

FUNDAMENTALS OF QUALITATIVE RESEARCH

U N D E R S T A N D I N G
Q U A L I T A T I V E R E S E A R C H



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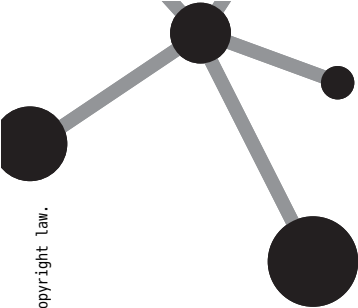
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A SURVEY OF QUALITATIVE DATA ANALYTIC METHODS

DATA ANALYSIS is often given short shrift in introductory textbooks on qualitative research. Therefore, I devote a major portion of this book to the topic to provide readers with a more comprehensive overview. But it is still an incomplete portrait of the process, for qualitative data analysis can be intricate and, at times, conceptual and abstract. Nevertheless, I focus on what I perceive as analytic fundamentals with a few examples to illustrate selected methods.

One approach to understanding the social world is to discern its patterns and to construct human meanings that seem to capture life's essences and essentials. Thus, the purpose and outcome of data analysis is to reveal to others through fresh insights what we've observed and discovered about the human condition. Just as there are a variety of genres, elements, and styles of qualitative research, so too are there a variety of methods available for qualitative data analysis. Analytic choices are most often based on what methods will harmonize with your genre selection and conceptual framework, what will generate the most sufficient answers to your research questions, and what will best represent and present the project's findings.

Analysis can range from the factual to the conceptual to the interpretive. Analysis can also range from a straightforward descriptive account to an emergently constructed grounded theory to an evocatively composed short story. A qualitative research project's outcomes may range from rigorously achieved, insightful answers, to open-ended, evocative questions; from rich descriptive detail to a bullet-pointed list of themes; and from third-person, objective reportage to first-person, emotion-laden poetry. Just as there are multiple destinations in qualitative research, there are multiple pathways and journeys along the way.

Since qualitative research's design, fieldwork, and data collection are most often provisional, emergent, and evolutionary processes, you reflect on and analyze the data *as* you gather them and proceed through the project. If preplanned methods are not working, you change them to secure the data you need. There is generally a postfieldwork period when continued reflection and more systematic data analysis occur, concurrent with or followed by additional data collection, if needed, and the more formal write-up of the study, which is in itself an analytic act. Through fieldnote writing, interview transcribing, analytic memo writing, and other documentation processes, you gain cognitive ownership of your data, and the intuitive, tacit, synthesizing capabilities of your brain begin sensing patterns, making connections, and seeing the bigger picture. But there are also systematic ways of reorganizing and reflecting on your qualitative data to help you along.

Methodologist Robert E. Stake (1995) observes, "Good research is not so much about good methods as much as it is about good thinking" (p. 19). Thus, a brief discussion of how to "think qualitatively" is addressed first.

Pattern Construction

The natural world is filled with patterns because we, as humans, have constructed them as such. Stars in the night sky are not just a random assembly; our ancestors pieced them together to form constellations like the Big Dipper. A collection of flowers growing wild in a field has a pattern, as does an individual flower's patterns of leaves and petals. Look at the physical objects humans have created and notice how pattern oriented we are in our construction,

organization, and decoration. Look around you in your environment and notice how many patterns are evident on your clothing, in a room, and on most objects themselves. Even our daily and long-term human actions are reproduced patterns in the form of roles, rules, routines, and rituals.

This human propensity for pattern making follows us into qualitative data analysis. From the vast array of interview transcripts, fieldnotes, documents, and other forms of data, there is this instinctive, hardwired need to bring order to the collection—to not just reorganize it, but to look for and construct patterns out of it. The discernment of patterns is one of the first steps in the data analytic process, and the methods described later are recommended ways to do so.

Category Construction

Humans also categorize things in innumerable ways. Think of an average apartment or house's layout. Why is the toilet not next to the refrigerator? Why is a working television not in a closet? The rooms of a dwelling have been constructed or categorized by their builders and occupants according to function. A kitchen is designated as an area to store and prepare food and the cooking and dining materials such as pots, pans, utensils, and so on. A bedroom is designated for sleeping, a closet for clothing storage, a bathroom for bodily functions and hygiene, and so on. Each room is like a *category* in which related and relevant *patterns of human action* occur. Of course, there are exceptions now and then, such as eating breakfast in bed rather than in a dining area, or living in a small studio apartment in which most possessions are contained within one large room (but nonetheless are most often organized and clustered into subcategories according to function and optimal use of space).

The point here is that the patterns of social action we designate into particular categories during qualitative data analysis are not perfectly bounded. Category construction is our best attempt to cluster the most seemingly alike things into the most seemingly appropriate groups. Categorizing is organizing and ordering the vast array of data from a study because it is from these larger and meaning-rich units that we can better grasp the particular features

of each one, and the categories' possible interrelationships with one another.

Interaction, Interplay, and Interrelationship

Another task of qualitative data analysis is to explore the ways our patterns and categories *interact* and *interplay*. I use these terms to suggest the qualitative equivalent of statistical correlation, but interaction and interplay are much more than a simple relationship—they imply *interrelationship*. Interaction refers to reverberative connections—for example, how one or more categories might influence and affect the others, how categories operate concurrently, or whether there is some kind of “domino” effect to them. Interplay refers to the structural and processual nature of categories—for example, whether some type of sequential order, hierarchy, or taxonomy exists, whether any overlaps occur, whether there is superordinate and subordinate arrangement, and what types of organizational frameworks or networks might exist among them. There can even be patterns of patterns and categories of categories if your mind thinks conceptually and abstractly enough.

Recall my earlier discussion that the positivist construct “cause and effect” becomes *influences and affects* in qualitative analysis. Our minds can intricately connect multiple phenomena together, but only if the data and their analyses support the constructions. If I asked you to list some factors that lead to university-level student success, you might propose such things as: a strong work ethic, a sense of belonging, supportive faculty, relevant coursework, peer communities, intrinsic motivation, financial resources, and others. But if I asked you to speculate on how these categories might interact and interplay, interesting webs of connection may emerge. For example, you may propose that a sense of belonging is cultivated when supportive faculty *and* peer communities are present. Supportive faculty may intrinsically motivate some students to cultivate a strong work ethic, peer communities may appear competitive and thus encourage the development of a strong work ethic, or some students may step foot on campus with a strong work ethic and intrinsic motivation already embedded within them. Perhaps supportive faculty *and* peer communities *and* intrinsic motivation make your work ethic even stronger. And perhaps

relevant coursework from supportive faculty enhances intrinsic motivation, which develops a strong work ethic.... And so on and so on and so on. We can speculate about the interaction and interplay all we want, but it is only through a more systematic investigation of the data—in other words, good thinking—that we can plausibly establish any possible interrelationships.

Deductive, Inductive, and Abductive Reasoning

Unlike quantitative research, with its statistical formulas and established hypothesis-testing protocols, qualitative research has no standardized methods of data analysis. Rest assured, there are recommended guidelines from the field's scholars and a legacy of analytic strategies from which to draw. But the primary heuristics (or, methods of discovery) you apply during a study are *deductive*, *inductive*, and *abductive* reasoning.

Deduction is what we generally draw and conclude from established facts and evidence. Induction is what we explore and infer to be transferable from the particular to the general, based on an examination of the evidence and an accumulation of knowledge. Abduction is surmising from the evidence that which is most likely, those explanatory hunches based on clues. "Whereas deductive inferences are certain (so long as their premises are true) and inductive inferences are probable, abductive inferences are merely plausible" (Shank, 2008, p. 1).

For example, in my very first ethnographic fieldwork project, I observed a class of junior high school-level students in an inner-city neighborhood over the course of several months. I did not begin my observations with any particular agenda those first few weeks; I simply observed teenage social life as it unfolded before me to get a general feel for the group's subculture. This was observing and working *inductively*, for I was looking at the "evidence" of student actions and talk across time and accumulating knowledge about this specific site.

On one particular school day, I saw a young man enter the classroom wearing a brown T-shirt and black jeans. There was certainly nothing unusual about that, until I observed a young woman entering the classroom also wearing a brown T-shirt and black jeans. And then another young man came in wearing the exact

same colored clothing. Here was a pattern that caught my attention, and I began to think *abductively* for a reason why three adolescents in the same classroom on the same day were wearing similarly colored clothes. Abduction explores the most plausible explanation from an array of possibilities, but the immediate association that came to mind was a memory of my own high school “uniform”: all marching band members wore red shirts and white pants on pep rally days, so I assumed this clothing pattern was something comparable at this school since it generally happened on Fridays. It could also have been mere coincidence that the three students wore comparable outfits on a single day, but the odds of the same three people all wearing brown T-shirts and black jeans on several successive Fridays meant that the action had to have been purposeful.

But my thinking was flawed, for I jumped to a conclusion—a *deduction*—too early without considering other possibilities or investigating all the facts. I was slightly embarrassed at my misassumptions and cultural naiveté when I later interviewed some teachers at the school and learned that selected students who wore brown T-shirts and black jeans on Fridays were members of a local neighborhood gang proudly displaying their colors and affiliation. I learned from this new knowledge that my inductive and abductive thinking processes needed to slow down, to broaden my worldview and learn the subtleties of the school culture I was observing, and to humbly ask others questions about things that puzzled or surprised me, rather than assume I could automatically deduce all the answers I needed.

It is not always necessary to know the names of these three ways of thinking as you’re proceeding through analysis. In fact, you will more than likely reverberate quickly from one to another depending on the task at hand. But what’s important to remember about thinking is: don’t take the obvious for granted; sometimes the expected won’t always happen; your hunches can be quite right and, at other times, quite wrong; examine the evidence carefully and make reasonable inferences; and logically yet imaginatively think about what’s going on and how it all comes together. Futurists and inventors propose three questions when they think about creating new visions for the world: What is possible (induction)? What is plausible (abduction)? What is preferable (deduction)?

These same three questions might be posed as you proceed through qualitative data analysis.

Data Intimacy

Analysis is accelerated as you take cognitive ownership of your data. By reading and rereading the corpus, you gain intimate familiarity with its contents and begin to notice significant details as well as make new insights about their meanings. Patterns, categories, and their interrelationships become more evident the more you know the subtleties of the database.

Qualitative data analysis is concurrent with data collection and management. As interviews are transcribed, fieldnotes fleshed out, and documents filed, the researcher uses the opportunity to read the corpus and make preliminary notations directly on the data documents by highlighting, bolding, italicizing, or noting in some way the salient portions. As these data are initially reviewed, the researcher also composes supplemental analytic memos (discussed later) that include first impressions, reminders for follow-up, preliminary connections, and other thinking matters about the phenomena at work.

Now that these very basic ways of thinking qualitatively have been reviewed, the discussion turns to a selected number of ways to analyze qualitative data. The following is a broad repertoire of methods from which to choose for your particular study, but which one(s) you use depends on which genre of qualitative research has been selected.

Codes and Coding—Process Coding

Coding is a heuristic—a method of discovery—to the meanings of individual sections of data. These codes function as a way of patterning, classifying, and later reorganizing each datum into emergent categories for further analysis. Different types of codes exist for different types of genres and analytic approaches, but this chapter will focus on only a few methods.

A code in qualitative data 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 fieldnotes, journals, documents, literature, artifacts, photographs, video, websites, e-mail correspondence, and so on. The portion of data to be coded can... range in magnitude from a single word to a full sentence to an entire page of text to a stream of moving images.... Just as a title represents and captures a book or film or poem's primary content and essence, so does a code represent and capture a datum's primary content and essence. (Saldaña, 2009, p. 3)

As a first example, the following interview excerpt about a young woman's career development is coded in the right-hand margin in capital letters. The superscript numbers match the datum unit with its code. The method is called process coding, which uses gerunds ("ing" words) exclusively to capture action in the data (Charmaz, 2002; Corbin & Strauss, 2008). Notice that the interviewer's portions are not coded, just the participants'. A code is applied each time the subtopic of the interview shifts, and the same codes can (and should) be used more than once if the subtopics are similar:

I (Interviewer): Where do you see yourself five years from now in your career?

P (Participant): ¹ Well, I hope to be teaching at a university somewhere on the East Coast. ² But times being what they are, I don't know if that's possible.

I: You mean the economy?

P: Yeah. I may have to stay at my current job, assuming that I don't get pink slipped. ³ But hey, at least I've got a job, that's something.

I: Are you actively looking for another job now?

P: ⁴ I've picked up the Job Search newsletter and looked through it just to see what's out there, ⁵ but I think it's too early to leave here. I've gotta get some more years under my belt before I start applying—you know,

¹ HOPING

² DOUBTING

³ BEING GRATEFUL

⁴ JOB SEARCHING

⁵ GAINING EXPERIENCE

more experience to make me look like I know my stuff. ⁶ But, I also check some online job search sites each day, check my e-mails to see if there's any response to letters I've sent out. ⁷ Friends tell me to just keep looking, something eventually turns up, so I hope they're right. ⁶ JOB SEARCHING ⁷ HOPING

Different researchers analyzing this same piece of data may develop completely different codes, depending on their lenses and filters. The above codes are only one person's interpretation of what is happening in the data, not the definitive list. The process codes have transformed the raw data units into new representations for analysis. A listing of them applied to this interview transcript, in the order they appear, reads:

HOPING
DOUBTING
BEING GRATEFUL
JOB SEARCHING
GAINING EXPERIENCE
JOB SEARCHING
HOPING

The codes are then classified into similar clusters. Obviously, the same codes share the same category, but it is also possible that a single code can stand on its own if you feel it is unique enough. Notice that once the codes have been classified, a category label is applied to them. Like the process codes, the category names are also in the form of gerunds to connote action:

Category 1: Career Building

CODE: JOB SEARCHING
CODE: JOB SEARCHING
CODE: GAINING EXPERIENCE

Category 2: Feeling In-Between

CODE: HOPING
CODE: HOPING
CODE: DOUBTING
CODE: BEING GRATEFUL

The two categories, **Career Building** and **Feeling In-Between**, are then reflected upon for how they might interact and interplay. This is where the next major facet of data analysis, analytic memos, enters the scheme.

Analytic Memos—"Think Pieces"

Like fieldnote writing, perspectives vary among practitioners as to the methods for documenting the researcher's analytic insights and subjective experiences. Some advise that such reflections should be included in fieldnote OCs as relevant to the data. Others advise that a separate researcher's journal should be maintained for recording these impressions. And still others advise that these thoughts be documented as separate analytic memos. I prescribe the latter as a method because it is generated by and directly connected to the data themselves.

An analytic memo is a "think piece" of reflexive freewriting, a narrative that sets in words your interpretations of the data. Coding and categorizing are heuristics to detect some of the possible patterns at work within the corpus, and an analytic memo further articulates your deductive, inductive, and abductive thinking processes on what things may mean. What follows is an example of an analytic memo based on the coded and categorized interview transcript above. It is not intended as the final write-up for a publication, but as an open-ended reflection on the phenomena and processes suggested by the data and their analysis thus far. As the study proceeds, however, initial and substantive analytic memos can be revisited and revised for eventual integration into the report itself.

Note how the memo is given a title for future and further categorization, how participant quotes are occasionally included for evidentiary support, and how the category names are bolded and the codes kept in capital letters to show how they integrate or weave into the thinking:

July 29, 2009

EMERGENT CATEGORIES: THE EMOTIONS OF CAREER BUILDING

A **Career Building** trajectory is not just a matter of education and skills, it's a matter of emotional resilience. The current

economic downturn has placed the participant literally and emotionally IN-BETWEEN current and future employment prospects. The participant's feelings ebb and flow in this narrative, suggesting a lack of stability and security, even though she states, "at least I've got a job, that's something." It seems like the emotions of JOB SEARCHING also have a trajectory continuum, from its negative DOUBT, to its middle-ground gratitude (BEING GRATEFUL), to its optimistic and future-oriented HOPING for opportunity. There's a self-defeating tone throughout this interview excerpt. The participant takes positive actions to advance her career, but then quickly negates the efforts with DOUBT.

JOB SEARCHING is HOPING. Early **Career Building** in this case is perhaps not so much a smooth trajectory of one job successively followed by a better one, but more a period of experience-building stasis in which **Feeling In-Between** overlaps with current and future prospects.

Though the metaphor is a bit flawed and limiting, think of codes and their consequent categories as separate picture puzzle pieces, and their integration into an analytic memo as the assembly of the picture.

Codes and Coding—In Vivo Coding

The first example of coding illustrated process coding. A second frequently applied method is called in vivo coding. The root meaning of "in vivo" is "in that which is alive" and refers to a code based on the actual language used by the participant (Strauss, 1987). What words or phrases you select as codes are those that seem to stand out as significant or summative of what's being said. I recommend that in vivo codes be placed in quotation marks as a way of designating that the code is extracted directly from the data record. Using the same transcript of the job-searching participant, in vivo codes are listed in the right-hand column. Note that instead of seven codes used for process coding, the total number of in vivo codes is eleven. This is not to suggest that there should be specific numbers or ranges of

codes used for particular methods. In vivo codes, though, tend to be applied more frequently to data. Again, the interviewer's questions and prompts are not coded, just the participant's responses:

I (Interviewer): Where do you see yourself five years from now in your career?

P (Participant): Well, ¹ I hope to be teaching at a university somewhere on the East Coast. But ² times being what they are, I don't know if that's possible.

I: You mean the economy?

P: Yeah. I may have to stay at my current job, assuming that I don't get ³ pink slipped. But hey, ⁴ at least I've got a job, that's something.

I: Are you actively looking for another job now?

P: I've picked up the Job Search newsletter and looked through it just to see what's out there, but I think it's ⁵ too early to leave here.

I've gotta get some ⁶ more years under my belt before I start applying—you know, more experience to make me look like ⁷ I know my stuff. But, I also ⁸ check some online job search sites each day, ⁹ check my e-mails to see if there's any response to letters I've sent out. Friends tell me to just ¹⁰ keep looking, something eventually turns up, so ¹¹ I hope they're right.

¹ "I HOPE"

² "TIMES BEING WHAT THEY ARE"

³ "PINK SLIPPED"

⁴ "AT LEAST I'VE GOT A JOB"

⁵ "TOO EARLY"

⁶ "MORE YEARS UNDER MY BELT"

⁷ "I KNOW MY STUFF"

⁸ "CHECK"

⁹ "CHECK"

¹⁰ "KEEP LOOKING"

¹¹ "I HOPE"

The in vivo codes are then extracted from the transcript and listed in the order they appear to prepare them for analytic reflection:

"I HOPE"

"TIMES BEING WHAT THEY ARE"

"PINK SLIPPED"

"AT LEAST I'VE GOT A JOB"

"TOO EARLY"
 "MORE YEARS UNDER MY BELT"
 "I KNOW MY STUFF"
 "CHECK"
 "CHECK"
 "KEEP LOOKING"
 "I HOPE"

Like process coding, the *in vivo* codes are now clustered into similar categories, but notice how the grouping is different this time due to the nature of the codes. Also, the categorizing is based on the researcher's interpretation—a different researcher may have grouped these eleven codes in a completely different way. And, there is no particular reason why there are only two categories—the number could have expanded to three, perhaps even four, depending on the analyst's thinking processes:

Category 1: Optimistic Outlook

IN VIVO CODES:

"I HOPE"
 "AT LEAST I'VE GOT A JOB"
 "I KNOW MY STUFF"
 "CHECK"
 "CHECK"
 "KEEP LOOKING"
 "I HOPE"

Category 2: Pessimistic Outlook

IN VIVO CODES:

"TIMES BEING WHAT THEY ARE"
 "PINK SLIPPED"
 "TOO EARLY"
 "MORE YEARS UNDER MY BELT"

The word choices of OPTIMISTIC and PESSIMISTIC emerged as *dimensions* in these codes. Though not always necessary for analysis, one component is to examine what *ranges* or *variability* exist in the data, and what struck the researcher in this set of codes are the varying dimensions of the *property* of one's career OUTLOOK.

Now that the codes have been clustered into two tentative categories, an analytic memo is composed to expand on the rationale.

Analytic Memos—Topics for Reflection

There are several recommended topic areas for analytic memo writing throughout the qualitative study. Memos are opportunities to reflect on and write about:

- how you personally relate to the participants and/or the phenomenon
- your study's research questions
- your code choices and their operational definitions
- the emergent patterns, categories, themes, and concepts
- the possible networks (links, connections, overlaps, flows) among the codes, patterns, categories, themes, and concepts
- an emergent or related existent theory
- any problems with the study
- any personal or ethical dilemmas with the study
- future directions for the study
- the analytic memos generated thus far [labeled "metamemos"]
- the final report for the study (Saldaña, 2009, p. 40)

Since writing *is* analysis, analytic memos expand on the inferential meanings of the truncated codes and categories as a transitional stage into a more coherent narrative. A few analytic memos related to the *in vivo*–coded data above now follow. Notice that the memo titles are composed of the type of memo, followed by a unique subtitle that captures the content or major idea of the narrative:

August 14, 2009

RELATING TO THE PARTICIPANTS AND/OR THE PHENOMENON: MY EARLY JOB SEARCHES

I too remember how optimistic I felt as a senior at the university, sure to land a job as soon as I graduated. I did do

several interviews, but the results were not in my favor. I felt so confident in what I knew, so why wasn't I being hired? It wasn't until later that I realized those errors I made—not fully answering the interviewer's questions; saying what I thought was a funny remark, only to be taken the wrong way; or feeling that I could request for things to be done my way and not the organization's way.

Optimism (confidence?) should not be confused with cockiness. The latter will come back to haunt you and bite you every time.

August 15, 2009

EMERGENT CATEGORIES: AN OPTIMISTIC AND PESSIMISTIC OUTLOOK

A *property* of a career trajectory is one's **Outlook**; the *dimensions* of an outlook range from **Optimistic** to **Pessimistic**.

The old saying goes, "Is the glass half empty or half full?" **Outlook** influences and affects a career trajectory. Even when someone's locked in a less than desirable situation, career building can be **Optimistic** when one takes constructive action to job search. **Pessimism** emerges when doubt about one's abilities or career prospects, or economic circumstances beyond one's control, enters the equation. One can vacillate rapidly between an **Optimistic** and **Pessimistic Outlook** or career perception and its realization.

Playing with the word, one "outlooks" and one "looks out" for one's career. **Outlook** is both a perception and an action; and the perception shapes the actions. A career is "HOPE"fully waiting for doors to open, but it's also taking the initiative to go up to the doors and knock ("KEEP LOOKING," "CHECK," "CHECK").

Like categorized codes, analytic memos are eventually clustered by similarity of topic, then revised and edited to eventually become substantive portions of the final report.

Codes and Coding—Additional Methods

The examples thus far have demonstrated only two specific coding methods of at least thirty documented approaches (Saldaña, 2009). Which one(s) you choose for your analysis depends on such factors as your conceptual framework, the genre of qualitative research for your project, the types of data you collect, and so on. Just a few of the other approaches available for coding qualitative data that you may find useful as starting points are:

Descriptive Coding

Descriptive codes (Miles & Huberman, 1994) are primarily nouns that simply summarize the topic of a datum. This coding approach is particularly useful when you have different types of data gathered for one study, such as interview transcripts, fieldnotes, and documents. Descriptive codes not only help categorize but also index the data corpus' basic contents for further analytic work. An example of a fieldnote coded descriptively follows; note that a few of them double as *in vivo* codes as well:

I: Are you actively looking for another job now?

P: ¹ I've picked up the Job Search newsletter and looked through it just to see what's out there, ² but I think it's too early to leave here. I've gotta get some more years under my belt before I start applying—you know, more experience to make me look like I know my stuff. ³ But, I also check some online job search sites each day, ⁴ check my e-mails to see if there's any response to letters I've sent out. ⁵ Friends tell me to just keep looking, something eventually turns up, so I hope they're right.

¹ "JOB SEARCH"

² "EXPERIENCE"

³ "JOB SEARCH"

⁴ FOLLOW-UP

⁵ ENCOURAGEMENT

For initial analysis, descriptive codes are clustered into similar categories to detect such patterns as frequency (i.e., categories with the largest number of codes), interrelationship (i.e., categories that seem to connect in some way), and initial work for grounded theory development (discussed later).

Values Coding

Values coding (LeCompte & Preissle, 1993; Saldaña, 2009) identifies the values, attitudes, and beliefs of a participant, as shared by the individual and/or interpreted by the analyst. This coding method infers the “heart and mind” of an individual or group’s worldview as to what is important, perceived as true, maintained as opinion, and felt strongly. The three constructs are part of a complex interconnected system. Briefly, a value (V) is what we attribute as important, be it a person, thing, or idea. An attitude (A) is the evaluative way we think and feel about ourselves, others, things, or ideas. A belief (B) is what we think and feel as true or necessary, formed from our “personal knowledge, experiences, opinions, prejudices, morals, and other interpretive perceptions of the social world” (Saldaña, 2009, pp. 89–90). Values coding explores intrapersonal, interpersonal, and cultural constructs or *ethos*. It is an admittedly slippery task to code this way, for it is sometimes difficult to discern what is a value, attitude, or belief because they are intricately interrelated. But the depth you can potentially obtain is rich. An example of values coding follows:

P: Well, ¹ I hope to be teaching at a university somewhere on the East Coast.	¹ V: UNIVERSITY
But ² times being what they are, I don’t know if that’s possible.	PROFESSORiate
I: You mean the economy?	² B: CAREER
	LIMITATIONS
P: Yeah. I may have to stay at my current job, assuming that I don’t get pink slipped. ³ But hey, at least I’ve got a job,	³ A: GRATITUDE
that’s something.	

For analysis, categorize the codes for each of the three different constructs together (i.e., all values in one group, attitudes in a second group, and beliefs in a third group). Analytic memo writing about the patterns and possible interrelationships may reveal a more detailed and intricate worldview of the participant.

Dramaturgical Coding

Dramaturgical coding (Berg, 2001; Feldman, 1995; Goffman, 1959; Saldaña, 2005) perceives life as performance and its participants as characters in a social drama. Codes are assigned to the data

(i.e., a “play script”) that analyze the characters in action, reaction, and interaction. Dramaturgical coding of participants examines their *objectives* (OBJ) or wants, needs, and motives; the *conflicts* (CON) or obstacles they face as they try to achieve their objectives; the *tactics* (TAC) or strategies they employ to reach their objectives; their *attitudes* (ATT) toward others and their given circumstances; the particular *emotions* (EMO) they experience throughout; and their *subtexts* (SUB) or underlying and unspoken thoughts. In the coding example thus far, we know that this participant’s OBJ [objective] is a UNIVERSITY TEACHING POSITION, but her ATT [attitude] toward getting one is PESSIMISTIC. We can infer her EMO [emotions], just as audience members do when we see a character on stage or in film. Perhaps this job-seeking individual, based on the text alone, may feel INSECURE. But the researcher actually present at the interview, seeing her open body language and hearing her upbeat vocal tones, may have inferred that her emotions were actually CONFIDENT and HOPEFUL:

I: Are you actively looking for another job now?

P: ¹ I’ve picked up the Job Search newsletter and looked through it just to see what’s out there, but ² I think it’s too early to leave here. I’ve gotta get some more years under my belt before I start applying—you know, more experience to make me look like I know my stuff. ³ But, I also check some online job search sites each day, check my e-mails to see if there’s any response to letters I’ve sent out. ⁴ Friends tell me to just keep looking, something eventually turns up, so I hope they’re right.

¹ TAC: READING JOB NEWSLETTER

² CON: INSUFFICIENT EXPERIENCE

³ TAC: ONLINE FOLLOW-UP

⁴ SUB: RESILIENCE

For analysis, group similar codes together (e.g., all objectives in one group, all conflicts in another group, all tactics in a third group, etc.). Explore how the individuals or groups manage problem solving in their daily lives. Dramaturgical coding is particularly useful as preliminary work for narrative inquiry story development or performance-based research representations such as ethnodrama.

Versus Coding

Versus coding (Hager, Maier, O'Hara, Ott, & Saldaña, 2000; Wolcott, 2003) identifies the conflicts, struggles, and power issues observed in social action, reaction, and interaction as an X VS. Y code, such as: MEN VS. WOMEN, CONSERVATIVES VS. LIBERALS, FAITH VS. LOGIC, and so on. Conflicts are rarely this dichotomous—they are typically nuanced and much more complex. But humans tend to perceive these struggles with an US VS. THEM mindset. The codes can range from the observable to the conceptual and can be applied to data that show humans in tension with others, themselves, or ideologies:

P: ¹ Well, I hope to be teaching at a university somewhere on the East Coast. But times being what they are, I don't know if that's possible.
I: You mean the economy?

¹ CAREER DREAMS VS.
BAD ECONOMY

P: Yeah. ² I may have to stay at my current job, assuming that I don't get pink slipped. But hey, at least I've got a job, that's something.
I: Are you actively looking for another job now?

² JOB SECURITY VS.
BAD ECONOMY

P: ³ I've picked up the Job Search newsletter and looked through it just to see what's out there, but I think it's too early to leave here. I've gotta get some more years under my belt before I start applying—you know, more experience to make me look like I know my stuff.

³ ADVANCEMENT VS.
"MORE EXPERIENCE"

As an initial analytic tactic, group the versus codes into one of three categories: the *Stakeholders*, their *Perceptions and/or Actions*, and the *Issues* at stake. Examine how the three interrelate and identify the central ideological conflict at work as an **X vs. Y** category. Analytic memos and the narrative can detail the nuances of the issues.

Remember that what has been profiled above is a broad brush-stroke description of just a few basic coding processes, several of which can be compatibly "mixed and matched" within a single analysis.

Certainly with additional data, more in-depth analysis can occur, but coding is only one approach to extracting and constructing preliminary meaning from the data corpus. What now follows are additional methods for qualitative analysis.

Themeing the Data

Unlike codes, which are most often single words or short phrases that symbolically represent a datum, themes are extended phrases or sentences that summarize the manifest (apparent) and latent (underlying) meanings of data (Auerbach & Silverstein, 2003; Boyatzis, 1998). Themes, too, can be categorized, or listed in superordinate and subordinate outline formats as an analytic tactic. Below is the interview transcript example used in the coding sections above. (Hopefully you're not too fatigued at this point with the transcript, but it's important to know how inquiry with the same data set can be approached in several different ways.) Notice how themeing interprets what is happening through the use of two distinct phrases—A CAREER IS (i.e., manifest or apparent meanings) and A CAREER MEANS (i.e., latent or underlying meanings):

I: Where do you see yourself five years from now in your career?

P: ¹ Well, I hope to be teaching at a university somewhere on the East Coast. ² But times being what they are, I don't know if that's possible.

I: You mean the economy?

P: Yeah. I may have to stay at my current job, assuming that I don't get pink slipped. But hey, at least I've got a job, that's something.

I: Are you actively looking for another job now?

P: ³ I've picked up the Job Search newsletter and looked through it just to see what's out there, but ⁴ I think it's too early to leave here. I've gotta get some more years under my belt before I start applying—you know, more experience to make me look like I know my stuff. ⁵ But, I also check some online job search sites each day,

¹ A CAREER IS
GEOGRAPHIC

² A CAREER IS
DETERMINED BY
ECONOMIC FORCES

³ A CAREER IS INQUIRY

⁴ A CAREER MEANS
CULTIVATING
EXPERTISE

⁵ A CAREER IS DAILY
MAINTENANCE

check my e-mails to see if there's
any response to letters I've sent out.

⁶ Friends tell me to just keep looking, ⁶ A CAREER MEANS
something eventually turns up, so I PERSEVERANCE
hope they're right.

Unlike the seven process codes and eleven in vivo codes in the examples above, there are now six themes to work with. In the order they appear, they are:

A CAREER IS GEOGRAPHIC
A CAREER IS DETERMINED BY ECONOMIC FORCES
A CAREER IS INQUIRY
A CAREER MEANS CULTIVATING EXPERTISE
A CAREER IS DAILY MAINTENANCE
A CAREER MEANS PERSEVERANCE

There are several ways to categorize the themes as preparation for analytic memo writing. The first is to arrange them in outline format with superordinate and subordinate levels, based on how the themes seem to take organizational shape and structure. Simply "cutting and pasting" the themes in multiple arrangements on a word processor page eventually develops a sense of order to them. For example:

- I. A CAREER IS DETERMINED BY ECONOMIC FORCES
- II. A CAREER IS GEOGRAPHIC
- III. A CAREER MEANS PERSEVERANCE
 - A. A CAREER IS INQUIRY
 - B. A CAREER IS DAILY MAINTENANCE
 - C. A CAREER MEANS CULTIVATING EXPERTISE

A second approach is to categorize the themes into similar clusters and to develop different category labels or *theoretical constructs*. A theoretical construct is an abstraction that transforms the central phenomenon's themes into broader applications but can still use "is" and "means" as prompts to capture the bigger picture at work. Notice that one of the construct labels below adapts a keyword from one of its themes since the idea seems to best summarize what the themes have in common:

Theoretical Construct 1: A Career Is Time and Place

Supporting Themes:

A CAREER IS DETERMINED BY ECONOMIC FORCES
A CAREER IS GEOGRAPHIC

Theoretical Construct 2: A Career Is Perseverance

Supporting Themes:

- A CAREER MEANS PERSEVERANCE
- A CAREER IS INQUIRY
- A CAREER IS DAILY MAINTENANCE
- A CAREER MEANS CULTIVATING EXPERTISE

What follows next is an analytic memo generated from the “cut and paste” arrangement of themes into theoretical constructs:

August 2, 2009

EMERGENT THEMES: CAREER AND TIME

A career is not a thing, it's a process. A career is **time** and **place**. A career is **time** to get to **place**, driven by one's **perseverance**. Careers are not guaranteed; one “works” for work, and that takes **time**.

Time seems to be a major concept here, for it can be both controlling of and controlled by the individual. Career advancement is slowed by the economy and slowed by one-self in order to gain necessary experience. A career needs **time** for daily nurturance to advance both spatially and temporally. Careers are present-held but also future-oriented, looking ahead, looking forward, looking elsewhere, looking beyond. Careers are “cultivated” and “maintained,” almost like a garden, where things grow, given enough **time** and care. Plant the seeds now and, in due **time** with **perseverance**, they will take root, but possibly in new geographic locations.

I've heard (but not read) that individuals can switch/change careers anywhere from five to fourteen times in their lifetimes. That made me think, “Does that mean specific jobs or careers? There's a difference between the two.” Perhaps the current economic climate, combined with the rapid expansion of technology and the fluid nature of employment, calls for a redefinition, if not a reconceptualization, of “career.”

Again, keep in mind that the examples above for coding and themeing were from one small interview transcript excerpt.

The number of codes and their categorization would obviously increase, given a longer interview and/or multiple interviews to analyze. But the same basic principles apply: Codes and themes relegated into patterned and categorized forms are stimuli for good thinking through the analytic memo-writing process on how everything plausibly interrelates. Methodologists vary in the number of recommended final categories that result from analysis, ranging anywhere from three to seven, with traditional grounded theorists prescribing one central or core category from coded work.

Developing Concepts

Before a discussion of grounded theory (a methodological approach to qualitative data analysis), it is first necessary to briefly review two related matters: developing concepts and theory construction. Both of these have been occasionally addressed thus far in the book but now merit a few paragraphs to better guarantee a working knowledge of them.

We progress from the real to the abstract, from the particular to the general, and from the contextual to the transferable when we transcend the “localness” of our study. If categories have been constructed out of the data analysis, put them to what I call the “touch test.” If the categories of your study are things that can literally be touched, transform them into conceptual ideas. Concepts are abstractions that have more meaning to life outside the study. For example, *toys* are things that can be touched, but *play* cannot. A *church* can be touched, but not *religion*. And a *politician* can be touched, but not *politics*. As for process codes progressing to social meaning, the specific actions of participants can also be conceptualized to broader or higher-level ideas that take time to occur. A student may be *job searching*, but in the bigger scheme of things she’s *career building*. A teacher may be *lecturing*, but he’s also *transferring knowledge*. And a lonely adolescent may be *taking drugs*, but he’s probably *escaping from*.

When the concepts of your study have been developed from your codes, categories, and/or themes, they become material for the potential construction of theory.

Theory Construction

Not every qualitative research project needs to construct an original theory. In fact, it is quite difficult to do, depending on the scope of the study. We certainly use others' theories for our conceptual frameworks as initial guidance, but it's another matter to persuasively articulate how our own findings generalize to other populations, sites, and times. Some methodologists argue that we cannot claim generalization—that qualitative inquiry is too local and too case specific for a researcher to assert any transferability. But other methodologists recommend that writers leave any assumptions of transfer to the *reader*, who judges whether the specifics of a report have utility for her own practice, or resonance with her own local contexts. In any case, it is important to know a theory's properties to assess their effectiveness when they're formulated and proposed.

My personal take on theory development is that it is not the be-all and end-all of qualitative research. It's good when it happens, but it's all right if it doesn't. I would rather read a well-developed key assertion (discussed later in this chapter) about the local contexts of a study, than a weakly constructed or vaguely written theory with questionable transferability.

Sometimes the instruction of theory can get too complicated, so I take an analogous approach to the topic. Did you know that you live with and use theory every day of your life? For example, when you peer through your window to see if it looks like rain outside, and you take your umbrella because you sense you may need it, you're applying theory because you've made a *prediction* of what may happen weather-wise. You can *control* whether you stay dry or get wet if you take (or don't take) certain actions. Your behavior has been *influenced* by something else. When you observe the *process* of foreboding inclement weather (such as a cloudier and darker sky, and the smell of humid air), and it does indeed start raining, you theorize or attribute its *cause* to the particular cloud formations and conditions in the atmosphere. You know that the rain creates potential hazards for driving and even walking, yet it also—in moderation—replenishes the Earth's natural resources. Thus, there are directives or theories for safe *guidance* when it rains, and knowledge that rain can benefit or *improve* the world. Prediction, control, influence, process, causation, guidance, and

improvement are just some of the components of what makes a theory.

To use another analogy, most well-known folk proverbs are theories. Some of these classic sayings embody general properties of a theory. The first is that of a statement that, traditionally, *predicts and controls action through an if/then logic*. For example, “A penny saved is a penny earned” implies that you should save money. The if/then logic is: *If* you save small amounts of money occasionally instead of spending them, *then* you will accumulate significant earnings over time. The *prediction* part of the proverb is that earnings will grow *if* money is saved. The *control* portion of the proverb is that we can control and thus better guarantee the future of our economic security *if* we work hard, save money, spend frugally, invest wisely, and so on. Explore the if/then logic and prediction/control implied by these statements: “If you lie down with dogs, you’ll wake up with fleas,” “Where there’s smoke, there’s fire,” and “Sex sells.”

Proverbs’ and thus theories’ second property can also *explain how and/or why something happens by stating its cause(s)*. The saying, “Out of sight, out of mind” *explains* that the reason we may forget about something is *because* the object is not readily visible. For example, some people may forget to take their daily prescription medication if it is kept in a drawer. But *if* the bottle is kept in plain sight or in a location that’s accessed on a regular basis, *then* the person is more likely to remember to take it. Keeping track of upcoming meetings or necessary tasks in our heads is risky for some since memory can falter—we can *predict* that we may forget. But *if* the event or task is written down in a day planner or logged in an electronic calendar, *then* we are more likely to remember what needs to be done *because* we have taken some *control* over the potential problem.

Finally, proverbs’ and thus theories’ other properties also *provide insights and guidance for improving social life*. Sayings like “Into everyone’s life, a little rain must fall,” “Every cloud has a silver lining,” and “No rain, no rainbows” remind us that, in spite of difficult times, things can and do get better, and we are sometimes made stronger by going through adversity to achieve reward. We can most certainly *predict* that life will be filled with unavoidable minor and major conflicts and tensions, so we can *control* some of

the chaos by planning ahead and not getting ourselves into these tight situations. Yet sometimes the *explanations* for *why* these problems occur is simply *because* we didn't anticipate them, and "stuff happens"—a difficult *how* we must accept. So *if* we can see beyond the present problems, *then* we may be able to see future solutions. Thus, these *insights* provide *guidance* for us to endure the trials of daily living by maintaining a positive outlook to *improve our social lives*.

To recap, a theory (as it is traditionally conceived):

- predicts and controls action through an if/then logic
- explains how and/or why something happens by stating its cause(s)
- provides insights and guidance for improving social life

Gibson and Brown (2009, p. 11) also note that a theory can do more than generalize from the particular to other understandings and claims. A good theory can also describe characteristics of the social world, categorize and connect aspects of the social world, compare the social world's features, and interrogate problems and taken-for-granted assumptions.

At its most practical, a theory is an elegant statement that proposes a way of living or working productively. In education, a 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 psychotherapy, a practitioner's theory is: *A parent with clinical depression will tend to raise clinically depressed children*. Both of these professionals, equipped with their respective theories, can work more effectively at their jobs when empowered with this knowledge. But note the provisional and conditional language in these statements ("may occur," "tend to"), suggesting that most theories are not always certain but most likely.

Any well-grounded theories or assertions that qualitative researchers can put forth to their disciplinary colleagues and that enhance daily practice or increase awareness and understanding have made significant contributions. But I've 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.** I've also observed that some researchers have difficulty

articulating their theories clearly or feel that a simple one-word response says it all. I'll ask a colleague, "So, what's your theory?" And he'll reply, "Warm-up!" But "warm-up" is not a theory; "warm-up" is just a word, albeit an important part of what he meant to say. A theory is a *statement* with any necessary narrative to expand on its meaning. Thus, what my colleague should have said is:

Life is "warm-up." Virtually everything humans do can be conceived as preparation for something else. When we wake up in the morning, we're warming up our bodies from sleep. When we shower, groom, eat breakfast, and so on, we're warming up for what the day holds. When we transport ourselves to work or school, we're warming up to our occupation. But even at our occupations, we're warming up for something else: A test is warm-up for a passing course grade, school is warm-up for a degree, graduation is warm-up for a job, each job is a warm-up for promotion, a career is warm-up for retirement, and retirement is warm-up for death. Life is "warm-up."

Grounded Theory

Now that such matters as patterns, codes, categories, concepts, and theory have been reviewed, the analytic discussion can now turn to grounded theory. Recall from Chapter 1 that grounded theory is a methodology—an analytic process of constantly comparing small data units through a series of cumulative coding cycles to achieve abstraction and a range of dimensions to the emergent categories' properties. In other words, you're looking carefully at the small details to get to the bigger picture—a picture composed of a central *idea* (such as "addiction"), its defining or essential elements (one of them being "anxiety"), and their variable qualities (for example, anxiety increases in someone when the addictive substance or opportunity is unavailable, and decreases when it's accessible; increases when the likelihood is high of one's covert addiction being discovered, decreases when the addiction is successfully hidden from others; increases when the addict realizes the immorality of his own self-destructive behaviors,

decreases when he denies the addiction as a problem or justifies his actions). Classic grounded theory works toward achieving a *central* or *core* category that conceptually represents what the study is all about by holding all the major categories in place. This central or core category becomes the foundation for generating a theory about the processes observed—a theory grounded in the data or constructed “from the ground up.”

Grounded theory is a complex, multistage genre of qualitative research, but an approach that has been utilized in thousands of studies in many disciplines since it was first introduced in the 1960s. However, since that time various methodologists have taken the basic principles of grounded theory’s original developers, Barney G. Glaser and Anselm L. Strauss (1967), and created hybrid and streamlined approaches (Charmaz, 2006; Corbin & Strauss, 2008). Thus, it is presumptuous to profile *the* way to conduct a grounded theory study; what is discussed below is just *one* way.

You have already been introduced to the first cycle of grounded theory methodology: the initial coding of data for category development, and reflective analytic memo writing about the researcher’s discoveries and insights thus far. Process and in vivo coding are particular features of grounded theory, with the latter tentatively exploring the properties and dimensions of a major category: OUTLOOK. What comes next is the *focusing* of these codes and categories into even tighter and more conceptual categories, with one central or core category identified for the development of a theory. Depending on which methodologist you read, it is recommended that anywhere from ten to thirty interviews be conducted to generate enough data to formulate a grounded theory. To keep this illustration coherent, I will focus on the primary example of the job seeker profiled above, using the six major categories/themes generated thus far, which are:

Career Building
Feeling In-Between
Optimistic Outlook
Pessimistic Outlook
A Career Is Time and Place
A Career Is Perseverance

Five of these six items pass the “touch test”—meaning, they are conceptual in nature and primed for higher-level analytic work. But a **Place** is something that can be touched, so the word needs to be reconceptualized to something that cannot. A thesaurus (an indispensable tool of the trade for qualitative data analysis) offers some intriguing and evocative synonyms to consider such as “status” and “rank.” But **Geography** is the word closest to the original category label, so that association will be used to transform the theme into: **A Career Is Time and Geography**.

What happens next is the categorizing of categories—an attempt to get at the essence and essentials of the six items of interest. Some grounded theorists (Glaser, 2005) feel the synthesis should be achieved solely through thinking and narrative; others (Strauss, 1987) recommend displays and models to illustrate their possible integration. I side with the latter to get to the former because I’m a visual thinker and use graphics as a way to stimulate my writing. Bins or containers of various shapes are used to hold the categories, while lines and arrows of various types speculate on their plausible interrelationships. Just one way of visually representing a particular process (not the grounded theory) of career building can be seen in Figure 4.1. It is important to note that the coincidental symmetry of the graphic should not suggest that processes are always neatly ordered. Sometimes they can be quite messy and asymmetrical, and the illustrations should reflect that.

A memo now offers some reflective thoughts on what’s been drawn. Notice that *analytic memo writing is also a category-generating method*. It is possible that, through the writing, the central or core

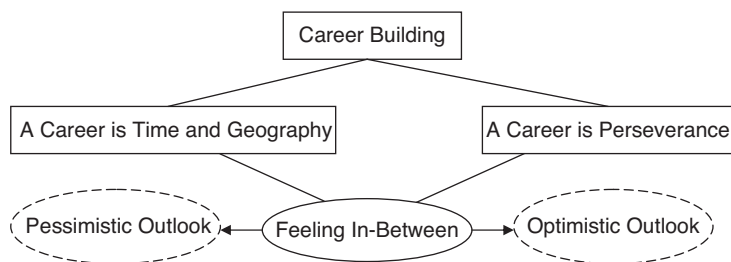


Figure 4.1. A grounded theory model for the Career Building process.

category (a precursor to a grounded theory) that identifies what the study is all about may emerge. Like the memos above, keeping the codes in caps and categories in bolded font as you write better assures their integration into the analytic narrative and scheme:

August 21, 2009

THE CENTRAL/CORE CATEGORY (TENTATIVE): POSITIONING

At this point in the analysis (additional interviews are needed), I speculate that the central/core category of this study is **POSITIONING**. A career is **POSITIONING** oneself for movement through **Time** and into new **Geographies**. **Perseverance** is an attitudinal and action-oriented **POSITION**, yet one's emotional **POSITIONS** during the early stages of **Career Building** can vary from **Pessimistic** to **Optimistic**—perhaps so reverberative that one feels **In-Between** more at one end than the other on the emotional continuum. **POSITIONING** also implies that a career is not just a “thing”; it is a perception, a perspective, a point of view, a departure point.

POSITIONING can be horizontal and vertical. Horizontal **POSITIONING** may be the internal states of an individual's self-perception of where he/she is, career-wise, implying a vertical **POSITION** of status—both internal and external/literal. One can “ramp up” (to use a popular current phrase) in career but can also slide back down depending on such forces as bad economic health and a lack of personal initiative. **POSITIONING** is not just linear, though, and I need to think through later how **POSITIONING** is more three-dimensional.

As for a grounded theory, I'll put forth at this point (to be confirmed by additional data collection and analysis) that: *A career is perceived and determined by the physical, attitudinal, and emotional positioning of the individual through time.* Still to be explored is how this personal **Agency** within particular **Socio-Economic Conditions** (e.g., a poor job market) interrelate. I'll also need to check out something I've heard about

recently in my communication research class called “positioning theory” to see if I’m just reinventing the wheel or onto something new.

Remember that “Good research is not so much about good methods as much as it is about good thinking.” Analytic memos are key opportunities in grounded theory development to think about how your major codes, categories, themes, and concepts weave complexly together. The memo above also acknowledges that the ideas put forth are provisional at this time, subject to revision after additional data collection to test and modify the grounded theory in progress, and after some additional literature reviews of related work.

Grounded theory is not a step-by-step process with specific algorithms to follow. Grounded theory does, however, consist of cumulative coding and categorizing methods with analytic memo writing as a vital heuristic for discovery. Key works in grounded theory and qualitative data analysis (see Chapter 6) will provide more detail on its procedures.

Assertion Development

Educational anthropologist Frederick Erickson (1986) wrote a significant and influential chapter on qualitative methods that outlined heuristics for *assertion development*. Assertions are declarative statements of summative synthesis, supported by confirming evidence from the data, and revised when disconfirming evidence or discrepant cases require modification of the assertions. These summative statements are generated from an interpretive review of the data corpus and then supported and illustrated through narrative vignettes—reconstructed stories from fieldnotes, interview transcripts, or other data sources that provide a vivid profile as part of the evidentiary warrant.

Coding or themeing the data can certainly precede assertion development as a way of gaining intimate familiarity with the data, but Erickson’s methods are a more admittedly intuitive yet systematic heuristic for analysis. Erickson promotes *analytic induction*, noted above as exploration of and inferences about the data, based on an examination of the evidence and an accumulation of knowledge.

The goal is not to look for “proof” to support the assertions, but plausibility of inference-laden observations about the local and particular social world under investigation. Erickson admits, in fact, “Conclusive proof is often not possible, especially from data derived from fieldnotes. Yet some lines of interpretation can be shown to be more robust than others. On that admittedly shaky ground must rest the possibility of intellectual integrity and credibility in interpretive research.” (p. 155)

Assertion development is the writing of general statements, plus subordinate yet related ones called *subassertions*, and a major statement called a *key assertion* that represents the totality of the data. One also looks for *key linkages* between them, meaning that the key assertion links to its related assertions, which then link to their respective subassertions. Subassertions can include particulars about any discrepant related cases or specify components of their parent assertions.

Below is a sample of data to illustrate assertion development at work. In this fieldnote excerpt, participant observation takes place at a university sports and recreation complex’s weight room on a February afternoon (see the Figure 2.1 floor plan diagram in Chapter 2). The male participants are assigned descriptors in place of names (e.g., WORK BOOTS, GOATEE). Observer’s comments (OC), in addition to the descriptive detail, are deliberately included as part of the sample. As you read these fieldnotes, think how you would summarize and synthesize the units of action described into statements that identify, “What is happening here and what does it mean?”:

The prominent odor in the weight room can be described as “musky, sweaty clothes.” The ceiling height is approximately twelve feet and has air conditioning vents to maintain a comfortable temperature, and speakers where rock music from a radio station is playing at a moderate volume.

The east side handweight floor is covered with black, rectangular, rubber mats. The designated area for this observation has three weight benches: metal frames with adjustable, dark red, vinyl or leather padded platforms that can accommodate a person sitting on and/or leaning against them. Benches are spaced to allow people to work by them while others work on

them. Weight and accessory racks, holding various sizes and pounds of round metal disks, are located against the east wall and central pillar.

The north wall has large windows providing sunlight to complement the fluorescent lighting. The south wall also has windows with a view of the Center's hall and towel booth. Laminated or plated signs on the east wall state "Weight Room Policies" such as "Collars are Required" and "Repack your Weights."

Prominent on the east side are seven-foot high mirrors extending across the length of the wall.

OC: It's like a voluntary, contemporary torture chamber; only the serious need apply. With all the metal and glass there's a feeling of coldness, hardness, massiveness in the environment.

A white twenty-ish man in baggy jeans, a loose white T-shirt, and tan WORK BOOTS is seated on a weight bench. He rises, grips two handweights, one in each hand, and lifts them simultaneously in arm curls. His face clenches in an expression that looks like pain as he raises the weights to neck level. Throughout this exercise he is standing about three feet from and facing the wall length mirror. His medium-length hair is honey blonde.

OC: His dress is not typical of what most men wear in this weight room. Most wear shorts and athletic shoes. Through his loose fitting clothes and by the size of his forearms I sensed that he was fairly muscular.

WORK BOOTS is still seated at the bench but the weights are on the floor. He leans back, his hands interlocked behind his head, his legs spread apart. He looks at himself in the mirror. He then looks to the side, breathes in, stretches his arms, stands, and talks to a THIN MAN next to him. WORK BOOTS picks up the same weights as before and continues his arm curls for approximately twenty "reps" (repetitions). Throughout this he looks at himself in the mirror, smiles, then grimaces his face, looks down, then looks at himself in the mirror.

OC: *The man thinks he's hot. That classic leaning-back-with-your-arms-behind-your-head-legs-spread-apart pose is just too suggestive of stereotypical male sexuality ("I'm a fuckin' man"). He was checking out his muscles—the breathing in to expand his chest was a personal pleasure sensation to feel himself. The continuous looks and smiles he gives himself in the mirror make him look like an arrogant S.O.B. His self-esteem seems very high and he seems pleased with his own physical appearance.*

A fairly large but somewhat muscular man with a GOATEE, green ball cap, grey T-shirt, and blue shorts sits on a weight bench close to WORK BOOTS and arm curls one weight over and behind his head. His feet are not flat on the floor, but on "tiptoe." GOATEE does approximately seven reps with one arm, then switches to another. He, too, faces the mirror but is now approximately ten feet away from it.

OC: *The "tiptoe" seemed so out of place—a stereotypical feminine action in juxtaposition with his large body frame. Weight lifting ballet—"masculine dance." Dancers rehearse with mirrors, too.*

WORK BOOTS, standing, makes eye contact with himself in the mirror for approximately fifteen seconds. His mouth twitches. He picks up the handweights and continues his reps, continually looking at himself in the mirror as he does so. (Saldana, 2009, pp. 196–198)

Assertions can be categorized into *low-level* and *high-level inferences*. Low-level inferences address and summarize "what is happening" within the particulars of the field site. High-level inferences extend beyond the particulars to speculate on "what it means" in the more general social scheme of things. Sunstein and Chiseri-Strater (2007) recommend that you pay particular attention to your data on what surprises, intrigues, and disturbs you (p. 106). Using the fieldnote excerpt above, each reader would come to his or her own list of assertions and subassertions, but permit me to note my own. Also, this narrative is based only on a small slice of social action; a more complete data corpus of a longer fieldwork study would be required. The notes below are

comparable to an analytic memo—the researcher’s private musings before the more formal write-up of the study. For clarity in the narrative, *statements that could be considered assertions are italicized.*

Low-Level Inferences

WORK BOOTS is an outlier of self-esteem in these observations because his interactions with self- and mirror image are overt. His public actions—private interaction with self—transcend modesty and humility. Weightlifting, for him, relates to his self-esteem through the actions themselves. *Increased physical health seems to be of secondary or no concern to him.*

Drawing on my own experiences when I was younger, the actions themselves of working out did not enhance my self-esteem—they were, in fact, time consuming and physically burdensome chores. But *it was the “payoff” of working out—the muscular physical appearance and the fact that others noticed it—that enhanced my personal self-esteem.* Any consequent health benefits, like a lower cholesterol level, were secondary. Like WORK BOOTS, I checked my own physical progress in the mirror, too, but did so in the privacy of my own home.

High-Level Inferences

The goal of these activities among university students is to physically improve one’s appearance. Some of the physical “pay-offs” of weightlifting are to increase physical strength, muscular size, and body tone (firmness). These men are exercising with arm curls to increase their upper body strength and muscularity of their arms and chests. Repetition of these weightlifting actions increases and enhances strength and appearance.

The more arrogance one has, the closer one stands to a mirror. WORK BOOTS’ interactions with his mirror image show a lack of concern over what others may perceive as cockiness or vanity. But I also recall that some have been told since

childhood, “When you feel good about yourself, it doesn’t matter what other people think of you.”

WORK BOOTS appears to receive pleasure from the pain of the activity—“narcissistic masochism” or “macho masochism,” if you will. That “pose” described above epitomizes, for me, *men who take pride in their masculinity through hardened, muscular bodies and the physical effort it takes to achieve them. Some men take pleasure at extending the physical limits of endurance.*

The next recommended step is to extract the assertions from the preliminary analytic “memoing” and, as illustrated earlier in Themeing the Data, reorganizing or “cutting and pasting” them into superordinate and subordinate (i.e., assertion and subassertion) outline format to explore their possible linkages and storyline progression. One of them may or may not be labeled as the key assertion—the primary statement that links to other assertions. One such ordering (with slight grammatical revision and modification of the assertions and subassertions, as necessary) might consist of:

Key Assertion: Some men take pride in their masculinity through hardened, muscular bodies and the physical effort it takes to achieve them.

Assertion 1: The goal of weightlifting activities among university students is to physically improve one’s appearance.

Subassertion 1. a. Some of the physical “payoffs” of weightlifting are to increase physical strength, muscular size, and body tone (firmness).

Subassertion 1. b. It was the “payoff” of working out that enhanced my own personal self-esteem.

Subassertion 1. c. Increased physical health seems to be of secondary or no concern to some weightlifters.

Assertion 2: Some men take pleasure at extending the physical limits of endurance.

Subassertion 2. a. The more arrogance one has, the closer one stands to a mirror.

Subassertion 2. b. WORK BOOTS is an outlier of self-esteem in these observations because his interactions with self and mirror image are overt.

Assertions are *instantiated* (i.e., supported) by concrete instances of action, whose patterns lead to more general description outside the specific field site. The particular description of action occurs as an analytic narrative—a *vignette* or brief story that gives the reader a sense of being there. It is a reduced yet polished narrative incorporating fieldnotes and participant quotes, when available. The author's interpretive commentary can be interspersed throughout the report, but the assertions should be supported with the *evidentiary warrant*. A vignette based on the fieldnote above might read (and notice how an assertion serves as the first paragraph's topic sentence):

The goal of weightlifting activities among university students is to physically improve one's appearance. Some professions, such as firefighters or police officers, need physical strength to perform their duties. But with most young adult men, the reps of lifting weights in arm curls and chest presses with wall-length mirrors in front of them is not always about personal health or maintaining stamina. It's about looking good, looking toned, looking muscular, looking masculine—and for some arrogant men, looking at themselves in the mirror constantly as they work out.

A mirror can greatly assist some weightlifters to assess their movements for proper execution and safety. But a twenty-something man standing three feet away from a reflection of himself as he smiles and grimaces as he builds his biceps is not necessarily doing it for his heart or cholesterol levels. During a thirty-minute observation in a sweat-odored environment filled with hard textures of rubber, vinyl, leather, metal, and glass, a moderately muscular male dressed in jeans, T-shirt, and work boots—not the typical indoor exercise clothing most often seen in these settings—frequently looked at himself in a seven-foot high wall-length mirror and smiled as he developed his arms and chest in narcissistic, almost masochistic, tests of self-absorbed physical endurance.

I recall a flippant conversation with a female friend of mine who asked me why men did the bravado (read: stupid)

things that they do. I replied without hesitation, “Because we *can*.”

“Particularizability,” or the search for specific and unique dimensions of action at a site, is not intended to filter out trivial excess but to magnify the salient characteristics of local meaning. Although generalizable knowledge serves little purpose in qualitative inquiry since each naturalistic setting will contain its own unique set of social and cultural conditions, there will be some aspects of social action that are plausibly universal or “generic” across settings and perhaps even across time. To work toward this, Erickson advocates that the interpretive researcher look for “concrete universals” by studying actions at a particular site in detail, then comparing those to other sites that have also been studied in detail. The exhibit or display of these generalizable features is to provide a *synoptic* representation, or a view of the whole. What the researcher attempts to uncover is what is both particular and general at the site of interest, preferably from the perspective of the participants. It is from the detailed analysis of actions at a specific site that these universals can be concretely discerned, rather than abstractly constructed as in grounded theory.

To summarize, Coulter and Smith (2009) provide this elegant overview of Erickson’s methods of assertion development:

A good interpretivist researcher analyzes evidence as follows: He reads and rereads the body of evidence as a whole; generates preliminary assertions (specific statements of what he believes to be true) by inductive means; warrants each assertion by first assembling all segments of data that confirm the assertion, assembling all the data segments that seem to disconfirm the assertion; examines extreme cases for how they shed light on patterns; weighs the evidence, discarding or redefining assertions that do not stand up to the warranting process; looks for an organization system that links assertions to one another (e.g., hierarchies or processes); for each surviving assertion, constructs a vignette, something like a short story with actors, settings, and an arc that demonstrates the truth of the assertion in narrative form; and frames

assertions and vignettes in interpretive commentary, with general and particular data. (p. 587)¹

Narrative Inquiry

All research reports are stories of one kind or another. But there is yet another approach to qualitative data analysis that intentionally documents the research experience *as* story, in its traditional literary sense. Narrative inquiry plots and story lines the participant's experiences into what might be initially perceived as a fictional short story or novel. But the story is carefully crafted and creatively written to provide readers with an almost omniscient perspective about the participants' worldview.

The transformation of the corpus from database to creative nonfiction ranges from systematic transcript analysis to open-ended literary composition. The narrative, though, should be solidly grounded in and emerge from the data as a plausible rendering of social life. In the verbatim interview transcript below, a teacher explains to an interviewer the struggles young adolescent boys go through when committing to the arts:

Um, and the guys are even struggling, too. They want to be successful but they can't be too successful, and they wanna do drama but they have to be cool. You know, there's a real struggle, especially with the arts. It's neat to see how, how, which way they'll go. Are they gonna be artsy and commit to it, or are they gonna stay, you know, cool? And even though you know that they have it in 'em, you know, are they gonna do it?

This excerpt serves as a prompt for composing an omniscient narrative of what may be going through a young boy's mind in this situation described by the teacher:

Jacob had his lines memorized and was nervous but ready to perform in class, as scheduled. He rehearsed his monologue three times last night—twice in front of the mirror. But he worried what Tomás and Eric, his friends, would think if he stepped on stage and acted well. "I'll do it like I don't really care," he thought, "then they'll think I ain't a fag."

The teacher's interview excerpt could also serve as a prompt for composing a narrative of what might be going through *her* mind in this situation:

As Jacob performed his monologue half-heartedly on stage, Nancy sat in the middle of the darkened auditorium, shook her head and thought, "C'mon, Jake, I *know* you can do better than that." She wrote at the bottom of her assessment sheet for him in the space labeled "Teacher's Notes": "*Commit! Don't just say the lines, create the character.*"

Narrative inquiry representations, like literature, vary in tone, style, and point of view. The common goal, however, is to create an evocative portrait of participants through the aesthetic power of literary form. A story does not always have to have a moral explicitly stated by its author. The reader reflects on personal meanings derived from the piece, and how the specific tale relates to one's self and the social world.

Poetic Inquiry

One form for documenting fieldwork or analytic findings is to strategically truncate interview transcripts, fieldnotes, and other pertinent data into poetic structures. Autoethnography can also employ poetry when it is the most appropriate literary genre for conveying the researcher's impressions. Like coding, poetic constructions capture the essence and essentials of data in a creative, evocative way. The elegance of the format attests to the power of carefully chosen language to represent and convey complex human experience.

In vivo codes (codes based on the actual words used by participants themselves) can provide imagery, symbols, and metaphors for rich category, theme, concept, and assertion development, plus evocative content for arts-based interpretations of the data. Below is a teenage girl's verbatim account of her first years in high school:

I hated school last year. 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 found stuff out about myself, and so I went back, and all of a sudden I found out that when I 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, friends got closer to me. And people who didn't really know me tried to get to know me. I don't know. (Saldaña, 2009, p. 75)

Poetic inquiry takes note of what words and phrases seem to stand out from the data corpus as rich material for reinterpretation. Using some of the girl's own language, a poetic reconstruction or "found poetry" of the above interview transcript vignette 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.

Some researchers also find the genre of poetry to be the most effective way to compose original rather than adapted work that is autoethnographic or reflective of their fieldwork experiences.

A few published works intersperse their more conventional narrative prose with a poetic interlude when a genre shift seems necessary to convey the ideas to readers, or when the researcher feels moved to express insights through another modality:

Participants expressed the need for more stability in their administrative leadership. The staff felt diffused with the multiple directions their boss took them in, and, lacking a more focused sense of direction, the employees questioned (secretly among themselves) whether their organization's mission statement was being met and even began to question their own value:

No one knows what's going on.

This way, that way,

Do more with less.

Not now—later—

This is top priority.

I wish the boss would realize that *we* are “top priority.”

Arts-Based Representation and Presentation

Ethnodrama (also known as performance ethnography, verbatim theatre, and nonfiction playwriting) is the scripting and theatrical staging of qualitative research. Unlike a scholarly article simply read in a “performative” manner while seated behind a table or standing behind a podium, ethnodrama actively reconstructs fieldwork data into monologue and dialogue to resemble a traditionally mounted play for an audience. Most ethnodramas are monologic since interview transcripts of one participant are the most readily accessible for adaptation.

In the excerpt below from the ethnodrama *Street Rat* (Saldaña, Finley, & Finley, 2005), a homeless young adult male, Tigger, talks to a girl who has just arrived at his squat. As he tells his story to the newcomer, he sketches in a drawing pad. Notice the stage directions in italics, describing physical action for the actor to portray the subtexts of his character. The monologue itself was constructed

from various interview excerpts with an actual homeless youth, then woven together into a more coherent, self-standing piece for the stage:

TIGGER: My dad kicked me out when I was just seventeen. When I graduated from high school, he said “Congratulations.” Then he gave me two weeks to get out. That was six years ago. When I first left home, I lived in Chicago, in the subway. I did what I had to do to survive. It’s all about survival. You either survive or you die. *(he tries erasing his drawing error, but there’s no eraser on the pencil; he turns to a new page in the spiral notebook and starts sketching again)* People who live here, the professionals, the fucking little yuppie people, they don’t even see this side of life. They don’t see it, they’re blind to it. That’s why they ignore me when I ask them for change. But how am I going to stay fed, other than asking people for money? I hate it. I’m free, but things aren’t free. I need things so I have to get money. *(stands)* I want a regular job. When I go job hunting I dress smart, wear button-downs most of the time. If I had a tie, I’d wear it. But, I mean, just look. Who the fuck is going to want some nasty lookin’, dirty lookin’, someone who hasn’t taken a shower in God knows how long, handling their food, or ringing them up on a cash register, or whatever? I’ve got over a hundred goddamn applications out in this city. I’ve got a voice mail number. Nobody ever calls. I make plans, but anytime I make plans they always fall through. *(sits)* So, I take things day by day, don’t make plans too far in the future. Every minute of my life is another minute of my life. *(he messes up his drawing again, rips the page angrily from the notebook, crumples it and throws it; pause. ...)* (pp. 171–172)²

The goal of ethnodrama is to use the conventions of theatrical performance (or media) to portray to an audience a live representation of participants’ experiences that credibly, vividly, and persuasively informs the spectators. A folk saying among theatre practitioners goes, “A play is life—with all the boring parts taken out.” Thus, think of the ethnodramatic analytic and writing processes as extracting the most noteworthy passages from the data corpus and, like a film editor, “editing” the units into a form that

creates a unique cultural world. Collaboration with theatre artists better assures that the final staged product with trained actors portraying the participants achieves aesthetic merit.

One common problem most nontheatre researchers encounter when they attempt to “playwright” the data is applying the conventions of traditional research reporting into scripted text. Some feel the need to preface the play with a prologue of conceptual framework explanation. Others feel the need to cite the academic literature within the play script itself as if they were writing a journal article. Still others create a fictional and artificial debate of “talking heads” that examine an issue with no dramatic action moving a story forward. A play is not a journal article—they are two completely different representational and presentational modes of qualitative research.

Dance is also a legitimate mode of representation since, from a postmodern perspective, the body is a central feature in lived experience. Through movements that symbolize the data, the performer physically enacts through abstraction the essential meanings of participants’ cultural worlds. Sometimes the dance can be accompanied with spoken text (such as interview transcripts or autoethnographic reflections), sometimes with originally composed music, and sometimes in silence. One of the most stunning moments for me was seeing two female researchers/dancers illustrate the tensions and power issues between an interviewer and participant through their graceful yet athletic choreography.

We often forget that visual images are also texts. Visual artwork as diverse as sketches, portraits, collages, photographs, and even quilts, created by the researcher and/or participants themselves, can be displayed or exhibited, accompanied with explanatory narratives that supplement or enhance the viewer’s interpretation. Remember that art is a way of knowing that has an epistemology all its own, and the profound power of images, especially in today’s mediated culture, can communicate at symbolic and subliminal levels the meanings of participants’ experiences.

Communication through music as a representational and presentational form of ethnographic experience is still in its early stages, for the art form *as* research expression is limited to those few musicians with compositional skills. The field, however, has done some outstanding qualitative work through narrative inquiry

of participants' relationship with music and their development as musicians.

Remember that an art form is chosen as a representational and presentational mode for qualitative research because the investigator has determined that it is the most effective medium of the available genres for authentically portraying the documentation of social life. One should not choose to write an ethnodramatic play script or create a visual artwork for novelty's sake or to appear "trendy." One chooses artistic forms because the participants feel they are accessible forums for their perspectives, and the researcher feels they are the best ways to express her findings for an audience.

"Think Display"

Qualitative researchers use not only language but also illustrations to both analyze and display the phenomena and processes at work in the data. Tables, charts, matrices, flow diagrams, and other models help both you and your readers cognitively and conceptually grasp the essence and essentials of your findings. As you've seen thus far, even simple outlining of codes, categories, and assertions is one visual tactic for organizing the scope of the data. Rich text, font, and format features such as italicizing, bolding, capitalizing, indenting, bullet pointing, and so on, provide simple emphasis to selected words and phrases within the longer narrative.

"Think display" was a phrase coined by methodologists Miles and Huberman (1994) to encourage the researcher to think visually as data were collected and analyzed. The magnitude of text can be essentialized into graphics for "at-a-glance" review (see Figure 4.1 in the "Grounded Theory" section). Bins in various shapes and lines of various thicknesses, along with arrows suggesting pathways and direction, render the study as a portrait of action. Bins can include the names of codes, categories, concepts, processes, key participants, and/or groups.

One of my studies explored how the phenomenon of "personal worldview" operated within participants using culture as part of my conceptual framework (see Figure 4.2). I used the familiar concepts of a lens and filter (illustrated in the center of the diagram) that influences and affects how an individual perceives the world.

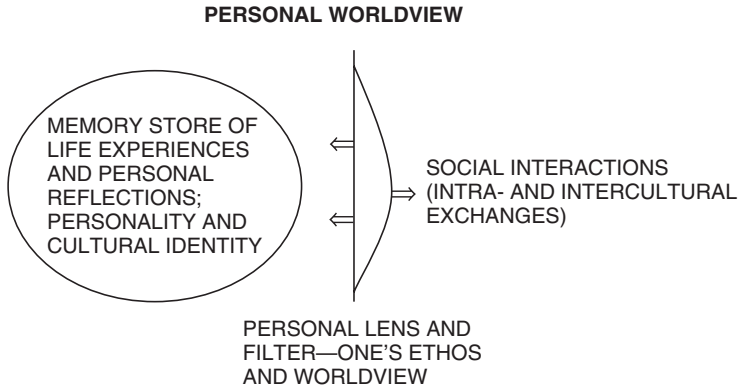


Figure 4.2. A process diagram for Personal Worldview.

To the left of the lens is a bin representing the individual's memories, experiences, reflections, personality, and cultural identity. To the right of the lens are the processes of social interaction within and outside of one's own culture. The directional arrows suggest that the evolutionary process of personal worldview development is not unidirectional but interactive.

Accompanying graphics are not always necessary for a qualitative report. They can be very helpful for the researcher during the analytic stage as a heuristic for exploring how major ideas interrelate, but illustrations are generally included in published work when they will help supplement and clarify complex processes for readers. Photographs of the field setting or the participants (and only with their written permission) also provide evidentiary reality to the write-up and help your readers get a sense of being there.

Credibility and Trustworthiness

After your data analysis and the development of key findings, you may be thinking to yourself, "Did I get it right?" Reliability and validity are terms and constructs of the positivist quantitative paradigm that refer to the replicability and accuracy of measures. But in the qualitative paradigm, other constructs are more appropriate.

Credibility and *trustworthiness* (Lincoln & Guba, 1985) are two factors to consider when collecting and analyzing the data and presenting your findings

Credibility, in literary terms, might be called the unity of the work. In performative terms, credibility might refer to the believability of the actor's presentation. In our qualitative research projects, we need to present a convincing story to our audiences that we "got it right" methodologically. In other words, the amount of time we spent in the field, the number of participants we interviewed, the analytic methods we used, the thinking processes evident to reach our conclusions, and so on, should be "just right" to persuade the reader that we have conducted our jobs soundly. But remember that we can never conclusively "prove" something; we can only, at best, convincingly suggest. Research is an act of persuasion.

Credibility in a qualitative research report can be established through several ways. First, citing the key writers of related works in your literature review is a must. Seasoned researchers will sometimes assess whether a novice has "done her homework" by reviewing the bibliography or references. As an example, one article manuscript I reviewed for a journal purported to be a literature review of multicultural education, but the works of one of the field's premiere scholars, James A. Banks, were completely absent from the report. I recommended to the editor that the submission be rejected and offered to the writer a list of scholars' names to investigate. You needn't list everything that seminal writers have published about a topic, but their names should appear at least once as evidence that you know the field's key figures and their work.

Credibility can also be established by specifying the particular data analytic methods you employed (e.g., "Interview transcripts were taken through two cycles of process coding, resulting in five primary categories"), through corroboration of data analysis with the participants themselves (e.g., "I asked my participants to read and respond to a draft of this report for their confirmation of accuracy and recommendations for revision"), or through your description of how data were triangulated (e.g., "Data sources included interview transcripts, participant observation fieldnotes, and participant response journals to gather multiple perspectives about the phenomenon").

Creativity scholar Sir Ken Robinson is attributed with offering this cautionary advice about making a convincing argument: “Without data, you’re just another person with an opinion.” Thus, researchers can also support their assertions and findings with relevant, specific evidence by quoting participants directly and/or including fieldnote excerpts from the data corpus. These serve both as illustrative examples for readers and to present more credible testimony of what happened in the field.

Trustworthiness, or providing credibility to the writing, is when we inform the reader of our research processes. Some make the case by stating the duration of fieldwork (e.g., “Seventy-five clock hours were spent in the field”; “The study extended over a twenty-month period”). Others put forth the amounts of data they gathered (e.g., “Twenty-seven individuals were interviewed”; “My fieldnotes totaled approximately 250 pages”). Sometimes trustworthiness is established when we are up-front or confessional with the analytic or ethical dilemmas we encountered (e.g., “It was difficult to watch the participant’s teaching effectiveness erode during fieldwork”; “Analysis was stalled until I recoded the entire data corpus with a new perspective.”).

The bottom line is that credibility and trustworthiness are matters of researcher *honesty* and *integrity*. Anyone can write that he worked ethically, rigorously, and reflexively, but only the writer will ever know the real truth. There is no shame if something goes wrong with your research. In fact, it is more than likely the rule, not the exception. U.S. President Barack Obama frequently uses the term “transparency” as a goal for his governance, meaning that most matters would not be kept secret but open to the public for scrutiny and accountability. This same concept, also called *auditing*, applies readily to qualitative research. Work and write transparently to achieve credibility and trustworthiness with your readers.

CAQDAS

CAQDAS is an acronym for Computer Assisted Qualitative Data Analysis Software. There are diverse opinions among practitioners in the field about the utility of such specialized software for qualitative data management and analysis. The software, unlike

statistical computation, does not actually analyze data for you at higher conceptual levels. Software packages serve as a repository for your data (both textual and visual) that enable you to code them, and they can perform such functions as calculate the number of times a particular word or phrase appears in the data corpus (a particularly useful function for content analysis) and can display selected facets after coding, such as possible interrelationships. Certainly, basic word processing software such as Microsoft Word, Excel, and Access provide utilities that can store and, with some preformatting and strategic entry, organize qualitative data to enable the researcher's analytic review. A few Internet addresses are listed below to explore these CAQDAS packages and obtain demonstration/trial software and tutorials:

- AnSWR: www.cdc.gov/hiv/topics/surveillance/resources/software/answr
- Atlas.ti: www.atlasti.com
- HyperRESEARCH: www.researchware.com
- MAXQDA: www.maxqda.com
- NVivo: www.qsrinternational.com
- QDA Miner: www.provalisresearch.com
- Transana: www.transana.org

Some researchers attest that the software is indispensable for qualitative data management, especially for large-scale studies. Others feel that the learning curve of CAQDAS is too lengthy to be of pragmatic value, especially for small-scale studies. From my own experience, if you have an aptitude for picking up quickly on the scripts of software programs, explore one or more of the packages listed above. If you are a novice to qualitative research, though, I recommend working manually or "by hand" for your first project so you can focus exclusively on the data and not on the software.

Closure

Data analysis is one of the most elusive processes in qualitative research. It's not that there are no models to follow, it's just that each project is contextual and case specific. The unique data you collect from your unique research design must be approached with your unique analytic signature. It truly is a learning-by-doing

process, so accept that and leave yourself open to discovery and insight as you carefully scrutinize the data corpus for patterns, categories, themes, concepts, assertions, and possibly new theories.

Analyzing qualitative data is a backstage, behind-the-scenes enterprise. Ultimately, your findings need to be disseminated in one form or another to an audience. The next chapter describes some possible representational and presentational formats, forums, venues, and writing styles for such reportage.

Notes

1. Coulter, Cathy A., and Mary Lee Smith. The construction zone: Literary elements in narrative research. *Educational Researcher* 38(8), pp. 577–590, copyright © 2009 by SAGE Publications. Reprinted by permission of SAGE Publications.
2. Republished with permission of AltaMira Press, from *Ethnodrama: An Anthology of Reality Theatre*, Johnny Saldaña, 2005; permission conveyed through Copyright Clearance Center, Inc.