The Coding Manual for Qualitative Researchers

Johnny Saldaña

actors, he does not "foot-fudge," wan-
e comic timing, speech is sometimes
ng man quality about him, a presence.
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of visual (and verbal) data in the mar-
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ethods profiles, and how to select
lar qualitative research study.

Three

First Cycle Coding Methods

> As the process of naming and locating your data bits proceeds, your categories divide and subdivide. Learn to be content, however, with your early, simple coding schemes, knowing that with use they will become appropriately complex.
>
> (Corrine Glesne, *Becoming Qualitative Researchers: An Introduction*, 2006, p. 150)

The Coding Cycles

In theatre production, a folk saying goes, "Plays are not written – they're *re*written." A comparable saying for qualitative researchers is, "Data are not coded – they're *re*coded." Some methodologists label the progressive refinement of codes in a study as "stages" or "levels." But to me, the reverberative nature of coding – comparing data to data, data to code, code to code, code to category, category to category, category back to data, etc. – suggests that the qualitative analytic process is cyclical rather than linear.

The coding methods in this manual are divided into two main sections: First Cycle and Second Cycle coding methods (see Figure 3.1).

First Cycle methods are those processes that happen during the initial coding of data and are divided into seven subcategories: Grammatical, Elemental, Affective, Literary and Language, Exploratory, Procedural, and a final profile entitled Themeing the Data. Each subcategory's major characteristics will be explained in a brief introduction later in this chapter. Most First Cycle methods are fairly simple and direct.

Second Cycle methods (see Chapter Four) are a bit more challenging because they require such analytic skills as classifying, prioritizing, integrating, synthesizing, abstracting, conceptualizing, and theory building. If you have taken ownership of the data through careful First Cycle coding (and recoding), the transition to Second Cycle methods becomes easier. But be aware that codes are not the only method you should employ, as noted anthropologists George and Louise Spindler (1992) attest: "only the human observer can be alert to divergences and

FIRST CYCLE CODING METHODS

Grammatical Methods
- Attribute Coding
- Magnitude Coding
- Simultaneous Coding

Elemental Methods
- Structural Coding
- Descriptive Coding
- In Vivo Coding
- Process Coding
- Initial Coding

Affective Methods
- Emotion Coding
- Values Coding
- Versus Coding
- Evaluation Coding

Literary and Language Methods
- Dramaturgical Coding
- Motif Coding
- Narrative Coding
- Verbal Exchange Coding

Exploratory Methods
- Holistic Coding
- Provisional Coding
- Hypothesis Coding

Procedural Methods
- OCM (Outline of Cultural Materials) Coding
- Protocol Coding
- Domain and Taxonomic Coding

Themeing the Data

SECOND CYCLE CODING METHODS

- Pattern Coding
- Focused Coding
- Axial Coding
- Theoretical Coding
- Elaborative Coding
- Longitudinal Coding

FIGURE 3.1 First Cycle and Second Cycle coding methods

subtleties that may prove to be more important than the data produced by any predetermined categories of observation or any instrument. ... The categories of happenings repeat themselves endlessly in human affairs, yet each event is unique" (pp. 66–7). Thus, memo writing before, during, and after you code becomes a critical analytic heuristic (see Chapter Two).

Selecting the Appropriate Coding M

Which coding method(s) – and notice t
your particular study? Permit me to offe
too often in qualitative inquiry: "It dep
Quinn Patton (2002) rationalizes this by n
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Depending on the nature and goals of y
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analytic waters, though, by employing too
ten First Cycle coding methods) or integ
an Exploratory Method with a Procedural

Let me offer an array of different answ
ning qualitative researchers.

Various perspectives on coding decisions

Which coding method(s) is appropriate fo
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data as your subconscious, not just your co
lead to flashes of insight (DeWalt & DeWal
coding method and at least two different a
in every study to enhance accountability
(Coffey & Atkinson, 1996; Leech & On
research genres, such as discourse analysis,
instead on detailed transcription notation a
data (Gee, Michaels, & O'Connor, 1992). S
to rely on phenomenological interpretatio
texts (van Manen, 1990). Some perceive
with newer interpretivist qualitative researc
ethnography and narrative inquiry (Hend
1997). Some believe prescribed methods
mechanistic, futile, and purposeless (Dey,
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coding methods

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Chapter Two).

Selecting the Appropriate Coding Method(s)

Which coding method(s) – and notice the plural option – is appropriate for your particular study? Permit me to offer the sage yet tiresome advice we say too often in qualitative inquiry: "It depends." Noted methodologist Michael Quinn Patton (2002) rationalizes this by noting, "Because each qualitative study is unique, the analytical approach used will be unique" (p. 433). And, as I noted at the beginning of this manual, no one, including myself, can claim final authority on the "best" way to code qualitative data.

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

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

Various perspectives on coding decisions

Which coding method(s) is appropriate for your particular study? Some feel coding must be prefaced and accompanied with careful reading and rereading of your data as your subconscious, not just your coding system, develops connections that lead to flashes of insight (DeWalt & DeWalt, 2002). Some feel that more than one coding method and at least two different analytic approaches should be explored in every study to enhance accountability and the depth and breadth of findings (Coffey & Atkinson, 1996; Leech & Onwuegbuzie, 2005; Mello, 2002). Some research genres, such as discourse analysis, may not employ coding at all but rely instead on detailed transcription notation and extensive analytic memos about the data (Gee, Michaels, & O'Connor, 1992). Some forego coding of data all together to rely on phenomenological interpretations of the themes in and meanings of texts (van Manen, 1990). Some perceive coding an abhorrent act incompatible with newer interpretivist qualitative research methodologies such as performance ethnography and narrative inquiry (Hendry, 2007; Lawrence-Lightfoot & Davis, 1997). Some believe prescribed methods of coding are all together aconceptual, mechanistic, futile, and purposeless (Dey, 1999). Others, like me, believe in the necessity and payoff of coding for selected qualitative studies, yet wish to keep themselves open during initial data collection and review before determining which coding method(s) – if any – will be most appropriate and most likely to yield a substantive analysis. I label this personal stance "pragmatic eclecticism."

"Generic" coding methods

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

First Cycle Coding Methods

1. Attribute Coding (for all data as a management technique)
2. Structural Coding or Holistic Coding (for all data as a "grand tour" overview)
3. Descriptive Coding (for field notes, documents, and artifacts as a detailed inventory of their contents)
4. In Vivo Coding, Initial Coding, and/or Values Coding (for interview transcripts as a method of attuning yourself to participant language, perspectives, and worldviews)

Second Cycle Coding Methods

5. Pattern Coding and/or Focused Coding (for categorization of your coded data as an initial analytic strategy)

Paradigmatic, conceptual, and methodological considerations

Which coding method(s) is appropriate for your particular study? Specific coding methods decisions may happen before, during, and/or after an initial review of the data corpus. One study with young people I conducted (Saldaña, 2005b) primarily used In Vivo Coding to honor children's voices and to ground the analysis from their perspectives (In Vivo Codes use the direct language of participants as codes rather than researcher-generated words and phrases). This choice was determined *beforehand* as part of the critical ethnographic research design. Thus, the coding decision was based on the *paradigm* or *theoretical approach* to the study. But another project I conducted with teachers (Hager et al., 2000) applied Versus Coding – phrases that capture the actual and conceptual conflicts within, among, and between participants, such as TEACHERS VS. ADMINISTRATORS – to the data *after* I noticed that interview transcripts and field notes were filled with tensions and power issues. Thus, the coding decision was based on an *emergent conceptual framework* for the study. Still another longitudinal ethnographic study I conducted (Saldaña, 1997) "mixed and matched" various coding methods at the beginning because

I wasn't quite sure what was happening and
eventually emerged as the primary method w
multiple types of data (interview transcripts,
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enable me to analyze participant change acro
was based on the *methodological needs* of the st

Coding and a priori goals

Which coding method(s) is appropriate fo
methodologists advise that your choice of cod
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study's conceptual framework or paradigm,
directly answers your research questions and g
Hypothesis, Protocol, and Elaborative Coding,
new theory about a phenomenon or proces
grounded theory and its accompanying codi
Initial, Focused, Axial, and Theoretical Coding
not required options. (In the Examples and An
profiles, I stay with the same participant and he
ular case progresses from First through Second

Coding in mixed methods studies

Which coding method(s) is appropriate for you
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& Teddlie, 2003) currently explore how qualit
"quantitized" for statistical analysis or survey ins
mation from codes could be used in the quantit
significant statements or quotes from participan
2007, p. 145). For instrument development, "a res
cant statements or quotes to help write specific i
codes would be major variables, and the themes
on the instrument" (p. 145). In this manual, Magni
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g methods at the beginning because

I wasn't quite sure what was happening and thus what I was looking for. What eventually emerged as the primary method was Descriptive Coding since I had multiple types of data (interview transcripts, field notes, documents, etc.) collected over a 20-month period, *and* I required a coding system that would enable me to analyze participant change across time. Thus, the coding decision was based on the *methodological needs* of the study.

Coding and a priori goals

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

Coding in mixed methods studies

Which coding method(s) is appropriate for your particular study? Depending on the qualitative coding method(s) you employ, the choice may have numeric conversion and transformation possibilities. Mixed methods studies (Tashakkori & Teddlie, 2003) currently explore how qualitative data can sometimes be "quantitized" for statistical analysis or survey instrument development: "information from codes could be used in the quantitative follow-up or for specific, significant statements or quotes from participants" (Creswell & Plano Clark, 2007, p. 145). For instrument development, "a researcher might use the significant statements or quotes to help write specific items for the instrument: The codes would be major variables, and the themes would be constructs or scales on the instrument" (p. 145). In this manual, Magnitude Coding is a method that applies numbers or other symbols to data and even to codes themselves that represent values on a scale such as: 3 = HIGH, 2 = MEDIUM, and 1 = LOW. There are some methodological purists who object to combining qualitative data with quantitative measurement. But I feel that as researchers we should keep ourselves open to numeric representation – when appropriate – as a supplemental heuristic to analysis. Magnitude Coding may be used concurrently with such methods as Values, Emotion, Evaluation, and Hypothesis Coding.

Most CAQDAS programs include such statistical capabilities as word frequency counts (e.g., ATLAS.ti's "Word Cruncher" function), code frequency counts, the matrix display of "quantitized" qualitative data in Excel spreadsheets, and even the transfer of converted qualitative data into quantitative data analysis programs such as SPSS – Statistical Package for the Social Sciences (see www.spss.com). Some CAQDAS programs can also import and associate quantitative data with the qualitative data set, enabling mixed methods analysis. Remember that word frequency in the data corpus does not necessarily suggest significance, but it is nevertheless worth exploring as a "query" (as featured in NVivo, for example) to explore any emergent but as yet undetected patterns.

New and hybrid coding schemes

Which coding method(s) is appropriate for your particular study? The 29 coding methods profiled in this manual are not the only ones available to you. For example, an elementary school reading teacher coded transcripts of her student's responses during literature discussion groups using Bloom's taxonomy of the cognitive domain – KNOWLEDGE, COMPREHENSION, APPLICATION, ANALYSIS, SYNTHESIS, and EVALUATION (Hubbard & Power, 1993, p. 79). One of my longitudinal case study's symbolic "volumes" and "tempos" of selected stages from his tumultuous adolescence were arts-based coded with musical dynamics (a form of Magnitude Coding) such as ADAGIO, MEZZO FORTE, ALLEGRETTO, and ANDANTE. You can develop new or hybrid coding methods or adapt existing schemes, customized to suit the unique needs and disciplinary concerns of your study. Templates are provided to document them after the First and Second Cycle coding methods have been profiled.

General criteria for coding decisions

Which coding method(s) is appropriate for your particular study? Flick (2002, p. 216) offers an excellent checklist for considering and selecting an analytic method to apply in a qualitative research study, which I have adapted for purposes of this coding manual. Notice, though, that most of these questions cannot be answered until you have done some preliminary coding on a portion of your data. Thus, pilot test your initial choices with a few pages of field notes and/or interview transcripts and reflect on these questions:

- Is the coding method(s) harmonizing with your study's conceptual or theoretical framework? (e.g., If your approach is critical ethnography, then an amalgam of In Vivo, Emotion, Values, Versus, Dramaturgical, Verbal Exchange, and/or Evaluation Coding may be more appropriate than Descriptive, Motif, and Hypothesis Coding.)

- Is the coding method(s) relating
  (Structural Coding is designed
  research questions, but your add
  should help you find answers, no
- Are you feeling comfortable and
  to your data? (i.e., Is coding a p
  puzzling or confusing one?)
- Are the data lending themselve
  codes appropriate for field not
  etc.?)
- Is the coding method(s) providi
  generating a sufficient overall nu
  to data that enable you to see co
- Is the coding method(s) leading
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  ment of patterns or themes, towa

The "bottom line" criterion is:

- As you're applying the coding m
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Overview of First Cycle Coding M

First Cycle coding methods are orga
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Grammatical Methods are technique
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s Coding.)

- Is the coding method(s) relating to or addressing your research questions? (Structural Coding is designed to start organizing data around specific research questions, but your additional coding methods choices afterward should help you find answers, not create mysteries.)
- Are you feeling comfortable and confident applying the coding method(s) to your data? (i.e., Is coding a provocative thinking exercise rather than a puzzling or confusing one?)
- Are the data lending themselves to the coding method(s)? (i.e., Are the codes appropriate for field notes, appropriate for interview transcripts, etc.?)
- Is the coding method(s) providing the specificity you need? (i.e., Are you generating a sufficient overall number of codes or a sufficient ratio of codes to data that enable you to see complexity and not complication?)
- Is the coding method(s) leading you toward an analytic pathway? (e.g., Toward the construction of categories or taxonomies, toward the development of patterns or themes, toward the beginnings of a grounded theory?)

The "bottom line" criterion is:

- As you're applying the coding method(s) to the data, are you making new discoveries, insights, and connections about your participants, their processes, or the phenomenon under investigation?

So, which coding method(s) is appropriate for your particular study? It depends. Examine the recommended Applications in this manual for options, guidance, and direction, but not as mandates, restrictions, or limitations. There are 29 distinctive coding methods described in this manual, and the thirtieth but non-profiled method is an approach that employs two or more methods when necessary – a form of "Eclectic Coding."

Overview of First Cycle Coding Methods

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

Grammatical Methods are techniques for enhancing the organization and texture of qualitative data. Elemental Methods are foundation approaches to coding

qualitative texts. Affective Methods investigate participant emotions, values, and other subjective qualities of human experience. Literary and Language Methods draw on aspects of written and oral communications for codes. Exploratory Methods are those that permit open-ended investigation, while Procedural Methods are, for lack of a better term, "standardized" ways to code data. The final section, Themeing the Data, acknowledges that extended passages of code can also capture the essence and essentials of participant meanings.

The Coding Methods Profiles

Each coding method profiled in the manual follows this outline:

Sources

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

Description

A short description of the code and its function is provided. Somewhat complex coding methods will include an extended discussion for clarification.

Applications

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

Example

Excerpts of varying length from field notes, interview transcripts, and documents provide material for coding demonstrations. All authentic data included were collected from independent or class research projects approved by my university's Human Subjects Review Board (which included participants' permission to publish collected data), previously published research, outdoor public observations,

and public documents. Pseudonyms rep
settings have been changed to protect pa
ples are "fictional" data composed solely
ranges from the mundane to the explici
(e.g., teaching, human development,
interpersonal relationships). Most examp
forward to assist with comprehension.

As you've seen thus far, codes are p
right-hand margin next to the data with
excerpt to its specific code:

> Driving west along the highway's access
> Main St. to Wildpass Rd. there were [1] ab
> warehouse buildings in disrepair, [2] spray
> graffiti on walls of several occupied and
> buildings. I passed a [3] Salvation Army Th
> Napa Auto Parts store, a tire manufactur
> houses in-between industrial sites, an au
> Market/Liquors, Budget Tire, a check cas
> [4] More spray paint was on the walls.

This visual strategy is intended as an e
your own coding process does not have
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tive research projects), you can circle, ur
and connect it with a line to your pe
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prescribed methods for selecting the tex
ing menu its accompanying code.

Keep in mind that no two qualitative
alike. Your ideas for codes may be differe
sent in the examples. It's all right if you i

Analysis

Depending on the method, some examp
sequent analysis after coding. This se
researchers might progress toward, reco
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A list of recommended – not manda
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and public documents. Pseudonyms replace actual participant names, and the settings have been changed to protect participant confidentiality. A few examples are "fictional" data composed solely for illustrative purposes. The content ranges from the mundane to the explicit and covers a number of subject areas (e.g., teaching, human development, health care, workplace organization, interpersonal relationships). Most examples are deliberately brief and straightforward to assist with comprehension.

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

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

This visual strategy is intended as an easy "at a glance" manual reference, but your own coding process does not have to follow this system. If you're working on hard copy (highly recommended for first-time and small-scale qualitative research projects), you can circle, underline, or highlight a passage of data and connect it with a line to your penciled code written in the margin. If you're using CAQDAS (highly recommended for large-scale or long-term qualitative research projects) such as NVivo, MAXQDA, or ATLAS.ti, use their prescribed methods for selecting the text and type in or select from the evolving menu its accompanying code.

Keep in mind that no two qualitative researchers think and, most likely, code alike. Your ideas for codes may be different – even better – than the ones I present in the examples. It's all right if you interpret the data differently than me.

Analysis

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

A list of recommended – not mandated or all-inclusive – analytic and representational strategies for further consideration is included in this section, and suggests such modalities as: research genres (e.g., phenomenology, portraiture),

analytic methods (e.g., frequency counts, content analysis), graphic representations (e.g., matrices, displays), next cycle coding processes, and others. The References will provide excellent detailed methods for enhancing your qualitative work. See Appendix D for a glossary of these analytic recommendations.

Notes

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

GRAMMATICAL

Grammatical coding methods refer not t
basic grammatical principles of a technic

Attribute Coding logs essential inform
characteristics of the participants for
Virtually all qualitative studies will empl

Magnitude Coding applies alphanum
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Magnitude Codes add statistical textur
mixed methods or quantitative studies.

Simultaneous Coding occurs when t
overlap with a qualitative datum to detail
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assignments simultaneously.

ATTRIBUTE C

Sources

Bazeley, 2003; DeWalt & DeWalt, 2002; (

Description

(Miles & Huberman [1994] refer to
"Descriptive Coding," but that term will
manual. Also, Bogdan & Biklen [2007] cla
"Setting/Context Codes." Attribute Co
manual to harmonize with CAQDAS lan

Attribute Coding is the notation, usuall
than embedded within it, of basic descri
work setting (e.g., school name, city, co
demographics (e.g., age, gender, ethnicity,
transcript, field note, document), time fra
a.m.), and other variables of interest for
quantitative analysis. CAQDAS programs
for data sets in related files.

Applications

Attribute Coding is appropriate for virtua
ularly for those with multiple participants

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ssary of these analytic recommendations.

s about the coding method are provided

GRAMMATICAL METHODS

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

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

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

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

ATTRIBUTE CODING

Sources

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

Description

(Miles & Huberman [1994] refer to this type of coding grammar as "Descriptive Coding," but that term will be used in a different context in this manual. Also, Bogdan & Biklen [2007] classify this type of coding grammar as "Setting/Context Codes." Attribute Coding is chosen as the term for this manual to harmonize with CAQDAS language).

Attribute Coding is the notation, usually at the beginning of a data set rather than embedded within it, of basic descriptive information such as: the fieldwork setting (e.g., school name, city, country), participant characteristics or demographics (e.g., age, gender, ethnicity, health), data format (e.g., interview transcript, field note, document), time frame (e.g., 2007, May 2005, 8:00–10:00 a.m.), and other variables of interest for qualitative and some applications of quantitative analysis. CAQDAS programs enable you to enter Attribute Codes for data sets in related files.

Applications

Attribute Coding is appropriate for virtually all qualitative studies, but particularly for those with multiple participants and sites, and studies with a wide

variety of data forms (e.g., interview transcripts, field notes, journals, documents, diaries, correspondence, artifacts, video).

Attribute Coding is good qualitative data management and provides essential participant information and contexts for analysis and interpretation. Mason (1994) calls this process giving data various "addresses" for easy location within the corpus. Lofland et al. (2006) recommend that "folk/setting-specific" information be included as codes that identify the types of activities and behaviors that appear in the data set for future categorization and explorations of interrelationship.

Examples

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

PARTICIPANT (PSEUDONYM): BARRY
AGE: 18
GRADE LEVEL: 12
GPA: 3.84
GENDER: MALE
ETHNICITY: WHITE
SEXUAL ORIENTATION: HETEROSEXUAL
SOCIAL CLASS: LOWER-MIDDLE
RELIGION: METHODIST
DATA FORMAT: INTERVIEW 4 OF 5
TIME FRAME: MARCH 2006

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

PARTICIPANTS: 5th GRADE CHILDREN
DATA FORMAT: P.O. FIELD NOTES / SET 14 OF 22
SITE: WILSON ELEMENTARY SCHOOL, PLAYGROUND
DATE: 6 OCTOBER 2006
TIME: 11:45 a.m.–12:05 p.m.
ACTIVITIES INDEX [a list of the field notes' major contents]:
RECESS
BOYS PLAYING SOCCER
BOYS ARGUING
GIRLS IN CONVERSATION
GIRLS PLAYING FOUR-SQUARE
TEACHER MONITORING
DISCIPLINE

Analysis

CAQDAS programs can maintain and link Attribute Codes (which in programming language may be called Attributes, Properties, Values, etc.) with data and

provide the researcher opportunities to que
coded data in tables and matrices by such d
gender, ethnicity, religion, geographic locat
of interrelationship (i.e., correlation), influe
themes, and longitudinal trends may emer
data or even hunch-driven queries accordi
tions of interest (Bazeley, 2003). Quantitati
Codes is also possible to analyze them as n
tions with other data sets (e.g., ATTRIB
PRESENT = 1; for gender coding, MALE

Rubin & Rubin (1995) wisely advise t
erences *within* the data themselves, such as
that participants mention, and the names o
as such to reveal organizational, hierarchi
data, especially if multiple participants wit

Attribute Coding is intended as a *cod*
descriptive "cover" information about pa
components of the study.

Some recommended ways to further
Appendix D):

- case studies (Merriam, 1998; Stake, 199
- content analysis (Krippendorff, 20
Birmingham, 2003)
- cross-cultural content analysis (Bernard
- frequency counts (LeCompte & Schens
- graph-theoretic techniques for semanti
Thairu, & Johnson, 2008)
- illustrative charts, matrices, diagrams (M
Fellows, & Guevara, 2008; Northcutt &
- longitudinal qualitative research (Giele &
- mixed-methods research (Creswell, 200
Tashakkori & Teddlie, 2003)
- qualitative evaluation research (Patton, 2
- survey research (Fowler, 2001; Wilkinso
- within-case and cross-case displays (Gibb

Notes

Educational qualitative studies (e.g., Greig, Ta
concerted efforts to separate and compare
recent research in brain-based learning sugge

nscripts, field notes, journals, docu-
ideo).
a management and provides essential
lysis and interpretation. Mason (1994)
ses" for easy location within the cor-
'folk/setting-specific" information be
activities and behaviors that appear in
plorations of interrelationship.

ample Attribute Codes and descrip-
format established by the researcher:

notes might include these types of

OF 22
GROUND

major contents]:

Attribute Codes (which in program-
Properties, Values, etc.) with data and

provide the researcher opportunities to query and compare First and Second Cycle coded data in tables and matrices by such demographic variables as age, grade level, gender, ethnicity, religion, geographic location, and others. Unanticipated patterns of interrelationship (i.e., correlation), influences and affects (i.e., causality), cultural themes, and longitudinal trends may emerge from the systematic investigation of data or even hunch-driven queries according to selected characteristic combinations of interest (Bazeley, 2003). Quantitative transformation of selected Attribute Codes is also possible to analyze them as nominal data and their possible correlations with other data sets (e.g., ATTRIBUTE ABSENT = 0, ATTRIBUTE PRESENT = 1; for gender coding, MALE = 1, FEMALE = 2).

Rubin & Rubin (1995) wisely advise that seemingly mundane attribute references *within* the data themselves, such as dates, time frames, and routine actions that participants mention, and the names of people and programs, can be coded as such to reveal organizational, hierarchical, or chronological flows from the data, especially if multiple participants with differing perspectives are involved.

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

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

- case studies (Merriam, 1998; Stake, 1995)
- content analysis (Krippendorff, 2003; Weber, 1990; Wilkinson & Birmingham, 2003)
- cross-cultural content analysis (Bernard, 2006)
- frequency counts (LeCompte & Schensul, 1999)
- graph-theoretic techniques for semantic network analysis (Namey, Guest, Thairu, & Johnson, 2008)
- illustrative charts, matrices, diagrams (Miles & Huberman, 1994; Morgan, Fellows, & Guevara, 2008; Northcutt & McCoy, 2004; Paulston, 2000)
- longitudinal qualitative research (Giele & Elder, 1998; Saldaña, 2003, 2008)
- mixed-methods research (Creswell, 2009; Creswell & Plano Clark, 2007; Tashakkori & Teddlie, 2003)
- qualitative evaluation research (Patton, 2002)
- survey research (Fowler, 2001; Wilkinson & Birmingham, 2003)
- within-case and cross-case displays (Gibbs, 2007; Miles & Huberman, 1994)

Notes

Educational qualitative studies (e.g., Greig, Taylor, & MacKay, 2007) should make concerted efforts to separate and compare boys' and girls' data. For example, recent research in brain-based learning suggests marked differences between the

ways children of both genders process information. Multicultural/multiethnic studies and projects in critical race theory should also separate and compare data gathered from participants of different racial/ethnic backgrounds. See Rebekah Nathan's (2005) ethnography, *My Freshman Year*, for an example of how Attribute Coding of university students by gender and ethnicity enabled her to observe how their on-campus dining patterns countered the school's goals of achieving "community and diversity" (pp. 61–6, 171–2).

MAGNITUDE CODING

Sources

Miles & Huberman, 1994; Weston et al. 2001

Description

Magnitude Coding consists of and adds a supplemental alphanumeric or symbolic code or subcode to an existing coded datum or category to indicate its intensity, frequency, direction, presence, or evaluative content. Magnitude Codes can be qualitative, quantitative, and/or nominal indicators to enhance description.

Applications

Magnitude Coding is appropriate for qualitative studies in social science disciplines that also support quantitative measures as evidence of outcomes.

Some methodologists object to combining qualitative and quantitative applications. Mixed-methods research, however, is a method gaining currency in qualitative inquiry (Tashakkori & Teddlie, 2003). Magnitude Coding is supplemental shorthand to add texture to codes, subcodes, and categories. Sometimes words say it best; sometimes numbers do; and sometimes both can work in concert to compose a richer answer and corroborate each other.

Examples

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

STRONGLY (STR)
MODERATELY (MOD)
NO OPINION (NO)

or words or abbreviations that suggest frequency:

OFTEN (O)
SOMEWHAT (S)
NOT AT ALL (N)

Magnitude Codes can consist of numbe
cate intensity or frequency, as well as such

3 = HIGH
2 = MEDIUM
1 = LOW
0 = NONE OR N/A
47 INSTANCES
16 EXCHANGES
87%

Fielding (2008) recommends that cod
ticular process, phenomenon, or concept:

POSITIVE SELF-IMAGE
NEGATIVE SELF-IMAGE

Magnitude Codes can also suggest dir
conceptual ideas or opinions:

← = BACK TO BASICS EDUCATION
→ = PROGRESSIVE EDUCATIONAL CHANGE
↓ = MAINTAIN STATUS QUO IN THE SCHOO
↔ = MIXED RECOMMENDATIONS FOR EDU

Magnitude Codes can apply symbols to
something within a category:

+ = PRESENT
Ø = ABSENT
? = UNKNOWN OR UNCLEAR
Y = YES
N = NO
M = MAYBE

Magnitude Codes can consist of words
content:

POS = POSITIVE
NEG = NEGATIVE
NEU = NEUTRAL
MIX = MIXED

In the example below, a patient describes t
his primary care and sleep medicine phys
the subjects he addresses about each of th
afterward are the researcher's interpretation
rating system used for this example of Mag

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

3 = HIGH
2 = MEDIUM
1 = LOW
0 = NONE OR N/A
47 INSTANCES
16 EXCHANGES
87%

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

POSITIVE SELF-IMAGE
NEGATIVE SELF-IMAGE

Magnitude Codes can also suggest direction through symbols representing conceptual ideas or opinions:

← = BACK TO BASICS EDUCATION
→ = PROGRESSIVE EDUCATIONAL CHANGE
↓ = MAINTAIN STATUS QUO IN THE SCHOOLS
↔ = MIXED RECOMMENDATIONS FOR EDUCATION

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

+ = PRESENT
Ø = ABSENT
? = UNKNOWN OR UNCLEAR
Y = YES
N = NO
M = MAYBE

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

POS = POSITIVE
NEG = NEGATIVE
NEU = NEUTRAL
MIX = MIXED

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

3 = HIGH QUALITY
2 = SATISFACTORY QUALITY
1 = LOW QUALITY
[blank] = NO EVALUATIVE COMMENT

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

[1] Dr Lucas-Smith's office, she's my main doctor, is ***very organized***, the receptionists are ***friendly*** and the nursing staff acts ***very professionally***. [2] But Dr Johnson's office staff seem like interns ***in training*** – and *bad* ones, at that. Sometimes you feel like they ***haven't got a clue*** about what's going on, you know?

[1] DR LS STAFF: 3
[2] DR J STAFF: 1

Now, [3] Dr Lucas-Smith is a bit ***cold***, maybe ***too "professional,"*** but [4] she's relatively fresh out of med school so her ***knowledge is state-of-the-art***. That's what ***I like*** about her: she was ***able to clear up*** two health problems of mine – a cyst under my left arm and a superficial blood clot on my leg – that previous doctors didn't know what to do about.

[3] DR LS DECORUM: 2
[4] DR LS EXPERTISE: 3

Dr Johnson is kind of old-school but [5] he ***knows his stuff***. [6] My office visits with him are ***OK*** but [7] he does ***so much small-talk*** that I wanna tell him, "Just treat me so I can get outta here, I've already been waiting an hour for you." [8] With Dr Lucas-Smith, it's ***efficient*** – in and outta there, probably because she's so ***popular*** and has ***lots of patients*** she needs to see. You ***don't*** feel ***rushed***, but you do feel like you're ***there for a purpose***, so let's get to it.

[5] DR J EXPERTISE: 3
[6] DR J DECORUM: 2
[7] DR J WAIT TIME: 1
[8] DR LS WAIT TIME: 3

Analysis

Magnitude Codes can be placed in a summary table or matrix for at-a-glance analysis (see Figure 3.2).

CAQDAS programs and Microsoft Excel can generate selected statistics culled from Magnitude Codes. The MAXQDA program, for example, permits you to see the "weight" of a coded segment of text or a code itself in comparison to others, providing another measure of magnitude for analysis.

Magnitude Coding is intended as a *coding grammar*, a way of "quantitizing" and/or "qualitizing" a phenomenon's intensity, frequency, direction, presence, or evaluative content (Tashakkori & Teddlie, 1998). It is most often refinement or specification of a code during First Cycle coding methods but can also be

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

FIGURE 3.2 Magnitude Codes in a summary t

applied during Second Cycle coding for assess
a code, subcode, or category.

Some recommended ways to further ana
Appendix D):

- Hypothesis Coding and Pattern Coding
- assertion development (Erickson, 1986)
- content analysis (Krippendorff, 2003; Birmingham, 2003)
- data matrices for univariate, bivariate, and mu
- descriptive statistical analysis (Bernard, 20
- frequency counts (LeCompte & Schensul,
- graph-theoretic techniques for semantic r Thairu, & Johnson, 2008)
- illustrative charts, matrices, diagrams (Mil Fellows, & Guevara, 2008; Northcutt & M
- longitudinal qualitative research (Giele &
- mixed-methods research (Creswell, 2009; Tashakkori & Teddlie, 2003)
- qualitative evaluation research (Patton, 200
- quick ethnography (Handwerker, 2001)
- splitting, splicing, and linking data (Dey, 19
- survey research (Fowler, 2001; Wilkinson &
- within-case and cross-case displays (Gibbs,

Notes

Magnitude Codes can be applied to Values Co
Codes, and Evaluation Codes that may contain
direction, presence, and/or evaluative content.

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

FIGURE 3.2 Magnitude Codes in a summary table

applied during Second Cycle coding for assessing variability and dimensions of a code, subcode, or category.

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

- Hypothesis Coding and Pattern Coding
- assertion development (Erickson, 1986)
- content analysis (Krippendorff, 2003; Weber, 1990; Wilkinson & Birmingham, 2003)
- data matrices for univariate, bivariate, and multivariate analysis (Bernard, 2006)
- descriptive statistical analysis (Bernard, 2006)
- frequency counts (LeCompte & Schensul, 1999)
- graph-theoretic techniques for semantic network analysis (Namey, Guest, Thairu, & Johnson, 2008)
- illustrative charts, matrices, diagrams (Miles & Huberman, 1994; Morgan, Fellows, & Guevara, 2008; Northcutt & McCoy, 2004; Paulston, 2000)
- longitudinal qualitative research (Giele & Elder, 1998; Saldaña, 2003, 2008)
- mixed-methods research (Creswell, 2009; Creswell & Plano Clark, 2007; Tashakkori & Teddlie, 2003)
- qualitative evaluation research (Patton, 2002)
- quick ethnography (Handwerker, 2001)
- splitting, splicing, and linking data (Dey, 1993)
- survey research (Fowler, 2001; Wilkinson & Birmingham, 2003)
- within-case and cross-case displays (Gibbs, 2007; Miles & Huberman, 1994)

Notes

Magnitude Codes can be applied to Values Codes, Emotion Codes, Hypothesis Codes, and Evaluation Codes that may contain continua of intensity, frequency, direction, presence, and/or evaluative content.

SIMULTANEOUS CODING

Source

Miles and Huberman, 1994

Description

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

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

Applications

Simultaneous Coding is appropriate when the data's content suggests multiple meanings that necessitate and justify more than one code since complex "social interaction does not occur in neat, isolated units" (Glesne, 2006, p. 150). Miles & Huberman (1994) advise that simultaneous coding "is warranted if a segment is both descriptively and inferentially meaningful" (p. 66). Be aware that some may attribute indecisiveness on the researcher's part if Simultaneous Coding is used excessively. This may also suggest that there is no clear or focused research purpose and thus a clear lens and filter for analyzing the data. If Simultaneous Coding is used, justify the rationale for its use.

Examples

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

I: Did completing your MFA degree affect your pay scale or status of employment?

NANCY: [1a & 1b] Not one bit. But I fought. I v
a couple of letters to the district human
resources director explaining that I have a
MFA which is 60 credit hours, and they st
an *MA* degree for a pay raise. And my deg
like getting 30 more credit hours of schoo
would be the "Master's plus 24," which is
payline. And we went over it and over it an
wouldn't give me the extra pay raise. And t
explained that I have 96 graduate credit h
now, so I have far above the 30 credit hou
a master's, and they still wouldn't give it t
so it's kind of a moot issue, they just won'

I: Are you going to continue to pursue it or

NANCY: [2] No, I'm going to let it be because
I won't win like that, you know? I just know
so I'm just gonna drop it and I probably wo
the "Master's plus 24" while I'm here beca
like a whole 'nother degree for me. So I'll ju
to what I'm at right now.

As a second example from field notes, a
The *entire unit* is assigned the descriptiv
within this unit there are four separate
the actions at work. These could be p
nested codes within the primary *hierarchic*

Today is Valentine's Day and flowers can be
carried by students and teachers through the
hallways. Nancy is dressed in a red sweater
top, blue jean shorts, and red glittered earrin

[1] At 8:00 a.m. I enter Nancy's classroom. A ve
large cardboard box and two plastic tubs with
carnations are by the platform. Nancy tells a
student, "Aren't they pretty this year? They're
prettier than last year." The flowers cost
$150 and the goal is to make $150 profit on
them. Nancy drove to a mall floral shop
yesterday to get them.

[1a] She tells three girls who take flowers to sell
"OK, one dollar apiece, guys. And I don't have
any change, guys. [1b] We're gonna have so
much fun today." The girls leave with the
flowers. Nancy goes into the hall and says to a
student, [1c] "Hey Mike, how are are you? ... The
gonna sell them in the cafeteria. ... Yeah, they
in there now."

CODING

rms when referring to two or more
uential passages of text: "simultaneous
e coding," "multiple coding," "overlap
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rlaps with the two major unit codes:

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NANCY: [1a & 1b] Not one bit. But I fought. I wrote a couple of letters to the district human resources director explaining that I have an MFA which is 60 credit hours, and they stipulated an *MA* degree for a pay raise. And my degree was like getting 30 more credit hours of schooling which would be the "Master's plus 24," which is the next payline. And we went over it and over it and she wouldn't give me the extra pay raise. And then I explained that I have 96 graduate credit hours now, so I have far above the 30 credit hours for a master's, and they still wouldn't give it to me. And so it's kind of a moot issue, they just won't do it.

[1a] INEQUITY
[1b] SCHOOL DISTRICT BUREAUCRACY

I: Are you going to continue to pursue it or just ...

NANCY: [2] No, I'm going to let it be because I know I won't win like that, you know? I just know it. Um, so I'm just gonna drop it and I probably won't reach the "Master's plus 24" while I'm here because that's like a whole 'nother degree for me. So I'll just stick to what I'm at right now.

[2] ACCULTURATION

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

Today is Valentine's Day and flowers can be seen carried by students and teachers through the hallways. Nancy is dressed in a red sweater top, blue jean shorts, and red glittered earrings.

[1] At 8:00 a.m. I enter Nancy's classroom. A very large cardboard box and two plastic tubs with carnations are by the platform. Nancy tells a student, "Aren't they pretty this year? They're prettier than last year." The flowers cost $150 and the goal is to make $150 profit on them. Nancy drove to a mall floral shop yesterday to get them.

[1] FUNDRAISING

[1a] She tells three girls who take flowers to sell, "OK, one dollar apiece, guys. And I don't have any change, guys. [1b] We're gonna have so much fun today." The girls leave with the flowers. Nancy goes into the hall and says to a student, [1c] "Hey Mike, how are you? ... They're gonna sell them in the cafeteria. ... Yeah, they're in there now."

[1a] DELEGATING
[1b] MOTIVATING
[1c] PROMOTING

[1d] Two junior high students come in and look at the flowers. Boy: "Do you want one, Elena?" Elena: "Yeah." Boy: "What color?" Elena: "Red." The Boy gives Nancy a dollar, waves the flower above Elena's head and says laughingly, "Here, here!" [1d] TRANSACTING

Analysis

The first example above displays a case that occasionally occurs in qualitative data when the richness or complexity of an event or participant's story makes it difficult for a researcher to assign only one major code to the datum. And if the researcher's focus for the study includes several areas of interest, and if a single datum captures or illustrates points related to more than one of those areas, Simultaneous Coding can be applied. The method can also serve as a means of investigating interrelationship. If passages coded INEQUITY are consistently coupled with such codes as SCHOOL DISTRICT BUREAUCRACY, STAFF AUTHORITY, PRINCIPAL'S LEADERSHIP, and ACCULTURATION, emergent patterns can be explored and tested.

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

Logistically, Simultaneous Coding should be used sparingly if there are massive amounts of data and especially if they will be coded manually. CAQDAS programs are better equipped to manage extensive Simultaneous Coding (Bazeley, 2007, pp. 71–3; Lewins & Silver, 2007, p. 11). Van de Ven & Poole (1995) transformed coded qualitative data into quantitative dichotomous variables for longitudinal statistical analysis, but they first layered a "track" of up to five different codes for a single key incident across time. Qualitative codes on this track consisted of such items as the people involved with the incident, their relationships within their organization, and an assessment of their outcomes. The coding was not only simultaneous, it was *multidimensional*. CAQDAS programs such as NVivo can apply multiple codes to the same passage of text, which later enables the computer to process "intersections" – the generation of associations, links, and matrices (Bazeley, 2007).

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

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

- content analysis (Krippendorff, 2003; Weber, 1990; Wilkinson & Birmingham, 2003)

- graph-theoretic techniques for semant
  Thairu, & Johnson, 2008)
- illustrative charts, matrices, diagrams (
  Fellows, & Guevara, 2008; Northcutt &
- interrelationship (Saldaña, 2003)
- situational analysis (Clarke, 2005)
- splitting, splicing, and linking data (De

Notes

Simultaneous Coding differs from the pro
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HOUSES-DISREPAIR), while Simultane
meaning (e.g., HOUSES and POVERTY)

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1d TRANSACTING

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- graph-theoretic techniques for semantic network analysis (Namey, Guest, Thairu, & Johnson, 2008)
- illustrative charts, matrices, diagrams (Miles & Huberman, 1994; Morgan, Fellows, & Guevara, 2008; Northcutt & McCoy, 2004; Paulston, 2000)
- interrelationship (Saldaña, 2003)
- situational analysis (Clarke, 2005)
- splitting, splicing, and linking data (Dey, 1993)

Notes

Simultaneous Coding differs from the process of subcoding (see Descriptive Coding for an example). A subcode relates directly to its primary code (e.g., HOUSES-DISREPAIR), while Simultaneous Codes may differ in assigned meaning (e.g., HOUSES and POVERTY).

ELEMENTAL METHODS

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

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

Descriptive Coding assigns basic labels to data to provide an inventory of their topics. Many qualitative studies employ Descriptive Codes as a first step in data analysis.

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

Initial Coding is the first major stage of a grounded theory approach to the data. The method is truly open-ended for a researcher's first review of the corpus, and can incorporate In Vivo and Process Coding.

STRUCTURAL CODING

Sources

MacQueen, McLellan-Lemal, Bartholow, & Milstein, 2008; Namey, Guest, Thairu, & Johnson, 2008

Description

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

Applications

Structural Coding is appropriate for virtually all qualitative studies, but particularly for those employing multiple participants, standardized or

semi-structured data-gathering protocol investigations to gather topics lists o themes.

Structural Coding is a question-base indexing device, allowing researchers to vant to a particular analysis from a large Johnson, 2008, p. 141). Structural Codin the data corpus. The Sources suggest tha suitable for interview transcripts than otl field notes, but open-ended survey resp method.

Example

A mixed-methods study is conducted to s currently smoke about their habit. One the smokers' past cessation attempts (if an niques and their success and/or nonsucc

In the example below, an interviewer his smoking history and habits. Note hov by the particular research question fro Structural Code. Since Structural Codin the examples will scan across the enti responses and the interviewer's question in the coded segments:

Research Question: What types of smoking c pants attempted in the past?

Structural Code: [1] UNSUCCESSFUL SMOKING

> [1] I: Have you ever tried to quit smoking
> PARTICIPANT: Yeah, several times.
> I: Were any of them successful?
> PARTICIPANT: Only for a short while. T
> I: What kinds of stop-smoking techniqu
> PARTICIPANT: The nicotine lozenges se pretty well on those for about tw in the way and the work stress again.
> I: What other techniques have you trie
> PARTICIPANT: A long time ago I tried c stuff around the house to keep got broken into a couple of days stress just got to me and I star

ETHODS

approaches to qualitative data analysis. reviewing the corpus and they build a

based or conceptual phrase representing both code and categorize the data cor- dation work for further detailed coding. els to data to provide an inventory of nploy Descriptive Codes as a first step

ding are foundation methods for cable to other analytic approaches. In nt's own language for codes. Process odes. These techniques are employed itial, Focused, Axial, and Theoretical

of a grounded theory approach to the r a researcher's first review of the cor- ocess Coding.

ODING

, & Milstein, 2008; Namey, Guest,

l or conceptual phrase representing a relates to a specific research question en, McLellan-Lemal, Bartholow, & oded segments are then collected alysis.

irtually all qualitative studies, but iple participants, standardized or

semi-structured data-gathering protocols, hypothesis testing, or exploratory investigations to gather topics lists or indexes of major categories or themes.

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

Example

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

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

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

Structural Code: [1] UNSUCCESSFUL SMOKING CESSATION TECHNIQUES

[1] I: Have you ever tried to quit smoking?
PARTICIPANT: Yeah, several times.
I: Were any of them successful?
PARTICIPANT: Only for a short while. Then I started back up again.
I: What kinds of stop-smoking techniques have you tried in the past?
PARTICIPANT: The nicotine lozenges seemed to work best, and I was doing pretty well on those for about two or three weeks. But then life stuff got in the way and the work stress was too much so I started smoking again.
I: What other techniques have you tried?
PARTICIPANT: A long time ago I tried cold turkey. I just kept myself busy doing stuff around the house to keep my mind off of smoking. But then my car got broken into a couple of days later and the window got busted, so the stress just got to me and I started smoking again.

I: Are there any other ways you've tried to stop smoking?
PARTICIPANT: Mm. *(pause)* No. Those were my only two attempts. Both of them failed, though.

Research Question: What factors lead to participants' unsuccessful smoking cessation attempts?
Structural Code: [2] REASONS FOR UNSUCCESSFUL SMOKING CESSATION

[2] I: You said that "stress got to" you as a reason to start smoking again.
PARTICIPANT: Yeah, and not, it wasn't the stress of not smoking that got to me, it was life stress – the car break-in, work – it just got to be too much for me and I broke down and needed a cigarette, *really* needed one.
I: What was it about work that made you want to smoke again?
PARTICIPANT: There was a lot of responsibility and expectations riding on me. I was worried that, well, at that time I was worried that things weren't going to turn out the way they needed to, whether I would have enough personnel, deadlines to meet, just too much stress. And I knew this was coming so maybe I just picked the wrong time to quit.
I: And what is "life stuff"? *(PARTICIPANT chuckles)* What does that –
PARTICIPANT: Life stuff – laundry, ironing, grocery shopping, uh, feeding the cats, cleaning their litter boxes, running around to do this and that with barely any time to do it.
I: I can relate to that. Now, when you went "cold turkey," how did you cope?

Analysis

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

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

Technique
"COLD TURKEY"
  Keep Busy
  Thoughts of Saving Money
  Exercise
  Try Not to Think About It
NICOTINE PATCHES
SUPPORT NETWORK
  Friends
  Partner/Spouse
NICOTINE GUM
NICOTINE LOZENGES
GRADUAL WITHDRAWAL
COUNSELING
HYPNOSIS
AVERSION THERAPY

An "at a glance" scan of the above dat
Professional Intervention (COUNSE
THERAPY) was the least used techniqu
"COLD TURKEY" was the most frequent
theoretic data reduction techniques, "also re
ses, may be used to identify complex sema
through tables and matrices (Namey et al., 20
be analyzed by gender, for example, to inves
and women's choices of smoking cessation
niques such as hierarchical clustering and n
associations, co-occurrence, distance and pro
tative aspects of qualitative data. In the exa
(PATCHES, GUM, LOZENGES) might stat
tering analysis. CAQDAS programs and their
titative software programs are indispensable f

Quantitative follow-up, however, is not
methods, such as thematic analysis and even
ble with structurally coded data.

Some recommended ways to further a
Appendix D):

- First Cycle coding methods
- content analysis (Krippendorff, 200
  Birmingham, 2003)
- frequency counts (LeCompte & Schensul
- graph-theoretic techniques for semantic
  Thairu, & Johnson, 2008)

top smoking?
my only two attempts. Both of

nts' unsuccessful smoking ces-

SMOKING CESSATION

ason to start smoking again.
ress of not smoking that got to
n, work – it just got to be too
eded a cigarette, *really*

it to smoke again?
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me I was worried that things
needed to, whether I would
meet, just too much stress.
I just picked the wrong time

kles) What does that –
cery shopping, uh, feeding the
around to do this and that

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a particular theme, rather than
e text. … [A] code frequency
domains were common and
filed above, other participants'
llected together, then further
to the specific research ques-
ION TECHNIQUES for this
s and their frequency counts

Technique	Number of Participants
"COLD TURKEY"	15
Keep Busy	10
Thoughts of Saving Money	2
Exercise	2
Try Not to Think About It	1
NICOTINE PATCHES	8
SUPPORT NETWORK	6
Friends	4
Partner/Spouse	2
NICOTINE GUM	5
NICOTINE LOZENGES	4
GRADUAL WITHDRAWAL	4
COUNSELING	2
HYPNOSIS	1
AVERSION THERAPY	1

An "at a glance" scan of the above data would suggest that the category **Professional Intervention** (COUNSELING, HYPNOSIS, AVERSION THERAPY) was the least used technique with this particular group, while "COLD TURKEY" was the most frequent **Independent Intervention**. Graph-theoretic data reduction techniques, "also referred to as semantic network analyses, may be used to identify complex semantic relationships in bodies of texts" through tables and matrices (Namey et al., 2008, p. 146). The data in this study can be analyzed by gender, for example, to investigate any differences between men's and women's choices of smoking cessation measures. Advanced statistical techniques such as hierarchical clustering and multidimensional scaling can identify associations, co-occurrence, distance and proximity, dimension, and other quantitative aspects of qualitative data. In the example above, **Nicotine Substitutes** (PATCHES, GUM, LOZENGES) might statistically associate in hierarchical clustering analysis. CAQDAS programs and their transfer of converted data to quantitative software programs are indispensable for such analytic work.

Quantitative follow-up, however, is not always necessary. Other qualitative methods, such as thematic analysis and even grounded theory, are also applicable with structurally coded data.

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

- First Cycle coding methods
- content analysis (Krippendorff, 2003; Weber, 1990; Wilkinson & Birmingham, 2003)
- frequency counts (LeCompte & Schensul, 1999)
- graph-theoretic techniques for semantic network analysis (Namey, Guest, Thairu, & Johnson, 2008)

- illustrative charts, matrices, diagrams (Miles & Huberman, 1994; Morgan, Fellows, & Guevara, 2008; Northcutt & McCoy, 2004; Paulston, 2000)
- interrelationship (Saldaña, 2003)
- quick ethnography (Handwerker, 2001)
- splitting, splicing, and linking data (Dey, 1993)
- survey research (Fowler, 2001; Wilkinson & Birmingham, 2003)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998)
- within-case and cross-case displays (Gibbs, 2007; Miles & Huberman, 1994)

Notes

Structural Coding is an analytic cousin of Holistic Coding. The latter, however, is more exploratory and even tentative in nature, while the former is framed and driven by a specific research question and topic.

DESCRIPTIVE CODING

Sources

Miles & Huberman, 1994; Saldaña, 2003; Wolcott, 1994

Description

(This method is also called "Topic Coding" in some of the literature, but Descriptive Coding will be used in this manual to align with Wolcott's terminology.)

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

Applications

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

Many ethnographic studies usually begin with such general questions as "What is going on here?" and such reflective questions as "What is this a study about?" Descriptive Coding is just one approach to analyzing the data's basic topics to assist with answering these types of questions. Turner (1994) calls this cycle the development of a "basic vocabulary" of data to form "bread and

butter" categories for further analytic
dation for qualitative inquiry, and its p
what you saw and to hear what yo
Descriptive Codes from data collected
in matrices are also essential for ass
(Saldaña, 2003, 2008).

Example

An ethnographer walks through an inne
large metropolitan area and takes field no
are written descriptively – i.e., factually a
italicized "OC" sections interspersed t
(Bogdan & Biklen, 2007, pp. 163–4), subj
within the factual description, which als
how several Descriptive Codes repeat as t

Driving west along the highway's access roa
Main St. to Wildpass Rd. there were [1] aband
warehouse buildings in disrepair, [2] spray pai
graffiti on walls of several occupied and unoc
buildings. I passed a [3] Salvation Army Thrift S
Napa Auto Parts store, a tire manufacturing p
old houses in-between industrial sites, an au
store, Market/Liquors, Budget Tire, a check c
service. [4] More spray paint was on the walls.

OC: [5] There seems to be an abundance of ca
businesses in the neighborhood. Industrial lo
atmosphere – no "showroom" qualities. Here
"repair" is more important than sales.

I parked on Turquoise Rd. and walked along th
periphery of an elementary school lot. [6] The m
of the homes had dirt front yards; the only veg
growing were weeds. Maybe one house per blo
what would be called a lawn. The majority seem
unattended, not cared for. The homes look like
were built in the 1930s, 1940s at the latest. [7]
spray paint on the "No Trespassing" sign of th
elementary school and smaller gang symbols o
[8] A beer bottle and beer can were against the
fence of the school. [9] Surfaces on the houses
maybe one per block looks fairly well painted. T
majority are peeling in paint, rotted wood, vario
(wood, stucco, tin) on the same house.

OC: Priorities, energies, financial resources do
into the appearance of homes. There are more
things to worry about.

rams (Miles & Huberman, 1994; Morgan,
ıcutt & McCoy, 2004; Paulston, 2000)

, 2001)
a (Dey, 1993)
ilkinson & Birmingham, 2003)
lverstein, 2003; Boyatzis, 1998)
s (Gibbs, 2007; Miles & Huberman, 1994)

n of Holistic Coding. The latter, however,
ve in nature, while the former is framed
tion and topic.

E CODING

03; Wolcott, 1994

Coding" in some of the literature, but
this manual to align with Wolcott's

word or short phrase – most often as a
qualitative data. To clarify, Tesch (1990)
these [codes] are identifications of the
The topic is what is talked or written
he message" (p. 119).

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rs learning how to code data, ethnogra-
f data forms (e.g., interview transcripts,
correspondence, artifacts, video).
begin with such general questions as
ctive questions as "What is this a study
approach to analyzing the data's basic
es of questions. Turner (1994) calls this
abulary" of data to form "bread and

butter" categories for further analytic work (p. 199). Description is the foundation for qualitative inquiry, and its primary goal is to assist the reader to see what you saw and to hear what you heard (Wolcott, 1994, pp. 55, 412). Descriptive Codes from data collected across various time periods and charted in matrices are also essential for assessing longitudinal participant change (Saldaña, 2003, 2008).

Example

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

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

[10] I notice that the grand majority of homes have chain link fences in front of them. There are many dogs (mostly German shepherds) with signs on fences that say "Beware of the Dog." — [10] SECURITY

OC: There's an attempt to keep things at home safe. Protection from robbers, protection of property. Keep your distance – this is mine.

Depending on the volume of data, specificity, or amount of detail you may need for data analysis and categorization, Descriptive Codes can also be assigned more detailed *subcodes* when needed (Miles & Huberman, 1994, p. 61). Gibbs (2007) explains that the most general code is called the "parent" while its subcodes are the "children"; subcodes that share the same parent are "siblings" in a hierarchy (p. 74):

[1] Some houses, because of their disrepair, look abandoned. But the things seen through the window and in the yard clue you that someone still lives there. [2] One house has a picture portrait of Jesus and a cross on its front wall. I notice TV antennas on several roofs. — [1] HOUSES-DISREPAIR; [2] HOUSES-DÉCOR

OC: [3] No cable TV – a luxury; can't afford it; not a priority. — [3] ECONOMICS-HOMES

[4] Laundry hangs in the back yards of several homes on a clothesline. [5] There's a house with a small statue of the Virgin Mary in front, [6] "Beware of the Dog/*Pero*" signs. [7] Desk chairs, worn upholstered furniture are in the front yards of some homes. — [4] HOUSES-YARDS; [5] HOUSES-DÉCOR; [6] SECURITY-SIGNS; [7] HOUSES-YARDS

OC: [8] It's all we've got. — [8] ECONOMICS-HOMES

[9] "Pussy" is a spray painted word I decipher on an abandoned car. — [9] GRAFFITI-OBSCENE

Analysis

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

> Priorities, energies, and financial resources of this neighborhood's residents do not go into the appearance of their homes (there are more important things to worry about).

> Houses appear to have been built i
> antennas (rather than cable) on sever
> Maybe one per block looks fairly well p
> peeling paint, rotting wood, and an as
> same house. Some, because of their di
> But look in the yards and inside the h
> live here.
>
> Laundry hangs on clotheslines in the
> ity have dirt front yards where the only
> house per block has what would be call
> chairs and worn upholstered furniture. T
> Virgin Mary in front. Another house has
> on its front wall.

Some recommended ways to furth
Appendix D):

- Hypothesis Coding, Domain and T
  Focused Coding
- content analysis (Krippendorff,
  Birmingham, 2003)
- cross-cultural content analysis (Ber
- domain and taxonomic analysis (S
  Spradley, 1979, 1980)
- frequency counts (LeCompte & Sc
- graph-theoretic techniques for sem
  Thairu, & Johnson, 2008)
- grounded theory (Charmaz, 2006; G
  1967; Strauss & Corbin, 1998)
- mixed-methods research (Creswell,
  Tashakkori & Teddlie, 2003)
- qualitative evaluation research (Patt
- quick ethnography (Handwerker, 2
- thematic analysis (Auerbach & Silve
- within-case and cross-case display
  1994)

Notes

Descriptive Coding is a straightforwa
research, particularly for those first us
categorizes data at a basic level to pro
grasp of the study.

chain link
ostly German
e of the Dog."

e. Protection
ence –

[10] SECURITY

city, or amount of detail you may
Descriptive Codes can also be
led (Miles & Huberman, 1994,
eneral code is called the "parent"
es that share the same parent are

[1] HOUSES-DISREPAIR

[2] HOUSES-DÉCOR

[3] ECONOMICS-HOMES

[4] HOUSES-YARDS
[5] HOUSES-DÉCOR

[6] SECURITY-SIGNS
[7] HOUSES-YARDS

[8] ECONOMICS-HOMES

[9] GRAFFITI-OBSCENE

ized inventory, tabular account,
ential groundwork for Second
ation (Wolcott, 1994, p. 55). In
es coded with HOUSES, for
dy of field notes and reassem-
and categorized narrative por-

ghborhood's residents do not go
nportant things to worry about).

Houses appear to have been built in the 1930s through 1940s. I notice TV antennas (rather than cable) on several roofs. Surfaces on the houses vary. Maybe one per block looks fairly well painted. But the majority's exteriors have peeling paint, rotting wood, and an assembly of wood, stucco, and tin on the same house. Some, because of their disrepair, look unattended and abandoned. But look in the yards and inside the homes through their windows: people still live here.

Laundry hangs on clotheslines in the back yards of several homes. The majority have dirt front yards where the only vegetation growing is weeds. Maybe one house per block has what would be called a lawn; other front yards contain desk chairs and worn upholstered furniture. There's a house with a small statue of the Virgin Mary in front. Another house has a picture portrait of Jesus and a cross on its front wall.

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

- Hypothesis Coding, Domain and Taxonomic Coding, Pattern Coding, and Focused Coding
- content analysis (Krippendorff, 2003; Weber, 1990; Wilkinson & Birmingham, 2003)
- cross-cultural content analysis (Bernard, 2006)
- domain and taxonomic analysis (Schensul, Schensul, & LeCompte, 1999; Spradley, 1979, 1980)
- frequency counts (LeCompte & Schensul, 1999)
- graph-theoretic techniques for semantic network analysis (Namey, Guest, Thairu, & Johnson, 2008)
- grounded theory (Charmaz, 2006; Corbin & Strauss, 2008; Glaser & Strauss, 1967; Strauss & Corbin, 1998)
- mixed-methods research (Creswell, 2009; Creswell & Plano Clark, 2007; Tashakkori & Teddlie, 2003)
- qualitative evaluation research (Patton, 2002)
- quick ethnography (Handwerker, 2001)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998)
- within-case and cross-case displays (Gibbs, 2007; Miles & Huberman, 1994)

Notes

Descriptive Coding is a straightforward method for novices to qualitative research, particularly for those first using CAQDAS programs. The method categorizes data at a basic level to provide the researcher an organizational grasp of the study.

IN VIVO CODING

Sources

Charmaz, 2006; Corbin & Strauss, 2008; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987; Strauss & Corbin, 1998

Description

(In Vivo Coding has also been labeled "Literal Coding" and "Verbatim Coding" in selected methods literature. In this manual, In Vivo Coding will be used since it is the most well-known label.)

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

Folk or *indigenous* terms are participant-generated words from members of a particular culture, subculture, or microculture. Folk terms indicate the existence of the group's cultural categories (McCurdy, Spradley, & Shandy, 2005, p. 26). For example, some homeless youths say that they "sp'ange" (ask passers-by for "spare change"). In Vivo Coding is one method of extracting these indigenous terms (and refer to Domain and Taxonomic Coding for more specific categorization guidelines).

Applications

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

In Vivo Coding is particularly useful in educational ethnographies with youth. The child and adolescent voices are often marginalized, and coding with their actual words enhances and deepens an adult's understanding of their cultures and worldviews. In Vivo Coding is also quite applicable to action research (Stringer, 1999) since one of the genre's primary goals is to frame the facilitator's interpretations of terms "that participants use in their everyday lives, rather than in terms derived from the academic disciplines or professional practices" (p. 91).

Example

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

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

Analysis

As you read interview transcripts or oth
voices, attune yourself to words and p
underlining, italicizing, highlighting, or
salience may be attributed to such fe
oriented verbs, evocative word choices,
metaphors, etc. If the same words, phrase
by the participant (such as "I don't kno
to merit an In Vivo Code, apply it. In
check on whether you have grasped wh
and may help "crystallize and condense
Thus, keep track of codes that are partici
generated by always putting In Vivo C
SCHOOL".

Key writers of grounded theory advoc
Vivo (or other) Code should appear next
your goals, In Vivo Codes can be applied
or phrase for every three to five sentenc
rather than 17 In Vivo Codes I could
"FRESHMAN YEAR AWFUL", "FOU
TRYING SO HARD", "FRIENDS GC
there is a fixed rule or formula for an ave
recommended ratio of codes to text. Trust

CODING

008; Glaser, 1978; Glaser & Strauss, 1967;
3

"Literal Coding" and "Verbatim Coding"
s manual, In Vivo Coding will be used
)

which is alive," and as a code refers to a
language found in the qualitative data
s] themselves" (Strauss, 1987, p. 33).
nt-generated words from members of a
ulture. Folk terms indicate the existence
Curdy, Spradley, & Shandy, 2005, p. 26).
that they "sp'ange" (ask passers-by for
method of extracting these indigenous
omic Coding for more specific catego-

ally all qualitative studies, but particu-
s learning how to code data, and stud-
pant's voice. In Vivo Coding is one of
ed theory's Initial Coding but can be
in this manual.
educational ethnographies with youth.
arginalized, and coding with their actual
derstanding of their cultures and world-
able to action research (Stringer, 1999)
frame the facilitator's interpretations of
lives, rather than in terms derived from
ctices" (p. 91).

y, a 16 year-old teenage girl, about her
n Vivo Codes are placed in quotation
gets its own code:

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

[1] "HATED SCHOOL"
[2] "FRESHMAN YEAR AWFUL"
[3] "THIS YEAR'S BETTER"
[4] "DON'T KNOW WHY"
[5] "STOPPED CARING"

[6] "HARD TO EXPLAIN"
[7] "FOUND STUFF OUT"

[8] "WASN'T TRYING SO HARD"
[9] "HAVE PEOPLE LIKE ME"
[10] "WHAT OTHER PEOPLE WANTED"
[11] "LIKED ME MORE"
[12] "KIND OF STRANGE"
[13] "TRYING TO PLEASE THEM"
[14] "WASN'T TRYING AS HARD"
[15] "FRIENDS GOT CLOSER"
[16] "TRIED TO KNOW ME"
[17] "I DON'T KNOW"

Analysis

As you read interview transcripts or other documents that feature participant voices, attune yourself to words and phrases that seem to call for bolding, underlining, italicizing, highlighting, or vocal emphasis if spoken aloud. Their salience may be attributed to such features as impacting nouns, action-oriented verbs, evocative word choices, clever or ironic phrases, similes and metaphors, etc. If the same words, phrases, or variations thereof are used often by the participant (such as "I don't know" in the example above), and seem to merit an In Vivo Code, apply it. In Vivo Codes "can provide a crucial check on whether you have grasped what is significant" to the participant, and may help "crystallize and condense meanings" (Charmaz, 2006, p. 57). Thus, keep track of codes that are participant-inspired rather than researcher-generated by always putting In Vivo Codes in quotation marks: "HATED SCHOOL".

Key writers of grounded theory advocate meticulous work and that an In Vivo (or other) Code should appear next to every line of data. Depending on your goals, In Vivo Codes can be applied with less frequency, such as one word or phrase for every three to five sentences. In the interview excerpt above, rather than 17 In Vivo Codes I could have limited the number to four: "FRESHMAN YEAR AWFUL", "FOUND STUFF OUT", "WASN'T TRYING SO HARD", "FRIENDS GOT CLOSER". But don't infer that there is a fixed rule or formula for an average number of codes per page or a recommended ratio of codes to text. Trust your instincts with In Vivo Coding.

When something in the data appears to stand out, apply it as a code. Researcher reflection through analytic memo writing, coupled with Second Cycle coding, will condense the number of In Vivo Codes and provide a reanalysis of your initial work.

In Vivo Codes capture "behaviors or processes which will explain to the analyst how the basic problem of the actors is resolved or processed" (Strauss, 1987, p. 33) and "help us to preserve participants' meanings of their views and actions in the coding itself" (Charmaz, 2006, p. 55). In Vivo Codes can provide imagery, symbols, and metaphors for rich category, theme, and concept development. Strauss (1987, p. 160) also recommends that researchers examine In Vivo Codes not just as themes but as possible *dimensions* of categories – i.e., the continuum or range of a property.

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

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

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

- Second Cycle coding methods
- action research (Altrichter, Posch, & Somekh, 1993; Stringer, 1999)
- case studies (Merriam, 1998; Stake, 1995)
- domain and taxonomic analysis (Schensul, Schensul, & LeCompte, 1999; Spradley, 1979, 1980)
- frequency counts (LeCompte & Schensul, 1999)
- grounded theory (Charmaz, 2006; Corbin & Strauss, 2008; Glaser & Strauss, 1967; Strauss & Corbin, 1998)
- interactive qualitative analysis (Northcutt & McCoy, 2004)
- memo writing about the codes (Charmaz, 2006; Corbin & Strauss, 2008; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)
- metaphoric analysis (Coffey & Atkinson, 1996; Todd & Harrison, 2008)
- narrative inquiry and analysis (Clandinin & Connelly, 2000; Coffey & Atkinson, 1996; Cortazzi, 1993; Daiute & Lightfoot, 2004; Riessman, 2008)

- phenomenology (van Manen, 19
- poetic and dramatic constructions
  Cole, 2008; Saldaña, 2005a)
- polyvocal analysis (Hatch, 2002)
- portraiture (Lawrence-Lightfoot &
- qualitative evaluation research (Pa
- thematic analysis (Auerbach & Sil

Notes

Researchers new to coding qualitativ
and secure method with which to be
the strategy because it can limit your
and theoretical levels of analysis and i

PROCESS C

Sources

Bogdan & Biklen, 2007; Charmaz, 20
Corbin, 1998

Description

Process Coding uses gerunds ("-ing" w
the data (Charmaz, 2002). Simple obs
watching TV, drinking coffee) and more
gling, negotiating, surviving, adapting) c
Code. The processes of human action ca
automatic, and/or thoughtful" (Corbin

Applications

Process Coding is appropriate for virtu
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response to situations, or problems, ofte
or handling a problem" (Corbin & Strau
ory, Process Coding happens simultane
Coding, and a search for *consequences* of
process. *Sub*processes are usually "the inc
actions that make up the larger act" (Stra

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trauss, 1987)
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& Lightfoot, 2004; Riessman, 2008)

- phenomenology (van Manen, 1990)
- poetic and dramatic constructions (Denzin, 1997; Glesne, 2006; Knowles & Cole, 2008; Saldaña, 2005a)
- polyvocal analysis (Hatch, 2002)
- portraiture (Lawrence-Lightfoot & Davis, 1997)
- qualitative evaluation research (Patton, 2002)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998)

Notes

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

PROCESS CODING

Sources

Bogdan & Biklen, 2007; Charmaz, 2002; Corbin & Strauss, 2008; Strauss & Corbin, 1998

Description

Process Coding uses gerunds ("-ing" words) exclusively to connote action in the data (Charmaz, 2002). Simple observable activity (e.g., reading, playing, watching TV, drinking coffee) and more general conceptual action (e.g., struggling, negotiating, surviving, adapting) can be coded as such through a Process Code. The processes of human action can be "strategic, routine, random, novel, automatic, and/or thoughtful" (Corbin & Strauss, 2008, p. 247).

Applications

Process Coding is appropriate for virtually all qualitative studies, but particularly for those that search for "ongoing action/interaction/emotion taken in response to situations, or problems, often with the purpose of reaching a goal or handling a problem" (Corbin & Strauss, 2008, pp. 96–7). For grounded theory, Process Coding happens simultaneously with Initial Coding and Axial Coding, and a search for *consequences* of action/interaction is also part of the process. *Sub*processes are usually "the individual tactics, strategies, and routine actions that make up the larger act" (Strauss & Corbin, 1998, p. 169).

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

Examples

A first example from field notes taken while observing at an elementary school uses Process Coding to document basic activity. Note how the codes are all gerund-based:

[1] Mrs. Jackson rises from her desk and announces, "OK, you guys, let's get lined up for lunch. Row One."	[1] LINING UP FOR LUNCH
Five children seated in the first row of desks rise and walk to the classroom door. Some of the seated children talk to each other. [2] Mrs. Jackson looks at them and says, "No talking, save it for the cafeteria. [3] Row Two." Five children seated in the second row of desks rise and walk to the children already standing in line. [4] A girl asks Mrs. Jackson, "Does it smell like pizza?" Mrs. Jackson smiles and replies, "Yeah, smells good, doesn't it?"	[2] MANAGING BEHAVIOR [3] LINING UP FOR LUNCH [4] BANTERING

As a second example, an adult female interviewer talks to a teenage girl about rumors. Note how the codes are all gerund-based (and note that the interviewer's questions and responses are not coded – just the participant's responses):

TIFFANY: Well, [1] that's one problem, that [my school is] pretty small, so [2] if you say one thing to one person, [3] and then they decide to tell two people, [4] then those two people tell two people, and [5] in one period everybody else knows. [6] Everybody in the entire school knows that you said whatever it was. So ...	[1] PROBLEMIZING SCHOOL SIZE [2] SAYING ONE THING [3] TELLING OTHERS [4] TELLING OTHERS [5] EVERYBODY KNOWING [6] KNOWING WHAT YOU SAID
I: Have you ever had rumors spread about you?	
TIFFANY: Yeah, [7] it's just stupid stuff, completely outlandish things, too. [8] I, I don't really want to repeat them.	[7] REJECTING RUMORS [8] NOT REPEATING WHAT WAS SAID
I: That's OK, you don't have to.	
TIFFANY: [9] They were really, they were ridiculous. [10] And the worst thing about rumors, [11] I don't really care if people think that, because obviously they're pretty stupid to think that in the first place. But [12] the thing I care about is, like, last year, especially freshman year, was a really horrible year school-wise. And, [13] I guess it was good in a way that you find out who your real friends are, because [14] some of them turned on me and [15] then started to say that those things	[9] REJECTING RIDICULOUSNESS [10] CRITICIZING RUMORS [11] NOT CARING WHAT PEOPLE THINK [12] REMEMBERING A HORRIBLE YEAR [13] FINDING OUT WHO YOUR REAL FRIENDS ARE [14] TURNING ON YOU [15] SAYING THINGS ARE TRUE

were true and, like, [16] then people thought, "Well that person's her friend, so they must know." And so, [17] it just made the entire thing worse. And [18] you really learn a lot about people and, uh, and [19] who your real friends are. LuAnn's [20] probably the only person who's really stuck by me this entire time, and [21] just laughed at whatever they said.

Analysis

The conventions of story-line are used i reviewing data for process – e.g., the first s step, the third step. Participant language with "when," "because," "then," "and so," etc. clu process in action. These sequences or proce series of actions, listed as a bullet-pointed se resented with first-draft illustrations as a flo on the interview above include:

Narrative – Spreading Rumors:

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

Coded Process – Spreading Rumors:

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

See Figure 3.3 for an illustrated process of s

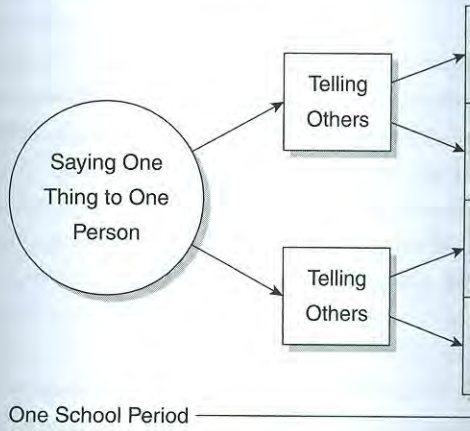

FIGURE 3.3 An illustrated process for spreadi

hile observing at an elementary school
c activity. Note how the codes are all

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[1] LINING UP FOR LUNCH

[2] MANAGING BEHAVIOR

[3] LINING UP FOR LUNCH

[4] BANTERING

nterviewer talks to a teenage girl about
rund-based (and note that the inter-
oded – just the participant's responses):

[1] PROBLEMIZING SCHOOL SIZE
[2] SAYING ONE THING
[3] TELLING OTHERS
[4] TELLING OTHERS
[5] EVERYBODY KNOWING

[6] KNOWING WHAT YOU SAID

[7] REJECTING RUMORS
[8] NOT REPEATING WHAT WAS SAID

[9] REJECTING RIDICULOUSNESS
[10] CRITICIZING RUMORS
[11] NOT CARING WHAT PEOPLE THINK

[12] REMEMBERING A HORRIBLE YEAR
[13] FINDING OUT WHO YOUR REAL FRIENDS ARE

[14] TURNING ON YOU
[15] SAYING THINGS ARE TRUE

were true and, like, [16] then people thought, "Well that person's her friend, so they must know." And so, [17] it just made the entire thing worse. And [18] you really learn a lot about people and, uh, and [19] who your real friends are. LuAnn's [20] probably the only person who's really stuck by me this entire time, and [21] just laughed at whatever they said.

[16] ASSUMING BY OTHERS

[17] MAKING THINGS WORSE
[18] LEARNING A LOT ABOUT PEOPLE
[19] LEARNING WHO YOUR FRIENDS ARE
[20] STICKING BY FRIENDS
[21] LAUGHING AT WHAT OTHERS SAY

Analysis

The conventions of story-line are used in analytic memo writing when reviewing data for process – e.g., the first step, the turning point, the second step, the third step. Participant language with transitional indicators such as "if," "when," "because," "then," "and so," etc. clue the researcher to a sequence or process in action. These sequences or processes can be ordered as a numeric series of actions, listed as a bullet-pointed set of outcomes, or graphically represented with first-draft illustrations as a flow diagram. Simple examples based on the interview above include:

Narrative – Spreading Rumors:

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

Coded Process – Spreading Rumors:

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

See Figure 3.3 for an illustrated process of spreading rumors.

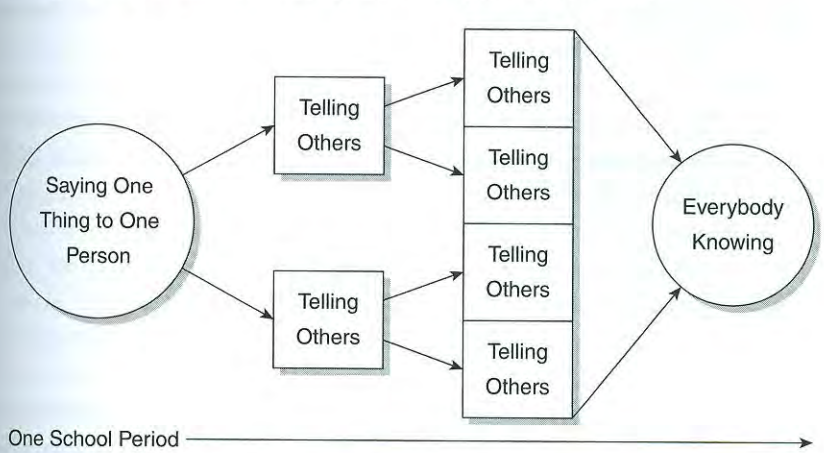

FIGURE 3.3 An illustrated process for spreading rumors

Consequences of Rumors [the Process Codes that led to the outcomes are listed for reference]:

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

Researcher reflection through analytic memo writing, coupled with Second Cycle coding, will condense the number of Process Codes and provide a reanalysis of your initial work. Dey (1993) encourages consideration of the complex interplay of factors that compose a process and how we can "obtain a sense of how events originate and evolve, and their shifting significance for those involved. Process refers to movement and change over time. In place of a static description, we can develop a more dynamic account of events" (p. 38). CAQDAS program linking functions enable you to mark the trail of participant process throughout the data corpus.

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

- Second Cycle coding methods
- action research (Altrichter, Posch, & Somekh, 1993; Stringer, 1999)
- case studies (Merriam, 1998; Stake, 1995)
- cognitive mapping (Miles & Huberman, 1994; Northcutt & McCoy, 2004)
- decision modeling (Bernard, 2006)
- grounded theory (Charmaz, 2006; Corbin & Strauss, 2008; Glaser & Strauss, 1967; Strauss & Corbin, 1998)
- illustrative charts, matrices, diagrams (Miles & Huberman, 1994; Morgan, Fellows, & Guevara, 2008; Northcutt & McCoy, 2004; Paulston, 2000)
- memo writing about the codes (Charmaz, 2006; Corbin & Strauss, 2008; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)
- splitting, splicing, and linking data (Dey, 1993)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998)
- vignette writing (Erickson, 1986; Graue & Walsh, 1998)

Notes

To appreciate the breadth & depth of Corbin & Strauss's (2008) discussion of Process Coding, readers are referred to their book, *Basics of Qualitative Research*, for

a full explanation and thorough examples of
and how micro- and macro-levels of analysis

Also refer to Dramaturgical Coding for a
a participant's tactics and strategies.

INITIAL CODIN

Sources

Charmaz, 2006; Corbin & Strauss, 2008; Gl
Strauss, 1987; Strauss & Corbin, 1998

Description

(Earlier publications in grounded theory r
Coding." Charmaz's [2006] term will be used
initiating procedural step in harmony with F

Initial Coding is breaking down qualitativ
examining them, and comparing them for si
& Corbin, 1998, p. 102). The goal of Initial C
theory studies, is "to remain open to all possib
by your readings of the data" (Charmaz, 200
you as a researcher to reflect deeply on the c
and to begin taking ownership of them. Initia
cific formulaic method. It is a First Cycle, ope
data with some recommended general guideli

Initial Coding can employ In Vivo Coding
or other selected methods profiled in this man
elements of a possible or developing category
so, code them during the initial cycle.

Applications

Initial Coding is appropriate for virtually all q
for beginning qualitative researchers learning h
and studies with a wide variety of data forms
notes, journals, documents, diaries, correspond

Initial Coding is intended as a starting point
analytic leads for further exploration and "to se
[this] study" (Glaser, 1978, p. 56). But Clarke (
"digesting and reflecting" on the data before be
(p. 84). All proposed codes during this cycle are

Codes that led to the outcomes are listed

GS ARE TRUE, ASSUMING BY OTHERS)
J)
VORSE, CRITICIZING RUMORS)
WHAT WAS SAID, REMEMBERING A HOR-

ING OUT WHO YOUR REAL FRIENDS ARE,
ARE, STICKING BY FRIENDS)
LOT ABOUT PEOPLE)
ECTING RUMORS, REJECTING RIDICULOUS-
CARING WHAT PEOPLE THINK, LAUGHING

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Somekh, 1993; Stringer, 1999)
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orbin & Strauss, 2008; Glaser & Strauss,

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harmaz, 2006; Corbin & Strauss, 2008;
Strauss, 1987)
Dey, 1993)
rstein, 2003; Boyatzis, 1998)
aue & Walsh, 1998)

Corbin & Strauss's (2008) discussion of
ir book, *Basics of Qualitative Research*, for

a full explanation and thorough examples of memo writing that capture process, and how micro- and macro-levels of analysis can be projected onto the data.

Also refer to Dramaturgical Coding for a comparable approach to analyzing a participant's tactics and strategies.

INITIAL CODING

Sources

Charmaz, 2006; Corbin & Strauss, 2008; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987; Strauss & Corbin, 1998

Description

(Earlier publications in grounded theory refer to Initial Coding as "Open Coding." Charmaz's [2006] term will be used in this manual since it implies an initiating procedural step in harmony with First Cycle coding processes.)

Initial Coding is breaking down qualitative data into discrete parts, closely examining them, and comparing them for similarities and differences (Strauss & Corbin, 1998, p. 102). The goal of Initial Coding, particularly for grounded theory studies, is "to remain open to all possible theoretical directions indicated by your readings of the data" (Charmaz, 2006, p. 46). It is an opportunity for you as a researcher to reflect deeply on the contents and nuances of your data and to begin taking ownership of them. Initial Coding is not necessarily a specific formulaic method. It is a First Cycle, open-ended approach to coding the data with some recommended general guidelines.

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

Applications

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

Initial Coding is intended as a starting point to provide the researcher with analytic leads for further exploration and "to see the direction in which to take [this] study" (Glaser, 1978, p. 56). But Clarke (2005) recommends a period of "digesting and reflecting" on the data before beginning Initial Coding ventures (p. 84). All proposed codes during this cycle are tentative and provisional. Some

codes may be reworded as analysis progresses. The task can also alert the researcher that more data are needed to support and build an emerging theory.

Charmaz (2006) advises that detailed, line-by-line Initial Coding (as it is outlined below) is perhaps more suitable for interview transcripts than for researcher-generated field notes. But Clarke (2005), in her postmodern approach to grounded theory, stresses the need to examine the nonhuman material elements of our social world that *will* be found in field notes and artifacts. She also prescribes that for initial visual discourse/materials analysis, coding is not important but interpreting and analytic memo writing are critical. It is thus the memos themselves – the researcher's narratives – that are coded for further analysis.

Example

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

[I: Last week you were talking about the snobby girls at lunchroom. And then you just were talking about that you didn't like some people because they were cliquish. So what kind of, who are your friends? Like, what kind of people do you hang out with?]

TIFFANY: [1] I hang out with everyone. Really, [2] I choose. Because I've been [living] here for so long, you get, [3] I can look back to kindergarten, and at some point I was [4] best friends with everybody who's been here, [5] practically. [I: You mean in choir?] TIFFANY: [6] Almost everybody in my grade. No, in school. And so there are [7] certain people that I've just been [8] friends with since forever. And then it's [9] not fair of me to stereotype either, like, say, "Oh well, like, the [10] really super popular pretty girls are all mean and [11] they're all snobby and they all talk about each other," [12] 'cause they don't. Some of them, some of them don't. And [13] those are the ones I'm friends, friends with. And then there are the, there are the [14] geeky people. [15] Some of them though, the geeks at our school, aren't like harmless geeks. They're like [16] strange-psycho-killer-geek-people-who-draw-swastikas-on-their-backpacks [17] kind of geeks. [I: So are they like Colorado ... ?] TIFFANY: Yeah, [18] some of them are kind of, it's really scary. [19] But then again [20] there's not the complete stereotype. Some of the, [21] not all of them are completely, like, wanna kill all the popular people. So, [22] I'm friends with those people. And then the [23] jocks, [24] not all of the guys are idiots, so [25] I'm friends with the ones who can carry on a conversation.

[I: *(laughs)* So, so you wouldn't put yourself in any of the . . .]

TIFFANY: [26] I'm friends with someone because of who they are, [27] not because of what group they, they hang out in basically. 'Cause I think [28] that's really stupid to be, like, [29] "What would people think if they saw me walking with this person?" or something.

[I: So you wouldn't define yourself with any specific group?]

TIFFANY: [30] No.

[I: Do you think anyone else would define you as . . .]

TIFFANY: I think people, [31] people define me as popular. Mainly because I would rather hang out with someone who's [32] good hearted but a little slow, compared to someone [33] very smart but very evil *(chuckle)*.

[1] "HANGING OUT WITH EVERYONE"
[2] "CHOOSING" WHO YOU HANG OUT WITH
[3] RECALLING FRIENDSHIPS
[4] "BEST FRIENDS WITH EVERYBODY"
[5] QUALIFYING: "PRACTICALLY"
[6] QUALIFYING: "ALMOST"

[7] FRIENDS WITH "CERTAIN PEOPLE"
[8] FRIENDS WITH "SINCE FOREVER"
[9] "NOT FAIR TO STEREOTYPE"
[10] LABELING: "REALLY SUPER POPULAR PRETTY GIRLS"
[11] IDENTIFYING STEREOTYPES
[12] DISPELLING STEREOTYPES

[13] CHOOSING FRIENDS: "SUPER POPULAR PRETTY GIRLS"

Analysis

Though you're advised to code quickl
attention to the rich dynamics of d
a "microanalysis" of the corpus (Strauss

›rogresses. The task can also alert the
support and build an emerging theory.
, line-by-line Initial Coding (as it is out-
le for interview transcripts than for
rke (2005), in her postmodern approach
› examine the nonhuman material ele-
und in field notes and artifacts. She also
/materials analysis, coding is not impor-
writing are critical. It is thus the memos
that are coded for further analysis.

ar-old girl about her social friendships
ponses, and comments are not coded –
t required during Initial Coding, but
ıded theory is to formulate categories
ıly a Process Code (e.g., LABELING),
ts (e.g., LABELING: "GEEKY PEO-
eferents may or may not later evolve
s of the data as analysis continues:

›by

e

[1] "HANGING OUT WITH EVERYONE"
[2] "CHOOSING" WHO YOU HANG OUT WITH
[3] RECALLING FRIENDSHIPS
[4] "BEST FRIENDS WITH EVERYBODY"
[5] QUALIFYING: "PRACTICALLY"
[6] QUALIFYING: "ALMOST"

[7] FRIENDS WITH "CERTAIN PEOPLE"
[8] FRIENDS WITH "SINCE FOREVER"
[9] "NOT FAIR TO STEREOTYPE"
[10] LABELING: "REALLY SUPER POPULAR PRETTY GIRLS"
[11] IDENTIFYING STEREOTYPES
[12] DISPELLING STEREOTYPES

[13] CHOOSING FRIENDS: "SUPER POPULAR PRETTY GIRLS"

the, there are the [14] geeky people.
[15] Some of them though, the geeks at our school, aren't like harmless geeks. They're like [16] strange-psycho-killer-geek-people-who-draw-swastikas-on-their-backpacks [17] kind of geeks. [I: So are they like Colorado ... ?] TIFFANY: Yeah, [18] some of them are kind of, it's really scary. [19] But then again [20] there's not the complete stereotype. Some of the, [21] not all of them are completely, like, wanna kill all the popular people. So, [22] I'm friends with those people. And then the [23] jocks, [24] not all of the guys are idiots, so [25] I'm friends with the ones who can carry on a conversation.

[14] LABELING: "GEEKY PEOPLE"
[15] QUALIFYING: "SOME OF THEM"

[16] LABELING: "STRANGE-PSYCHO-KILLER-GEEK"
[17] QUALIFYING: "KIND OF"

[18] QUALIFYING: "SOME OF THEM"
[19] QUALIFYING: "BUT THEN..."
[20] DISPELLING STEREOTYPES
[21] QUALIFYING: "NOT ALL OF THEM"

[22] CHOOSING FRIENDS: "GEEKS"
[23] LABELING: "JOCKS"
[24] DISPELLING STEREOTYPES
[25] CHOOSING FRIENDS: JOCKS "WHO CAN CARRY ON A CONVERSATION"

[I: *(laughs)* So, so you wouldn't put yourself in any of the . . .]

TIFFANY: [26] I'm friends with someone because of who they are, [27] not because of what group they, they hang out in basically. 'Cause I think [28] that's really stupid to be, like, [29] "What would people think if they saw me walking with this person?" or something.

[26] CRITERIA FOR FRIENDSHIP: "WHO THEY ARE"
[27] CRITERIA FOR FRIENDSHIP: NOT GROUP MEMBERSHIP
[28] ETHICS OF FRIENDSHIP
[29] NOT CONCERNED WITH WHAT OTHERS THINK

[I: So you wouldn't define yourself with any specific group?]

TIFFANY: [30] No.

[30] MAINTAINING INDIVIDUALITY

[I: Do you think anyone else would define you as . . .]

TIFFANY: I think people, [31] people define me as popular. Mainly because I would rather hang out with someone who's [32] good hearted but a little slow, compared to someone [33] very smart but very evil *(chuckle)*.

[31] DEFINING SELF THROUGH OTHERS: "POPULAR"

[32] CRITERIA FOR FRIENDSHIP: "GOOD HEARTED BUT SLOW"
[33] CRITERIA FOR FRIENDSHIP: NOT THOSE "VERY SMART BUT VERY EVIL"

Analysis

Though you're advised to code quickly and spontaneously, pay meticulous attention to the rich dynamics of data through line-by-line coding – a "microanalysis" of the corpus (Strauss & Corbin, 1998, p. 57) or what is

colloquially referred to as data "splitting." Selected writers of grounded theory acknowledge that such detailed coding is not always necessary, so sentence-by-sentence or even paragraph-by-paragraph coding is permissible depending on your research goals and analytic work ethic. Codes in parentheses or accompanied with question marks can be part of the process for analytic follow-up or memo writing.

One major facet of Initial Coding to grounded theory methodologists is the search for *processes* – participant actions that have antecedents, causes, consequences, and a sense of temporality. CHOOSING FRIENDS and DISPELLING STEREOTYPES (the "-ing" codes) are two such active processes culled from Initial Coding in the example above that may or may not be developed further during Second Cycle coding.

Also during this or later cycles of grounded theory coding, there will be a search for the *properties* and *dimensions* of categories – conceptual ideas that bring together similarly-coded and related passages of data. In the example above, the process of CHOOSING FRIENDS has the categories GEEKS and JOCKS, each with selected properties or CRITERIA FOR FRIENDSHIP – e.g., JOCKS "WHO CAN CARRY ON A CONVERSATION". These categories and their properties may or may not be developed further during Second Cycle coding.

A personal debriefing or "reality check" by the researcher is critical during and after the initial coding of qualitative data, thus an analytic memo is written to reflect on the process thus far. Notice that *memo writing also serves as a code- and category-generating method.* An analytic memo excerpt based on the coding example above reads:

> 30 May 2007
> CODE: DISCRIMINATING
>
> Adolescence seems to be a time of contradictions, especially when it comes to choosing your friends. Tiffany is aware of the cliques, their attributed labels, and their accompanying stereotypes at school. Though she herself labels a group in broad terms ("super popular pretty girls," "geeks," "jocks"), she acknowledges that there are subcategories within the group and exceptions to the stereotypes. Though she states she chooses friends for "who they are" and does not care what others think of her for the friends she "hangs out" with, she has explicit criteria for who from the stereotyped group she's friends with. She thinks others define her as "popular" and, as such, is aware of the stereotypical attributes from others that come with being part of that group. Her language is peppered with qualifiers: "some of them," "not all of them," "kind of," "practically," "almost," etc. Developmentally, as an adolescent she seems right on target for *discriminating* – DISCRIMINATING cognitively the exceptions to stereotypes, while being SOCIALLY DISCRIMINATE about her own friendships.

Strauss & Corbin (1998) advise that at least ten interviews or observations with detailed coding are necessary for building a grounded theory (p. 281). Though

the First Cycle process is labeled "initial" or "open," suggesting a wide variance of possibilities, Glaser (1978) recommends that the codes developed at this stage somehow relate to each other (p. 57). Strauss & Corbin (1998) also recommend that a separate list of all emerging codes be kept as analysis continues to help the researcher visualize the work in progress and to avoid duplication. CAQDAS code lists will help immensely with this.

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

- Second Cycle coding methods, particularly Focused Coding and Axial Coding
- grounded theory (Charmaz, 2006; Corbin & Strauss, 2008; Glaser & Strauss, 1967; Strauss & Corbin, 1998)
- memo writing about the codes (Charmaz, 2006; Corbin & Strauss, 2008; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)
- situational analysis (Clarke, 2005)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998)

Notes

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

AFFECTIVE METHODS

Affective coding methods investigate subjective qualities of human experience (e.g., emotions, values, conflicts, judgments) by directly acknowledging and naming those experiences.

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

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

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

EMOTION CODING

Sources

Goleman, 1995; Prus, 1996

Description

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

Applications

Emotion Coding is appropriate for virtually all qualitative studies, but particularly for those that explore intrapersonal and interpersonal participant experiences and actions.

Since emotions are a universal human experience, our acknowledgement of them in our research provides deep insight into the participants' perspectives, worldviews, and life conditions. Virtually everything we do has an accompanying emotion(s): "One can't separate emotion from action; they are part of the same flow of events, one leading into the other" (Corbin & Strauss, 2008, p. 7). Your abilities to "read" nonverbal cues, to infer underlying affects, and to sympathize and empathize with your participants, are critical for Emotion Coding.

Example

A gay man in his thirties shares his thoughts and feelings when he attends a bar and ponders his choices for potential sex partners (note that some of these, in quotes, are In Vivo Codes):

[1] It's scary as hell. You're thinking, [2] "Could this guy have AIDS? Do I risk taking the chance of having sex with him?" You know. [3] You're desperate for sex, but [4] if you keep your head straight and not get too drunk, your personal judgment's debating inside of you. You think, "OK, I'll have physical contact with him, but [5] that's it, no penetration, I'll be safe then." [6] But then some absolutely hot stud comes by and you're willing to throw it all out the window for him. [7] *(laughs)* [8] Ah, when you're desperate, you do, do some pretty stupid things, you know? Desperate and [9] lonely.	[1] "SCARY" [2] UNCERTAINY [3] "DESPERATE" [4] RATIONAL [5] CAUTIOUS [6] LUST [7] IRONIC HUMOR [8] "DESPERATE" [9] "LONELY"

Analysis

Hundreds of words exist to describe human emotion, and thus the repertoire of potential codes is vast. But what the English language contributes in diversity and accuracy can also become a source of frustration for the researcher attempting to find just the right word to describe, and thus code, a participant's emotional experiences.

Emotion Codes alone can be applied to data very similar in content and context – e.g., Emotion Coding of multiple interview transcripts in which each participant describes the same process, such as the primary emotional state when pondering choices for potential sex partners:

"SCARY"
ANXIETY-RIDDEN
"EXCITING"

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

DECISION TO DIVORCE – PERSONAL FAILURE
CUSTODY HEARING – HATRED
SIGNING PAPERS – REVENGEFUL

Dobbert & Kurth-Schai (1992) also alert researchers to the possible variation and intensity of a single emotion (p. 139). A "revengeful" action, for example, could be conducted coolly, spitefully, or maliciously. If nuance is critical for the analysis, consider subcoding the primary emotion further or applying Magnitude

Coding. Also acknowledge that emotional states are very complex, and single experiences can include multiple or conflicting emotions. Thus, Simultaneous Coding and/or Versus Coding can be used concurrently with Emotion Coding. And since emotional responses are intricately woven with our value, attitude, and belief systems, Values Coding also becomes a critical concurrent method.

If an ANGER, ANGRY, MAD or comparable Emotion Code is present, be aware that anger is a consequential emotion and that a triggering emotion precedes it, such as DEPRESSION, EMBARRASSMENT, or SHAME. During data collection, explore the participant emotions before anger, and scan your data during analysis when an ANGER code is present to determine the triggering emotion and its appropriate code. CAQDAS will enable you to link this emotional "trail" of data.

Developmentally, middle childhood (approximately ages 8–9) is a period of emotional ambivalence in which children experience new emotions but do not necessarily have the vocabulary to describe them. Some young people (and adults) may use metaphors and similes to explain their feelings (e.g., "a floating kind of happy," "like I was in the Twilight Zone"). Researchers may opt to apply In Vivo Codes during the first cycle of coding ("THE TWILIGHT ZONE"), then more standard labels during the next cycle for the emotions experienced by the participant (SURREAL). But if a metaphoric phrase seems to evocatively – if not more accurately – capture the experience, consider keeping it as the code of choice.

Even in adulthood not everyone, particularly heterosexual men (Schwalbe & Wolkomir, 2002), is capable of expressing their emotions, comfortable discussing them, or able to label them accurately. Some may also be quite adept at emotion/impression management, deception, and emotional denial (which could also be coded as such). Researchers may find themselves making several inferences about the subtextual emotional experiences of some participants in selected settings and contexts. Stay particularly attuned to participant body language and the nuances of voice.

Each major discipline (psychology, sociology, human communication, human development, education, etc.) will approach and apply in different ways research on emotions. The subject is intricately complex, so explore the literature in your field of study to assess the conceptual frameworks, operating definitions, and theories regarding emotions.

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

- First Cycle coding methods
- action research (Altrichter, Posch, & Somekh, 1993; Stringer, 1999)
- cognitive mapping (Miles & Huberman, 1994; Northcutt & McCoy, 2004)
- frequency counts (LeCompte & Schensul, 1999)
- interrelationship (Saldaña, 2003)
- life-course mapping (Clausen, 1998)
- metaphoric analysis (Coffey & Atkinson, 1996; Todd & Harrison, 2008)
- narrative inquiry and analysis (Clandinin & Connelly, 2000; Coffey & Atkinson, 1996; Cortazzi, 1993; Daiute & Lightfoot, 2004; Riessman, 2008)
- phenomenology (van Manen, 1990)
- poetic and dramatic constructions (Denzin, 1997; Glesne, 2006; Knowles & Cole, 2008; Saldaña, 2005a)
- portraiture (Lawrence-Lightfoot & Davis, 1997)
- situational analysis (Clarke, 2005)

Notes

If you're not trained in counseling, be wary of playing amateur psychologist during fieldwork, and exercise ethical caution and support when interviewing people about sensitive matters which may generate strong and distressing emotions in recall.

See Arlie Russell Hochschild's (2003) *The Managed Heart: Commercialization of Human Feeling* for her groundbreaking sociological work and theories on "emotional labor" among airline flight attendants, and the possible transfer of these theories to other service and helping professions.

VALUES CODING

Sources

Gable & Wolf, 1993; LeCompte & Preissle, 1993

Description

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

Briefly, a *value* is the importance we attribute to oneself, another person, thing, or idea. "The greater the personal meaning [of something to someone], the greater the personal payoff; the greater the personal payoff, the greater the personal value" (Saldaña, 1995, p. 28). An *attitude* is the way we think and feel about oneself, another person, thing, or idea. Attitudes are part of "a relatively enduring system of evaluative, affective reactions based upon and reflecting the evaluative concepts or beliefs, which have been learned" (Shaw & Wright, 1967, p. 3). A *belief* is part of a system that includes our values and attitudes, plus our personal

knowledge, experiences, opinions, prejudices, morals, and other interpretive perceptions of the social world. "Beliefs are embedded in the values attached to them" (Wolcott, 1999, p. 97).

Applications

Values Coding is appropriate for virtually all qualitative studies, but particularly for those that explore cultural values and intrapersonal and interpersonal participant experiences and actions in case studies.

There is complex interplay, influence, and affect between and among all three constructs that manifest themselves in thought, feeling, and action, but Values Coding does not necessarily have to code for all three or differentiate between them unless the study's goals include determining participant motivation, agency, causality, or ideology. Values Codes can be determined a priori (beforehand) as Provisional Codes, or constructed during coding of the data.

Values Coding is applicable not only to interview transcripts, but also to field notes in which naturalistic participant actions are documented. Using both sources, in fact, corroborates the coding and enhances trustworthiness of the findings (LeCompte & Preissle, 1993, pp. 264–5). What a participant states are his values, attitudes, and beliefs may not always be truthful or harmonize with his observed actions and interactions.

Example

The types of Values Codes in the example below are distinguished through the use of V: (value), A: (attitude), and B: (belief), though it can sometimes be a slippery task to determine which participant statement is which type. Barry, a high school senior and gifted actor, is asked what he wants to do with his life after he graduates (Saldaña, 1998, p. 108):

Well, I'm struggling with that right now. [1] College is a very scary thing for me to think about. You know, [2] it's hard to get into theatre except through the universities. So my tentative game plan – [3] in fact a couple different ways it could go – one, I may go to college and [4] major in theatre and minor in choral music and then come out and look for a job, look for a place to work as an actor.	[1] A: COLLEGE IS "SCARY" [2] B: THEATRE IS EXCLUSIVE [3] B: FUTURE OPTIONS [4] V: FINE ARTS
[5] The thing that scares me the most about that is [6] my parents both had big dreams. My mom wanted to be an actress, my dad wanted to be a politician, you know they both had big dreams. Both went to college, got a degree and they're both teachers now. They teach about what it was that they wanted to do, and [7] I don't want to do that. I don't want to give myself that "out." I don't wanna have that crutch to be able to say, "Oh, this is hard looking for a job in theatre, so I'm just gonna go be a teacher," or "I'm gonna go do this or that" or whatever. [8] I don't wanna be able to give up my dream that easily.	[5] A: FUTURE IS SCARY [6] B: UNOBTAINED DREAMS ARE POSSIBLE [7] V: PURSUING PERSONAL DREAM [8] V: MAINTAINING PERSONAL DREAM
What I would love to do is to get out of high school, work around town for a bit like, I don't know, [9] just some crap job to get the money, go to New York or Chicago, and [10] try to make it big. You know, every actor's dream: to go to one of the big towns and try to be [11] famous, to get my big break. And [12] I know that it's not likely that it will even happen, but there's a part of me, I guess it's the [13] romantic side of me again that says [14] if I want it bad enough, I'll get it. And that's what separates me from other people who are out there, starving artists, that [15] drive, is that I want it more than anything, more than life itself, I want, [16] I want this.	[9] A: NON-THEATRE WORK IS MENIAL [10] V: SUCCESS [11] V: FAME [12] B: REALISTIC CAREER EXPECTATIONS [13] A: "ROMANTIC" [14] B: PERSEVERANCE NETS SUCCESS [15] A: "DRIVE" [16] V: PROFESSIONAL ACTING CAREER

Analysis

If you have coded units according to values, attitudes, and beliefs, the next step is to categorize them and reflect on their collective meaning, interaction, and interplay, working under the premise that the three constructs are part of an interconnected system. With the above data we get:

Values
- FINE ARTS
- PURSUING PROFESSIONAL DREAM
- MAINTAINING PERSONAL DREAM
- SUCCESS
- FAME
- PROFESSIONAL ACTING CAREER

Attitudes
- COLLEGE IS "SCARY"
- FUTURE IS SCARY
- NON-THEATRE WORK IS MENIAL
- "ROMANTIC"
- "DRIVE"

Beliefs
- THEATRE IS EXCLUSIVE
- FUTURE OPTIONS

UNOBTAINED DREAMS ARE POSSIBLE
REALISTIC CAREER EXPECTATIONS
PERSEVERANCE NETS SUCCESS

Analytic reflection through memoing and assertion development weaves the three constructs' most salient codes together:

> Barry possesses the passion and perseverance to transcend realistic yet mundane career options to pursue his dream as a professional actor in a business that makes no guarantees of success. Theatre is an imaginary world – a dream world – and those aspiring performers slumbering in its fearless fantasy know that they should wake up to confront reality, but prefer the art form's illusory lures of possibility and fame: "I know that it's not likely that it will even happen, but there's a part of me, I guess it's the romantic side of me ... that says if I want it bad enough, I'll get it."

Conceptual values, attitudes, and beliefs may not always be directly stated by participants. Phrases such as "It's important that," "I like," "I love," or "I need" alert you to what may be valued, believed, thought, or felt, along with such obvious cluing phrases as "I think," "I feel," and "I want." Participant observation in natural social settings relies more on researcher inferences of values, attitudes, and beliefs. But sometimes the most direct way to find out what someone values, thinks, feels, and believes is to simply ask him, "What do you value?" "What's important to you?" "What matters to you most?" "What do you think and feel about ... ?"

Values within an individual are influenced and affected by the social and cultural networks to which he belongs. Gubrium & Holstein (2009, p. 70) also remind us that values are shaped by the individual's specific biography and historic period of existence. Analysis and analytic memos generated from Values Coding might explore the origins of the participant's value, attitude, and belief systems derived from such individuals, institutions, and phenomena as parents, peers, school, religion, media, and age cohort, as well as the participant's personal and unique experiences, development, and self-constructed identities from social interaction.

Questionnaires and survey instruments, such as Likert scales and semantic differentials, are designed to collect and measure a participant's values, attitudes, and beliefs about selected subjects (Gable & Wolf, 1993). The quantitative data, however, transform meaning into numbers for statistical analysis, yet still has its place in such fields as psychology, opinion research, and organizational studies. Also, these quantitative scales assume direction and intensity of a value, attitude, and belief, necessitating a fixed, linear *continuum* of response (e.g., less to more, strongly agree to strongly disagree) rather than a three-dimensional *ocean* allowing for diverse responses and varying levels of depth (Saldaña, 2003, pp. 91–2). Qualitative inquiry provides richer opportunities for gathering and assessing, in language-based meanings, what the participant values, believes, thinks, and feels about social life.

Values Coding also requires a paradigm, perspective, and positionality. If a participant states, "I really think that marriage should only be between one man and one woman," the researcher is challenged to code the statement any number of ways depending on the *researcher's own* systems of values, attitudes, and beliefs. Thus, is this participant's remark to be coded: V: TRADITIONAL MARRIAGE, B: HETERONORMATIVITY, or A: HOMOPHOBIC? If the goal is to capture the participant's worldview or personal ideology, then the first and second codes are more grounded in his perspective. But if the study is critical ethnography, for example, then the latter code may be more appropriate. Values Coding is values-laden.

Some recommended ways to further analyze Values Codes are (see Appendix D):

- action research (Altrichter, Posch, & Somekh, 1993; Stringer, 1999)
- assertion development (Erickson, 1986)
- case studies (Merriam, 1998; Stake, 1995)
- content analysis (Krippendorff, 2003; Weber, 1990; Wilkinson & Birmingham, 2003)
- cross-cultural content analysis (Bernard, 2006)
- framework policy analysis (Ritchie & Spencer, 1994)
- frequency counts (LeCompte & Schensul, 1999)
- interactive qualitative analysis (Northcutt & McCoy, 2004)
- life-course mapping (Clausen, 1998)
- longitudinal qualitative research (Giele & Elder, 1998; Saldaña, 2003, 2008)
- narrative inquiry and analysis (Clandinin & Connelly, 2000; Coffey & Atkinson, 1996; Cortazzi, 1993; Daiute & Lightfoot, 2004; Riessman, 2008)
- phenomenology (van Manen, 1990)
- political analysis (Hatch, 2002)
- portraiture (Lawrence-Lightfoot & Davis, 1997)
- qualitative evaluation research (Patton, 2002)
- survey research (Fowler, 2001; Wilkinson & Birmingham, 2003)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998)

Notes

Since Values Coding can reflect a participant's needs and wants, see Dramaturgical Coding for a comparable or complementary method.

VERSUS CODING

Sources

Altrichter, Posch, & Somekh, 1993; Hager et al., 2000; Wolcott, 2003

Description

Versus Codes identify in binary terms the individuals, groups, social systems, organizations, phenomena, processes, concepts, etc. in direct conflict with each other. Wolcott (2003) describes a moiety (from the French, meaning "half") as one of two – and only two – mutually exclusive divisions within a group. He observed in *Teachers versus Technocrats* that this social division extends throughout educator subculture during times of stress rather than daily business (pp. 116, 122–7). Moieties exist in many facets of social life, and there is generally an asymmetrical power balance between them, a duality that manifests itself as an X VS. Y code (e.g., TEACHERS VS. SCHOOL ADMINISTRATORS, REPUBLICANS VS. DEMOCRATS, WORK VS. PLAY).

Applications

Versus Coding is appropriate for policy studies, discourse analysis, and qualitative data sets that suggest strong conflicts within, among, and between participants.

In selected methodologies, such as critical ethnography, the researcher may deliberately "take sides" with a group and its issue. For other genres, such as action research (Altrichter, Posch, & Somekh, 1993; Stringer, 1999), discerning the conflicting power issues among constituents and stakeholders is an important diagnostic for initiating and facilitating positive social change. Agar (1996) notes that a contemporary ethnographer "looks for patterns of social domination, hierarchy, and social privilege. He or she examines the power that holds patterns in place, how people accept or struggle against them. The focus is on patterns that reveal injustice" (p. 27).

Example

In a study of teachers responding to state developed fine arts standards for educational achievement (Hager et al., 2000), there were distinct moieties that emerged as teachers reflected on and grappled with recent policies influencing and affecting their practice. Strong conflicts were evident in the data as participants openly shared their perspectives. One e-mail response reads:

[1] My mentor teacher took one look at the standards when they came out, said "What a load of crap," and dismissed them. [2] She thinks the standards are often impossible to achieve and that you would have to be a superteacher with superstudents to even come close to covering all the material. [3] I don't use the state standards either. I believe that my lessons incorporate many of the standards, but [4] I do not design them around the standards. I design them around the needs of students in my classes. I tend to personalize projects for the students. [5] I grade them individually based on self-improvement rather than a comparison to other students. I think in many ways [6] the standards expect students to be automatons with the same skills and don't allow for variances.

[1] TEACHER VS. STANDARDS

[2] "IMPOSSIBLE" VS. REALISTIC

[3] TEACHER VS. STANDARDS

[4] STANDARDS VS. STUDENT NEEDS

[5] CUSTOM VS. COMPARISON

[6] STANDARDIZATION VS. "VARIANCES"

Analysis

Conflicting personnel, perspectives, policies, philosophies, curricula, practices, etc., when present in the data corpus from the study illustrated above, were coded as binaries, ranging from the actual to the conceptual:

STATE VS. DISTRICT
GRADUATION REQUIREMENT VS. ELECTIVE
IVORY TOWER VS. INNER CITY
PRESCRIPTION VS. AUTONOMY
PRODUCT VS. PROCESS

In Vivo Codes were used occasionally when teachers' statements were highly illustrative or difficult to reduce to a single word or phrase:

OWNERSHIP VS. "WHO WROTE THESE?"
"FUN" VS. "TEACH TO THE TEST"

Though not necessary for all studies, Versus Coding may lead to three major moieties: the primary stakeholders, how each side perceives and acts toward the conflict, and the central issue at stake – the latter of which could emerge as a central theme, core category, key assertion, etc. In the study profiled in the example above, the three final moiety categories that subsumed all other Versus Codes were:

Us [teachers] **vs. Them** [all other personnel, such as principals, school districts, the state department of education, state universities, etc.]
Your Way [mandated yet poorly written state standards] **vs. Our Way** [experienced educators working at the local level who know their art and their students]
Con-form [conformity to prescribed and standardized curricula] **vs. Art-Form** [creative expression in the subject area and its practice]

Note that the latter category is a fairly creative construct, one not directly stated by participants but one generated by the research team during

discussion about the study. When this conceptual category was uttered, it felt like an "Ah-ha!" moment, cluing us that we had captured the central theme from our fieldwork.

Categorize all codes from your data into one of the three major categories (Stakeholders, Perceptions/Actions, Issues) as an initial analytic tactic, but leave yourself open to reorganizing the codes into other emergent categories, and not just limited to three. Social change theory also suggests that humans are rarely in conflict with abstract concepts (e.g., PARTICIPANT VS. RELIGION), but rather with other humans or themselves (e.g., PARTICIPANT VS. CHURCH LEADERSHIP, PARTICIPANT VS. PERSONAL LOSS OF FAITH). Ground your initial Versus Coding in actual, observable conflicts. Abstract moiety categories can emerge during Second Cycle coding and later stages of analysis.

A related technique is "dilemma analysis," coined by Richard Winter, who applied the method in educational action research (Altrichter, Posch, & Somekh, 1993, pp. 146–52). Data are reviewed to find and juxtapose inconsistencies and contradictions that inhibit professional practice and decision-making. These dilemmas are listed as sentences that alternate with "On the one hand" and "On the other hand." For example:

- On the one hand, standards legitimize the merit and worth of dance in the schools;
- On the other hand, dance is an elective rather than required course in the schools.

Sentence couplings such as these can be categorized appropriately and examined by practitioners for reflection and action, or converted to Versus Codes for categorization and analysis. For example, the above coupling might be coded LEGITIMATE VS. ELECTIVE or "MERIT AND WORTH" VS. OPTIONAL FRILL. CAQDAS programs can conveniently and effectively link two different passages of data whose content or perspectives contradict each other for Versus Coding (Lewins & Silver, 2007, p. 63).

Another effective model for practitioner research is "force field analysis" which can list the opposing stakeholders' perspectives and use directional arrows of varying sizes to illustrate the conflicting forces between change and the status quo (Fox, Martin, & Green, 2007, pp. 37–8, 172–6).

Some recommended ways to further analyze Versus Codes are (see Appendix D):

- action research (Altrichter, Posch, & Somekh, 1993; Stringer, 1999)
- assertion development (Erickson, 1986)
- framework policy analysis (Ritchie & Spencer, 1994)

- grounded theory (Charmaz, 2006; Corbin & Strauss, 2008; Glaser & Strauss, 1967; Strauss & Corbin, 1998)
- interactive qualitative analysis (Northcutt & McCoy, 2004)
- narrative inquiry and analysis (Clandinin & Connelly, 2000; Coffey & Atkinson, 1996; Cortazzi, 1993; Daiute & Lightfoot, 2004; Riessman, 2008)
- political analysis (Hatch, 2002)
- polyvocal analysis (Hatch, 2002)
- qualitative evaluation research (Patton, 2002)
- situational analysis (Clarke, 2005)
- within-case and cross-case displays (Gibbs, 2007; Miles & Huberman, 1994)

Notes

The protagonist versus antagonist paradigm of Versus Coding doesn't necessarily suggest that there is a clear-cut hero and villain evident in the data. Conflicts are contextual, nuanced, and each side has its own story to tell. Clarke (2005) reinforces "that there are not 'two sides' but rather N sides or multiple perspectives in any discourse" (p. 197). Nevertheless, Versus Coding makes evident the power issues at hand as humans often perceive them – as binaries. See Harré & van Langenhove (1999) for a discussion of "positioning theory" in interpersonal interactions.

EVALUATION CODING

Sources

Patton, 2002; Rallis & Rossman, 2003

Description

Evaluation Coding is the application of non-quantitative codes onto qualitative data that assign judgments about the merit and worth of programs or policy (Rallis & Rossman, 2003, p. 492). Program evaluation is "the systematic collection of information about the activities, characteristics, and outcomes of programs to make judgments about the program, improve program effectiveness, and/or inform decisions about future programming. Policies, organizations, and personnel can also be evaluated" (Patton, 2002, p. 10). To Rallis & Rossman, evaluation data describe, compare, and predict. Description focuses on patterned observations or participant responses of attributes and details that assess quality. Comparison explores how the program measures up to a standard or ideal. Prediction provides recommendations for change, if needed, and how those changes might be implemented.

Applications

Evaluation Coding is appropriate for policy, critical, action, organizational, and (of course) evaluation studies, particularly across multiple sites and extended periods of time.

Evaluation Coding can emerge from the evaluative perspective of the researcher or from the qualitative commentary provided by participants. Selected coding methods profiled in this manual can be applied to or supplement Evaluation Coding (e.g., Magnitude Coding, Descriptive Coding, Values Coding, and grounded theory coding methods), but Evaluation Coding is also customized for specific studies since "the coding system must also reflect the questions that initiated and structured the evaluation in the first place" (Pitman & Maxwell, 1992, p. 765).

Example

The stewards of a community church surveyed its congregational membership to gather written data on their perceptions of worship services and programming. Selected individuals were interviewed for more in-depth response. A 45 year-old male who had recently left the church talks to a steward about his experiences.

The Evaluation Coding below employs an amalgam of Magnitude Coding (to note whether the participant makes a positive [+] or negative [-] comment), Descriptive Coding (to note the topic) and subcoding or In Vivo Coding (to note the specific qualitative evaluative comment), plus a recommendation coding tag (REC) with a specific memo/action for follow-up. Since Evaluation Coding should reflect the nature and content of the inquiry, all codes relate to specific personnel and programs:

[1] I stopped going to Valley View [Community Church] because it just got so boring.	[1] – SERVICES: "BORING"
[2] Services were two hours long, sometimes longer. [3] I know that some people are OK with that, but not me. Ninety minutes top for services – an hour's even better. *(laughs)*	[2] REC: SHORTER SERVICES [3] REC: SURVEY CONGREGATION ON SERVICE LENGTH
[4] Opening music just went on and on, and if the pastor got on a roll, [5] the music would just keep going on and on.	[4] – OPENING MUSIC: TOO LONG [5] REC: DISCUSS SERVICE LENGTH WITH MUSIC DIRECTOR
[I: What do you mean, "on a roll"?]	
[6] I mean, he'd "let the spirit move him," and so he'd keep singing and singing and encouraging the choir to keep singing and singing, and it just made me so frustrated. I wanted things to move on.	[6] REC: PASTOR – BALANCE PERSONAL WITH CONGREGATIONAL NEEDS
[I: Anything else?]	
[7] His sermons also got too "folksy." [8] When I first came, the [9] sermons were powerful, provocative, intelligent, made me think of things I hadn't thought of before, and I had been a church-goer for over two decades. [10] But over the past few months it got to be, not repetitive, but it seemed like it because there was just nothing new to hear. [11] It's like he didn't prepare for them like he used to. It's like he was making them up as he went along. [12] I don't think it's me that got above the sermons, he just started dumbing them down. [13] I fell asleep so many times during them, and that never used to happen. So, I quit going there. [14] There was just no more inspiration for me there, you know what I mean?	[7] – SERMONS: "TOO FOLKSY" [8] REC: PASTOR – REFLECT ON FORMER SERMON PREP & CONTENT [9] + SERMONS: USED TO BE "POWERFUL" [10] – SERMONS: "NOTHING NEW" [11] – SERMONS: SEEM UNPREPARED [12] – SERMONS: "DUMBED DOWN" [13] REC: PASTOR – OBSERVE CONGREGATION DURING SERMONS [14] – SERVICES: UNINSPIRING

Analysis

Clients and constituents for evaluation research most often want to know first: what's working and what isn't. Hence, the + and - Magnitude Codes receive priority for quick categorization by the researcher, followed by the specific topic, subtopic, and comment. For example, from the data above:

Positive Comments
SERVICES: USED TO BE "POWERFUL"

Negative Comments
SERVICES: "BORING," UNINSPIRING
OPENING MUSIC: "TOO LONG"
SERMONS: "NOTHING NEW," SEEM UNPREPARED, "TOO FOLKSY," "DUMBED DOWN"

Categorizing REC codes by personnel or area helps organize the flow of the evaluator's recommendations and follow-up.

For inductive work, "the evaluator analyst looks for changes in participants, expressions of change, program ideology about outcomes and impacts, and ways that people make distinctions between" those who do and do not receive the desired outcomes (Patton, 2002, p. 476). Types of change to examine are shifts in participant skills, attitudes, feelings, behaviors, and knowledge. The example above can be analyzed at the micro-level for Valley View Community Church's exclusive use to reflect on and possibly change their worship service's format and content after a sufficient number of individuals have been interviewed for comparison. But the analysis can also extend to the macro-level by

utilizing grounded theory coding to explore how today's institutional church systems may or may not be serving the needs of their congregants, or how an individual's faith is influenced and affected by church leadership and rituals.

Evaluation data can derive from individual interviews, focus groups, participant observation, surveys, and documents. Individuals each have their own opinions, so expect to find, and thus analyze and present, a wide range of responses, not just an overall assessment. There are many forms of evaluation: outcome, implementation, prevention, summative, formative, etc. See Patton (2002) for an authoritative and full description of approaches, particularly for processual evaluation, and Stringer (1999) for the facilitation and implementation of change as part of action research projects.

Some recommended ways to further analyze Evaluation Codes are (see Appendix D):

- action research (Altrichter, Posch, & Somekh, 1993; Stringer, 1999)
- assertion development (Erickson, 1986)
- case studies (Merriam, 1998; Stake, 1995)
- decision modeling (Bernard, 2006)
- framework policy analysis (Ritchie & Spencer, 1994)
- frequency counts (LeCompte & Schensul, 1999)
- graph-theoretic techniques for semantic network analysis (Namey, Guest, Thairu, & Johnson, 2008)
- grounded theory (Charmaz, 2006; Corbin & Strauss, 2008; Glaser & Strauss, 1967; Strauss & Corbin, 1998)
- illustrative charts, matrices, diagrams (Miles & Huberman, 1994; Morgan, Fellows, & Guevara, 2008; Northcutt & McCoy, 2004; Paulston, 2000)
- interactive qualitative analysis (Northcutt & McCoy, 2004)
- longitudinal qualitative research (Giele & Elder, 1998; Saldaña, 2003, 2008)
- memo writing about the codes (Charmaz, 2006; Corbin & Strauss, 2008; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)
- mixed-methods research (Creswell, 2009; Creswell & Plano Clark, 2007; Tashakkori & Teddlie, 2003)
- political analysis (Hatch, 2002)
- polyvocal analysis (Hatch, 2002)
- qualitative evaluation research (Patton, 2002)
- situational analysis (Clarke, 2005)
- splitting, splicing, and linking data (Dey, 1993)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998)
- within-case and cross-case displays (Gibbs, 2007; Miles & Huberman, 1994)

Notes

Evaluation research may have political and hidden agendas depending on how it is contracted between the client and analyst. It is not possible to be an

"objective" evaluator, but it is possible to be systematic in your collection and analysis of data to assess merit and worth. Rely primarily on what the participants themselves – the primary stakeholders – say and do. Evaluation research is a context-specific enterprise; as Stake (1995) notes, "All evaluation studies are case studies" (p. 95).

LITERARY AND LANGUAGE METHODS

Literary and language coding methods borrow from established approaches to the analysis of literature, and a contemporary approach to the analysis of oral communication.

Dramaturgical Coding, Motif Coding, and Narrative Coding draw from various literary traditions for their unique coding assignments to explore underlying sociological and psychological constructs.

Dramaturgical Coding approaches cultural life as performance and its participants as characters in social dramas. Motif Coding applies folk literature's symbolic elements as codes for an evocative approach to analysis. Narrative Coding incorporates literary terms as codes to discover the structural properties of participants' stories. Though these methods appear highly systematic, they can lead toward rich arts-based presentations.

Verbal Exchange Coding is H. L. (Bud) Goodall, Jr.'s signature ethnographic approach to analyzing conversation through reflecting on social practices and interpretive meanings.

DRAMATURGICAL CODING

Sources

Berg, 2001; Feldman, 1995; Goffman, 1959; Saldaña, 2005a

Description

Dramaturgical Coding approaches naturalistic observations and interview narratives as "social drama" in its broadest sense. Life is perceived as "performance," with humans interacting as a cast of characters in conflict. Interview transcripts become monologue, soliloquy, and dialogue. Field notes and video of naturalistic social action represent improvised scenarios with stage directions. Environments, participant dress, and artifacts are viewed as scenery, costumes, and hand properties.

Dramaturgical Codes apply the terms and conventions of character, play script, and production analysis onto qualitative data. For character, these terms include such items as:

1. Participant-actor *objectives* – motives in the form of action verbs: OBJ
2. *Conflicts* or *obstacles* confronted by the participant-actor which prevent her from achieving her objectives: CON
3. Participant-actor *tactics* or *strategies* to deal with conflicts or obstacles and to achieve her objectives: TAC
4. Participant-actor *attitudes* toward the setting, others, and the conflict: ATT

5. *Emotions* experienced by the participant-actor (see Emotion Coding): EMO
6. *Subtexts*, the participant-actor's unspoken thoughts or impression management, in the form of gerunds (see Process Coding): SUB

Bogdan & Biklen (2007) refer to the above as "Strategy Codes."

Applications

Dramaturgical Coding is appropriate for exploring intrapersonal and interpersonal participant experiences and actions in case studies, particularly those leading toward narrative or arts-based presentational forms (Cahnmann-Taylor & Siegesmund, 2008; Knowles & Cole, 2008).

Dramaturgical Coding attunes the researcher to the qualities, perspectives, and drives of the participant. It also provides a deep understanding of how humans in social interaction interpret and manage conflict. Lindlof & Taylor (2002) note that "Social actors' understandings of *motive* are central to many communication studies" (p. 201) and "The drama frame is well suited for studies concerned with communication as performance" (p. 236). Lincoln & Denzin (2003) concur, noting that culture is "an ongoing performance, not a noun, a product, or a static thing. Culture is an unfolding production, thereby placing performances and their representations at the center of lived experience" (p. 328). Feldman (1995) adds that while "dramaturgical analysis is generally used to explicate very public performances such as organizational rituals, it can also be used to understand relatively private performances such as the execution of parental roles" (p. 41).

Dramaturgical Coding is best applied to self-standing, inclusive vignettes, episodes, or stories in the data record. One could even subdivide the storied data into "scenes," which may include such plotting devices as a curtain-raising prologue and climax (Riessman, 2008, pp. 110–11).

Example

A female researcher interviews a veteran female high school teacher about her practice by asking, "How do you deal with conflict and discipline in the classroom?" The teacher responds with a personal anecdote and then describes her general ways of working:

(chuckles) [1] I laugh because this last week has been a big discipline week for me. [2] Why is it our freshmen are so unruly and disrespectful? ... Anyways, how do I deal with discipline? [3] I am very forward, straight, and up-front. So, [4] I don't take crap from anybody. And [5] I call kids on their behavior. And this happened today in class as [6] a kid sat there and rolled his eyes

[1] ATT: IRONIC
[2] SUB: BURNING OUT
[3] TAC: "UP-FRONT"
[4] TAC: "DON'T TAKE CRAP"
[5] TAC: ACCOUNTABILITY
[6] CON: DISRESPECT

at me – [7] again. And [8] I just stopped him and I said, [9] "When you roll your eyes, you are basically saying 'F You' to the person you're talking to, and that is disrespectful and not acceptable in my room. [10] So you either be gone or get written up for disrespect and dis-, insubordination." Here on campus it's [11] two days suspension off campus.	[7] EMO: FRUSTRATION [8] OBJ: CONFRONT [9] TAC: ADMONISH [10] TAC: ULTIMATUM [11] TAC: SUSPENSION
So, here [12] we are very, um, disciplined on the basis of respect as a number one issue. And so, [13] I enforce that and [14] I teach that in my classroom every day by being [15] honest and calling kids.	[12] OBJ: DISCIPLINE [13] OBJ: "I ENFORCE" [14] OBJ: TEACH RESPECT [15] TAC: HONESTY
Now, [16] some kids get freaked out but eventually they get used to [17] my style and they appreciate it, and they always come back and say, "Wow. I never looked at it that way." So, it's a cool thing. But it's funny you bring it up because [18] this week has just been a nightmare week and I don't know why. [19] Isn't that weird?	[16] CON: STUDENT "FREAK OUT [17] TAC: "MY STYLE" [18] EMO: FRAZZLED [19] ATT: IRONIC

Analysis

After a series of vignettes, episodes, or stories have been collected, separate coded data into the six categories of character analysis: Objectives, Conflicts/Obstacles, Tactics/Strategies, Attitudes, Emotions, and Subtexts. Take note of the types of actions (objectives and tactics/strategies) taken in response to the types of conflicts/obstacles the participant-actor confronts. Also acknowledge that an Objective might also include not just what the participant-actor wants but what she wants *other* people to do. The attitudes, emotions, and subtexts clue you to the internal perspectives of the participant-actor during these situations. Write a vignette (Erickson, 1986; Graue & Walsh, 1998) as a first-person or omniscient narrative revealing the inner thoughts of the participant-actor; or create a descriptive profile of the participant-actor highlighting her personality characteristics (or, in dramaturgical parlance, her characterization in social performance).

Another dramaturgical character concept is the *superobjective* – the overall or ultimate goal of the participant in the social drama. Respect – exhibited both in the classroom and for the teacher herself – may be the participant's superobjective in the vignette profiled above. But additional stories culled from interviews and observations, coded appropriately, may reinforce that superobjective as the primary theme or reveal a different one at work within her.

Goffman (1963) notes that we tend to assign a person we first meet with categories and attributes that impute a "social identity." Reciprocally, that person is implicitly requesting of others that the impression – the managed presentation of

self – fostered before them is a "character [who] actually possesses the attributes he appears to possess" (Goffman, 1959, p. 17). These first impressions change as fieldwork continues and we come to know the character of our participant's "character." And if enough rapport has been developed between the researcher and participant-actor, the latter will reveal "backstage" knowledge of herself that discloses what is genuine behind the managed impression of self.

Dramaturgical Coding is also applicable to field note data in which two or more participants interact in daily routines or are observed in conflict with each other. Comparing and contrasting their individual objectives and tactics as actions and reactions cyclically progress deepens your understanding of power relationships and the processes of human agency.

Acknowledge that inferences about others' actions and motives are from the perspective of researcher as audience member of the social drama. These inferences can sometimes be incorrect, and a follow-up interview with the participant-actor may be necessary for confirmation. Dey (1999) cautions, however, "we often cannot explain why we act as we do. People act out motives and interests that they may or may not be able to articulate" (p. 191).

Some recommended ways to further analyze Dramaturgical Codes are (see Appendix D):

- case studies (Merriam, 1998; Stake, 1995)
- ethnodrama (Denzin, 1997, 2003; Saldaña, 2005a)
- narrative inquiry and analysis (Clandinin & Connelly, 2000; Coffey & Atkinson, 1996; Cortazzi, 1993; Daiute & Lightfoot, 2004; Riessman, 2008)
- performance studies (Madison, 2005; Madison & Hamera, 2006)
- phenomenology (van Manen, 1990)
- portraiture (Lawrence-Lightfoot & Davis, 1997)
- vignette writing (Erickson, 1986; Graue & Walsh, 1998)

Notes

Since Dramaturgical Coding can reflect a participant's needs and wants, also see Values Coding. For complementary methods related to dramaturgical analysis, see Narrative Coding and Lieblich, Zilber, & Tuval-Mashiach's (2008) model of "agency, structure, communion, and serendipity."

MOTIF CODING

Sources

Mello, 2002; Narayan & George, 2002; The Tales Unlimited, Inc. St Motif Website – http://www.talesunlimited.com/StMotifFullListingA.asp; Thompson, 1977

Description

Motif Coding is the application onto qualitative data of previously developed or original index codes used to classify types and elements of folk tales, myths, and legends.

A *type* refers to the complete tale and can include such general titles as "Superhuman Tasks," "Religious Stories," and "Stories about Married Couples." "A type is a traditional tale that has an independent existence. It may be told as a complete narrative and does not depend for its meaning on any other tale" (Thompson, 1977, p. 415). A *motif* is "the smallest element in a tale" that has something unique about it, such as: characters (fools, ogres, widows, etc.), significant objects or items in the action of the story (a castle, food, strange customs, etc.), and single incidents of action (hunting, transformation, marriage, etc.) (pp. 415–16). An alphanumeric example of a Thompson Motif-Index of Folk Literature mythological motif reads: "A1319.9 Origin of sneezing." The index contains thousands of detailed entries such as these.

Applications

Motif Coding is appropriate for exploring intrapersonal and interpersonal participant experiences and actions in case studies, particularly those leading toward narrative or arts-based presentational forms (Cahnmann-Taylor & Siegesmund, 2008; Knowles & Cole, 2008).

Motif Coding may be better applied to story-based data extracted from interview transcripts or participant-generated documents such as journals or diaries. The story should be a self-standing unit of data – a vignette or episode – with a definite beginning, middle, and end.

Thompson's Motif-Index is a specialized system primarily for folklorists and anthropologists, but the website is worth browsing by researchers from other disciplines to acquaint themselves with the breadth of topics about the human experience.

Example

A young adult male describes his strained relationship with his alcoholic father. Motif Coding using the Thompson Motif-Index has been applied to classify the tale type and several significant elements of this story (although original researcher-generated Motif Codes could also have been applied). For reference only, the Thompson Motif-Index alphanumeric codes have been added after the phrases:

TALE TYPE / MAJOR MOTIF – TRANSFORMATION: MAN TO OGRE [D94]

[1] We've never been all that close. [1] FATHER AND SON [P233]

[2] He used to be an alcoholic and he smoked pot. [3] And, he was actually busted a couple of years back. And as part of this, the charges were dropped, but he had to go to drug rehab. And up until that point I really didn't get along with my father, [4] he was really a jerk, especially when he was drunk, he was really a jerk. [5] And then he sobered up, and for a while nothing changed, and then things changed and everything was cool again. And, I don't know, [6] my grandpa was not an expressive man and was hardly ever home or anything like that, and so [7] my dad doesn't handle emotions very well. And what he does is, when he's upset he'll blow up and then go away, cool off, and then come back and it's as if nothing happened. He got it all out of his system, he's cool with that. [8] I'll do that sometimes, but I have enough of my mom in me that I brood on things. [9] So when he blows up and says things he doesn't mean, comes back and pretends like nothing ever happened, I just assume that those things that he said are to be held as true from that moment on. So he and I don't get along very well.

[2] TABU: DRINKING [C250]
[3] PUNISHMENT: IMPRISONMENT [Q433]
[4] CRUEL FATHER [S11]
[5] TRANSFORMATION: MAN TO DIFFERENT MAN [D10]
[6] CRUEL GRANDFATHER [S42]
[7] VIOLENCE OF TEMPER [W185]
[8] MOTHER AND SON [P231]
[9] NOT DARING TO CURSE FATHER DIRECTLY, SON DOES SO INDIRECTLY [P236.3]

Analysis

Whether using an established index or your original creations for Motif Coding, the goal is to label both ordinary and significant elements of a story that have the potential for rich symbolic analysis. The work of Jerome Bruner's narrative universals, Joseph Campbell and his "Hero's Journey," or Carl Jung's discussions of archetypes, dreams, and symbols, are worth reviewing for understanding the mythic properties at work in a story's motifs in addition to Stith Thompson's writings on folklore. One could even refer to Bruno Bettelheim's (1976) classic treatise, *The Uses of Enchantment*, to discern how a contemporary participant's story, coded and analyzed with classic folk-tale motifs, possesses deep psychological meaning. The young man's story in the example above, according to Bettelheim, is comparable to a classic folk tale whose content represents an essential experience for adolescent development: "threatening as the parent may seem at some time, it is always the child who wins out in the long run, and it is the parent who is defeated. … The child not only survives the parents but surpasses them" (p. 99). As an analytic tactic, one might even consider what moral or life lesson has been learned from the participant's story. Shank (2002) outlines how the participant's story

and the researcher's retelling of it can be structured as a myth, fable, folk tale, and legend (pp. 148–52).

Motif Coding is a creative, evocative method that orients you to the timeless qualities of the human condition, and represents contemporary, even mundane, social life with epic qualities. The "ogres" in our lives range from demanding bosses to abusive spouses to violent bullies on the playground. We "transform" ourselves on occasion, not just from one human type to another, but from human to animal-like personas. Motifs are part literary element and part psychological association.

Some recommended ways to further analyze Motif Codes are (see Appendix D):

- Narrative Coding and Focused Coding
- case studies (Merriam, 1998; Stake, 1995)
- life-course mapping (Clausen, 1998)
- metaphoric analysis (Coffey & Atkinson, 1996; Todd & Harrison, 2008)
- narrative inquiry and analysis (Clandinin & Connelly, 2000; Coffey & Atkinson, 1996; Cortazzi, 1993; Daiute & Lightfoot, 2004; Riessman, 2008)
- phenomenology (van Manen, 1990)
- poetic and dramatic constructions (Denzin, 1997; Glesne, 2006; Knowles & Cole, 2008; Saldaña, 2005a)
- portraiture (Lawrence-Lightfoot & Davis, 1997)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998)
- vignette writing (Erickson, 1986; Graue & Walsh, 1998)

Notes

Stith Thompson's alphanumeric Motif-Index of Folk Literature was a groundbreaking work, but selected future scholars found the indexing system unwieldy, incomplete, and unrepresentative of the diverse canons of the world's folk literature. Additional indexing systems developed after his can be found in reference libraries and websites. One of the best descriptions of Thompson's system can be accessed from: http://www.talesunlimited.com/STmotifsearchhelp.asp

For related methods, see Narrative, OCM (Outline of Cultural Materials), and Protocol Coding.

NARRATIVE CODING

Sources

Cortazzi, 1993; Daiute & Lightfoot, 2004; Polkinghorne, 1995; Riessman, 2002, 2008

Description

Riessman (2008) notes that narrative analysis includes diverse methods (e.g., thematic, structural, dialogic, performative). In this profile, Narrative Coding applies the conventions of (primarily) literary elements and analysis onto qualitative texts most often in the form of stories. "Stories express a kind of knowledge that uniquely describes human experience in which actions and happenings contribute positively and negatively to attaining goals and fulfilling purposes" (Polkinghorne, 1995, p. 8). Narrative Coding – and analysis – blends concepts from the humanities, literary criticism, and the social sciences since the coding and interpretation of participant narratives can be approached from literary, sociological/sociolinguistic, psychological, and anthropological perspectives (Cortazzi, 1993; Daiute & Lightfoot, 2004).

Some methodological perspectives hold that the process of narrative analysis is "highly exploratory and speculative" (Freeman, 2004, p. 74), and its "interpretive tools are designed to examine phenomena, issues, and people's lives holistically" (Daiute & Lightfoot, 2004, p. xi). Nevertheless, there may be occasions when the researcher wishes to code participant narratives from a literary perspective as a preliminary approach to the data to understand its storied, structured forms.

Applications

Narrative Coding is appropriate for exploring intrapersonal and interpersonal participant experiences and actions to understand the human condition through story, which is justified in and of itself as a legitimate way of knowing: "some … stories should be sufficiently trusted to be left unaccompanied by critique or theory" (Hatch & Wisniewski, 1995, p. 2).

Narrative analysis is particularly suitable for such inquiries as identity development, critical/feminist studies, and documentation of the life course. Nuances of narrative can become richly complex when the researcher explores the participant's subject positioning and presentation of self (Goffman, 1959), or experiments with arts-based presentational and representational forms (Cahnmann-Taylor & Siegesmund, 2008; Knowles & Cole, 2008).

Example

A mother reflects on her son's difficult preadolescent years. Prosaic, poetic, and dramatic elements are used as codes to highlight the structure and properties of this narrative excerpt. Also note how the data are divided into small stanzas for analysis:

GENRE: A MODERN-DAY GREEK TRAGEDY; THE WITNESS (MOTHER) RECOUNTS THE HERO'S (HER SON'S) OFF-STAGE EVENTS THROUGH EPISODES:

Then he went through the time of [1] [*makes a "blow-off" face to illustrate*], I don't wanna say anti-social, he was never [2] anti-social, but making the statement, [3] the way he dressed, the way he looked, everything was making a [4] statement.	[1] VISUAL CHARACTERIZATION: FACIAL EXPRESSION [2] MOTIF: "ANTI-SOCIAL" [3] REPETITIVE PHRASE [4] MOTIF: "STATEMENT"
[5] And that was OK, too. In fact, [6] some of his middle school teachers would call me and say, [7] "I noticed that he's hanging out with some unsavory characters and I think . . .," you know, that kind of stuff. [8] And I'd say, "Well, actually I think his changes are real healthy 'cause he's finally determining what he likes."	[5] UNIT TRANSITION [6] FLASHBACK [7] VOCAL MIMICRY-PARODY [8] DIALOGUE: TEACHER & MOTHER RESPONSE
[9] From that, and he had a really tough time at Lakewood Middle School [10] real tough. [11] The first day of school in seventh grade, some – [12] I'll use the term "gang-banger," but I don't know – was picking on a little kid. And my son said, [13] "Hey man, get off his case." [14] And from that moment on, all of the tension was focused on him. [15] From the time he entered Lakewood to the time he left Lakewood, [16] he was a target by the bad guys. That was a very [17] tough time for him.	[9] UNIT TRANSITION [10] MOTIF: "REAL TOUGH" [11] FLASHBACK [12] ASIDE [13] HIGH POINT [14] COMPLICATION [15] TIME FRAME [16] SON AS HERO VS. "BAD GUYS" [17] MOTIF: "TOUGH"
[18] [*slight laugh*]	[18] CODA-PATHOS

Analysis

Through Narrative Coding of the above example, the genre of the story – a modern-day Greek tragedy – emerged after the application of and reflection upon its structures and properties. This might lead the researcher to continue exploring the mother's stories about her son through the lens of classical drama or even Greek mythology, which might then structure the narrative retelling as a series of grief tales. (The mother's closure – and moral – later in the transcript reads, "It was kind of like teaching the dog not to run in the street by getting hit by a car. It was a horrible, painful, awful time, and yet, if it doesn't kill you it'll make you stronger. That's what's happened to him.") Rubin & Rubin (1995) posit, "In a story, it is the messages, morals, or beliefs that are important; whether the specific events occurred or how they occurred is of minor concern" (p. 25). The frequent use of motifs in the participant's telling of her stories might also be woven into the recrafted narrative as motifs for literary impact.

Polkinghorne (1995) differentiates between *paradigmatic* and *narrative* cognition. The former may include such approaches as grounded theory, which

seeks the inductive development of categories from the data, particularly if large collections of stories are available for analyzing patterns (Cortazzi, 1993, p. 7). But these types of findings are "abstractions from the flow and flux of experience" (Polkinghorne, 1995, p. 11); instead, narrative cognition seeks to understand individual and unique human action. And among postmodernists, the process of narrative inquiry is not a solitary research act but a collaborative venture between the researcher and participants.

Gubrium & Holstein (2009) advise that researchers analyzing narrative texts should consider not just the psychological but the sociological contexts of stories collected from fieldwork: "stories operate *within* society as much as they are about society" (p. 11). Environments such as close relationships, local culture, jobs, and organizations influence and affect the individual's telling of personal tales: "Approach the big and little stories as reflexively related, not categorically distinct, dimensions of narrativity" (p. 144).

"The unit of analysis is often big gulps of text – entire stories" (Daiute & Lightfoot, 2004, p. 2). To most narrative inquirers, insight into the meanings of participant stories depends on deep researcher reflection through careful reading of the transcripts and extensive journaling. Clandinin & Connelly (2000) attest that they adhere to "*fluid inquiry*, a way of thinking in which inquiry is not clearly governed by theories, methodological tactics, and strategies" (p. 121). Their approach to narrative inquiry is to "find a form to represent ... storied lives in storied ways, not to represent storied lives as exemplars of formal categories" (p. 141). The write-up requires rich descriptive detail and a three-dimensional rendering of the participant's life. The ultimate goal is to create a stand-alone story as research representation that may depict "how and why a particular outcome came about" (Polkinghorne, 1995, p. 19), but other approaches to narrative inquiry might also deliberately stress open-ended structures to the researcher's recrafted narratives, structures that leave the reader with evocative closure and provocative questions rather than fixed answers (Barone, 2000).

Bamberg (2004) notes, "it simply is not enough to analyze narratives as units of analysis for their structure and content, though it is a good starting point" (p. 153). Just some of the many prosaic, poetic, and dramatic elements available as coding and subcoding schemes for Narrative Coding include:

- **Type** (survivor narrative, epiphany narrative, coming-out story, cautionary tale, etc.)
- **Genre** (tragedy, comedy, romance, melodrama, etc.)
- **Purpose** (personal/historical, moral, emancipatory, therapeutic, etc.)
- **Setting** (locale, environment, local color, season, etc.)
- **Plot** (episodic, chronological, vignette, scene, prologue, conflict/complication, turning point, rising action, climax, subplot, etc.)

- **Character** (narrator, protagonist, antagonist, composite, secondary, choral, etc.)
- **Characterization** (physical description, status, motivations, hero, trickster, etc.)
- **Form** (monologue, soliloquy, dialogue, adjacency pair, song, etc.)
- **Point of View** (first-person, third-person, omniscient, witness, etc.)
- **Elements** (foreshadowing, flashback, flashforward, juxtaposition, irony, motif, symbolism, allusion, metaphor, simile, coda, etc.)
- **Spoken Features** (pause, tone, emphasis/stress, fluency, alliteration, dialect, etc.)

Narrative researchers should also be attuned to story structures from the non-European canons and how that influences and affects retelling. For example, the use of symbolism in Mexican stories from an Eurocentric perspective might be perceived as "overt," "heavy-handed," or "exotic," whereas from Mexican perspectives the symbolic associations are "bold," "strong," and "brave."

Some recommended ways to further analyze Narrative Codes are (see Appendix D):

- case studies (Merriam, 1998; Stake, 1995)
- life-course mapping (Clausen, 1998)
- metaphoric analysis (Coffey & Atkinson, 1996; Todd & Harrison, 2008)
- narrative inquiry and analysis (Clandinin & Connelly, 2000; Coffey & Atkinson, 1996; Cortazzi, 1993; Daiute & Lightfoot, 2004; Riessman, 2008)
- performance studies (Madison, 2005; Madison & Hamera, 2006)
- phenomenology (van Manen, 1990)
- poetic and dramatic constructions (Denzin, 1997; Glesne, 2006; Knowles & Cole, 2008; Saldaña, 2005a)
- polyvocal analysis (Hatch, 2002)
- portraiture (Lawrence-Lightfoot & Davis, 1997)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998)
- vignette writing (Erickson, 1986; Graue & Walsh, 1998)

Notes

See *NTC's Dictionary of Literary Terms* (Morner & Rausch, 1991) as a reference for prosaic, poetic, and dramatic elements, and Gibbs (2007) for an elegant overview of narrative forms. Also see Crossley (2007) for a superb autobiographical (and biographical) interview protocol for narrative analysis in psychology. For supplementary methods related to Narrative Coding, see Dramaturgical Coding and Motif Coding.

VERBAL EXCHANGE CODING

Source

Goodall, 2000

Description

Verbal Exchange Coding is the verbatim transcript analysis and interpretation of the types of conversation and personal meanings of key moments in the exchanges. To Goodall (2000), coding is determining the "generic type" of conversation; reflection examines the meaning of the conversation. The goal is to develop fundamental analytic skills to create an "*evocative representation* of the fieldwork experience," the "writing of a *story of culture*" (p. 121, emphasis in original).

Coding begins with a precise transcription of the verbal exchange (which includes nonverbal cues and pauses) between the speakers. The coder then draws from a typology/continuum of five forms of verbal exchange to identify the unit(s):

1. *Phatic Communion* or *Ritual Interaction*, a "class of routine social interactions that are themselves the basic verbal form of politeness rituals used to express social recognition and mutuality of address"; an example is:
   A: Hey.
   B: 'Morning.
   A: How's it going?
   B: OK. You?
   Simple exchanges such as these can communicate such cultural patterns as status, gender, race, and class differences, etc.;
2. *Ordinary Conversation*, "patterns of questions and responses that provide the interactants with data about personal, relational, and informational issues and concerns, as well as perform the routine 'business' of … everyday life";
3. *Skilled Conversation*, which represents "a 'higher' or 'deeper' level of information exchange/discussion" between individuals, and can include such exchanges as debates, conflict management, professional negotiations, etc.;
4. *Personal Narratives*, consisting of "individual or mutual self-disclosure" of "pivotal events in a personal or organizational life"; and
5. *Dialogue*, in which conversation "transcends" information exchange and the "boundaries of self," and moves to higher levels of spontaneous, ecstatic mutuality (Goodall, 2000, pp. 103–4).

Selected questions assist the ethnographer in coding, interpreting, and reflecting on the content and meaning of the verbal exchange. Sample questions include: What is the nature of the relationship? What are the influences of fixed

positionings (gender, race/ethnicity, social class, etc.)? What are the rhythms, vocal tones, and silences contributing to the overall meaning? (pp. 106–7).

The second level of Verbal Exchange Coding's categorization and analysis explores the personal meanings of key moments by first examining such facets as speech mannerisms, nonverbal communication habits, and rich points of cultural knowledge (slang, jargon, etc.). The categorization then proceeds to examine the *practices* or the "*cultural performances* of everyday life" (p. 116):

1. *Routines and Rituals* of structured and symbolically meaningful actions during our day;
2. *Surprise-and-Sense-Making Episodes* of the unanticipated or unexpected;
3. *Risk-Taking Episodes* and *Face-Saving Episodes* of conflict-laden exchanges;
4. *Crises* in a verbal exchange or as an overarching pattern of lived experience; and
5. *Rites of Passage*, or what is done that significantly "alters or changes our personal sense of self or our social or professional status or identity" (pp. 116–19).

Applications

Verbal Exchange Coding is appropriate for a variety of human communication studies and studies that explore cultural practices. Verbal Exchange Coding can also be applied to preexisting (secondary data) ethnographic texts such as autoethnographies.

The guidelines listed above should not suggest an overly systematic approach to analyzing verbal exchanges. Goodall's "coding" is a narrative rather than margined words and phrases. Goodall's text evocatively explores "the new ethnography" – storied accounts grounded in the data that weave "the personal experience of the researcher into meaning in ways that serve as analyses of cultures" (p. 127). Verbal Exchange Coding is intended as an introductory approach for novices to closely examine the complexity of talk through focused parameters of conversation types and everyday cultural practices. Interpretive meaning through extensive written reflection (comparable to an analytic memo) rather than traditional margined coding methods is encouraged.

Example

A junior high school play production class in an inner city fine arts magnet program has just read a scripted adaptation of a traditional Mexican American folk tale, *La llorona (The Weeping Woman)*. Nancy, the teacher/director, wants to have her Hispanic students improvisationally create then write a modern-day adaptation of the story for public performance. The verbatim transcript below

is an excerpt from the first brainstorming session about the updated version. Since Verbal Exchange Coding does not rely on margined entries, the example will scan across the entire page. The coding narrative follows:

NANCY: OK, how can we take the story, this is the old version, how can we update it character-wise and word-wise to also updating it with the rap? Like, how would you say if Maria was beautiful? How would you say that in slang?
GIRL: She's *fine*!
NANCY: OK, so that's what we need to have the words say. We need the updated word and the use of the rap together. I mean, where would you have this take place?
BOY: She's walking down McKinley and she shoots her kids.
GIRL: A drive-by. *(laughter from group)*
NANCY: In a blue Pontiac. So that's what you need to start thinking about, how can we keep the same story intact, of what happens, but we need to convert it into something that's modern.
BOY: She overdosed her kids.
NANCY: Does she take them to the lake or do they find them in a canal?
BOY: Yeah, they find them in a canal with bullet holes in their heads.
NANCY: Guys, think about that, don't get too gruesome, that's not our objective to make this into this gross massacre death thing, like finding that body that was burning in the dumpster, that's not what our goal is. Our goal is to update the story into your, how would you say it in today's language?
GIRL: And there were two *locos* ... *(NANCY explains the costumes in the updated version, such as jeans)*
BOY: G-string? *(laughter from group)*
NANCY: That's Domingo in college. *(laughter from group)* So, you're gonna be wearing the big old baggy pants, big old flannel shirts, platform shoes.
GIRL: We're not in the '70s.
NANCY: I want everyone to come in with something written down for the rap version by Friday. It needs to be your version – it doesn't have to be the whole product, it just has to be the very beginning.
BOY: *(rapping)* Once upon a time, there was a *chica*. *(laughter from group)* She pushed them in the river and along came the fuzz. *(laughter)* ... *(NANCY asks where the setting for the modern version could be)*
BOY: Long Beach, California.
BOY: You been hanging around with that guy too much. *(boys laugh)*
GIRL: No, instead of drowning them, she gave them drugs.
BOY: Let's do it like the lady did it, she threw them in a car and drove into the river.
GIRL: And then she lied about it later.
GIRL: No cuss words.

CODING: This classroom verbal exchange is mostly *ordinary conversation* (that ever-so-slightly peaks toward *skilled conversation* before it) to accomplish the business of creative work. A white female teacher facilitates the development of an original play with a class of Hispanic youth who toss out occasional *caló* [language of the street] such as "*locos*" and "*chica*." There are several rich points of cultural knowledge exchanged between them: "McKinley" [a nearby street, noted for its seediness]," "blue Pontiac" [a local in-joke about the stereotypical drive-by car], "that body that was burning in the dumpster" [a neighborhood news story about a recent murder], "that guy" [a notorious local gang member from California], points that would completely elude someone who didn't live in the immediate school neighborhood.

The *routine* of the day is drama class in preparation for the *ritual* of performing theatre. Students create *risk-taking episodes* by tossing out their original ideas and, in turn, create a few *surprise-making episodes* through irreverent humor – even black humor when they laugh at a "drive-by" shooting reference. Not included in the transcript are those sly looks and glances given by all speakers, including the teacher, as if to suggest and validate insider- and "we-really-shouldn't-be-talking-about-this-but-we-are" knowledge. Laughter is prominent throughout, evoked by both Nancy and her students, during this moderately fast-paced "brainstorming" session.

REFLECTION [excerpts]: Be careful what you ask for – you just might get it. Nancy asked her students, encouraged them in fact, to create a modern-day version of a violent folk tale. She said, "Our goal is to update the story," which is exactly what the class was doing. But in her role as public school educator she had to limit (read: censor) their ideas to what would be acceptable for a public audience (read: parents) on stage.

Communication of the adolescent voice, the inner city voice, the Hispanic voice, is what progressive multicultural education is all about. But because we're dealing with inner city minors (some of whom have seen more gang activity and violence than most white adults), there's a border we can't cross. Well, like "illegal" immigrants we can cross it anyway, but there's always a risk. So the teacher, like a border patrol officer, has to stop these Hispanic youths from crossing the line. (But I'm playing the race card here. Lots of high school theatre programs in white suburban communities have faced the same censorship dilemma.)

Nevertheless, as an Hispanic whose voice is frequently dismissed, discounted, and negated by my white colleagues at work, it burns me to see and hear young people told, "I want to hear and honor your voice, but you can't say *that* on the stage," when I've heard them say much worse in the hallways as they move from one class to the next. The teacher is asking them to adapt a traditional folk tale into modern-day contexts for the purpose of creating art. These junior high schoolers' lives are surrounded by violence (sadly), so that's what they're weaving into their work.

Analysis

Goodall states that "analysis and coding of conversations and practices – as well as interpretive reflections on the meaning of them – are really parts of the overall process of finding patterns that are capable of suggesting a story, an emerging story of your interpretation of a culture" (2000, p. 121). Continued reflection on the meanings of the classroom verbal exchanges documented above addresses such aspects as the culture of the school, theatre classroom culture, Hispanic culture, adolescent culture, the culture of violence, gang subculture, and their complex interrelationships and overlaps (see Appendix C).

Goodall's introductory interpretive approach to the analysis of talk is just one of many extensive and systematic approaches to conversation and discourse analysis (see Agar, 1994; Gee, Michaels, & O'Connor, 1992; Jones, Gallois, Callan, & Barker 1999; Lindlof & Taylor, 2002; Rapley, 2007; and Silverman, 2006), which include detailed notation systems for transcription that indicate such speech patterns as pauses, word stress, overlapping dialogue, and other facets of conversation.

Some recommended ways to further analyze Verbal Exchange Codes are (see Appendix D):

- action research (Altrichter, Posch, & Somekh, 1993; Stringer, 1999)
- ethnodrama (Denzin, 1997; Saldaña, 2005a)
- metaphoric analysis (Coffey & Atkinson, 1996; Todd & Harrison, 2008)
- narrative inquiry and analysis (Clandinin & Connelly, 2000; Coffey & Atkinson, 1996; Cortazzi, 1993; Daiute & Lightfoot, 2004; Riessman, 2008)
- performance studies (Madison, 2005; Madison & Hamera, 2006)
- phenomenology (van Manen, 1990)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998)
- vignette writing (Erickson, 1986; Graue & Walsh, 1998)

Notes

Other evocative methods of analyzing talk and text exist. Gilligan, Spencer, Weinberg, & Bertsch (2006), "in response to the uneasiness and growing dissatisfaction with the nature of coding schemes typically being used [in the 1980s] to analyze qualitative data" (p. 254), developed the *Listening Guide*, "a method of psychological analysis that draws on voice, resonance, and relationship as ports of entry into the human psyche" (p. 253). The four-step reading and notation of verbatim text examines plot, first-person references as poetic structures, and contrapuntal voices (e.g., melodic signatures, silence), followed by an interpretive synthesis based on the research question of interest. See Sorsoli & Tolman (2008) for a clear and detailed example of a case study's transcript analysis using the *Listening Guide*.

EXPLORATORY METHODS

Exploratory coding methods are just that – exploratory and preliminary assignments of codes to the data before more refined coding systems are developed and applied. Since qualitative inquiry is an emergent process of investigation, these coding methods use tentative labels as the data are initially reviewed. After they have been analyzed in this manner, researchers might proceed to more specific First Cycle or Second Cycle coding methods.

Holistic Coding applies a single code to each large unit of data in the corpus to capture a sense of the overall contents and the possible categories that may develop.

Provisional Coding begins with a "start list" of researcher-generated codes based on what preparatory investigation suggests might appear in the data before they are analyzed.

Hypothesis Coding applies researcher-developed "hunches" of what might occur in the data before or after they have been initially analyzed. As the corpus is reviewed, the hypothesis-driven codes confirm or disconfirm what was projected, and the process can refine the coding system itself.

HOLISTIC CODING

Source

Dey, 1993

Description

Holistic Coding is an attempt "to grasp basic themes or issues in the data by absorbing them as a whole [the coder as 'lumper'] rather than by analyzing them line by line [the coder as 'splitter']" (Dey, 1993, p. 104). The method is a preparatory approach to a unit of data before a more detailed coding or categorization process through First or Second Cycle methods. A "middle-order" approach, somewhere between holistic and line-by-line, is also possible as a Holistic Coding method. There are no specific maximum length restrictions for data given a Holistic Code. The coded unit can be as small as one-half a page in length, to as large as an entire completed study.

Applications

Holistic Coding is appropriate for beginning qualitative researchers learning how to code data, and studies with a wide variety of data forms (e.g., interview transcripts, field notes, journals, documents, diaries, correspondence, artifacts, video).

Holistic Coding is applicable when the researcher already has a general idea of what to investigate in the data, or "to 'chunk' the text into broad topic areas, as a first step to seeing what is there" (Bazeley, 2007, p. 67). It is also a time-saving method for those with massive amounts of data and/or a short period for analytic work. But be aware that with less time to analyze often comes a less substantive report. In most cases, Holistic Coding is preparatory groundwork for more detailed coding of the data.

Holistic Coding may be more applicable to what might be labeled self-standing units of data – vignettes or episodes – such as: interview excerpts of a participant's story with a definite beginning, middle, and end; a short one- to two-page document; or a field note excerpt of social life with bounded parameters such as time, place, action, and/or content (e.g., a 15-minute playground recess, a transaction at a sales counter, a congregation's participation during a portion of worship service).

Example

The following guest lecture excerpt is from a second year, inner city, grades K–8 school teacher talking to education majors enrolled in a university teaching methods course (Saldaña, 1997, p. 44). She has just completed several poignant vignettes about some of her most difficult students. The coding will follow the excerpt:

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

A single Holistic Code applied to represent this entire data excerpt might be an In Vivo Code: "A LOT TO LEARN". Another possible Holistic Code might be more descriptive in nature: CAUTIONARY ADVICE. If "middle-order" codes or categories are necessary for more detailed analysis, a few that might emerge from the data above for CAUTIONARY ADVICE would read:

PRE-PROFESSIONAL PREPARATION
LEARNING ON-THE-JOB

Analysis

After a first review of the data corpus with Holistic Codes applied, "all the data for a category can be brought together and examined as a whole before deciding upon any refinement" (Dey, 1993, p. 105). Thus, all data coded as LEARNING

ON-THE-JOB in the study described above would be collected for closer scrutiny. The researcher might observe that those on-the-job learning curves might be lessened if they were addressed in pre-professional teacher education courses.

Rather than coding datum-by-datum as soon as transcripts or field notes have been prepared for analysis, it is a worthwhile investment of time and cognitive energy to simply read and re-read the corpus to see the bigger picture. Dey (1993) suggests that "time spent becoming thoroughly absorbed in the data early in the analysis may save considerable time in the later stages, as problems are less likely to arise later on from unexpected observations or sudden changes in tack" (p. 110).

Some recommended ways to further analyze Holistic Codes are (see Appendix D):

- First Cycle coding methods
- action research (Altrichter, Posch, & Somekh, 1993; Stringer, 1999)
- memo writing about the codes (Charmaz, 2006; Corbin & Strauss, 2008; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)
- qualitative evaluation research (Patton, 2002)
- quick ethnography (Handwerker, 2001)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998)

Notes

For an inquiry-based method related to Holistic Coding, see Structural Coding.

PROVISIONAL CODING

Sources

Dey, 1993; Miles & Huberman, 1994

Description

Provisional Coding establishes a predetermined "'start list' set of codes prior to fieldwork" (Miles & Huberman, 1994, p. 58). These codes can be developed from anticipated categories or types of responses/actions that may arise in the data yet to be collected. The provisional list is generated from such preparatory investigative matters as: literature reviews related to the study, the study's conceptual framework and research questions, previous research findings, pilot study fieldwork, the researcher's previous knowledge and experiences (experiential data), and researcher-formulated hypotheses or hunches. As qualitative data are collected, coded, and analyzed, Provisional Codes can be revised, modified, deleted, or expanded to include new codes.

Applications

Provisional Coding is appropriate for qualitative studies that build on or corroborate previous research and investigations. Miles & Huberman recommend a start list ranging from approximately 12 to 60 codes for most qualitative studies. Creswell (2007) begins with a shorter list of five to six that begins the process of "lean coding." This expands to no more than 25–30 categories that then combine into five to six major themes (p. 152).

Layder (1998) encourages the search for "key words, phrases and concepts that spring to mind in thinking about the area under consideration before any data collection or even a literature search has begun" (p. 31). Not only can this list serve as a possible series of Provisional Codes, the items can be codewoven (see Chapter Two) to explore possible interrelationships related to the phenomenon.

Example

In the field of classroom drama with youth, creative expression by participants is most often realized in one of three ways: nonverbally (through body movement, gesture, pantomime, etc.), verbally (through verbal improvisation, reader's theatre, poetry, etc.), or a combination of both (through choral speaking with gesture, verbal improvisation with pantomime, etc.). These three modes of dramatic expression are "givens" in drama with youth, and can readily become part of the Provisional Code repertoire:

BODY
VOICE
BODY–VOICE

Previous research in the art form with children has focused primarily on language arts development through drama (Wagner, 1998). Provisional Codes might then be developed that focus on such related variables of interest as:

VOCABULARY DEVELOPMENT
ORAL LANGUAGE FLUENCY
STORY COMPREHENSION
DISCUSSION SKILLS

Once in the field, however, a start list of codes generated from previous research may be modified if the researcher observes that the drama facilitator

focuses on improvisational drama to develop classroom community and social change with children rather than their language arts skills. ORAL LANGUAGE FLUENCY and DISCUSSION SKILLS might still be observed in the drama classroom and thus the codes can be maintained. But VOCABULARY DEVELOPMENT and STORY COMPREHENSION may be deleted as codes if the instructor's content focuses more on thematic work (such as bullying, conflict resolution, peacekeeping skills, etc.) rather than story dramatization and enactment. Hence, new codes might emerge that are more relevant to the fieldwork observations, such as:

COMMUNITY BUILDING
BULLYING–PHYSICAL
BULLYING–VERBAL
CREATING CONFLICT
RESOLVING CONFLICT

Analysis

Other research team members, a colleague not involved with the study, or even the participants themselves can provide the coder with a "reality check" of Provisional Codes as they are initiated and modified. Obviously, when Provisional Codes are first applied to qualitative data, the researcher may soon learn whether each item from the start list has relevance or not.

Researchers should exercise caution with Provisional Codes. A classic fieldwork saying goes, "Be careful: If you go looking for something, you'll find it," meaning that your preconceptions of what to expect in the field may distort your objective and even interpretive observations of what is "really" happening there. If you become too enamored with your original Provisional Codes and become unwilling to modify them, you run the risk of trying to fit qualitative data into a set of codes and categories that may not apply: "Premature coding is like premature closure; it can prevent the investigator from being open to new ideas, alternative ways of thinking about a phenomenon, and divergent – and sometimes quite correct – explanations for events" (LeCompte & Schensul, 1999, p. 97). A willingness to tolerate ambiguity, flexibility, and the ability to remain honest with oneself are necessary personal attributes for researchers and Provisional Coding: "As we encounter more data we can define our categories with greater precision. . . . Even an established category set is not cast in stone, but subject to continual modification and renewal through interaction with the data" (Dey, 1993, p. 124).

A small but vital investment of time and energy will go toward the development of Provisional Codes. Preparatory pilot study through participant observation and interviews at the actual fieldwork site may yield a more relevant set of Provisional Codes than previously published research. The context-specific nature of qualitative inquiry suggests customized (or what might be facetiously labeled "designer") coding systems and methods.

CAQDAS programs allow the development and entry of Provisional Codes in their code management systems. As documents are reviewed, a pre-established code from the list can be directly assigned to a selected portion of data. CAQDAS code lists can also be imported from and exported to other projects and users.

Some recommended ways to further analyze Provisional Codes are (see Appendix D):

- content analysis (Krippendorff, 2003; Weber, 1990; Wilkinson & Birmingham, 2003)
- mixed-methods research (Creswell, 2009; Creswell & Plano Clark, 2007; Tashakkori & Teddlie, 2003)
- qualitative evaluation research (Patton, 2002)
- quick ethnography (Handwerker, 2001)
- survey research (Fowler, 2001; Wilkinson & Birmingham, 2003)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998)

Notes

For a Second Cycle method that employs a set of Provisional Codes, see Elaborative Coding.

HYPOTHESIS CODING

Sources

Bernard, 2006; Weber, 1990

Description

Hypothesis Coding is the application of a researcher-generated, predetermined list of codes onto qualitative data specifically to assess a researcher-generated hypothesis. The codes are developed from a theory/prediction about what will be found in the data before they have been collected or analyzed. "While grounded theory is concerned with the *discovery of hypotheses* [induction] from texts and the building of explanatory models from the same or subsequently collected texts, content analysis [and other selected qualitative studies are] concerned with *testing hypotheses* [deduction] from the start" (Bernard, 2006, pp. 505, 507). Weber (1990) advocates that the "best content-analytic studies use both qualitative and quantitative operations on texts" (p. 10). The statistical applications can range from simple frequency counts to more complex multivariate analyses.

Applications

Hypothesis Coding is appropriate for hypothesis testing and content analysis of the qualitative data set, particularly the search for rules, causes, and explanations in the data.

Hypothesis Coding can also be applied midway or later in a qualitative study's data collection or analysis to confirm or disconfirm any assertions or theories developed thus far (see Second Cycle coding methods). Seasoned researchers will often enter a fieldwork setting or approach a body of data with some idea of what will be present and what will most likely be happening. However, this does not necessarily suggest that Hypothesis Coding is warranted. The method is a strategic choice for an efficient study that acknowledges its' focused or sometimes narrowly defined parameters of investigation. Ethnographer Martyn Hammersley (1992) admits, "we cannot but rely on constructing hypotheses, assessing them against experience and modifying them where necessary," even when we "adopt a more informal and broader approach in which we sacrifice some of the sharpness of the test in order to allow more of our assumptions to be thrown open to challenge" (p. 169).

Example

A mixed-methods study (Saldaña, 1992) was conducted to assess how Hispanic and White fourth-grade child audience members would respond to a bilingual play production featuring two characters – one Hispanic and one White. I hypothesized before the study began that Hispanic children would identify and empathize more with their Hispanic counterpart in the play, while White children would be more likely to empathize with both characters but identify more with their White counterpart.

After viewing the production, interviews were conducted with children of similar ethnicity and gender clustered in small focus groups to collect their responses to such questions as: "'John felt that Juan should speak English because they lived in America. But Juan felt that if they wanted to be friends, John would have to learn Spanish. Who was right?' [collect initial response, then ask] 'Why do you feel that way?'" (Saldaña, 1992, p. 8). The research team was trained to expect five types of responses to the first forced-choice question, which were also Hypothesis Codes applied to the transcript data: JOHN, JUAN, BOTH, NEITHER, and NR [NO RESPONSE/"I DON'T KNOW"].

It was predicted that Hispanic children would most likely select JUAN as "right" while White children would be more likely to select BOTH or NEITHER. I predicted this outcome based on the hypothesis that Hispanic children's perceived similarities with Juan's language dilemmas in the play would influence and affect them to deliberately "take sides" with the Spanish-speaking character. Frequency counts moderately supported this hypothesis in terms of likelihood, but there was no *statistically significant* difference between the ethnic groups' choices. Thus the original hypothesis was not deleted but modified as data analysis continued. (For example, when the data were analyzed by *gender* rather than ethnicity, girls chose Juan's side significantly more than boys.)

As for the follow-up question, "Why do you feel that way?", it was hypothesized that selected types of justifications would emerge *both similar and unique* to each ethnic group of children. Based on common ideologies about language issues in the United States, the following codes (and their inclusive meanings) were developed before analysis began:

RIGHT – We have the right to speak whatever language we want in America
SAME – We need to speak the same language in America – English
MORE – We need to know how to speak more than one language
NR – No Response or "I don't know"

Thus, interview excerpts below were coded according to the hypothesized set of responses:

HISPANIC BOY: [1] John should learn Spanish, and Juan should learn English better.	[1] MORE
WHITE GIRL: [2] It's a free country and you can talk any language you want.	[2] RIGHT
HISPANIC GIRL: [3] Everybody should know more than one language. It wasn't fair enough that John wanted Juan to speak English, and he, he didn't want to speak Spanish.	[3] MORE

No data were coded SAME, most likely due to its perception as a "politically incorrect" perspective to share during interviews. However, as analysis continued, one unanticipated category and thus code emerged – the existence of MANY languages in this country:

HISPANIC BOY: [4] All the people in America speak different languages.	[4] MANY
HISPANIC GIRL: [5] There's a lot of people that speak all kinds of language and they come from all places.	[5] MANY

It was hypothesized that the code MORE (We need to know how to speak more than one language) would appear in both ethnic groups' responses, but RIGHT (We have the right to speak whatever language we want in America) would appear with more frequency among Hispanic children. The results disconfirmed one portion of the hypothesis. Both groups with somewhat equal measure advocated that Americans needed to know how to speak more than one language. Though Hispanics attested with more frequency than Whites that Americans have the right to speak whatever language they wish, the difference was not statistically significant. In fact, it was the unforeseen code MANY (The existence of many languages in America) that was significantly more prominent among Hispanics' responses than Whites. This discovery led to a new observation: Although both Hispanic and White youth in this study supported the ideology that one has the right to speak whatever language one chooses in America, Hispanic children were more attuned to speaking a

non-English language not just as a "right" but as a preexisting "given" in the United States.

Analysis

Whether quantitative and/or qualitative, an analysis of Hypothesis Codes is used to test the hypothesis under investigation. Even if you discover, like I did in the study described above, that some of your proposed hypotheses are disconfirmed through discrepant cases or statistical analysis, that in itself is a major learning and forces you to more closely examine the content of your data and thus develop more trustworthy findings. Educational researchers LeCompte & Preissle (1993) promote this as an ongoing process of qualitative inquiry: "ethnographers formulate and systematically test successive hypotheses throughout the research project, generating and verifying successive explanations, both mundane and theoretical, for the behavior exhibited and attitudes held by the people under study" (p. 248).

Hypothesis Coding is a mixed-methods approach to data analysis most often applied to content analysis but with some transferability to other qualitative studies. As positivist as the method appears, Weber (1990) assures researchers that "there is no single right way to do content analysis. Instead, investigators must judge what methods are appropriate for their substantive problems" (p. 69). CAQDAS programs are well suited for Hypothesis Coding since the proposed codes can be entered a priori in their code management systems, and their search functions can help the researcher investigate and confirm possible interrelationships among the data.

Some recommended ways to further analyze Hypothesis Codes are (see Appendix D):

- assertion development (Erickson, 1986)
- content analysis (Krippendorff, 2003; Weber, 1990; Wilkinson & Birmingham, 2003)
- data matrices for univariate, bivariate, and multivariate analysis (Bernard, 2006)
- frequency counts (LeCompte & Schensul, 1999)
- longitudinal qualitative research (Giele & Elder, 1998; Saldaña, 2003, 2008)
- mixed-methods research (Creswell, 2009; Creswell & Plano Clark, 2007; Tashakkori & Teddlie, 2003)
- qualitative evaluation research (Patton, 2002)
- quick ethnography (Handwerker, 2001)

Notes

Hypothesis Coding differs from Protocol Coding in that the former's set of codes are usually developed by the researcher herself, while the latter's set of codes have been developed by other researchers.

PROCEDURAL METHODS

Procedural coding methods are prescriptive. They consist of pre-established coding systems or very specific ways of analyzing qualitative data. Though some leeway is provided for context- and site-specific studies, the methods profiled in this section contain directed procedures to follow by their developers.

OCM (Outline of Cultural Materials) Coding uses an extensive index of cultural topics developed by anthropologists for the classification of fieldwork data from ethnographic studies. It is a systematic coding system which has been applied to a massive data base for the discipline.

Protocol Coding outlines the general methods, advantages, and disadvantages of following pre-established coding systems developed by other researchers in subject areas related to your own inquiry.

Domain and Taxonomic Coding presents some of the signature analytic methods of anthropologist James P. Spradley for the systematic search for and categorization of cultural terms. This method is also primarily for ethnographic studies.

OCM (OUTLINE OF CULTURAL MATERIALS) CODING

Sources

Bernard, 2006; DeWalt & DeWalt, 2002; Murdock et al., 2004 – the OCM Website: http://www.yale.edu/hraf/Ocm_xml/traditionalOcm.xml

Description

The OCM (Outline of Cultural Materials) was developed in the mid-twentieth century by social scientists at Yale University as a topical index for anthropologists and archeologists. "The OCM provides coding for the categories of social life that have traditionally been included in ethnographic description (e.g., history, demography, agriculture ...)" (DeWalt & DeWalt, 2002, p. 167). The index, consisting of thousands of entries, serves to organize the data base of the Human Relations Area Files (HRAF), a massive collection of ethnographic field notes and accounts about hundreds of world cultures. Each domain and subdomain of the OCM are assigned specific reference numbers, for example:

290 CLOTHING
291 NORMAL GARB
292 SPECIAL GARMENTS

Each index entry includes a description with cross-references to other relevant entries; for example:

292 SPECIAL GARMENTS Clothing of special occasions (e.g., festive apparel, rain gear, bathing costumes); headgear and footwear not ordinarily worn; costumes associated with special statuses and activities; special methods of wearing garments; etc.

Ceremonial attire 796 ORGANIZED CEREMONIAL
Dance costumes 535 DANCE
Military uniforms 714 UNIFORM AND ACCOUTERMENT
Dance and dramatic costumes 530 [ARTS]
Drama costumes 536 DRAMA

Applications

OCM coding is appropriate for ethnographic studies (cultural and cross-cultural) and studies of artifacts, folk art, and human production.

The OCM is a specialized indexing system primarily for anthropologists, but the website is worth browsing by researchers from other disciplines to acquaint themselves with the breadth of possible topics about human experience for field note development. DeWalt & DeWalt (2002) note that "indexing is probably going to be more important than coding in the analysis of field notes" (p. 180). Database management software, particularly for artifact and document coding, is strongly recommended by Bernard (2006, pp. 408–12).

Example

The following is a descriptive field note excerpt of a Native American hoop dancer's garments. The four OCM numeric codes listed at the beginning apply to the entire excerpt. Portions of the codes' definitions and their included items are placed in brackets for reader reference:

292 SPECIAL GARMENTS [costumes associated with special ... activities]
301 ORNAMENT [types of ornament worn ... mode of attachment]
535 DANCE [information on dance styles ... dance costumes and paraphernalia]
5311 VISUAL ARTS [material objects whose expressive dimension is primarily visual in nature ... information on genres in visual arts (e.g., beadwork, ...) ... design and pattern]

The Ho-chunk hoop dancer's long-sleeved shirt is almost lemon-yellow in color, full at the wrists, and appears to be made out of silk. His closed but loose-fitting vest has intricate reflective beading of triangular-shaped and jagged-edged motifs. This same beading pattern appears sewn as elbow patches on his shirt, headband, and skirt overlay. The bead colors are blue, dark red, light purple, and silver. A lemon-yellow silk neck scarf is tied once in front and hangs down to his stomach. The skirt appears to be constructed out of heavy rough leather but is also lemon-yellow in color. Eight-inch long and one-inch wide fringe strips follow along the edge of the skirt, which bounce freely and solidly as he stamps his feet and quickly rotates. A six-inch wide strip of fringe at the front and back of the skirt is dyed burnt orange. The skirt's sides are cut to his upper thigh while the front and back are knee-length. The oval-shaped beaded skirt overlay in front and back is also knee-length. His hoops are saffron-yellow with the same reflective beading patterns and colors at quarter portions of each one, which unifies his basic garments with the hoops.

OCM Codes can also be applied in the margins of field notes when the specific topic changes:

[1] Eight-inch long and one-inch wide fringe strips follow along the edge of the skirt, which bounce freely and solidly as [2] he stamps his feet and quickly rotates. [3] A six-inch wide strip of fringe at the front and back of the skirt is dyed burnt orange. The skirt's sides are cut to his upper thigh while the ...	[1] 292 [2] 535 [3] 292

Analysis

Bernard (2006) notes that context-specific studies may require highly specific topical codes that are not in the OCM, so decimals or words can be added after a number to adapt, customize, and extend the subdomains even further. For example, if SPECIAL GARMENTS is OCM code 292, I can add extensions to "Drama Costumes" for quantitative applications and analysis such as:

292.1 PASTORELA COSTUMES
292.11 SHEPHERDS' COSTUMES
292.12 KINGS' COSTUMES
292.13 DEVIL COSTUME

Bernard recommends predetermined hypotheses before drawing representative cross-cultural samples from the HRAF through OCM codes, then administering appropriate statistical tests to confirm or disconfirm the hypotheses (pp. 400–4, 515–21).

Some recommended ways to further analyze OCM Codes are (see Appendix D):

- content analysis (Krippendorff, 2003; Weber, 1990; Wilkinson & Birmingham, 2003)
- cross-cultural content analysis (Bernard, 2006)
- data matrices for univariate, bivariate, and multivariate analysis (Bernard, 2006)
- descriptive statistical analysis (Bernard, 2006)
- domain and taxonomic analysis (Schensul, Schensul, & LeCompte, 1999; Spradley, 1979, 1980)
- frequency counts (LeCompte & Schensul, 1999)
- memo writing about the codes (Charmaz, 2006; Corbin & Strauss, 2008; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)

- mixed-methods research (Creswell, 2009; Creswell & Plano Clark, 2007; Tashakkori & Teddlie, 2003)
- quick ethnography (Handwerker, 2001)

Notes

There are other established coding schemes developed by anthropologists for ethnographic studies, but the OCM is the largest and perhaps the most well known among several academic disciplines.

PROTOCOL CODING

Sources

Boyatzis, 1998; Schensul, LeCompte, Nastasi, & Borgatti, 1999; Shrader & Sagot, 2000 [as an exemplar]

Description

A *protocol* in research with human participants refers to detailed and specific procedural guidelines for conducting an experiment, administering a treatment or, in qualitative inquiry, conducting all aspects of field research and data analysis. Protocol Coding is the collection and, in particular, the coding of qualitative data according to a pre-established, recommended, standardized, or prescribed system. The generally comprehensive list of codes and categories provided to the researcher are applied after her own data collection. Some protocols also recommend specific qualitative (and quantitative) data analytic techniques with the coded data.

Applications

Protocol Coding is appropriate for qualitative studies in disciplines with pre-established and field-tested coding systems *if* the researcher's goals harmonize with the protocol's outcomes. Boyatzis (1998) cautions, "the use of prior data and research as the basis for development of a code means that the researcher accepts another researcher's assumptions, projections, and biases" (p. 37). Since standardized ways of coding and categorizing data are provided to the researcher, the coder should insure that all definitions are clear and inclusive of all the possible types of responses to be collected. Some protocols, depending on their transferability and trustworthiness, may also contribute to the reliability and validity of the researcher's new study.

Example

Shrader & Sagot (2000) co-authored a richly detailed qualitative research protocol for the investigation of violence against women with the ultimate goal of developing strategies to improve their conditions – i.e., an action research model. Service providers, community members, and women personally affected by family violence are interviewed with a recommended list of questions. Examples asked of women during individual interviews are: "Can you tell me about the violent situation that you are, or were, living with?" (Follow-up: Ask when the violence occurred and what type of violence the respondent has experienced). Two focus group questions with women are: "Which family members abuse/attack/mistreat other family members?" and "Why does this violence occur?" (pp. 45, 48).

Researchers are provided a specific series of codes *qua* [in the role of] categories to apply to interview transcripts and documents. After coding, the data are then analyzed through such techniques as matrices, taxonomies, explanatory networks, and decision modeling to assess the outcomes and plan strategic interventions. Shrader & Sagot note:

> In qualitative methodology, the categories and codes ... generally emerge as the process unfolds, depending on the data collected and reviewed. However, the experience already gained in [our earlier studies] has generated a very comprehensive categorization system, which has been tested in ten Latin American countries. The structure of categories presented here is identical to the one that was applied in the analysis of the data generated by the study. It constitutes the principal basis for the categorization process, but it is flexible enough to allow for new categories and subcategories to be added to fit the research context. (p. 55)

For example, one major code and its cluster of subcodes applied to responses gathered from women affected by family violence include (adapted from Shrader & Sagot, 2000, p. 63):

Category	Code	Definition
Causes of family violence	CAUSES.	Reasons that the respondent perceives as the causes of family violence
	Subcode	***Family violence due to:***
alcohol	.ALCOH	alcoholism or drinking
drugs	.DRUG	drug use
money	.MONEY	lack of money or financial problems
education	.EDUC	lack of education
conditioning	.COND	social conditioning or learned behavior
personality	.PERS	personality of the abuser or the abused
machismo	.MACHO	intrinsic traits of men or "machismo"
control	.CONTR	controlling behavior of the abuser

A woman speculating on the reason behind her husband's abusive behavior might respond, "He was just a sick, twisted man, born that way." This response would receive the code: CAUSES.PERS. Another woman might offer, "Well, his daddy beat his mama, and now he's beating me." This response would be coded: CAUSES.COND.

Analysis

Analytic applications with Protocol Coding should follow the source's specific procedures.

Pre-established research protocols will most often prescribe or recommend specific researcher training, data-gathering, coding, and analytic methods. The protocol may also include such parameters as a required minimum number of participants, a desired statistical range for assessing intercoder reliability, and other guidelines. Depending on the protocol, the procedures and instrumentation may appear inflexible and thus restrictive to certain researchers. But other protocols, such as Shrader & Sagot's, acknowledge the context-specific nature of qualitative inquiry and have built-in allowances for unique settings and cases. Schensul, LeCompte, Nastasi, & Borgatti (1999) recommend using preexisting or modified coding schemes for team coders when reviewing video-taped data and focus group interview transcripts.

A disadvantage of using others' systems is that the original developers may not always be available to clarify a vague passage in their protocol for you, or to answer unique questions that may arise during the course of your own study. Standardization is often perceived as antithetical to the qualitative paradigm. Protocols provide much of the preparatory work for the new investigator, but she should be cautious of accepting every prescription at face value. Assess a protocol critically and, if necessary, adapt the guidelines to suit your own research contexts. On the plus side, substantive contributions to a specific area of study may be made if your particular study follows a protocol and builds on previous research to confirm and/or disconfirm the original findings, and expands the data and knowledge bases in the subject (see Elaborative Coding). If you yourself develop a research protocol for other qualitative researchers, make certain that all codes are distinctly clear: "If your code is too difficult to learn, other researchers will avoid it" (Boyatzis, 1998, p. 10).

Some works, such as dissertations or longer published journal articles, may not advocate replication of their studies, but if the topic, research questions, or goals of those studies have the potential for transferability to your own investigation, explore the possibilities of adapting their works' suggested protocols.

Since CAQDAS code lists can be imported from and exported to other projects and users, the programs lend themselves well to Protocol Coding.

Notes

Educational research has developed several instruments for the observation, recording, and coding of children's behavior in natural settings and semi-structured participatory activities (Greig, Taylor, & MacKay, 2007; O'Kane, 2000). And, an interesting protocol that codes and transforms qualitative interview data for statistical analysis is the Leeds Attributional Coding System (Munton et al., 1999), which assesses a participant's causal beliefs.

Protocol Coding differs from Hypothesis Coding in that the former's set of codes have been developed by other researchers, while the latter's set of codes are generally developed by the researcher herself.

DOMAIN AND TAXONOMIC CODING

Sources

McCurdy, Spradley, & Shandy, 2005; Spradley, 1979, 1980

Description

Domain and Taxonomic Coding is an ethnographic method for discovering the cultural knowledge people use to organize their behaviors and interpret their experiences (Spradley, 1980, pp. 30–1). "Every culture creates hundreds of thousands of categories by taking unique things and classifying them together" (p. 88), but this knowledge is mostly tacit. Hence, the ethnographer relies primarily on extensive interviews composed of strategic questions to discern these categories of meaning.

Domain and taxonomic analysis are separate steps combined into a single process. "We call categories that categorize other categories *domains* and the words that name them *cover terms*. ... Taxonomies are simply [hierarchical] lists of different things that are classified together under a domain word by members of a microculture on the basis of some shared certain attributes" (McCurdy, Spradley, & Shandy, 2005, pp. 44–5). For example, the domain of this manual and its cover term might be labeled *Coding Methods*. The taxonomy begins under the cover term with two separate categories: **First Cycle Coding Methods** and **Second Cycle Coding Methods**. The taxonomy continues with subcategories since under each category is a more specific set of coding methods (see Figure 3.1 or this manual's Table of Contents – those are taxonomies).

To obtain these cultural categories, it is presumed that "knowledge, including shared cultural knowledge, is stored as a system of categories in the human brain. ... [If] we can find the words that name things when informants talk

with other members of their microculture, we can infer the existence of the group's cultural categories. We call these informant-generated words *folk terms*" (McCurdy, Spradley, & Shandy, 2005, pp. 35–6). A verbatim data record to extract folk terms is mandatory for Domain and Taxonomic Coding. But when no specific folk terms are generated by participants, the researcher develops his own – called *analytic terms*.

To Spradley, nine possible *semantic relationships* exist within domains, which include these types (Spradley, 1979, p. 111), followed by examples related to codes and coding:

Form	Semantic Relationship
1. Strict inclusion	X is a kind of Y [*Process Coding* is a kind of *First Cycle coding method*]
2. Spatial	X is a place in Y, X is a part of Y [*Wide margin space* is a part of *hard-copy coding*]
3. Cause–effect	X is a result of Y, X is a cause of Y [*Analysis* is a result of *coding*]
4. Rationale	X is a reason for doing Y [*Transcribing interviews* is a reason for *coding them*]
5. Location for action	X is a place for doing Y [*A desk* is a place for *coding*]
6. Function	X is used for Y [*A computer* is used for *coding*]
7. Means–end	X is a way to do Y [*Reading data carefully* is a way to *code them*]
8. Sequence	X is a step (stage) in Y [*First Cycle Coding* is a stage in *coding data*]
9. Attribution	X is an attribute (characteristic) of Y [*Quotation marks* are an attribute of *In Vivo Codes*]

Strict inclusion forms are generally in the form of nouns in the data; *means–end* forms are generally in the form of verbs.

For analysis, a semantic relationship is chosen first. Data are then reviewed to find examples of the semantic relationship, and the related folk or analytic terms are listed in a worksheet. From this, a *folk taxonomy*, "a set of categories organized on the basis of a single semantic relationship," is developed. The taxonomy "shows the relationships among *all* the folk terms in a domain" (Spradley, 1979, p. 137).

Spradley did not recommend in his early published works specific codes or coding procedures for constructing domains and taxonomies. The search for folk terms or development of analytic terms was completed simply by reviewing the data, highlighting the terms, observing and interviewing participants further for verification or additional data collection, and compiling the information on separate worksheets. The methods outlined here adapt Spradley's procedures into a more code-based system for data organization and management and, if needed, further analysis.

Applications

Domain and Taxonomic Coding is appropriate for ethnographic studies and constructing a detailed topics list or index of major categories or themes in the data.

Domain and Taxonomic Coding is a thorough yet time-intensive method for organizing categories of meaning from participants, provided there are sufficient data for analysis. It is particularly effective for studying microcultures with a specific repertoire of folk terms – e.g., homeless youth terms may include "street rat," "sp'ange," "make bank," "green," "squat," "schwillies" (Finley & Finley, 1999). The approach, however, may be perceived by some as imposing too much organization on the messiness of social life, as anthropologist Clifford Geertz (1973) cautioned:

> Nothing has done more, I think, to discredit cultural analysis than the construction of impeccable depictions of formal order in whose actual existence nobody can quite believe. ... [The] essential task of theory building here is not to codify abstract regularities but to make thick description possible, not to generalize across cases but to generalize within them. (pp. 157, 165)

Example

A field experiment in theatre of the oppressed (i.e., theatre for social change) with fourth- and fifth-grade children (Saldaña, 2005b) began by observing, interviewing, and surveying children about the types of oppressions they encountered in school and at home. The excerpts below are taken from group interviews and written, open-ended surveys, prompted by the researcher's inquiry of "what you've seen or heard of how kids hurt other kids – oppression." Folk terms within the verbatim text are "coded" by bolding them and noting them in quotes in the margin for organizational access. Researcher-generated analytic terms/codes are also noted in the margin. After initially reviewing the transcripts and survey responses, I noticed that oppressions occurred physically (PHY), verbally (VER), or a combination of both (PHY/VER). This was the beginning of a taxonomy, albeit a tentative one. Thus, the coding also classified the folk and analytic terms accordingly. Coding focuses *exclusively* on finding data that relate to the semantic relationship:

Semantic Relationship: Means–end [X is a way to do Y]: What children describe below are ways to "hurt" (oppress) others
Cover Term: Children's folk term for the Domain: "HURTING"; researcher's analytic term for the Domain: OPPRESSING
Taxonomy (major categories): Ways to hurt (oppress) others: PHYSICALLY, VERBALLY, and PHYSICALLY AND VERBALLY COMBINED

FIFTH-GRADE GIRLS [group interview]:
GIRL 1: There was this one boy, he was trying to
[1] **push** another boy into two other boys.

[1] PHY: "PUSH"

I: Yes?
GIRL 2: Some girls [2] **fight** and you can get [3] **scratched** in the face, and they [4] **call you names**.
GIRL 3: This guy tried to do a [5] **wrestling** thing to his friend, and then they did it to another kid and he got hurt.

[2] PHY: "FIGHT"
[3] PHY: "SCRATCHED"
[4] VER: "CALL YOU NAMES"
[5] PHY: "WRESTLING"

FOURTH-GRADE BOY [group interview]: Sometimes when we're playing games and stuff, and this one boy comes over and he says, "Can I play with you guys?", and people say, [6] **"No, you're not our kind of people**, so [7] **you better get out now."**

[6] PHY/VER: EXCLUDE
[7] VER: THREATEN

FIFTH-GRADE BOY [written survey response]: One day I was at schhol I was playing soccer then I came back inside and almost everybody started [8] **messing up** my hair when it was messed up everybody started [9] **laughing** and [10] **saying** your hair is messed up I got really made they were still messing with my hair I closed my fist and pretended like I was going to [11] **punch** him.

[8] PHY: "MESSING UP MY HAIR"
[9] VER: "LAUGHING"
[10] VER: TEASING
[11] PHY: "PUNCH"

FIFTH-GRADE GIRL [written survey response]: I was [12] **made fun of my fatness**. I was [13] **called** fat, huge fatso are you going to have a baby. I was sad all the time. I'm trying to luse wiaght but I just gain, gain and gain. Wiaght. I have not lose eney wight. I have not stoped being appresed.

[12] VER: "MADE FUN OF MY FATNESS"
[13] VER: NAME-CALLING

FIFTH-GRADE BOY [written survey response]: Some times my brother [14] **calls me names**. And we don't play with each other. We get made at each other. Sometimes he is a poor sport when we play games.

[14] VER: "CALLS ME NAMES"

Analysis

The codes representing the domain (including repeated terms, which may suggest a major category rather than subcategory) are then assembled into their respective lists. Folk terms, if not uniquely a part of the microculture, can be modified into analytic terms (e.g., "push" becomes "pushing"):

WAYS TO HURT (OPPRESS) OTHERS

Physically	**Verbally**	**Physically and Verbally**
pushing	name-calling	excluding
fighting	threatening	
scratching	laughing	
wrestling	teasing	
messing up hair	making fun of fatness	
punching	name-calling	
	name-calling	

Since *name-calling* is a frequent category, the researcher can return to the field to ask participants (if they are willing to divulge, that is) the types of names children call each other and create a pool of subcategories – e.g., "dork," "wuss," "fatso," etc.

As the study continued, more data were collected through other methods, and gender differences in children's perceptions and enactment of oppression became strikingly apparent. The taxonomy's initial three categories were eventually reduced to two, based on the children's folk categories that emerged and seemed to resonate with gender-based observations: oppression through physical *force* (primarily, but not exclusively, by boys) and oppression through hurting others' *feelings* (primarily, but not exclusively, by girls).

Taxonomic diagrams can be developed in the form of a simple outline, box diagram, or tree diagram in the form of lines and nodes. Taxonomic analysis helps in finding data subsets and their relationships. Using some of the categories extracted above, plus additional data from the study, the terms are reorganized into a taxonomic tree diagram (excerpt), as illustrated in Figure 3.4.

Spradley's methods for domain and taxonomic analysis are the foundation for two advanced stages: "*Componential analysis* involves a search for the attributes that signal differences among symbols in a domain. ... *Theme analysis* involves a search for the relationships among domains and how they are linked to the culture as a whole. ... All of these types of analysis lead to the discovery of cultural meaning. ..." (Spradley, 1979, p. 94). Componential and theme analysis do not necessarily require Second Cycle coding, but instead rely on synthesizing the analytic work from domains and taxonomies developed thus far, coupled with any necessary additional data collection to clarify and confirm the categories' relationships.

Most CAQDAS programs include graphic capabilities to draw domains and taxonomies. Some programs, such as ATLAS.ti, can "calculate" and display a visual model that illustrates your codes' organizational arrangement based on their frequency and researcher-initiated linkages. CAQDAS programs can also arrange and manage your codes into hierarchies and trees, based on your input.

Some recommended ways to further analyze Domain and Taxonomic Codes are (see Appendix D):

- cognitive mapping (Miles & Huberman, 1994; Northcutt & McCoy, 2004)
- componential and cultural theme analysis (McCurdy, Spradley, & Shandy, 2005; Spradley, 1979, 1980)
- content analysis (Krippendorff, 2003; Weber, 1990; Wilkinson & Birmingham, 2003)

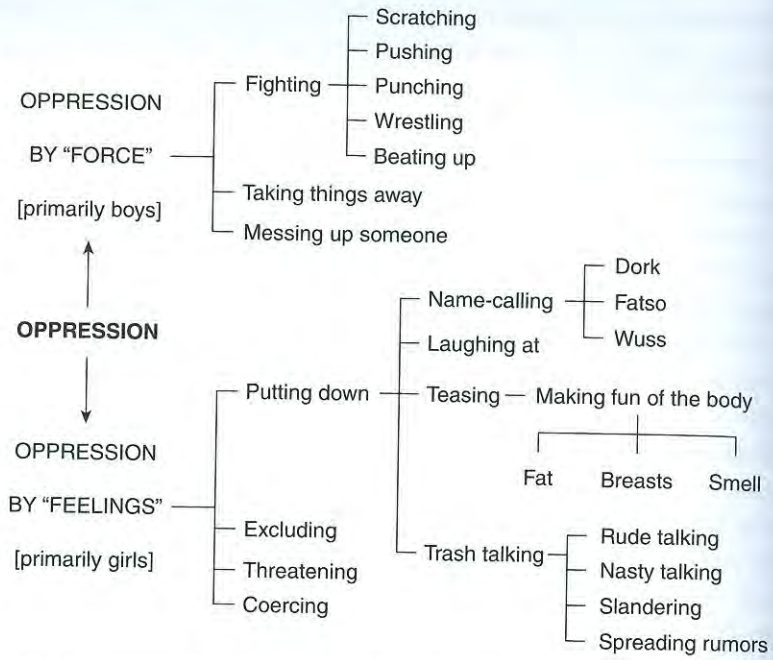

FIGURE 3.4 Excerpts from a taxonomic tree diagram of the ways children oppress others

- cross-cultural content analysis (Bernard, 2006)
- domain and taxonomic analysis (Schensul, Schensul, & LeCompte, 1999; Spradley, 1979, 1980)
- graph-theoretic techniques for semantic network analysis (Namey, Guest, Thairu, & Johnson, 2008)
- illustrative charts, matrices, diagrams (Miles & Huberman, 1994; Morgan, Fellows, & Guevara, 2008; Northcutt & McCoy, 2004; Paulston, 2000)
- memo writing about the codes (Charmaz, 2006; Corbin & Strauss, 2008; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)
- quick ethnography (Handwerker, 2001)
- situational analysis (Clarke, 2005)
- splitting, splicing, and linking data (Dey, 1993)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998)
- within-case and cross-case displays (Gibbs, 2007; Miles & Huberman, 1994)

Notes

Domain and Taxonomic Coding differs from In Vivo Coding in that the former method systematically searches for specific hierarchical organization of folk and analytic terms, while the latter is an open-ended coding method for grounded theory and other coding methods.

THEMEING THE DATA

I stated in Chapter One that a theme is an *outcome* of coding, categorization, and analytic reflection, not something that is, in itself, coded. But several qualitative methodologists recommend labeling and thus analyzing portions of data with an extended thematic statement rather than a shorter code, as it is defined in this manual. Hence, "Themeing the Data" provides a brief profile of that process.

Sources

Auerbach & Silverstein, 2003; Boyatzis, 1998; DeSantis & Ugarriza, 2000; Kvale, 1996; Rubin & Rubin, 1995; Ryan & Bernard, 2003; van Manen, 1990

Description

The definition and analytic function of a "theme" varies among the writers listed in the Sources above, but overall, a theme is a *phrase* or *sentence* that identifies what a unit of data is *about* and/or what it *means*. Boyatzis (1998) explains that a theme "at a minimum describes and organizes possible observations or at the maximum interprets aspects of the phenomenon. A theme may be identified at the manifest level (directly observable in the information) or at the latent level (underlying the phenomenon)" (p. vii). DeSantis & Ugarriza (2000), after an extensive literature review on the use of theme in qualitative research, discovered that the term was often used interchangeably with such words as "category," "domain," "phrase," "unit of analysis," and others (p. 358). Ultimately, they proposed a more stable definition based on their content analysis: "A theme is an abstract entity that brings meaning and identity to a recurrent [patterned] experience and its variant manifestations. As such, a theme captures and unifies the nature or basis of the experience into a meaningful whole" (p. 362).

At its manifest level, a theme functions as a way to categorize a set of data into "an implicit topic that organizes a group of repeating ideas" (Auerbach & Silverstein, 2003, p. 38). This foundation work leads to the development of higher-level theoretical constructs when similar themes are clustered together. To Rubin & Rubin (1995), themes are statements *qua* [in the role of] ideas presented by participants during interviews, or conceptual topics developed by the researcher during a review of the data. Themes can consist of such ideas as descriptions of behavior within a culture, explanations for why something happens, iconic statements, and morals from participant stories. These themes are discerned during data collection and initial analysis, and then examined further as interviews continue. The analytic goals are to winnow down the number of themes to explore in a report, and to develop an "overarching theme" from the

data corpus, or an "integrative theme" that weaves various themes together into a coherent narrative.

At its latent level, themes serve phenomenology, "the study of the life-world – the world as we immediately experience it pre-reflectively rather than as we conceptualize, categorize, or reflect on it. ... Phenomenology aims at gaining a deeper understanding of the nature or meaning of our everyday experiences" (van Manen, 1990, p. 9). To van Manen, themes are interpretive, insightful discoveries – written attempts to get at the "notions" of data to make sense of them and give them shape. Overall, a theme is "the form of capturing the phenomenon one tries to understand" (p. 87), but the collective set of researcher-generated themes is not intended for systematic analysis; "themes are only fasteners, foci, or threads around which the phenomenological description is facilitated" (p. 91). Like Rubin & Rubin, van Manen recommends the winnowing of themes down to what is "essential" rather than "incidental," the former making the phenomenon "what it is and without which the phenomenon could not be what it is" (p. 107).

Applications

Themeing the Data is appropriate for virtually all qualitative studies, and especially for metasynthesis and metasummary studies (see Notes at the end of this profile). Unlike content analysis, which begins with predefined categories, thematic analysis allows categories to emerge from the data (Ezzy, 2002, p. 83). Themeing the Data is not an expedient method of qualitative analysis. It is just as intensive as coding and requires comparable reflection on participant meanings and outcomes.

Like coding, thematic analysis or the search for themes in the data is a strategic choice as part of the research design that includes the primary questions, goals, conceptual framework, and literature review. Kvale (1996) labels this "thematizing" or describing the concept of the topic under investigation before interviews begin (p. 88). Kvale, Rubin & Rubin, and van Manen attest that through carefully planned questioning techniques, participants construct the meanings of what the researcher is trying to explore: "the interviewer does not uncover some preexisting meanings, but supports the interviewees in developing their meanings throughout the course of the interview" (Kvale, 1996, p. 226). Themes should be stated as simply as possible during the first cycle of analysis for "meaning condensation," then woven together for "meaning interpretation" to "explain why something happened or what something means" (Rubin & Rubin, 1995, p. 57).

Themeing the Data is perhaps more applicable to interviews and participant-generated documents and artifacts, rather than researcher-generated field notes.

Example

A phenomenological study is conducted on "belonging" – what it means "to belong." The question is posed to a middle-aged adult male. Note how the themes in the margin relate directly to the goal of the study. Some are manifest themes, others are latent, and some employ In Vivo Codes. There are also deliberate choices made between the phrases "Belonging means" and "Belonging is." The latter generally refers to concrete details or action at the manifest level; the former generally refers to conceptual ideas at the latent level:

[I: What does it mean to you to "belong"?]

Whoa, that's tough. To me, [1] it means to belong somewhere, a specific place and no place else.

[1] BELONGING MEANS A "SPECIFIC PLACE"

[I: What kind of place?]

New Orleans. [2] I feel so grounded in that city. This was before [Hurricane] Katrina, years before. [3] There's something about that place – the gentle decadence, the style, the robustness you can't find in any other city, even New York. There's a kind of sensuality about the city, a mix of food, music, stuff that's unique, things you'll find no other place in that combination. . . .

[2] BELONGING MEANS FEELING "GROUNDED"

[3] BELONGING OCCURS IN A "UNIQUE" PLACE

[4] I've got friends there, good friends, [5] good memories, places to drink, places to eat. Every time I go there, [6] I'm always in search of the perfect jumbalaya. I still haven't found it yet, but I'm still searching. I've found the perfect red beans, rice and sausage, but no jumbalaya yet.

[4] BELONGING IS WHERE THERE ARE "GOOD FRIENDS"

[5] BELONGING IS WHERE THERE ARE "GOOD MEMORIES"

[6] BELONGING MEANS THE SEARCH FOR PERFECTION – UTOPIA

Oh, what else? [7] Sidewalk vendors and artists on Jackson Square, those psychics, homeless kids, tourists wearing those Mardi Gras beads. I have them as décor all over my house, but I never wear them in New Orleans because only tourists do that when it's not Mardi Gras. Yeah, [8] I'm not a tourist there. I belong there even though I don't live there.

[7] BELONGING IS KNOWING THE DETAILS OF THE CULTURE

[8] YOU CAN BELONG SOMEWHERE WITHOUT ACTUALLY BEING THERE

[9] If I could do it tomorrow, I'd sell my house and move to New Orleans and live there 'til I die. [10] I feel I've got some Cajun in me, and that's where I belong.	[9] BELONGING IS A DRIVE TO BE SOMEPLACE PERMANENT [10] BELONGING MEANS HAVING A SENSE OF ANCESTRY
[I: *Are* you part Cajun?]	
[11] No, but I feel like I am.	[11] BELONGING MEANS HAVING A SENSE OF IDENTITY

Analysis

The Sources for Themeing the Data propose various ways of analyzing or reflecting on themes after they have been generated. Basic categorization as an initial tactic is the one most often prescribed, so it will be illustrated here.

The themes listed next to the transcript above are now categorized according to commonality, and ordered in superordinate and subordinate outline format to reflect on their possible groupings and relationships:

I. Belonging means feeling "grounded"
- A. Belonging means having a sense of ancestry
- B. Belonging means having a sense of identity
- C. Belonging is knowing the details of the culture

II. Belonging is a drive to be someplace permanent
- A. Belonging means a "specific place"
- B. Belonging occurs in a "unique" place
- C. You can belong somewhere without actually being there

III. Belonging means the search for perfection – Utopia
- A. Belonging is where there are "good friends"
- B. Belonging is where there are "good memories"

The three major theme headings (meta-themes) suggest that "belonging" is: (1) an actual place; (2) a sense of self in that place; (3) an ideal place. A reflective analytic memo that builds on this initial categorization and weaves the thematic elements together might read:

> "Belonging" is both geographical and conceptual. It is an ideal place where we feel, as an overarching theme, *grounded* – grounded with a sense of ancestry and memory, grounded with a sense of culture and identity, and grounded with a sense of permanence and perfection.

A different approach to the themes would involve categorization in order to develop researcher-generated *theoretical constructs*. Note how the categorization of themes here is different from the way they were organized above:

Theoretical Construct 1: Belonging is Social
Supporting Themes:
- Belonging means a "specific place"
- Belonging occurs in a "unique" place
- Belonging is knowing the details of the culture
- Belonging is where there are "good friends"
- Belonging means having a sense of identity

Theoretical Construct 2: Belonging is Memory
Supporting Themes:
- Belonging is where there are "good memories"
- Belonging means having a sense of ancestry
- You can belong somewhere without actually being there

Theoretical Construct 3: Belonging is a Quest
Supporting Themes:
- Belonging is a drive to be someplace permanent
- Belonging means feeling "grounded"
- Belonging means the search for perfection – Utopia

The write-up would then discuss each one of these constructs and how they integrate or relate with each other. The themes and their related data serve as illustrative examples to support the interpretation.

The same themes, organized and categorized in two ways, as illustrated above, generate somewhat different perspectives on what it means to "belong." Emerson, Fretz, & Shaw (1995) note that, aside from frequency, the themes ultimately developed and selected for analysis are those that resonate with personal or disciplinary concerns (p. 173). Keep in mind that this initial analysis is only of one excerpt from one participant's interview transcript. Additional participants may generate different as well as similar themes related to "belonging" that will be integrated into a fuller analysis. The themes developed thus far can be referenced as interviews continue to assess their validity and to shape the researcher's interview questions. Some themes from the particular example above may be dropped as more data are collected and analysis continues. Some may be subsumed under broader categories, and some themes may be retained.

In Chapter One of this manual, I included a section titled "What Gets Coded?" For this particular method, one might ask, "What gets themed?" Ryan & Bernard (2003) recommend that themes can be found in the data by looking for such qualities as: repeating ideas, participant or indigenous terms, metaphors and analogies, transitions or shifts in topic, similarities and differences of participant expression, linguistic connectors ("because," "since," "then," etc.), theoretical issues suggested by the data (e.g., interpersonal relationships, social conflict and control), and even what is missing from – not discussed or present in – the data.

Themeing lends itself to selected CAQDAS programs, but themes are also intriguing to simply "cut and paste" in multiple arrangements on a basic word-processor page to explore possible categories and relationships.

Some recommended ways to further analyze themes are (see Appendix D):

- assertion development (Erickson, 1986)
- case studies (Merriam, 1998; Stake, 1995)
- memo writing about the themes (Charmaz, 2006; Corbin & Strauss, 2008; Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987)
- meta-ethnography, metasynthesis, and metasummary (Finfgeld, 2003; Noblit & Hare, 1988; Sandelowski, Docherty, & Emden, 1997)
- metaphoric analysis (Coffey & Atkinson, 1996; Todd & Harrison, 2008)
- narrative inquiry and analysis (Clandinin & Connelly, 2000; Coffey & Atkinson, 1996; Cortazzi, 1993; Daiute & Lightfoot, 2004; Riessman, 2008)
- phenomenology (van Manen, 1990)
- poetic constructions (Denzin, 1997; Glesne, 2006; Knowles & Cole, 2008)
- portraiture (Lawrence-Lightfoot & Davis, 1997)
- thematic analysis (Auerbach & Silverstein, 2003; Boyatzis, 1998)
- vignette writing (Erickson, 1986; Graue & Walsh, 1998)

Notes

What follows is a brief overview of qualitative metasynthesis and metasummary, research enterprises that can employ unique combinations of coding *and* themeing qualitative data.

Metasynthesis and metasummary are methodological approaches that collect, compare, and synthesize the key findings of a number of related interpretive/qualitative studies (Finfgeld, 2003; Noblit & Hare, 1988; Sandelowski, Docherty, & Emden, 1997). A primary goal of these techniques is inductive and "systematic comparison of case studies to draw cross-case conclusions. ... It reduces the accounts while preserving the sense of the account through the selection of key metaphors and organizers," such as themes, concepts, ideas, and perspectives (Noblit & Hare, 1988, pp. 13–14). This is the qualitative cousin of quantitative research's meta-analysis, and relies on the researcher's strategic collection and comparative analysis of phrases and sentences – i.e., themes – that represent the essences and essentials of previous studies.

Some researchers apply a mix of Descriptive, Holistic, and Simultaneous Codes, for example, to represent the gist of an entire study. These codes may be based on an a priori or emergent set of themes when reviewing a collected body of related studies for metasynthesis. Au (2007), for example, reviewed 49 qualitative educational studies and employed a six-code template to classify each study's site-specific curricular changes in response to high-stakes testing. Two of the six curriculum-based codes representing "dominant themes" were "PCT – Pedagogic change to teacher-centered" and "KCF – Form of knowledge changed, fractured" (p. 260).

Other researchers do not initially code but instead carefully search for and extract thematic statements from the collected studies' findings and, if necessary, abstract the statements for comparison and metasummary. Sandelowski & Barroso (2003), for example, reviewed 45 qualitative studies on HIV-positive mothers and compiled an initial set of almost 800 thematic statements that represented the studies' major observations. These "raw data" themes were then compared and collapsed to 93 statements based on similarity, then coded and classified under ten major emergent categories about the women, such as "stigma and disclosure" and "mothering the HIV-negative and HIV-positive child." Though not necessary for metasynthesis, both Au (2007) and Sandelowski & Barroso (2003) calculated percentages of selected data to assess such phenomena as participant effect sizes and major theme occurrences. Au's Simultaneous Coding system enabled him to infer "potentially significant relationships between dominant themes" (2007, p. 263).

Metasynthesis and metasummary can employ a unique combination of coding *and* themeing the data. This approach seems necessary since "Metasynthesis is not a method designed to produce oversimplification; rather, it is one in which differences are retained and complexity enlightened. The goal is to achieve more, not less. The outcome will be something like a common understanding of the nature of a phenomenon, not a consensual worldview" (Thorne et al., 2004, p. 1,346).

The following pages are provided for documenting additional First Cycle coding methods located in other sources or developed by the researcher.

_____ Coding

Source(s):

Description:

Application(s):

Example:

Analysis:

Notes:

_____ Coding

Source(s):

Description:

Application(s):

Example:

Analysis:

Notes:

_____ Coding

Source(s):

Description:

Application(s):

Example:

Analysis:

Notes:

Four

Second Cycle Coding Methods

> Data analysis is a process that requires astute questioning, a relentless search for answers, active observation, and accurate recall. It is a process of piecing together data, of making the invisible obvious, of recognizing the significant from the insignificant, of linking seemingly unrelated facts logically, of fitting categories one with another, and of attributing consequences to antecedents. It is a process of conjecture and verification, of correction and modification, of suggestion and defense. It is a creative process of organizing data so that the analytic scheme will appear obvious.
>
> (Janice M. Morse, "'Emerging from the Data': The Cognitive Processes of Analysis in Qualitative Inquiry," 1994, p. 25)

Second Cycle coding methods, if needed, are advanced ways of reorganizing and reanalyzing data coded through First Cycle methods. They each require, as Morse puts it, "fitting categories one with another" to develop a coherent synthesis of the data corpus. Before categories are assembled, your data may have to be recoded because more accurate words or phrases were discovered for the original codes; some codes will be merged together because they are conceptually similar; infrequent codes will be assessed for their utility in the overall coding scheme; and some codes that seemed like good ideas during First Cycle coding may be dropped all together because they are later deemed "marginal" or "redundant" after the data corpus has been fully reviewed (Lewins & Silver, 2007, p. 100).

The primary goal during Second Cycle coding, if needed, is to develop a sense of categorical, thematic, conceptual, and/or theoretical organization from your array of First Cycle codes. But some of the methods outlined in this chapter may occur during the initial as well as latter coding periods. Basically, your First Cycle codes (and their associated coded data) are reorganized and reconfigured to eventually develop a smaller and more select list of broader categories, themes, and/or concepts. For example, if you generated 50 different codes for your data corpus during First Cycle coding, those 50 codes (and their associated coded data) are then recoded as needed, then categorized according