**Johnny Saldana, *The Coding Manual for Qualitative Researchers*, fifth edition**

**Ten Exercises and Activities for**

**Coding and Qualitative Data Analytic Skill Development**

These activities can be conducted by oneself or with small or large groups and are intended to attune the researcher to basic principles of coding, pattern development, categorization, and other qualitative data analysis methods.

**1. Know Thyself**

This exercise is prompted by the question, “Who are you?” Empty your purse, wallet, backpack, or briefcase and place all items on a table. Arrange, organize, and cluster those items that share similar characteristics (e.g., all writing instruments in one pile, all credit cards in one pile, all makeup in one pile). Give each pile its own label or category name but avoid descriptive nouns such as MAKEUP; use more evocative labels such as GLAMOUR or MASKING MYSELF. Write an analytic memo on yourself that explores the theory: What you own is who you are. Also address the higher-order analytic question: What do all the piles (categories) have in common? What is the Pattern Code?

**2. Ten Books**

This exercise can be done by one person. The purpose is to explore how many different ways you can categorize, classify, and order a data set.

Choose 10 books (paper, not digital) at random from your personal library. Lay them on a table and explore as many different ways possible to organize them into patterns, clusters, and hierarchies. For example:

* one pile or group of hardback books, and one pile or group of paperback books
* one pile of fiction, and one pile of non-fiction
* laid out in order, from the smallest number of pages to the largest number of pages
* in order from the lightest in weight to the heaviest
* in order of copyright date
* from the most worn out to the most pristine
* in clusters of single and multiple (two, three, etc.) authors
* in order of probable resale price at a used bookstore
* from what you’d like to read over and over to what you’d most likely never read again
* in clusters of illustrations included (non-illustrated, photographs, line drawings, color plates, mixed, etc.)

Exhaust a variety of additional ways to organize the 10 books. Then write an analytic memo reflecting on the exercise and how this simulates the way researchers might explore and analyze a set of codes and/or qualitative data.

**3. Color Cards**

This exercise can be done by one person or in groups. The purpose is to explore how to label and thus code a spectrum of data and categorize it.

Visit a paint retailer and pick up several different color card samples with three or four tints, hues, and shades of color on each card. Notice how the manufacturer often creates evocative names for each color. For example, a color palette of oranges I found on one Behr Paint card includes the names “Trick or Treat” (a light tan), “Roasted Seeds” (a pastel orange), “Pumpkin Puree” (a dark tan), and “Jack O Lantern” (a light brown). As an analytic and categorization exercise, name what these four color “codes” in the palette have in common—their theme. One possible (if not obvious) category label is “Halloween.” But the goal is to make the category as creative as the related paint color codes. Thus, more evocative category names like “Fall Festival” or “October Night” to represent the four colors might better serve. Conduct this exercise with a few other color cards.

To further exercise your synthesizing abilities and creativity, put two different colors from separate color cards next to each other. For example, one combination might be “Moonlight Sonata” (a dark shade of blue) placed next to “Pancake” (a very light beige). If these two colors were literally or metaphorically mixed or swirled, what would be the name of the new combination? One label might be “Pancake Supper”; another could be “Blueberry Muffin.” The analogy is that the two colors could be subcodes, and their combination is their parent code; or the two colors are separate categories that join together to form some type of thematic relationship. Explore this exercise with a few varied two-color combinations.

Next, transfer this exercise to actual excerpts of qualitative data related to the same topic (a sample is provided below). Collect three or four interview or document excerpts and code them creatively, as done with paint colors. Then develop an evocative category label or thematic statement that unifies the codes. Here are four perspectives from a public forum Internet conversation that address Washington state’s first days of legal marijuana sales, its high public demand yet short supply, slow state government regulatory oversight, and the early closure of one licensed store in Seattle due to selling out of its stock in just three days. As an example, one person posted, “Coincidentally, the market down the street sold out of Ben & Jerry’s [ice cream] also.” A possible creative code for this comment might be MUNCHIE HUMOR:

1. So, where is the news about people going crazy, getting sick, and dying from smoking all this weed? Fact is, there isn’t any. People should educate themselves on how Cannabis works in the body. Look up “Cannabinoids and Endocannabinoid system.”

2. If we are going to get serious about taking the profits away from the drug cartels then the price of pot and the taxes being applied need to be reduced considerably in both Washington [state] and Colorado. Even though the norm for most business models is to make back the initial start up money and to turn a profit inside of 5 years these pot shops seem to be trying to recoup their investments in the first five months. Free Market Capitalism … it’s capable of screwing up just about everything. Grow Your OWN!

3. Ain’t that a shame. Government red tape is going to keep the illegal market flourishing for many more years.

4. Washington [state] will haul in nearly $150,000 in excise taxes from the first three days of legal marijuana sales—and that doesn’t include state and local sales taxes. The Liquor Control Board’s project manager for legal pot says that’s not bad, considering the market is in its infancy with only a few stores open statewide.

# 4. The Pattern of Patterns

Patterns are ubiquitous in social and natural environments. Humans have a need and propensity to create patterns for order, function, or ornamentation, and those needs and thus skills transfer into our analysis of qualitative data. In a classroom or other average-size indoor environment (such as an office, small restaurant, or bedroom), look for and list all patterns observed. These can range from patterns in the architecture or décor (e.g., rows of fluorescent lighting tubes, slats in air conditioning vents) to patterns in furnishings and their arrangements (e.g., desks lined up in rows, vertically arranged cabinet drawers). Next, organize the individual items in your master list into categories -- a “pattern of patterns.” For example:

* *decorative patterns*: those patterns that are purely ornamental or aesthetic, such as stripes on upholstery fabric, painted marbling on a wall
* *functional patterns*: those patterns that have a utilitarian purpose, such as four legs on a chair, three hinges connecting a door to its frame
* *organizational patterns*: those patterns that bring order to the environment or its artifacts, such as books of similar topics shelved together, various office supplies in appropriate bins
* *other types of patterns you construct*

Conduct the same exercise above in an outdoor/natural environment. However, create a different classification system for the individual patterns you observe (e.g., petals on a flower, leaves on a tree, clusters of cacti).

Next, list the patterns of actions in your own life you’ve experienced thus far today (e.g., not just what happened more than once today, but what series of actions happened today that were repeated from previous days). Formulate categories or themes to appropriately cluster and label these patterns (Saldaña, 2015, p. 45). Compare the patterns of your life with someone else’s.

# 5. T-Shirt Codes

This is a group exercise. Visit a clothing store, or have all members of a class wear a favorite t-shirt to a session. Address the following:

What is the t-shirt made of? Look at the label (if any) sewn into the garment. That label, with information on the fabric composition and country of manufacture, is like an *Attribute Code* for the clothing item’s contents. The label -- the code -- summarizes the entire t-shirt’s basic contents.

What size is the t-shirt? Again, look at the label (or better still, try it on). The symbols S, M, L, XL, XXL, XXXL are *Magnitude Codes*. The experience of trying it on yourself gives you a better understanding of what that size code actually means. These days, what passes for “medium” in one brand of clothing may be labeled “large” by another manufacturer’s line. If there is no label that specifies the t-shirt’s size, use observation and comparison with other t-shirts to assess its probable size.

What words and/or images (if any) are on the front and/or back of the t-shirt? Those words and images are both textual and nonverbal *In Vivo Codes* for the garment. Cluster together with others wearing similarly coded shirts (a form of *Focused Coding*) and discuss not only what the messages have in common but also what the people wearing them have in common. What you identify for each cluster or category of people might be called a *Pattern Code*, based on the collective values, attitudes, and beliefs of the wearers – a form of *Values Code*.

**6. Come, My Neighbor, If . . .**

This popular theatre game is intended to build community, but it also serves as an exercise that demonstrates inclusion and exclusion criteria – in other words, categorization.

All participants stand in an open area that permits simple walking movement. One person at a time moves to an unoccupied area of the room calls out, “Come, my neighbor, if,” followed by a prompt intended to learn who shares a similar quality. For example, if the prompt is, “Come, my neighbor, if you’ve ever taken a statistics course,” all those who meet that criterion walk to and join the person, while those who have not move away from the person. Prompts can be descriptive or values-laden but should not be too personal. Examples include:

* “Come, my neighbor, if you’ve attended a college in a different state or country.”
* “Come, my neighbor, if you love science fiction.”
* “Come, my neighbor, if you’re scared of the dark.”
* “Come, my neighbor, if you’ve ever stayed overnight in a hospital.”
* “Come, my neighbor, if you believe in the death penalty.”
* “Come, my neighbor, if you feel you trust others too much.”

After playing 15-20 prompts, group members discuss what they learned about each through the exercise, and how binary or dichotomous categorization can sometimes be problematic.

**7. Properties and Dimensions**

The purpose of this exercise is to explore grounded theory’s components of properties and dimensions. With peers, collect at least ten different fabric samples, swatches, or articles of clothing that are all the same general color (for example, all green) but vary in texture, saturation, pattern, and other design elements (for example, one article with green sequins, a swatch of green felt, a calico fabric with green motifs, and so on).

Lay the ten articles on a table and, with a small group, negotiate the arrangement of the items along several continua – for example, from the brightest tint to the darkest shade, from the roughest texture to the smoothest texture, from the most seemingly luxurious to the most seemingly homespun. Also explore the possible categorizations of the ten items – for example, a cluster of six that appear natural and a cluster of four that appear synthetic; or a cluster of three that suggest childhood, five that suggest maturity, and two that suggest elder status. Discuss the decision processes among the group that led to the results, and how the property of green has various dimensions.

Infer and interpret how each green fabric piece might symbolize different human personalities – for example, a dark green velvet as an upper class socialite, and a light green felt as a warm, nurturing parent. Discuss how their assigned attributes are comparable to the dynamics or range of human qualities, and how the variances play a role in grounded theory’s search for the properties and dimensions of data.

**8. The Spectrum of Difference**

The Spectrum of Difference is a popular theatre game which demonstrates how people’s attributes, preferences, opinions, and values, attitudes, and beliefs can be represented in three-dimensional space. The game serves as a way of simulating, diagnosing, and understanding how our research participants hold multiple perspectives on an issue. It also demonstrates how grounded theory’s properties and dimensions of categories operate.

Players imagine that a line the length of a typical room is drawn on the floor. A prompt is called out and participants walk to and stand on a place on the imaginary line that represents their position about a descriptive or values-laden issue. The imaginary line is a continuum and each endpoint represents opposite sides of the prompt. For example, the leader calls out,

“Are you a cat person *(pointing to one end of the imaginary line)* or a dog person *(pointing to the other end of the line)*, or do you like both equally or have no opinion *(pointing to the center)*? Or maybe you align yourself more toward the cat side or dog side but not completely at the far ends *(pointing toward the one-third and two-thirds areas)*. Go.”

Participants then move to and stand on the part of the line that they feel best represents their individual preferences for cats and/or dogs. They do not have to stand in single file; clusters around a point on the line are acceptable. The group diagnoses and discusses the results.

This same technique is repeated with a series of prompts prepared by the leader or offered by the participants. Prompts for the continuum can be realistic or metaphoric, and can focus on intrinsic, social, or thematic issues; a few examples include:

* Are you a morning person, or a night person?
* Are you a risk taker, or do you play it safe?
* Are you the wind, or the wings?
* What’s more important to you: questions or answers?
* “I’m pro-life,” or “I’m pro-choice.”
* “Protect our borders,” or “Tear down the fence.”

Prompts such as the latter two are examples of “hot button” issues that can generate fruitful discussion and reflection by the group if facilitated with care.

**9. The Landscape of Difference**

Aside from The Spectrum of Difference, there can also be The Landscape of Difference which places participants in two and three dimensional positions according to multiple criteria. For example, the leader can prompt, “What do you prefer: pie, or cake?” Players place themselves on the imaginary line in a continuum as they each see fit. But then the line becomes a landscape by prompting:

“From the general area where you’re standing, cake people: move to this side of the line if you’re into white cake, this side of the line if you’re into chocolate cake, and stay on the line if you’re into specialty cakes like marble, yellow, or red velvet. Pie people: from the general area where you’re standing, move to this side of the line if you’re into fruit pies, this side of the line if you’re into cream pies, and stay on the line if you’re into other pies like mincemeat or pecan.”

The landscape can become even more dimensional if you ask: “From where you’re standing, raise you hand high if you’d like a cold beverage with that dessert, or just a thumbs up if you’d prefer a hot beverage.”

The Landscape of Difference positioning techniques can now be applied to more complex or nuanced prompts for participants to explore. Explore only topics you and the group feel comfortable with. Discuss the individual and collective process and results after each set of prompts:

* First Dimension (on the line): “I know who I am,” or “I’m still searching for my identity”

Second Dimension (on either side of the line): “Other people have had more influence

on who I am,” or “I myself create who I am”

Third Dimension (hands up or thumbs up): “I’ve got a lot of work to do,” or “I’m OK for

now.”

* First Dimension: “Public Parking,” or “No Trespassing”

Second Dimension: “On the ground,” or “In the air”

Third Dimension: “Maybe,” or “Maybe not”

Advanced or willing groups can even explore a fourth dimension: movement in time. From the third dimension position, players can create a self-sculpted image, repeated gesture, or whole body movement that synthesizes and embodies the three-dimensions’ prompts. For a fifth dimension, players add repeated, evocative sounds or keywords to accompany their movement.

The Spectrum and Landscape of Difference are gaming diagnostics to assess the varying perspectives of the group, but they are also exercises to explore how qualitative data analysts can map out the properties and dimensions of data. After several rounds of play, the discussion can focus on how we interpret and write about these diverse positions and clusters of meaning in our reports. Discussion can also focus on how these three-dimensional displays can transfer into drawn displays on paper or as graphics with computing software.

**10. Grounded Theory Carnival**

This is a group exercise. “Carnival in Rio” (also known as “Homogenous Rhythms”), a game developed by theatre artist Augusto Boal, is a movement and sound exercise that, serendipitously, parallels the processes for developing grounded theory (GT). I facilitate the game in my research methods workshops to demonstrate how GT “works.”

A large group of people first divides into smaller groups of three. Each of the individual small group members creates a simple gesture (such as a hand wave or head tilt) that can be replicated and repeated easily by the other two in the small group, accompanied with a nonsensical sound (such as “beep” or “woop”) that others can imitate. Then, the other two small group members each offer their own unique gesture/sound combinations to their partners for replication and repetition. *(Analogy: Think of each person in the small group as a datum; their unique gestures are process codes, and their unique sounds in vivo codes. The preliminary sharing is a form of initial or open coding.)*

After each small group member shares a gesture and sound, they then *simultaneously* enact their unique sounds and gestures *repeatedly*. Through the processes of individual negotiation and non-verbal communication, the small group of three “morphs” or synthesizes their individual gestures and sounds so that all three evolve toward making the exact same gesture and sound repeatedly. The final small group sequence might consist of one person’s gesture combined with another person’s sound, or a new composite movement that integrates two gestures with one person’s sound, and so on. *(Analogy: Think of the process above as focused coding to develop an initial category. Whatever thoughts run through an individual’s mind is an analytic memo.)*

Each small group of three, now enacting its newly collective gesture and sound, joins another group of three doing its own unique gesture and sound. The process of morphing/synthesizing continues so that ever-increasing groups of six, nine, twelve, and so on, evolve into more and more people gesturing and sounding the exact same way. Sometimes one gesture will dominate because it is easy to replicate; perhaps a sound will dominate because it is the loudest; perhaps a particular gesture/sound combination will dominate simply because most group members are doing it and the minority acquiesces to the majority; or a whimsical gesture/sound combination will prevail because its qualities appeal to the group. *(Analogy: Think of the processes above as GT’s axial and selective coding.)*

The whole group eventually assembles standing in a circle as all participants continue to evolve their gestures and sounds. The goal or culminating product (ideally) is everyone making the exact same gesture and sound. *(Analogy: The process above represents theoretical coding, resulting in the central/core category.)*

The group stops and reflects on the process. I clarify how each stage of game playing simulates the analytic stages of GT. We share our thought processes (the analytic memos) as we played to discover how we arrived at our “core category” and what the final gesture/sound combination might mean -- our grounded theory. (Birks & Mills, 2015, pp. 122-3)

**References**

Birks, M., & Mills, J. (2015). *Grounded theory: A practical guide* (2nd ed.)*.* London: Sage.

Saldaña, J. (2015). *Thinking qualitatively: Methods of mind.* Thousand Oaks, CA: Sage.