the Data.

Themeing the Data: Phenomenologically – Symbolizes data through two specific prompts: what something *is* (the manifest) and what something *means* (the latent). Appropriate for phenomenological studies and those exploring a participant's psychological world of beliefs, constructs, identity development, and emotional experiences. Can also lead to the development of theoretical constructs. Examples: For a study exploring what it means "to belong": belonging is knowing the details of the culture; belonging means feeling "grounded." see Chapter 11, Methods of Themeing the Data.

Theoretical Coding – Functions like an umbrella that covers and accounts for all other codes and categories formulated thus far in grounded theory analysis. Progresses toward

discovering the central/core category that identifies the primary theme or major conflict, obstacle, problem, issue, or concern to participants. The code is not the theory itself, but an abstraction that models the integration of all codes and categories. Appropriate as the culminating step toward achieving a grounded theory. Examples: survival; discriminating; personal preservation while dying. see Chapter 13, Second Cycle Grounded Theory Coding Methods.

Values Coding – The application of codes to qualitative data that reflect a participant's values, attitudes, and beliefs, representing his or her perspectives or worldview. A value (V:) is the importance we attribute to oneself, another person, thing, or idea. An attitude (A:) is the way we think and feel about ourselves, another person, thing, or idea. A belief (B:) is part of a system that includes values and attitudes, plus personal knowledge, experiences, opinions, assumptions, biases, prejudices, morals, and other interpretive perceptions of the social world. Appropriate for virtually all qualitative studies, but particularly for those that explore cultural values, identity, intrapersonal and interpersonal participant experiences and actions in case studies, appreciative inquiry, oral history, and critical ethnography. Examples: v: respect; a: dislikes "lame excuses"; b: the ideal is possible. see Chapter 7, Affective Coding Methods.

Verbal Exchange Coding – A signature ethnographic approach to analyzing conversation through reflection on social practices and interpretive meanings. Requires verbatim transcript analysis and interpretation of the types of conversation of key moments in the exchanges. Appropriate for a variety of human communication studies, studies that explore cultural practices, and the analysis of pre-existing ethnographic texts such as autoethnographies. Examples (of verbal exchanges): *Skilled Conversation*, *Routines and*

Rituals, *Surprise-and-Sense-Making Episodes*. see Chapter 8, Literary and Language Coding Methods.

Versus Coding – Identifies in dichotomous or binary terms the individuals, groups, social systems, organizations, phenomena, processes, concepts, etc., in direct conflict with each other, a duality that manifests itself as an X VS Y code. Appropriate for policy studies, discourse analysis, critical ethnography, action and practitioner research, and qualitative data sets that suggest strong conflicts, injustice, power imbalances, or competing goals within, among, and between participants. Examples: “impossible” vs realistic; custom vs comparison; standardization vs “variances”. see Chapter 7, Affective Coding Methods.

APPENDIX B A GLOSSARY OF ANALYTIC RECOMMENDATIONS

Below are brief descriptors of the coding methods profiles' recommendations for further analytic work with coded qualitative data. See the References for additional information and a discussion of procedures.

Action and Practitioner Research (Altrichter et al., 1993; Coghlan & Brannick, 2014; Fox et al., 2007; Stringer, 2014) – A proactive research project geared toward constructive and positive change in a social setting by investigating one's own practice or participants' conflicts and needs. See: In Vivo, Process, Emotion, Values, Versus, Evaluation, Verbal Exchange, Holistic, Causation, Pattern, Elaborative Coding.

Assertion Development (Erickson, 1986) – The interpretive construction of credible and trustworthy observational summary statements based on confirming and disconfirming evidence in the qualitative data corpus. See: Magnitude, Values, Versus, Evaluation, Hypothesis, Causation, Theoretical, Pattern, Elaborative, Longitudinal Coding; Themeing the Data.

Case Studies (Merriam, 1998; Stake, 1995) – Focused in-depth study and analysis of a single unit: one person, one group, one organization, one event, etc. See: Attribute, In Vivo, Process, Values, Evaluation, Dramaturgical, Motif, Narrative, Metaphor, Causation, Longitudinal Coding; Themeing the Data.

Cognitive Mapping (Miles et al., 2020; Northcutt & McCoy, 2004) – The detailed visual representation and presentation, most often in flow chart format, of a cognitive process

(negotiating, decision-making, etc.). See: Process, Emotion, Domain and Taxonomic, Causation Coding.

Componential and Cultural Theme Analysis (McCurdy et al., 2005; Spradley, 1979, 1980) – The search for attributes of and relationships among domains/categories for the discovery of cultural meaning. See: Domain and Taxonomic Coding.

Content Analysis (Krippendorff, 2013; Neuendorf, 2017; Schreier, 2012; Wilkinson & Birmingham, 2003) – The systematic qualitative and/or quantitative analysis of the contents of a data corpus (documents, texts, videos, etc.). See: Attribute, Magnitude, Subcoding, Simultaneous, Structural, Descriptive, Values, Metaphor, Provisional, Hypothesis, OCM, Domain and Taxonomic, Pattern Coding.

Cross-cultural Content Analysis (Bernard, 2018) – A content analysis that compares data from two or more cultures. See: Attribute, Subcoding, Descriptive, Concept, Values, OCM, Domain and Taxonomic Coding.

Data Matrices for Univariate, Bivariate, and Multivariate Analysis (Bernard, 2018) – The tabular layout of variable data for inferential analysis (e.g., histograms, ANOVA, factor analysis). See: Magnitude, Hypothesis, OCM Coding.

Decision Modeling (Bernard, 2018) – The graphic flow chart layout or series of if–then statements of choices participants will make under particular conditions. See: Process, Evaluation, Causation, Pattern Coding.

Descriptive Statistical Analysis (Bernard, 2018) – The computation of basic descriptive statistics such as the median, mean, correlation coefficient for a set of data. See: Magnitude, Subcoding, Descriptive, OCM Coding.

Discourse Analysis (Bischoping & Gazso, 2016; Gee, 2011; Rapley, 2018; Willig, 2015) – The strategic examination of

speech or texts for embedded and inferred socio-political meanings. See: In Vivo, Process, Values, Versus, Evaluation, Dramaturgical, Narrative, Metaphor, Verbal Exchange, Causation Coding; Themeing the Data.

Domain and Taxonomic Analysis (Schensul et al., 1999b; Spradley, 1979, 1980) – The researcher's organizational and hierarchical arrangement of participant-generated data into cultural categories of meaning. See: Subcoding, Descriptive, In Vivo, OCM, Domain and Taxonomic Coding.

Framework Policy Analysis (Ritchie & Spencer, 1994) – A signature, multistage analytic process (e.g., indexing, charting, mapping) with qualitative data to identify key issues, concepts, and themes from social policy research. See: Values, Versus, Evaluation Coding.

Frequency Counts (LeCompte & Schensul, 2013) – Basic descriptive statistical summary information such as totals, frequencies, ratios, percentages about a set of data. See: Attribute, Magnitude, Subcoding, Structural, Descriptive, In Vivo, Emotion, Values, Evaluation, Hypothesis, OCM Coding.

Graph-theoretic Techniques for Semantic Network Analysis (Namey et al., 2008) – Statistics-based analyses (e.g., hierarchical clustering, multidimensional scaling) of texts to identify associations and semantic relationships within the data. See: Attribute, Magnitude, Simultaneous, Structural, Descriptive, Evaluation, Domain and Taxonomic Coding.

Grounded Theory (Bryant, 2017; Bryant & Charmaz, 2007, 2019; Charmaz, 2014; Corbin & Strauss, 2015; Stern & Porr, 2011) – A systematic methodological approach to qualitative inquiry that generates theory "grounded" in the data themselves. See: Descriptive, In Vivo, Process, Initial, Concept, Versus, Evaluation, Causation, Focused, Axial, Theoretical, Pattern, Elaborative, Longitudinal Coding.

Illustrative Charts, Matrices, Diagrams (Evergreen, 2020; Miles et al., 2020; Morgan et al., 2008; Northcutt & McCoy, 2004; Paulston, 2000; Wheeldon & Åhlberg, 2012) – The visual representation and presentation of qualitative data and their analysis through illustrative summary. See: Attribute, Magnitude, Simultaneous, Structural, Process, Evaluation, Domain and Taxonomic, Causation, Theoretical, Longitudinal Coding; see also Chapter 12.

Interactive Qualitative Analysis (Northcutt & McCoy, 2004) – A signature method for facilitated and participatory qualitative data analysis and the computation of frequencies and interrelationships in the data. See: In Vivo, Values, Versus, Evaluation, Focused, Pattern Coding.

Interrelationship (Saldaña, 2003) – Qualitative "correlation" that examines possible influences and affects within, between, and among categorized data. See: Subcoding, Simultaneous, Structural, Emotion, Causation, Axial, Longitudinal Coding.

Life Course Mapping (Clausen, 1998) – A chronological diagrammatic display of a person's life course with emphasis on the range of high and low points within various time periods. See: Emotion, Values, Motif, Narrative, Longitudinal Coding; see also Longitudinal Coding in Chapter 14.

Logic Models (Knowlton & Phillips, 2013) – The flow diagramming of a complex, interconnected chain of events across an extended period of time. See: Process, Evaluation, Hypothesis, Causation, Pattern, Longitudinal Coding.

Longitudinal Qualitative Research (Giele & Elder, 1998; McLeod & Thomson, 2009; Saldaña, 2003, 2008) – The collection and analysis of qualitative data from long-term fieldwork. See: Attribute, Magnitude, Descriptive, Values, Evaluation, Hypothesis, Axial, Theoretical, Elaborative,

Longitudinal Coding; see also Longitudinal Coding in Chapter 14.

Memo Writing about the Codes/Themes (Charmaz, 2014; Corbin & Strauss, 2015; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987) – The researcher's written reflections on the study's codes/themes and complex meanings of patterns in the qualitative data. See: In Vivo, Process, Initial, Concept, Evaluation, Holistic, OCM, Domain and Taxonomic, Causation, Focused, Axial, Theoretical, Elaborative, Longitudinal Coding; Themeing the Data; see also Chapter 3.

Meta-ethnography, Metasummary, and Metasynthesis (Finfgeld, 2003; Major & Savin-Baden, 2010; Noblit & Hare, 1988; Sandelowski & Barroso, 2007; Sandelowski et al., 1997) – An analytic review of multiple and related qualitative studies to assess their commonalities and differences of observations for summary or synthesis. See: Domain and Taxonomic, Axial, Elaborative Coding; Themeing the Data.

Metaphoric Analysis (Coffey & Atkinson, 1996; Lakoff & Johnson, 2003; Todd & Harrison, 2008) – Examination of how participant language is used figuratively (e.g., metaphor, analogy, simile, symbol). See: In Vivo, Concept, Emotion, Motif, Narrative, Metaphor, Verbal Exchange Coding; Themeing the Data.

Mixed Methods Research (Creamer, 2018; Creswell, 2014; Creswell & Plano Clark, 2018; Tashakkori & Teddlie, 2010) – A methodological research approach that compatibly combines quantitative and qualitative methods for data collection and analysis. See: Attribute, Magnitude, Descriptive, Evaluation, Provisional, Hypothesis, OCM, Pattern Coding.

Narrative Inquiry and Analysis (Bischoping & Gazso, 2016; Clandinin & Connelly, 2000; Coffey & Atkinson, 1996; Cortazzi, 1993; Coulter & Smith, 2009; Daiute & Lightfoot, 2004; Holstein & Gubrium, 2012; Murray, 2015; Riessman, 2008)

– Qualitative investigation, representation, and presentation of the participants' lives through the use of story. See: In Vivo, Emotion, Values, Versus, Dramaturgical, Motif, Narrative, Verbal Exchange, Longitudinal Coding; Themeing the Data.

Performance Studies (Madison, 2012; Madison & Hamera, 2006) – A discipline that acknowledges "performance" in its broadest sense as an inherent quality of social interaction and social products. See: Dramaturgical, Narrative, Verbal Exchange Coding.

Phenomenology (Giorgi & Giorgi, 2003; Smith et al., 2009; Vagle, 2018; van Manen, 1990; Wertz et al., 2011) – The study of the nature or meaning (essences and essentials) of everyday or significant experiences. See: In Vivo, Concept, Emotion, Values, Dramaturgical, Motif, Narrative, Metaphor, Verbal Exchange, Causation Coding; Themeing the Data.

Poetic and Dramatic Writing (Denzin, 1997, 2003; Glesne, 2011; Knowles & Cole, 2008; Leavy, 2015; Saldaña, 2005a, 2011a) – Arts-based approaches to qualitative inquiry and presentation using poetry and drama as expressive literary genres. See: In Vivo, Emotion, Dramaturgical, Motif, Narrative, Metaphor, Verbal Exchange Coding; Themeing the Data.

Political Analysis (Hatch, 2002) – A qualitative approach that acknowledges and analyzes the "political" conflicts and power issues inherent in social systems and organizations such as schools and bureaucracies. See: Concept, Values, Dramaturgical, Versus, Evaluation Coding.

Polyvocal Analysis (Hatch, 2002) – A qualitative approach that acknowledges and analyzes the multiple and sometimes contradictory perspectives of participants, giving voice to all. See: In Vivo, Versus, Evaluation, Narrative Coding.

Portraiture (Lawrence-Lightfoot & Davis, 1997) – A signature approach to qualitative inquiry that renders holistic, complex, and dimensional narratives of participants' perspectives and experiences. See: In Vivo, Emotion, Values, Dramaturgical, Motif, Narrative, Longitudinal Coding; Themeing the Data.

Qualitative Evaluation Research (Patton, 2008, 2015) – An approach that collects and analyzes participant and programmatic data to assess merit, worth, effectiveness, quality, value, etc. See: Attribute, Magnitude, Subcoding, Descriptive, In Vivo, Values, Versus, Evaluation, Holistic, Provisional, Hypothesis, Causation, Pattern Coding.

Quick Ethnography (Handwerker, 2001) – An approach to fieldwork in which the research parameters (questions, observations, goals, etc.) are tightly focused and efficient when time is limited. See: Magnitude, Structural, Descriptive, Concept, Holistic, Provisional, Hypothesis, OCM, Domain and Taxonomic Coding.

Sentiment Analysis (Ignatow & Mihalcea, 2017; Liu, 2015) – The analysis of subjective qualities in written texts (primarily social media) such as opinions, attitudes, emotions, and evaluations; also known as opinion mining. See: Magnitude, In Vivo, Emotion, Values, Evaluation Coding.

Situational Analysis (Clarke et al., 2015a, 2018) – A signature approach to qualitative data analysis (with foundations in grounded theory) that acknowledges and visually maps the complexities of social life. See: Simultaneous, Initial, Emotion, Versus, Evaluation, Domain and Taxonomic, Causation, Focused, Axial, Theoretical, Pattern, Elaborative, Longitudinal Coding.

Social Media Analysis (Kozinets, 2020; Paulus & Wise, 2019; Rogers, 2019; Salmons, 2016) – The collection and quantitative and/or qualitative analysis of online data from

sources such as Facebook, Twitter, YouTube, Instagram, blogs, vlogs, and other Internet websites. See: Attribute, Magnitude, Descriptive, In Vivo, Emotion, Values, Evaluation, Dramaturgical, Verbal Exchange, Hypothesis, Causation, Focused, Axial, Pattern Coding; Themeing the Data.

Splitting, Splicing, and Linking Data (Dey, 1993) – A systematic approach to the categorization and interrelationship construction of units of qualitative data, most often assisted through CAQDAS. See: Magnitude, Subcoding, Simultaneous, Structural, Process, Evaluation, Domain and Taxonomic, Causation, Focused, Axial, Pattern Coding.

Survey Research (Fowler, 2014; Wilkinson & Birmingham, 2003) – Standardized approaches and instrument formats, most often in written form, for gathering quantitative and qualitative data from multiple participants. See: Attribute, Magnitude, Structural, Values, Provisional Coding.

Thematic Analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998; Smith & Osborn, 2015) – Summary and analysis of qualitative data through the use of extended phrases and/or sentences rather than shorter codes. See: Structural, Descriptive, In Vivo, Process, Initial, Concept, Values, Evaluation, Motif, Narrative, Verbal Exchange, Holistic, Provisional, Domain and Taxonomic, Focused, Axial, Theoretical, Pattern, Elaborative, Longitudinal Coding; Themeing the Data.

Vignette Writing (Erickson, 1986; Graue & Walsh, 1998) – The written presentation and representation of a small scene of social action that illustrates and supports a summary assertion. See: Process, Dramaturgical, Motif, Narrative, Metaphor, Verbal Exchange Coding; Themeing the Data.

Within-case and Cross-case Displays (Miles et al., 2020; Shkedi, 2005) – Visual summaries of qualitative data and

analysis into tables, charts, matrices, diagrams, graphics, etc., that illustrate the contrasts and ranges of observations. See: Attribute, Magnitude, Subcoding, Structural, Descriptive, Versus, Evaluation, Domain and Taxonomic, Causation, Elaborative, Longitudinal Coding.

APPENDIX C FORMS FOR ADDITIONAL CODING METHODS

The following pages are provided for documenting additional first or second cycle coding methods located in other sources or developed by the researcher.

_____ Coding

Source(s):

Description:

Application(s):

Example:

Analysis:

Notes:

_____ Coding

Source(s):

Description:

Application(s):

Example:

Analysis:

Notes:

_____ Coding

Source(s):

Description:

Application(s):

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Analysis:

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Source(s):

Description:

Application(s):

Example:

Analysis:

Notes:

_____ Coding

Source(s):

Description:

Application(s):

Example:

Analysis:

Notes:

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