

IQRT: An Introduction to Qualitative Data Analysis

Johnny Saldaña

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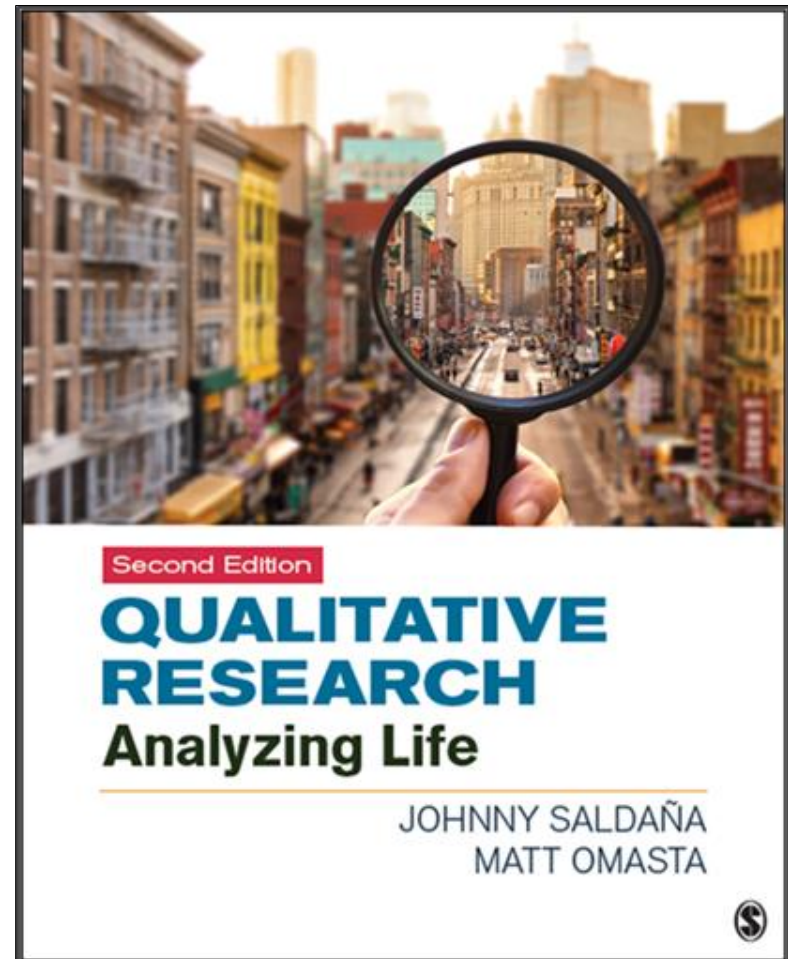
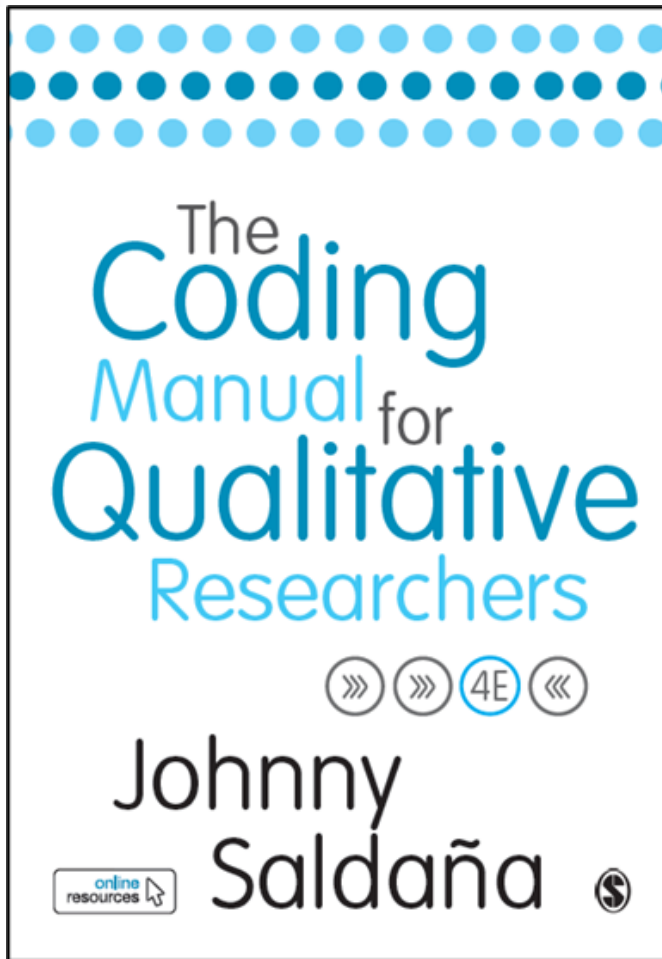
Workshop Goals

The purpose of this four hour workshop (in two parts) is to survey how narrative data can be inductively analyzed through different methods from the canon of qualitative inquiry heuristics:

- Codes and Categories
- Thematic Analysis
- Assertion Development

The workshop is targeted to graduate students and novices to qualitative research. Qualitative research instructors may also find utility with the workshop to experience new pedagogical methods with their students.

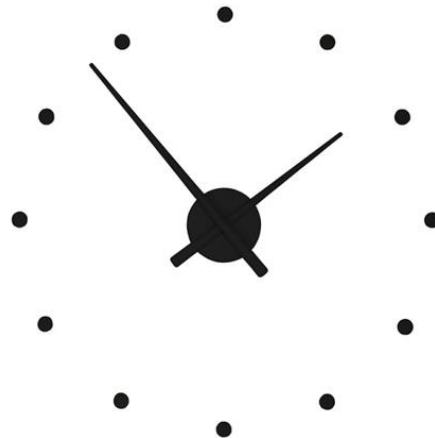
Workshop Resources





Workshop Schedule

- Tuesday, May 24 & Friday, May 27, 2022
- 8:00 a.m. - 10:00 a.m. PDT/USA
- 5-minute breaks every hour





Workshop Materials to Have Available

- A hard copy printout of the “IQRT Intro to QDA Workbook” (or the file in Word or PDF format with editing, comment, and drawing capabilities)
- 1-2 pencils and 1-2 pens
- Ear buds or speakers; microphone (optional)
- Webcam (optional)
- Personal refreshments (water, snacks, etc.)



Understandings

- Participants in this workshop represent a wide range of fields and years of expertise.
- The workshop assumes a beginner's knowledge of qualitative research, but introduces qualitative data analytic methods.
- If you've attended my previous workshops, there may be some repetition of core contents.
- Use Zoom's Chat box for questions and prompted responses to exercises and activities.
- You will receive a full PDF set of these PPT slides after the workshop.

A Teaching Philosophy and Learning Principle

"Before you can think outside of the box, you have to start with a box." (Twyla Tharp)





Part 1

A Survey of Qualitative Data Analysis Terms



Analysis

Analysis is the reconfiguration of data into new formulations of meaning as key ideas related to a specific line of inquiry. Qualitative analysis is an active process with one's mind and body to find patterns in primarily non-numeric data and to articulate their interrelationships.



The \$100,000 Pyramid

- For each subject (**category** or **theme**), one player gives her partner a list of clues (**codes**).
- From the list of clues (**codes**), the other player must determine what they have in common (their **pattern**) and deduce the subject (**category** or **theme**) with an answer (**assertion**).
- The clues (**codes**) cannot contain any words in the subject (**category** or **theme**) or be overtly descriptive.
- The round (**qualitative data analysis**) must be completed in 60 seconds; the first round is for \$50,000





Terminology

- **Code** - a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data
- **Pattern** - repetitive, regular, or consistent occurrences of action/data
- **Category** - a word or phrase labeling a grouped pattern of codes
- **Theme** - an extended phrase or sentence that organizes and identifies what a group of repeating ideas is about and/or what it means
- **Assertion** - a summative or interpretive statement/claim based on evidence



An Analogy

- Just as quantitative measures/statistics are numeric, symbolic summaries of meaning (e.g., 87%, 9 out of 10, 63 years old), qualitative codes are *language-based*, symbolic summaries of textual or visual data.
- Qualitative coding generally uses words and phrases, rather than numbers, to summarize and symbolize the data's meanings as interpreted by the analyst.



Codes and Coding

- A code in qualitative inquiry is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data
- Coding is not a precise science; it's primarily an interpretive act.
- Coding is just *one* way of analyzing qualitative data, not *the* way.



Coding Example

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

¹ SECURITY



Coding Examples

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

¹ SENSE OF SELF-WORTH

² STABILITY

³ "COMFORTABLE"



Coding Filters

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

¹ "NO PLACE"

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

¹ IMMIGRATION ISSUES

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

¹ XENOPHOBIA



Goals of Coding

- to reflect deeply on the meaning of each qualitative datum
- to *condense* (not "reduce") the data
- to find and construct patterns in the data
- to develop categories, concepts, themes, assertions, and other analytic findings
- Coding "generates the bones of your analysis. . . . Integration will assemble those bones into a working skeleton" (Kathy Charmaz). The spine of that skeleton is its core category, key assertion, primary theme, theory, and so on.



Categories and Categorizing

- Categories are composed of codes that "look alike" and "feel alike" (Lincoln & Guba).
- Categories embody and label the patterns you've found and constructed from QDA.
- A category label, like a code, is a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute of the data.



US STATE FLAGS



Alabama



Alaska



Arizona



Arkansas



California



Colorado



Connecticut



Delaware



Florida



Georgia



Hawaii



Idaho



Illinois



Indiana



Iowa



Kansas



Kentucky



Louisiana



Maine



Maryland



Massachusetts



Michigan



Minnesota



Mississippi



Missouri



Montana



Nebraska



Nevada



New Hampshire



New Jersey



New Mexico



New York



North Carolina



North Dakota



Ohio



Oklahoma



Oregon



Pennsylvania



Rhode Island



South Carolina



South Dakota



Tennessee



Texas



Utah



Vermont



Virginia



Washington



West Virginia



Wisconsin



Wyoming





Code and Category Examples

Category: Physical Oppression

Code: PUSHING

Code: FIGHTING

Code: SCRATCHING

Category: Verbal Oppression

Code: NAME-CALLING

Code: THREATENING

Code: LAUGHING AT



Recoding and Recategorizing

- Rarely will anyone get coding right the first time.
- As you code and recode, expect your codes and categories to become more refined, conceptual, and abstract.
- Some of your first cycle codes may be subsumed by other codes, relabeled, or dropped all together.
- QDA is like "decorating a room; you try it, step back, move a few things, step back again, try a serious reorganization, and so on" (Andrew Abbott).

QDA is Like Decorating a Room...



QDA is Like Decorating a Room...



QDA is Like Decorating a Room...



QDA is Like Decorating a Room...





Recoding and Recategorizing Example

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

Code: FIGHTING

Subcode: SCRATCHING

Subcode: PUSHING

Subcode: PUNCHING

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

Code: PUTTING DOWN

Subcode: NAME-CALLING

Subcode: TEASING

Subcode: TRASH TALKING



The Difference Between a Category and a Theme

Think of a **category** as a word or phrase describing some segment of your data that is explicit, whereas a **theme** is an extended phrase or sentence describing more subtle and tacit processes or meanings.

Category: SECURITY

Theme: DENIAL MEANS A FALSE SENSE
OF SECURITY







The Differences (and Similarities) Between Themes and Assertions

THEMES

- The kitchen as the "soul" of the home
- Kitchens as communal spaces
- Moments of "family time" occur in the kitchen.

ASSERTIONS

- Moments of "family time" occur in the kitchen.
- Kitchens are historic sites of memory and legacy, where family recipes passed down from previous generations are replicated.

Pattern

Ah yes, *The Phantom of the Opera* – the musical about a Frenchman who's deformed and tries to find true love. Not to be confused with *Beauty and the Beast* – the musical about a Frenchman who's deformed and tries to find true love. Or *The Hunchback of Notre Dame* – the musical about a Frenchman who's deformed and tries to find true lo-.... Hey, wait a minute....

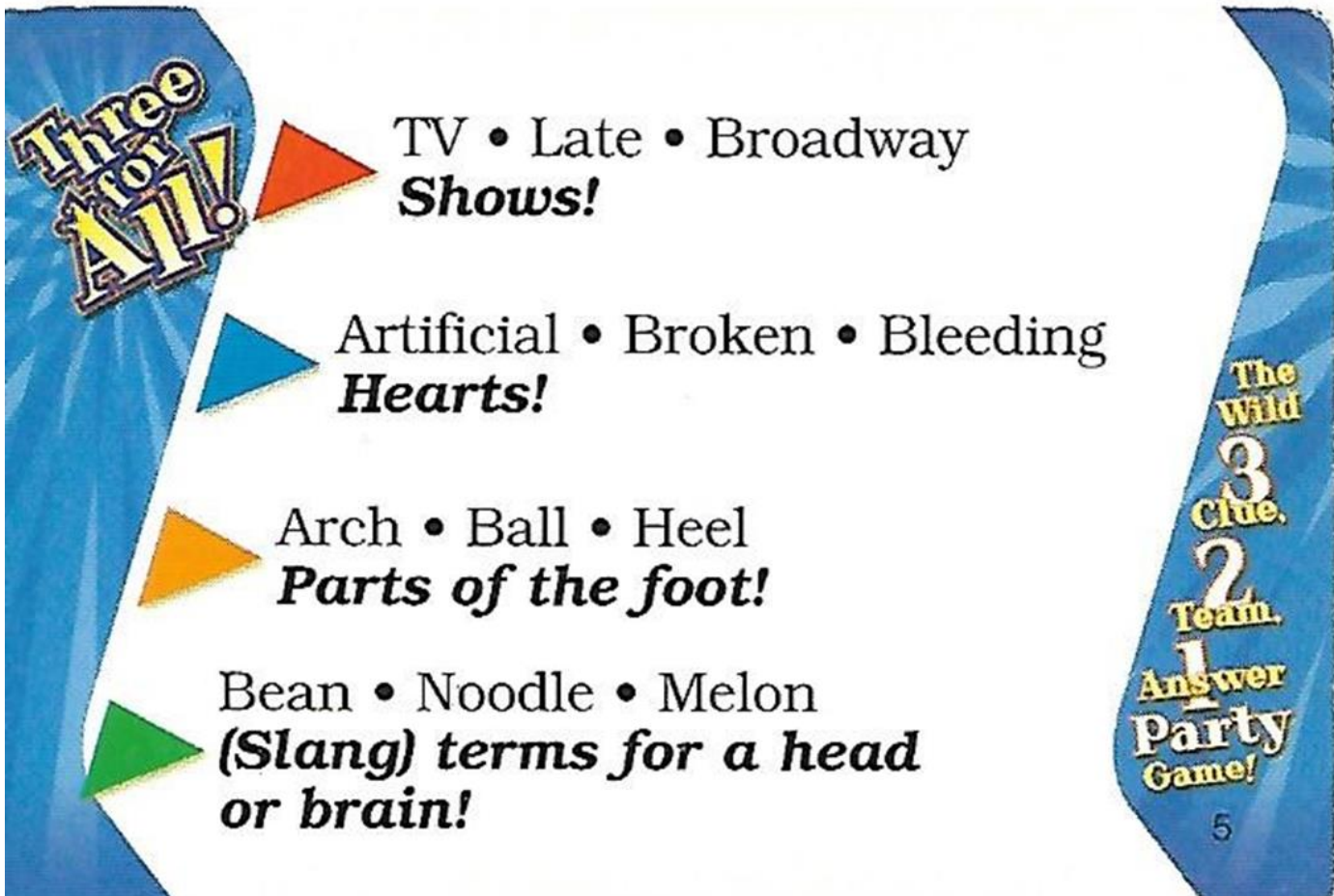




Three for All!

- A game that simulates the coding, patterning, categorizing, and analytic processes
 - Ice
 - Butter
 - Candle
 - Things that melt

Three for All!





Three for All! - Clues

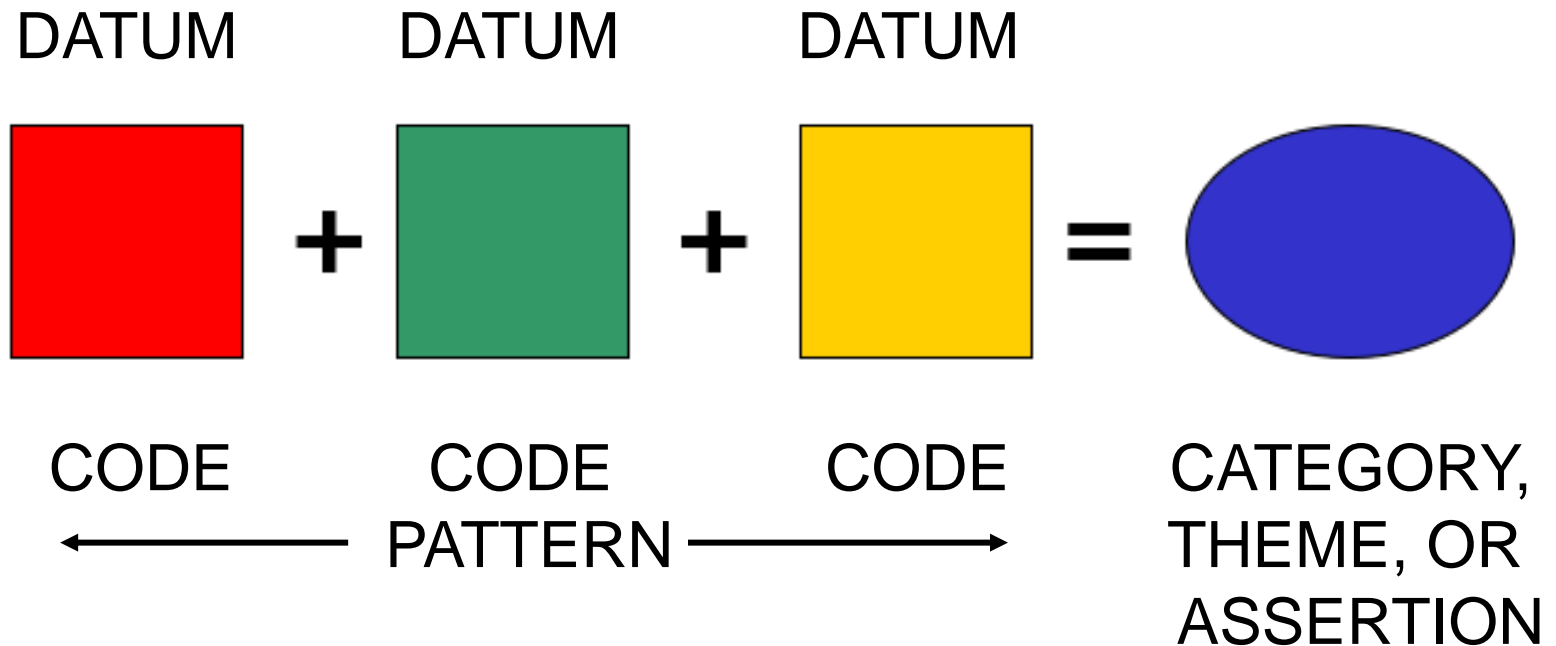
- "You put two, sometimes four slices of bread in this thing and push the handle down to make the bread hot and crispy."
- "You put liquids and stuff in this thing and then push a button and it swirls fast and mixes everything up."
- "You put brown ground stuff and water in this thing and it heats up and it creates a hot beverage."



Three for All! - Answers

- Toaster
- Blender
- Coffee Maker
- Small kitchen appliances

Three for All!





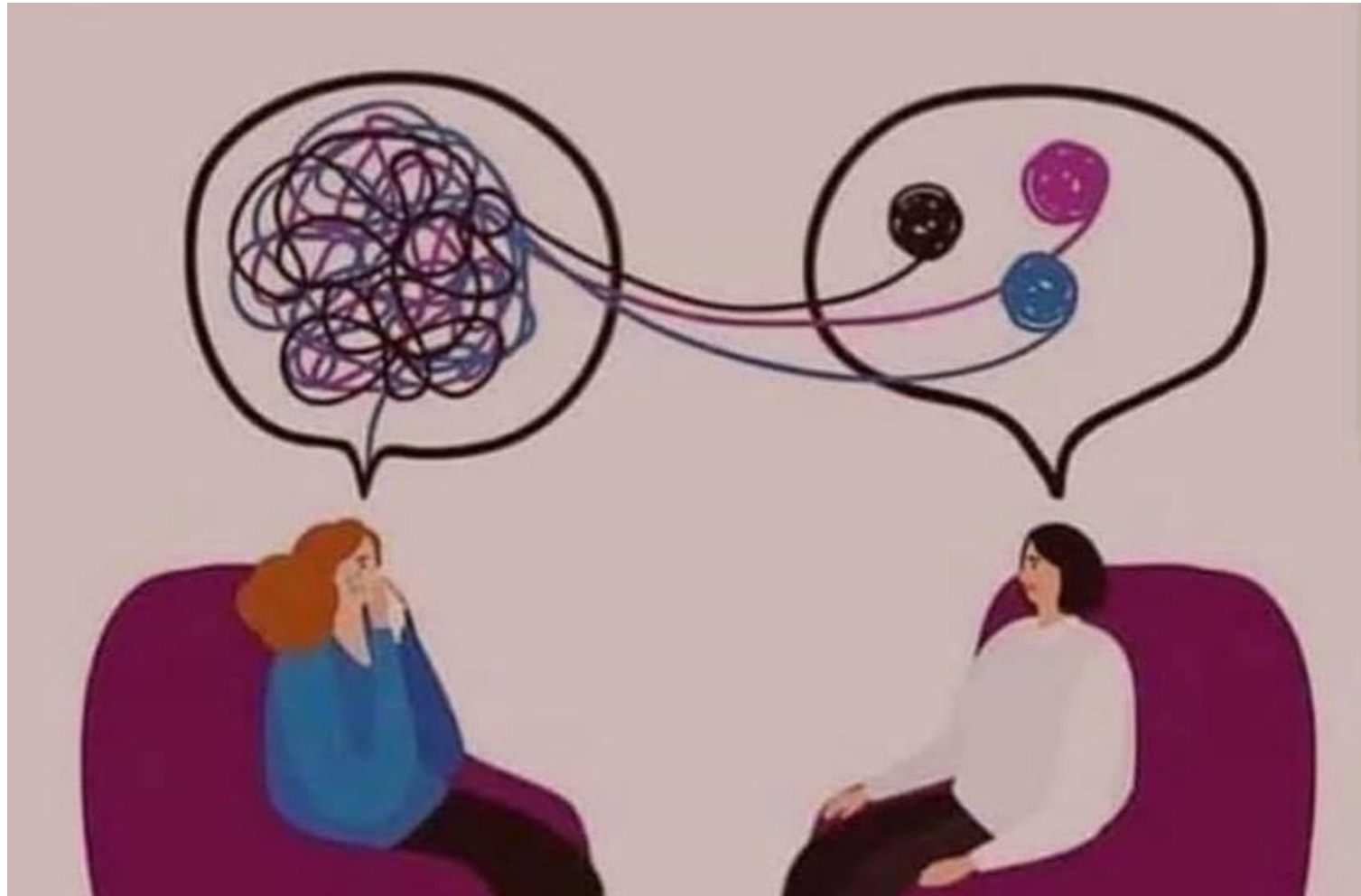
Three for All!

Thinking Processes

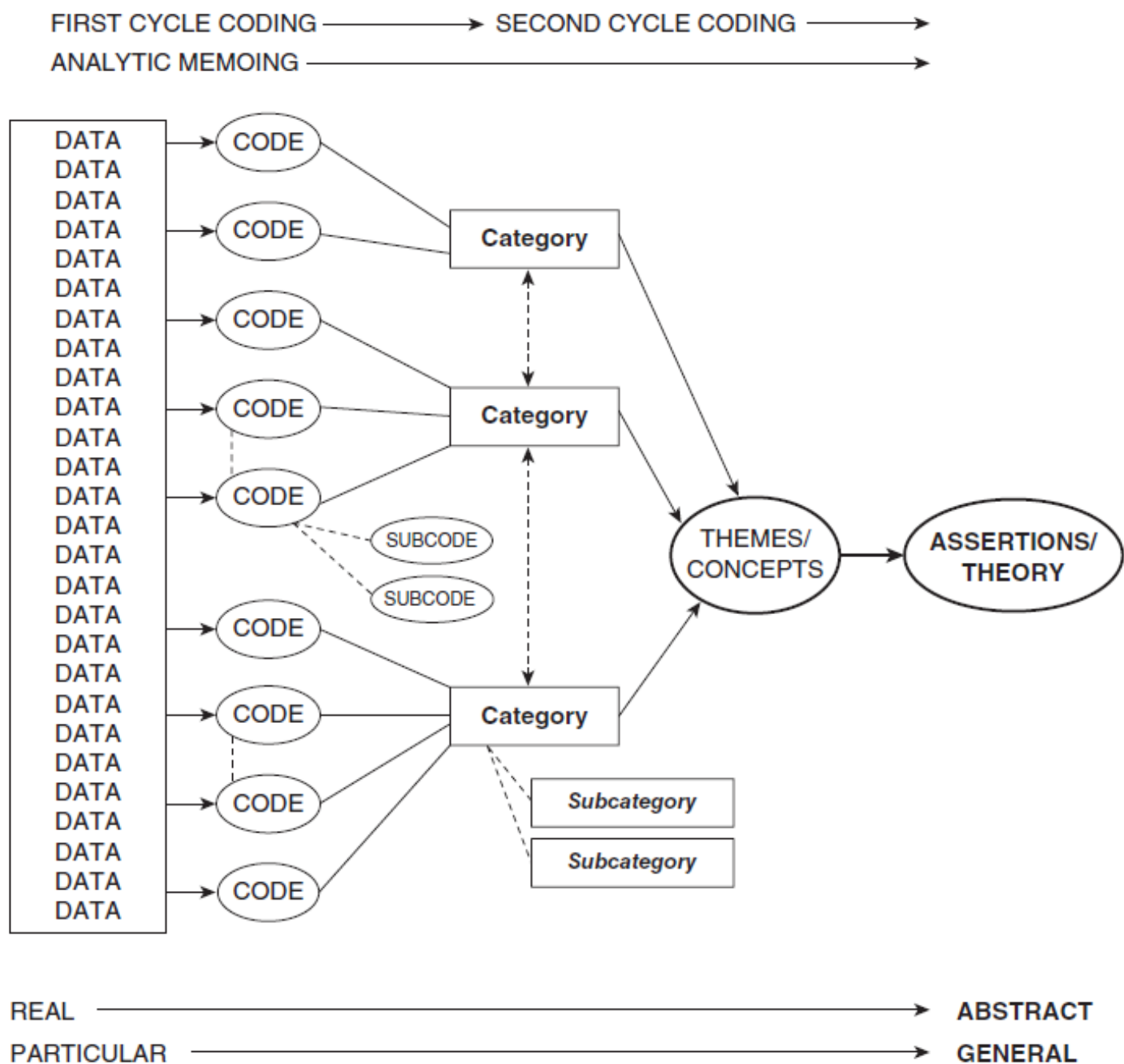
- **Inductively** formulate the "code" from the clue (i.e., the datum and its symbolic meaning)
- **Substructively** examine each "code" on its own separate meaning (i.e., constituent analysis)
- **Retroductively** reflect on all the information given (i.e., the data corpus and "codes")
- **Abductively** explore the possibilities of what all three "codes" may have in common (i.e., the pattern) and offer the best/most likely commonality
- **Deductively** conclude what the three "codes" have in common (i.e., synthesis to derive the category)

The Interviewee

The Interviewer



Data —————> **Data Analyst**



FIRST CYCLE CODING

DATA



CODES

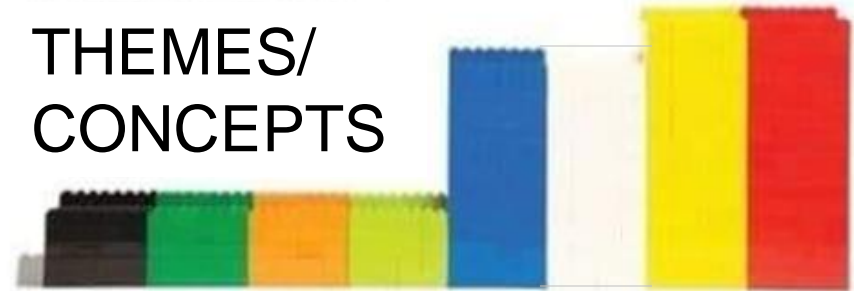


CATEGORIES



SECOND CYCLE CODING

THEMES/
CONCEPTS



ASSERTIONS/
THEORY



**Qualitative
data
analysis
is like
solving a
Rubik's
Cube...**



@itsmax43ajor



Remember....

- Coding *is* analysis.
- Codes are *symbol systems* of condensed meaning for later purposes of pattern detection.
- Just as quantitative researchers collect individual scores to calculate the mean and standard deviation, qualitative researchers develop then cluster comparable individual codes to construct patterns, categories, themes, assertions, or other analytic outcomes, and to assess their variability.



Part 2

Writing Analytic Memos



Thinking About Data and Codes

"Good research is not about good methods as much as it is about good thinking." (Robert Stake)



Analytic Memos

- There is a reciprocal relationship between the development of a coding system and the evolution of understanding a phenomenon.
- Codes are prompts or triggers for writing about the deeper meanings they evoke.
- Memos are "intellectual workspace," sites of conversation with ourselves about our data.
- Writing is thinking; it documents our analytic reflections about the data.



Reflect on and write about...

1. a descriptive summary of the data
2. how you personally relate to the participants and/or the phenomenon
3. the participants' actions, reactions, and interactions
4. the participants' routines, rituals, rules, roles, and relationships
5. what you find intriguing, surprising, or disturbing
6. your code choices and their operational definitions
7. emergent patterns, categories, themes, concepts, assertions, and propositions



Reflect on and write about...

8. the possible networks (links, connections, overlaps, flows) among the codes, patterns, categories, themes, concepts, assertions, and propositions
9. an emergent or related existent theory
10. any problems with the study
11. any personal or ethical dilemmas with the study
12. future directions for the study
13. synthesizing the analytic memos generated thus far (metamemos)
14. tentative answers to your study's research questions
15. passage drafts for the final report for the study



Analytic Memo Example: The Data and Codes

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

¹ MIDDLE-SCHOOL
HELL

² TEACHER'S PET

³ BAD INFLUENCES

⁴ TWEEN ANGST

⁵ THE LOST BOY



Analytic Memo Example

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

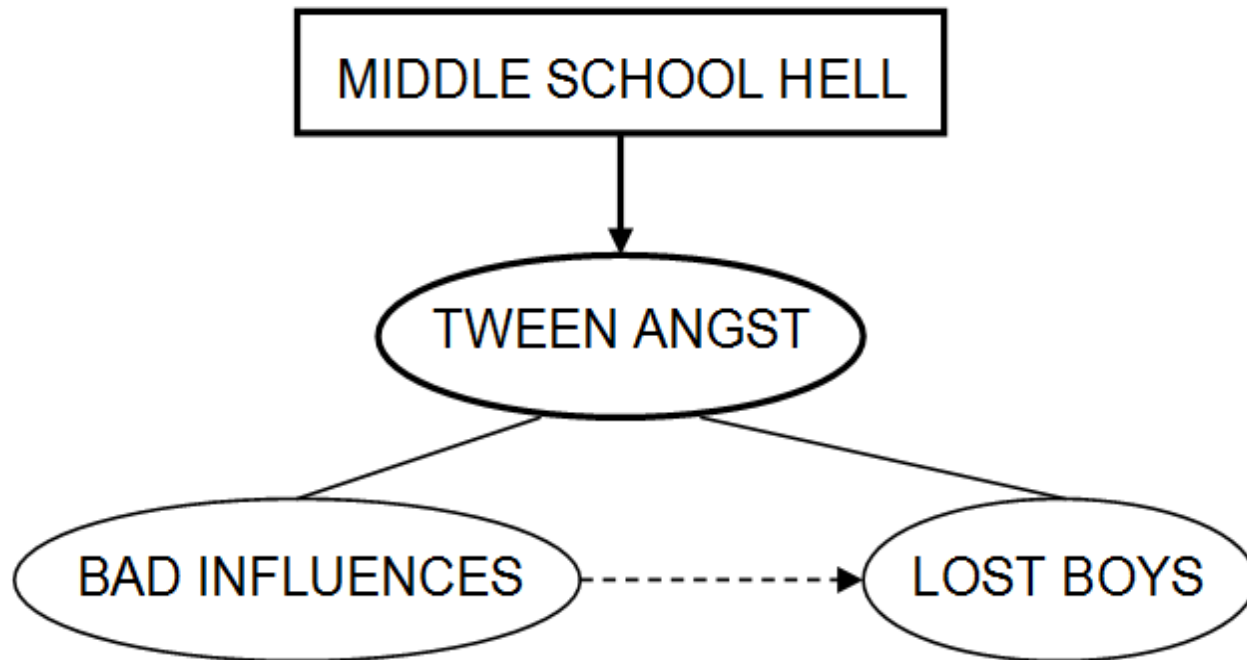
November 14, 2011

EMERGENT PATTERNS, CATEGORIES, THEMES, CONCEPTS,
PROPOSITIONS, AND ASSERTIONS: MIDDLE SCHOOL HELL

MIDDLE SCHOOL HELL seems to be an umbrella code for TWEEN ANGST and THE LOST BOY. Barry says in another interview that those years were a "DEAD PERIOD" for him -- an evocative In Vivo Code. But I think I focus on the particular by using MIDDLE SCHOOL HELL to represent many students within that age range.

However, don't discount "DEAD PERIOD" as a major theme or concept at this time. As I continue analysis, that code may be more conceptual than I think at this point in the study. Something in me doesn't want to let it go. A "DEAD PERIOD" can occur during any portion of a person's life, while TWEEN ANGST is limited to a specific age range.

Analytic Memo Example: Diagramming





Analytic Memo Writing

- Select a "moment(s)" from the scene, describe it (preferably with quotes), and expand on its significance or meaning in an analytic memo:
 - Research Question: In what ways are naturalistic courtroom actions comparable to drama/theatre/performance?
 - Recommended analytic memo prompts:
 1. what you find intriguing, surprising, or disturbing
 2. tentative answers to your study's research questions

A Scene from *Judge Judy*





Analytic Memo Writing

- Select a "moment(s)" from the scene, describe it (preferably with quotes), and expand on its significance or meaning in an analytic memo:
 - Research Question: In what ways are naturalistic courtroom actions comparable to drama/theatre/performance?
 - Recommended analytic memo prompts:
 1. what you find intriguing, surprising, or disturbing
 2. tentative answers to your study's research questions

In the Chat Box:

"Shop talk" about the scene from *Judge Judy*.
Share some analytic memo jottings.





Remember....

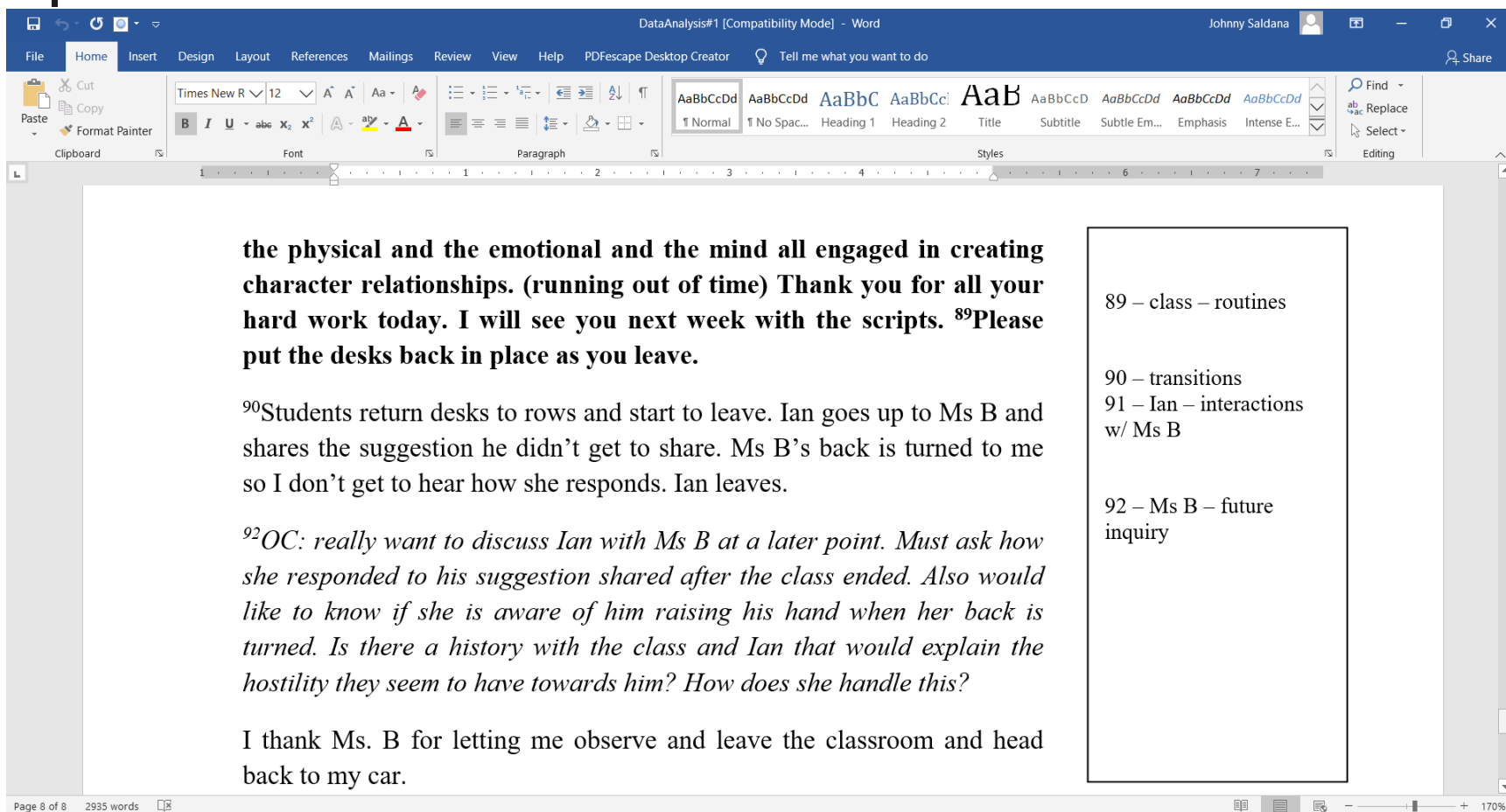
- "Good research is not about good methods as much as it is about good thinking."
- Codes are prompts or triggers for writing about the deeper meanings they evoke.
- Memos are "intellectual workspace," sites of conversation with ourselves about our data.
- Writing is thinking; it documents our analytic reflections about the data.



Part 3

Fundamentals of Coding and In Vivo Coding

Coding Software: Word



the physical and the emotional and the mind all engaged in creating character relationships. (running out of time) Thank you for all your hard work today. I will see you next week with the scripts. ⁸⁹Please put the desks back in place as you leave.

⁹⁰Students return desks to rows and start to leave. Ian goes up to Ms B and shares the suggestion he didn't get to share. Ms B's back is turned to me so I don't get to hear how she responds. Ian leaves.

⁹²*OC: really want to discuss Ian with Ms B at a later point. Must ask how she responded to his suggestion shared after the class ended. Also would like to know if she is aware of him raising his hand when her back is turned. Is there a history with the class and Ian that would explain the hostility they seem to have towards him? How does she handle this?*

I thank Ms. B for letting me observe and leave the classroom and head back to my car.

89 – class – routines

90 – transitions

91 – Ian – interactions
w/ Ms B

92 – Ms B – future
inquiry

Page 8 of 8 2935 words

Coding Software: Excel

DATA BASE - LIFELONG IMPACT [Compatibility Mode] - Excel

Johnny Saldana

File Home Insert Page Layout Formulas Data Review View Help PDFescape Desktop Creator Tell me what you want to do

Clipboard Font Alignment Number Conditional Formatting Styles Cells Editing

M203 Self confidence.

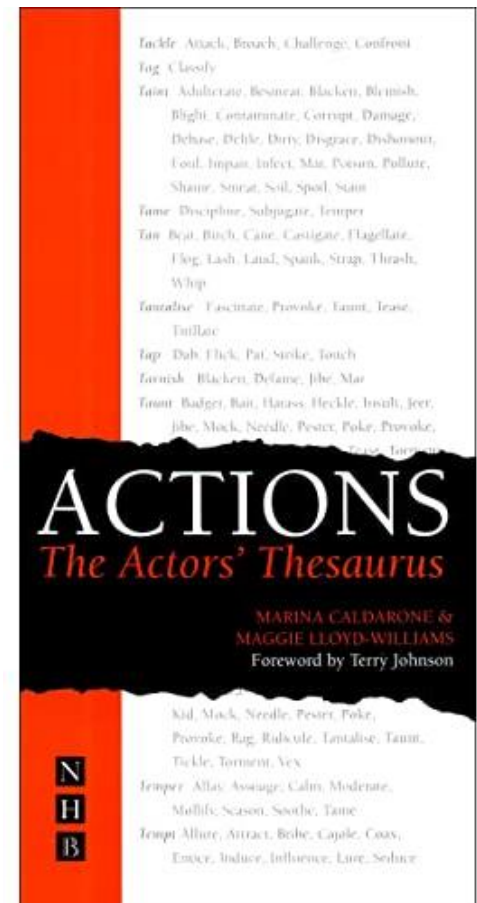
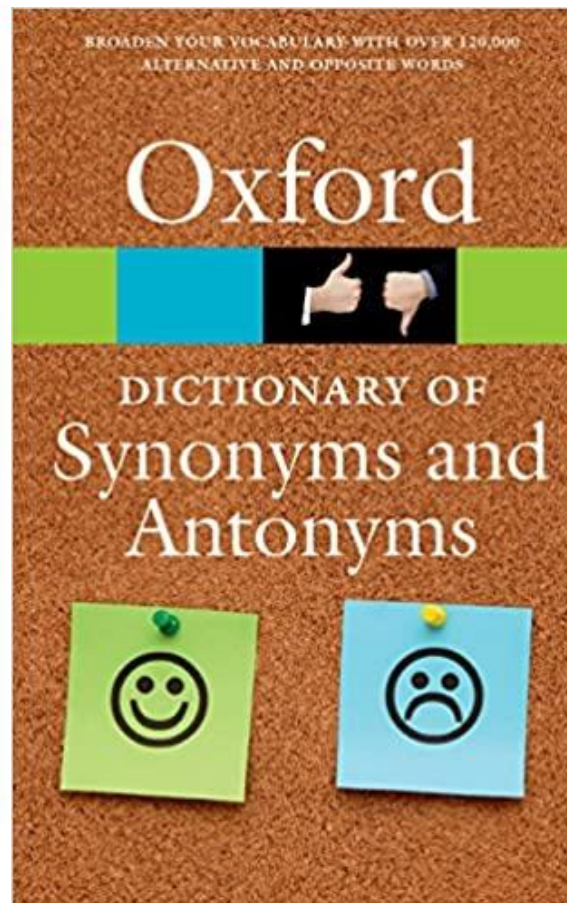
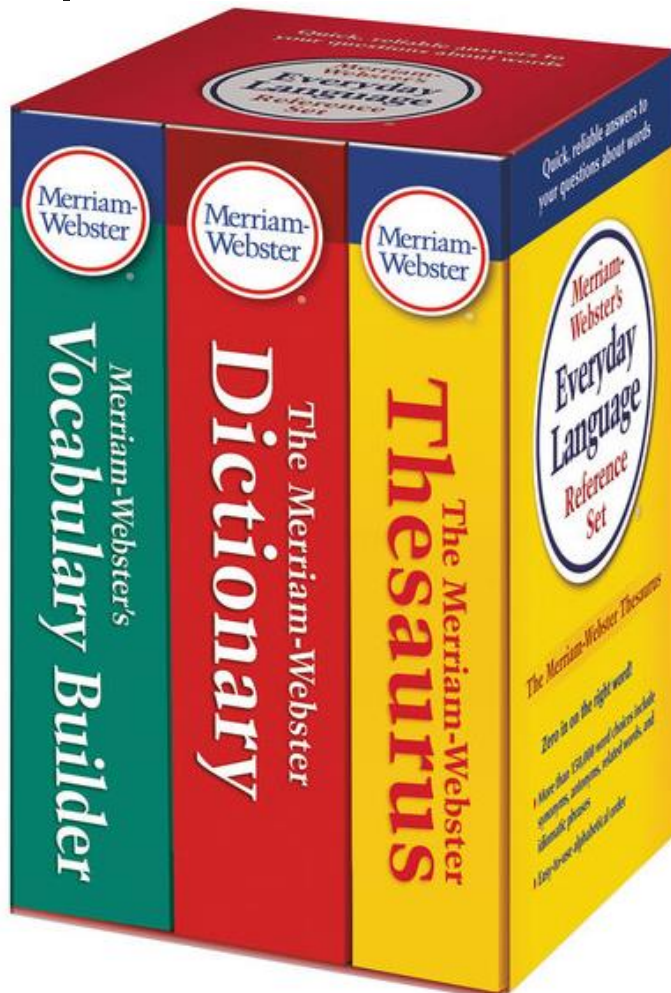
	M	N	O	P	Q	R	S
1	6. COMMENTS: BIGGEST CHALLENGE	7. I HAVE GOOD MEMORIES	7. COMMENTS: FONDEST MEMORIES, WHY SELECTED	8. AFFECTED ME AS AN ADULT	8. COMMENTS: IN WHAT WAYS?	9. LEARNED ABOUT PEOPLE THROUGH CHARACTERS AND WORKING WITH OTHERS	10. ADVICE TO S/T TEACHER
203	Self confidence.	4	Friends I made and roles I played—very memorable. I was able to play such a variety of characters because of my directors excellent taste in dramatic literature.	4	I wouldn't be a high school drama teacher! I wouldn't be the leader I am today. I wouldn't have the self confidence I have today.	4	Choose good scripts but positive. don't do it—it's time for parental and tech very small scale stuff too much—less it heart. Admit when learn from your mistakes the kids but have a GOOD SCRIPTS, T LOVE JOB, PAREN SMALL SCALE SH MISTAKES, CONNE ESTABLISH BOUN
204	SELF-CONFIDENCE	4	FRIENDSHIPS, GOOD DRAMATIC LITERATURE/ROLES	4	OCCUPATIONAL CHOICE, LEADERSHIP SKILLS, SELF-CONFIDENCE	4	LISTENING TO OTHERS, APPRECIATING DIFFERENCES
205	I was able to use my "odd" talents in a way that the community perceived to be important ("on stage" means value in my small town)	4	We, the students, did most of the work ourselves. Pulling productions together made us a tight-knit group and we learned a lot about theatre on our own/through this process.	4	I learned a lot about an art form while I was young enough to pursue a career in it (theatre). Looking back, I would have likely ended up as a factory worker or a graphic designer and living in the same small town. Theatre encouraged me to take risks and to perform a wide variety of tasks... contributing to my courage and success as an adult.	2	Theatre seems to be students arrive for a have the opportunity adults how theatre is everyday lives, and it can be applied to all a teacher is trying because you love you'll make a great

Gender Query Queries Generations Query Analysis Sheet Member Check & How-Why MASTER DATA BASE W ...

Select destination and press ENTER or choose Paste

96%

Coding: Essential References





The Mechanics of Coding

Format/parse data in "stanzas" or units with margin space for codes and jottings:

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

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

P: A teaching job at a university someplace.

[I: Any particular part of the country?]

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



The Mechanics of Coding

Precode and make preliminary jottings as you're formatting the data:

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

STUDENT DEBT
(or ANXIETY?)



Coding as a "Lumper"

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

¹ "A LOT TO LEARN"



Coding as a "Splitter"

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

¹ "REALITY"

² "I THOUGHT I
WAS SO READY"

³ "UNIQUE
SITUATION"

⁴ "INNER CITY
SCHOOLS"

⁵ "I REALLY HAD
TO LEARN"

⁶ "THE CULTURE"

⁷ "A LOT TO
LEARN"

In Vivo Coding

[*in vivo* is Latin for “in that which is alive”]





In Vivo Coding

Uses words or short phrases from the participant's own language in the data record as codes. May include folk or indigenous terms of a particular culture, subculture, or microculture to suggest the existence of the group's cultural categories. Appropriate for virtually all qualitative studies, but particularly for beginning researchers learning how to code data, and studies that prioritize and honor the participant's voice. In Vivo Codes are placed in quotation marks. Examples: "HATED SCHOOL", "STOPPED CARING".



In Vivo Coding Example

¹ I 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.

¹ "HATED SCHOOL"
² "FRESHMAN YEAR AWFUL"
³ "THIS YEAR'S BETTER"

⁴ "DON'T KNOW WHY"

⁵ "STOPPED CARING"

⁶ "HARD TO EXPLAIN"



In Vivo Coding: Listing the Codes

- "HATED SCHOOL"
- "FRESHMAN YEAR AWFUL"
- "THIS YEAR'S BETTER"
- "DON'T KNOW WHY"
- "STOPPED CARING"
- "HARD TO EXPLAIN"
- "FOUND STUFF OUT"
- "WASN'T TRYING SO HARD"
- "HAVE PEOPLE LIKE ME"
- "WHAT OTHER PEOPLE WANTED"
- "LIKED ME MORE"
- "KIND OF STRANGE"
- "TRYING TO PLEASE THEM"
- "WASN'T TRYING AS HARD"
- "FRIENDS GOT CLOSER"
- "TRIED TO KNOW ME"
- "I DON'T KNOW"



In Vivo Coding: Alphabetizing the Codes

- "DON'T KNOW WHY"
- "FOUND STUFF OUT"
- "FRESHMAN YEAR AWFUL"
- "FRIENDS GOT CLOSER"
- "HARD TO EXPLAIN"
- "HATED SCHOOL"
- "HAVE PEOPLE LIKE ME"
- "I DON'T KNOW"
- "KIND OF STRANGE"
- "LIKED ME MORE"
- "STOPPED CARING"
- "THIS YEAR'S BETTER"
- "TRIED TO KNOW ME"
- "TRYING TO PLEASE THEM"
- "WASN'T TRYING AS HARD"
- "WASN'T TRYING SO HARD"
- "WHAT OTHER PEOPLE WANTED"



In Vivo Coding: Outlining the Codes

- "DON'T KNOW WHY"
- "FOUND STUFF OUT"
- "FRESHMAN YEAR AWFUL"
- "FRIENDS GOT CLOSER"
- "HARD TO EXPLAIN"
- "HATED SCHOOL"
- "HAVE PEOPLE LIKE ME"
- "I DON'T KNOW"
- "KIND OF STRANGE"
- "LIKED ME MORE"
- "STOPPED CARING"
- "THIS YEAR'S BETTER"
- "TRIED TO KNOW ME"
- "TRYING TO PLEASE THEM"
- "WASN'T TRYING AS HARD"
- "WASN'T TRYING SO HARD"
- "WHAT OTHER PEOPLE WANTED"

I. "HATED SCHOOL"

- A. "FRESHMAN YEAR AWFUL"

II. "STOPPED CARING"

- A. "WHAT OTHER PEOPLE WANTED"
 - 1. "HAVE PEOPLE LIKE ME"
 - 2. "TRYING TO PLEASE THEM"
- B. "FOUND STUFF OUT"
 - 1. "WASN'T TRYING SO HARD"
 - 2. "WASN'T TRYING AS HARD"

III. "THIS YEAR'S BETTER"

- A. "FRIENDS GOT CLOSER"
- B. "LIKED ME MORE"
- C. "TRIED TO KNOW ME"

IV. "DON'T KNOW WHY"

- A. "I DON'T KNOW"
- B. "KIND OF STRANGE"
- C. "HARD TO EXPLAIN"



In Vivo Coding Exercise

- See Workbook: Interview Data with Sam
- Research Question: How do people with depression problem-solve?
- 1st Cycle: In Vivo Codes (twice)
- In Vivo Codes with Stanzas
- Alphabetize, Cluster (Categorize), then Outline the In Vivo Codes

I. **"HATED SCHOOL"**
A. "FRESHMAN YEAR AWFUL"

II. **"STOPPED CARING"**
A. "WHAT OTHER PEOPLE WANTED"
1. "HAVE PEOPLE LIKE ME"
2. "TRYING TO PLEASE THEM"
B. "FOUND STUFF OUT"
1. "WASN'T TRYING SO HARD"
2. "WASN'T TRYING AS HARD"

III. **"THIS YEAR'S BETTER"**
A. "FRIENDS GOT CLOSER"
B. "LIKED ME MORE"
C. "TRIED TO KNOW ME"

IV. **"DON'T KNOW WHY"**
A. "I DON'T KNOW"
B. "KIND OF STRANGE"
C. "HARD TO EXPLAIN"

SAM: And, there's, and then there's the fears that I constantly face like, within myself, and I think that contributed to my depression. I notice that when, like this HOA [Home Owner's Association] thing and I think, I thought it was perfect that it was coming up. I hate the HOA. And I was, I don't know why I was having such anxiety over this meeting, 'cause once I had the meeting, it wasn't a big deal. But like, there are certain people that I thought were going to be there, and that weren't there, that I was like, I don't wanna deal with these assholes, right? So, that, and that, and I was paying attention to what was happening, having anxiety this past week and it was going, it was going right to my gut. And, I'm like, we'll that's not good for me. What am I doing to myself? But like, I can intellectualize it. But it's, but until I, like either do meditation or just like breathe and just get it through my system or just face it, which is what I did today, I, that's why I went to the meeting, um, until you face that fear, you can't, it's almost impossible to get rid of it. Because once you face your vulnerability, that's when, that's when you empower yourself. But, most people are used to running away from their vulnerabilities. Does that make sense?

SAM: And, there's, and then there's the fears that I constantly face like, within myself, and I think that contributed to my depression.

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But like, there are certain people that I thought were going to be there, and that weren't there, that I was like, I don't wanna deal with these assholes, right? So, that, and that, and I was paying attention to what was happening, having anxiety this past week and it was going, it was going right to my gut. And, I'm like, we'll that's not good for me. What am I doing to myself? But like, I can intellectualize it.

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But, most people are used to running away from their vulnerabilities. Does that make sense?



In Vivo Coding Exercise

- See Workbook: Interview Data with Sam
- Research Question: How do people with depression problem-solve?
- 1st Cycle: In Vivo Codes (twice)
- In Vivo Codes with Stanzas
- Alphabetize, Cluster (Categorize), then Outline the In Vivo Codes

I. "HATED SCHOOL"
A. "FRESHMAN YEAR AWFUL"

II. "STOPPED CARING"
A. "WHAT OTHER PEOPLE WANTED"
1. "HAVE PEOPLE LIKE ME"
2. "TRYING TO PLEASE THEM"
B. "FOUND STUFF OUT"
1. "WASN'T TRYING SO HARD"
2. "WASN'T TRYING AS HARD"

III. "THIS YEAR'S BETTER"
A. "FRIENDS GOT CLOSER"
B. "LIKED ME MORE"
C. "TRIED TO KNOW ME"

IV. "DON'T KNOW WHY"
A. "I DON'T KNOW"
B. "KIND OF STRANGE"
C. "HARD TO EXPLAIN"

SAM: And, there's, and then there's the **fears** that I **constantly face** like, **within myself**, and I think that contributed to **my depression**. I notice that when, like this HOA [Home Owner's Association] thing and I think, I thought it was perfect that it was coming up. I hate the HOA. And I was, I don't know why I was having **such anxiety** over this meeting, 'cause once I had the meeting, it wasn't a big deal. But like, there are certain people that I thought were going to be there, and that weren't there, that I was like, I **don't wanna deal with** these assholes, right? So, that, and that, and I was **paying attention** to what was happening, having **anxiety** this past week and it was going, it was going **right to my gut**. And, I'm like, we'll that's **not good for me**. What am I **doing to myself**? But like, I can **intellectualize it**. But it's, but until I, like either do **meditation** or just like **breathe** and just get it **through my system** or **just face it**, which is what I did today, I, that's why I went to the meeting, um, until you **face that fear**, you can't, it's almost impossible to **get rid of it**. Because once you **face your vulnerability**, that's when, that's when you **empower yourself**. But, most people are used to **running away** from their vulnerabilities. Does that **make sense**? (238 WORDS)

22 In Vivo Codes (53 words): In Order of Occurrence

- "FEARS"
- "CONSTANTLY FACE"
- "WITHIN MYSELF"
- "MY DEPRESSION"
- "SUCH ANXIETY"
- "DON'T WANNA DEAL WITH"
- "PAYING ATTENTION"
- "ANXIETY"
- "RIGHT TO MY GUT"
- "NOT GOOD FOR ME"
- "DOING TO MYSELF"
- "INTELLECTUALIZE IT"
- "MEDITATION"
- "BREATHE"
- "THROUGH MY SYSTEM"
- "JUST FACE IT"
- "FACE THAT FEAR"
- "GET RID OF IT"
- "FACE YOUR VULNERABILITY"
- "EMPOWER YOURSELF"
- "RUNNING AWAY"
- "MAKE SENSE"

22 In Vivo Codes: Alphabetical Order

- "ANXIETY"
- "BREATHE"
- "CONSTANTLY FACE"
- "DOING TO MYSELF"
- "DON'T WANNA DEAL WITH"
- "EMPOWER YOURSELF"
- "FACE THAT FEAR"
- "FACE YOUR VULNERABILITY"
- "FEARS"
- "GET RID OF IT"
- "INTELLECTUALIZE IT"
- "JUST FACE IT"
- "MAKE SENSE"
- "MEDITATION"
- "MY DEPRESSION"
- "NOT GOOD FOR ME"
- "PAYING ATTENTION"
- "RIGHT TO MY GUT"
- "RUNNING AWAY"
- "SUCH ANXIETY"
- "THROUGH MY SYSTEM"
- "WITHIN MYSELF"

In Vivo Codes:

"Look Alike" & "Feel Alike"

- "ANXIETY"
- "SUCH ANXIETY"
- "FEARS"
- "DON'T WANNA DEAL WITH"
- "RUNNING AWAY"
- "PAYING ATTENTION"
- "INTELLECTUALIZE IT"
- "WITHIN MYSELF"
- "DOING TO MYSELF"
- "NOT GOOD FOR ME"
- "BREATHE"
- "MEDITATION"
- "CONSTANTLY FACE"
- "JUST FACE IT"
- "FACE THAT FEAR"
- "FACE YOUR VULNERABILITY"
- "GET RID OF IT"
- "MY DEPRESSION"
- "EMPOWER YOURSELF"
- "MAKE SENSE"
- "RIGHT TO MY GUT"
- "THROUGH MY SYSTEM"

In Vivo Codes: Categorized and Outlined

"ANXIETY"

"SUCH ANXIETY"

"FEARS"

"RUNNING AWAY"

"DON'T WANNA DEAL WITH"

"WITHIN MYSELF"

"MY DEPRESSION"

"PAYING ATTENTION"

"INTELLECTUALIZE IT"

"THROUGH MY SYSTEM"

"RIGHT TO MY GUT"

"DOING TO MYSELF"

"NOT GOOD FOR ME"

"BREATHE"

"MEDITATION"

"EMPOWER YOURSELF"

"JUST FACE IT"

"CONSTANTLY FACE"

"FACE THAT FEAR"

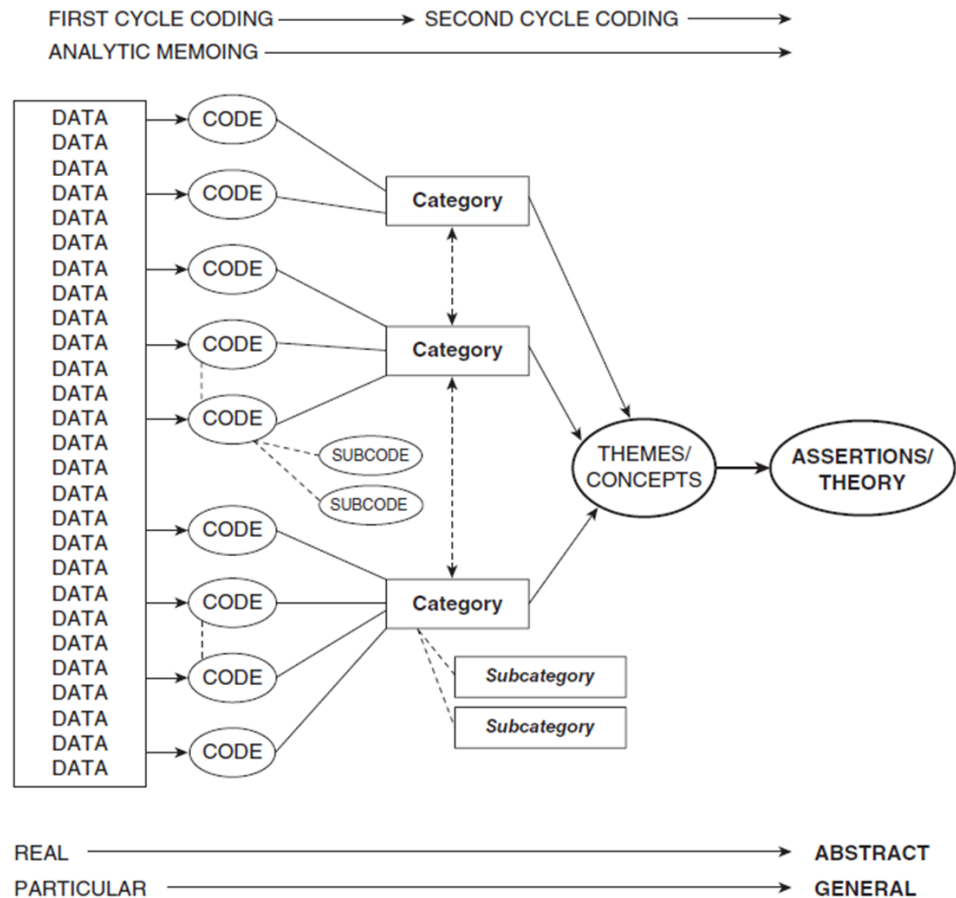
"FACE YOUR VULNERABILITY"

"GET RID OF IT"

"MAKE SENSE"

Major In Vivo Codes *qua* [in the role of] Categories

- "ANXIETY"
- "WITHIN MYSELF"
- "EMPOWER YOURSELF"

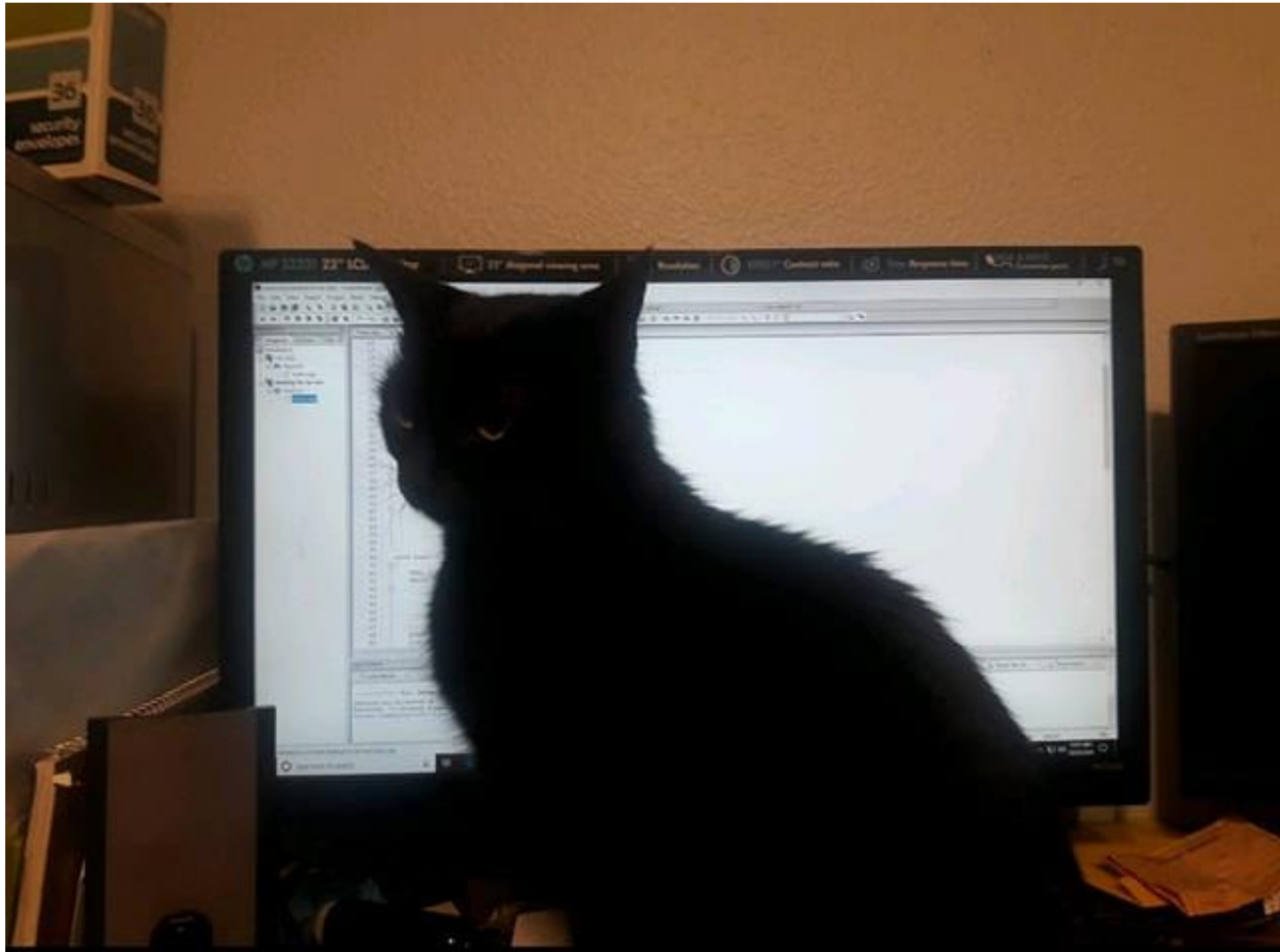




Remember...

- In vivo coding uses participants' own language from the data (usually interview transcripts) as codes in quotation marks: "HATED SCHOOL," "FOUND STUFF OUT"
- Appropriate for virtually all qualitative studies; prioritizes and honors the participant's voice, and thus useful for case studies, phenomenology, and grounded theory
- Alphabetize then outline the codes to find patterns and major categories

Why it's so hard for me to code when I'm at home....

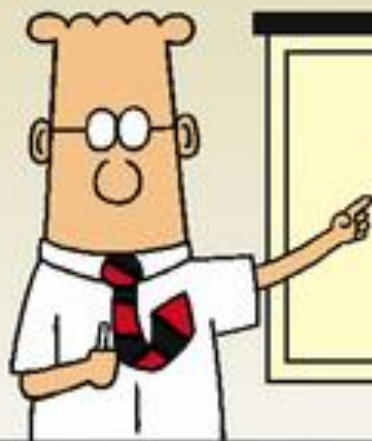




Part 4

Analytic Reflection and Displays

I DIDN'T HAVE
ANYTHING USEFUL
TO SAY SO I MADE
THIS PIE CHART.



scottadams@aol.com

www.dilbert.com

OOOH!

OOOH!

IT MUST
BE TRUE
BECAUSE
IT'S PIE.



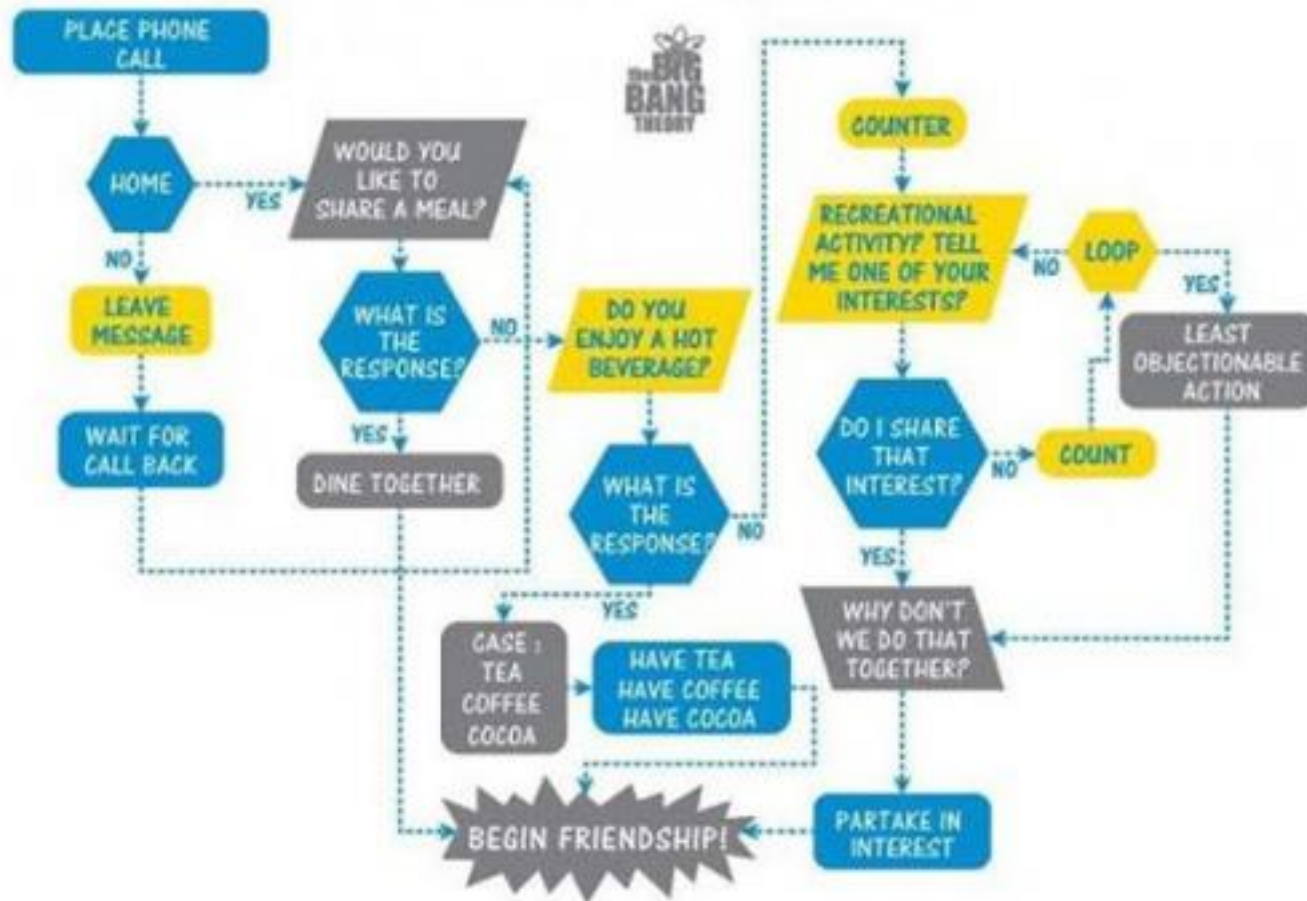


A Scene from *The Big Bang Theory*

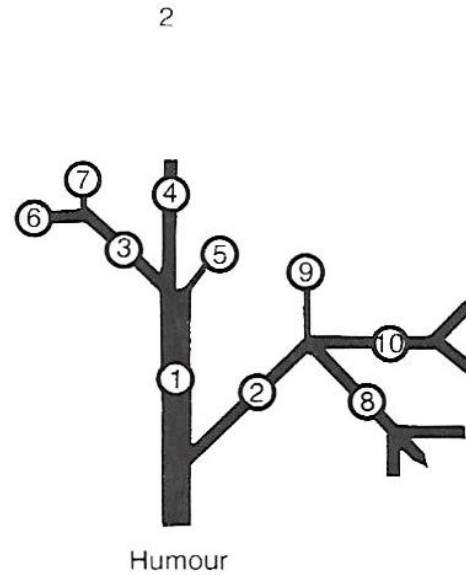
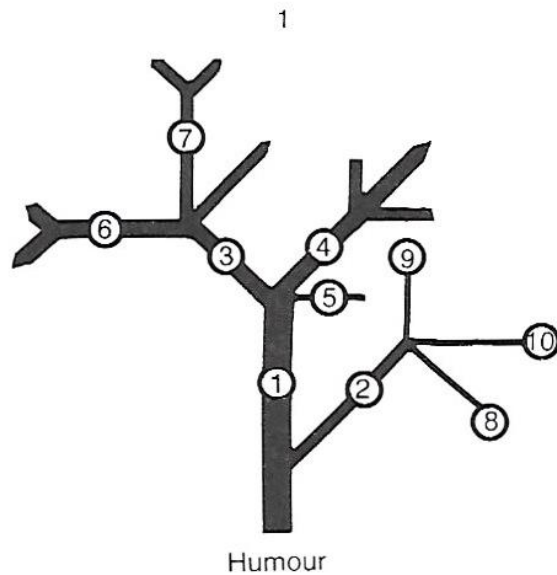
- "The Friendship Algorithm"
- Sheldon Cooper, a theoretical physicist, needs to become friends Barry Kripke, a work colleague, in order to get access to special lab equipment
- Sheldon finds a children's book that helps him generate an algorithm (i.e., a formulaic approach) for making friends

I'm curious, in the "How Well Do
You Know Sheldon?" section...

The Friendship Algorithm



Code/Category Branching (Ian Dey)



① Style

② Substance

③ Incongruity

④ Catharsis

⑤ Creativity

⑥ Temperament

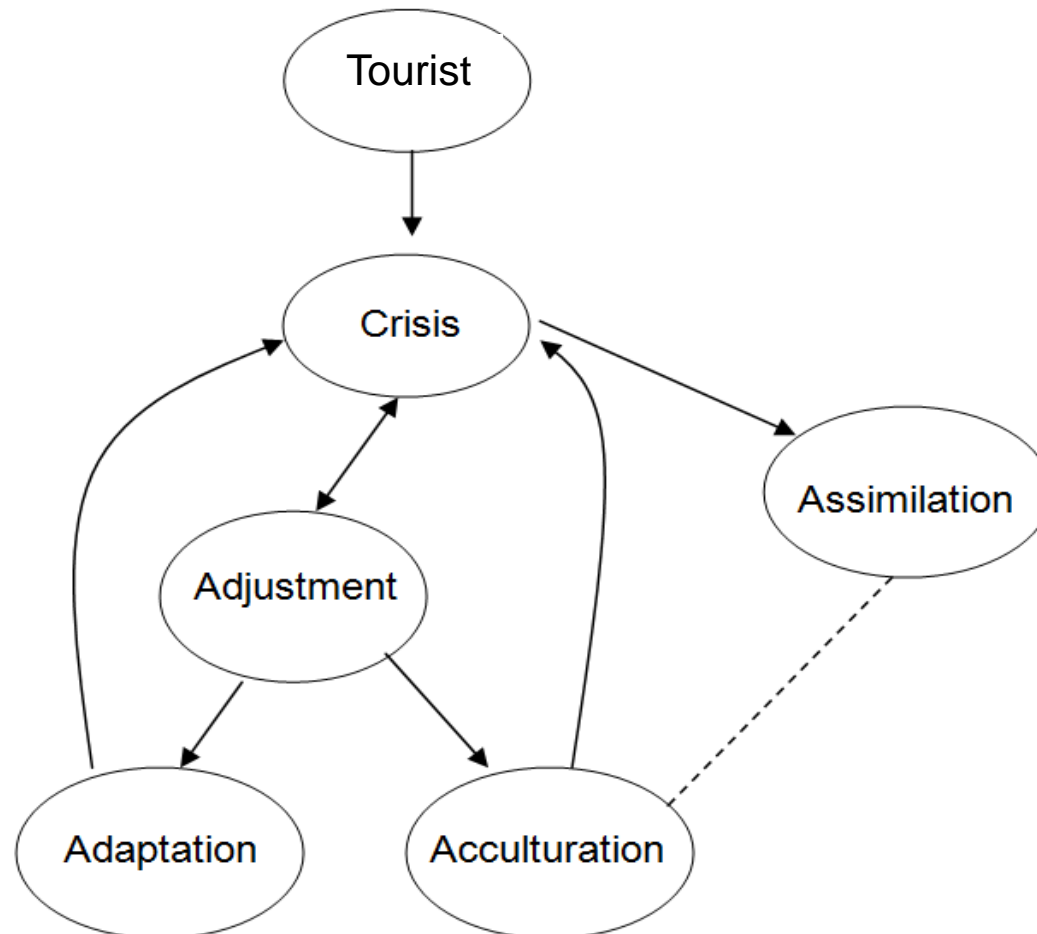
⑦ Occupation

⑧ Victims

⑨ Values

⑩ Stereotypes

Diagram: Cultural Shock and Adaptation





Matrix: Smoking Cessation Trajectory

INITIATING SMOKING CESSATION PATTERNS	MONTH 1	MONTH 6
NEGATIVE EMOTIONS	Anxious, nervous, angry, aggressive	Occasionally anxious
PHYSICAL CHANGES	Gained 5 pounds, felt "burning" sensation in throat and lungs	On weight loss program after gaining 20 pounds, heightened sense of smell
RESTLESS JOURNEY	Wandering and habitual movements	Habitual movements
REGRETFUL LOSS	"Felt like crying," hyper-conscious of cessation	Nostalgic for smoking, "hangs around" smokers



In Vivo Codes for Found Poetry

- "DON'T KNOW WHY"
- "FOUND STUFF OUT"
- "FRESHMAN YEAR AWFUL"
- "FRIENDS GOT CLOSER"
- "HARD TO EXPLAIN"
- "HATED SCHOOL"
- "HAVE PEOPLE LIKE ME"
- "I DON'T KNOW"
- "KIND OF STRANGE"
- "LIKED ME MORE"
- "STOPPED CARING"
- "THIS YEAR'S BETTER"
- "TRIED TO KNOW ME"
- "TRYING TO PLEASE THEM"
- "WASN'T TRYING AS HARD"
- "WASN'T TRYING SO HARD"
- "WHAT OTHER PEOPLE WANTED"

I. "HATED SCHOOL"

- A. "FRESHMAN YEAR AWFUL"

II. "STOPPED CARING"

- A. "WHAT OTHER PEOPLE WANTED"
 - 1. "HAVE PEOPLE LIKE ME"
 - 2. "TRYING TO PLEASE THEM"
- B. "FOUND STUFF OUT"
 - 1. "WASN'T TRYING SO HARD"
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- A. "FRIENDS GOT CLOSER"
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- C. "TRIED TO KNOW ME"

IV. "DON'T KNOW WHY"

- A. "I DON'T KNOW"
- B. "KIND OF STRANGE"
- C. "HARD TO EXPLAIN"



Found Poetry Construction with In Vivo Codes

Freshman year:

awful,
hated school. . . .

Over the summer:

stopped caring about what others thought,
found stuff out about myself. . . .

This year's better:

friends got closer,
tried to know me,
liked me more. . . .

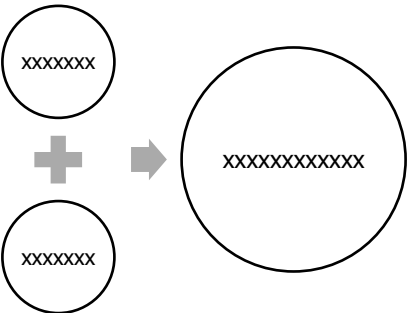
Don't know why:

kind of strange,
hard to explain. . . .

This year's better.

Analytic Memo, Diagramming, and Found Poetry Exercise

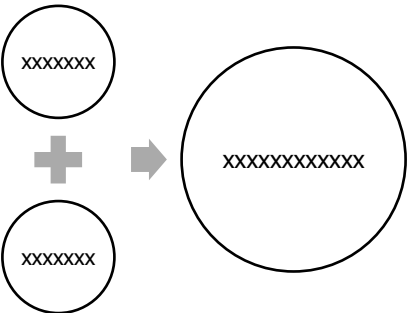
- Write an analytic memo about Sam, prompted by the data and your in vivo codes; and/or
- Diagram the major codes/categories; and/or
- Create found poetry using selected in vivo codes

ANALYTIC MEMO		SAM
<p>XXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXX</p>		<p>XXXXXXXXX XXXXXXXXX XXX XXX XXXXXXXXX XXXXXXXXXX</p>

SAM: And, there's, and then there's the fears that I constantly face like, within myself, and I think that contributed to my depression. I notice that when, like this HOA [Home Owner's Association] thing and I think, I thought it was perfect that it was coming up. I hate the HOA. And I was, I don't know why I was having such anxiety over this meeting, 'cause once I had the meeting, it wasn't a big deal. But like, there are certain people that I thought were going to be there, and that weren't there, that I was like, I don't wanna deal with these assholes, right? So, that, and that, and I was paying attention to what was happening, having anxiety this past week and it was going, it was going right to my gut. And, I'm like, we'll that's not good for me. What am I doing to myself? But like, I can intellectualize it. But it's, but until I, like either do meditation or just like breathe and just get it through my system or just face it, which is what I did today, I, that's why I went to the meeting, um, until you face that fear, you can't, it's almost impossible to get rid of it. Because once you face your vulnerability, that's when, that's when you empower yourself. But, most people are used to running away from their vulnerabilities. Does that make sense?

Analytic Memo, Diagramming, and Found Poetry Exercise

- Write an analytic memo about Sam, prompted by the data and your in vivo codes; and/or
- Diagram the major codes/categories; and/or
- Create found poetry using selected in vivo codes

ANALYTIC MEMO		SAM
<p>XXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXX</p>		<p>XXXXXXXXX XXXXXXXXX XXX XXX XXXXXXXXX XXXXXXXXXX</p>



Analytic Memo

FIRST IMPRESSIONS

It was hard to follow Sam, his speech is very disjointed and erratic. Is this how his brain works? If his speech is indicative of how he thinks, he stutters through life—there's no fluency or smoothness in his daily endeavors or thought patterns.

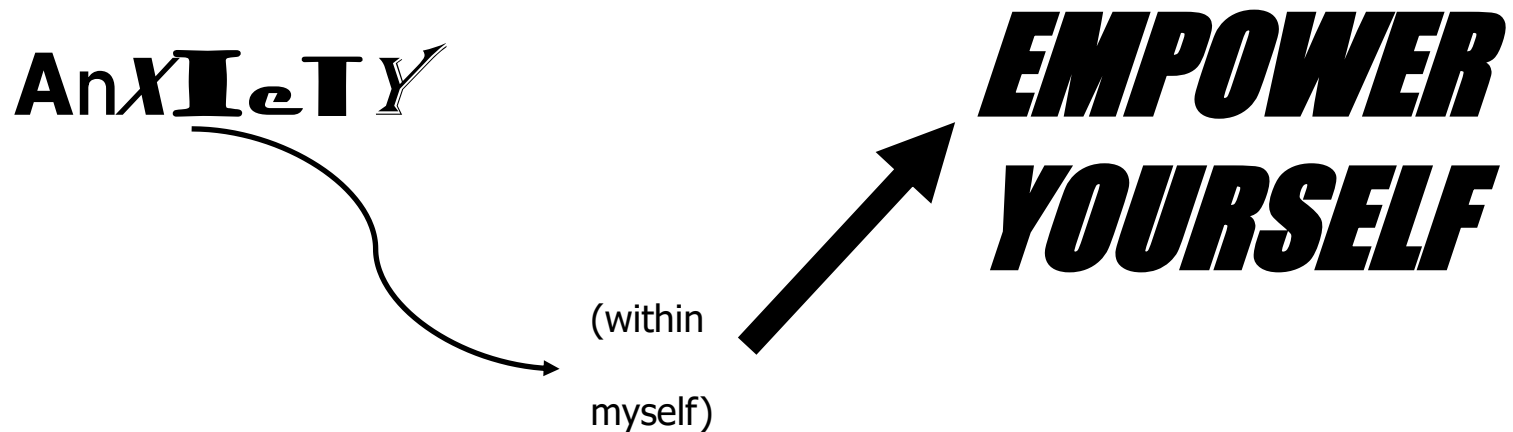
There are layers of problems here. When we face our anxiety, we become vulnerable. He chose to face his vulnerability even though he didn't know how he was going to be perceived/treated. That makes him courageous, actually. He's not been immobilized by his anxiety; he's attuned to it and what it takes to overcome it. "Within myself" is where he experiences his anxiety but also where he finds his empowerment.

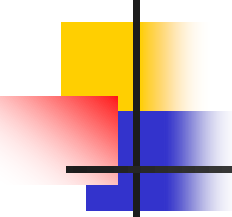
Major In Vivo Codes Diagrammed





Major In Vivo Codes Dynamically Diagrammed





In Vivo Codes for Found Poetry Construction

"ANXIETY"

"SUCH ANXIETY"

"FEARS"

"RUNNING AWAY"

"DON'T WANNA DEAL WITH"

"WITHIN MYSELF"

"MY DEPRESSION"

"PAYING ATTENTION"

"INTELLECTUALIZE IT"

"THROUGH MY SYSTEM"

"RIGHT TO MY GUT"

"DOING TO MYSELF"

"NOT GOOD FOR ME"

"BREATHE"

"MEDITATION"

"EMPOWER YOURSELF"

"JUST FACE IT"

"CONSTANTLY FACE"

"FACE THAT FEAR"

"FACE YOUR VULNERABILITY"

"GET RID OF IT"

"MAKE SENSE"

Found Poetry with In Vivo Codes

ANXIETY

Face it
Face fear
Face vulnerability

B r e a t h e

Make sense
within my gut
within myself





Remember:

- Diagrams are a way of both reaching and presenting analytic findings
- Explore traditional and arts-based methods for diagramming
- Found poetry utilizes selected in vivo codes to holistically represent the participant's experiences/worldview



Part 5

Theming the Data (Phenomenologically)



Theming the Data

- A theme is an *extended phrase* or *sentence* that identifies what a unit of data is *about* and/or what it *means*.
- 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).
- 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.
- Themes serve phenomenology, the study of lived experiences.
- "A theme captures a 'moment'; it tells a story." (Braun & Clarke, 2021, p. 137)
- "A theme is nothing more than a song title." (anecdotal)



Questions for Thematic Analysis

- What worries or concerns are the participants expressing?
- What unresolved issues are the participants raising?
- What do the participants find intriguing, surprising, or disturbing?
- What types of tensions, problems, or conflicts are the participants experiencing?
- What kinds of trouble are the participants in?



The Observable (“Is”) and Conceptual (“Means”)

Teaching *is*...

- Taking Attendance
- Lecturing
- Leading Discussions
- Writing Lesson Plans
- Grading Papers
- Disciplining Students
- Playground Duty

Teaching *means*...

- Educating
- Shaping the Future
- Surviving
- Wearing a Protective Shell
- Going with the Flow
- Maintaining an Optimistic Outlook



Themeing the Data Example

I: What other consumer habits of yours have been changed by the economy?

P: ¹ Sometimes it's the little things. Like, at work, do I really want to pay \$1.50 for one bottle of Diet Coke from a vending machine? I can practically get a two-liter bottle for that same price at the grocery store. So I think twice before I put my dollar and coins in a machine.

² I've been going to all-you-can-eat places a lot lately, because it's both cheap and filling. I go to Peter Piper's or Sweet Tomatoes or Golden Corral or some cheap Chinese buffet and ³ I stock up on lunch so I can skip dinner. Or I skip lunch so I can stock up on dinner. ⁴ With Sweet Tomatoes I get those coupons for a few bucks off for lunch, so that really helps.

¹ EI MEANS THINKING BEFORE YOU ACT

² EI IS BUYING CHEAP

³ EI MEANS SACRIFICE

⁴ EI IS SAVING A FEW DOLLARS NOW AND THEN



Themeing the Data: Array

- EI IS TAKING ADVANTAGE OF UNEXPECTED OPPORTUNITY
- EI MEANS THINKING BEFORE YOU ACT
- EI IS BUYING CHEAP
- EI MEANS SACRIFICE
- EI IS SAVING A FEW DOLLARS NOW AND THEN
- EI MEANS KNOWING YOUR FLAWS
- EI MEANS THINKING BEFORE YOU ACT
- EI IS SETTING PRIORITIES
- EI IS FINDING CHEAPER FORMS OF ENTERTAINMENT
- EI MEANS LIVING AN INEXPENSIVE LIFESTYLE
- EI IS NOTICING PERSONAL AND NATIONAL ECONOMIC TRENDS
- EI MEANS YOU CANNOT CONTROL EVERYTHING
- EI IS TAKING CARE OF ONE'S OWN HEALTH
- EI MEANS KNOWING YOUR LUCK



Theming the Data: Is / Means

- EI IS TAKING ADVANTAGE OF UNEXPECTED OPPORTUNITY
 - EI IS BUYING CHEAP
 - EI IS SAVING A FEW DOLLARS NOW AND THEN
 - EI IS SETTING PRIORITIES
 - EI IS FINDING CHEAPER FORMS OF ENTERTAINMENT
 - EI IS NOTICING PERSONAL AND NATIONAL ECONOMIC TRENDS
 - EI IS TAKING CARE OF ONE'S OWN HEALTH
-
- EI MEANS KNOWING YOUR LUCK
 - EI MEANS THINKING BEFORE YOU ACT
 - EI MEANS SACRIFICE
 - EI MEANS KNOWING YOUR FLAWS
 - EI MEANS THINKING BEFORE YOU ACT
 - EI MEANS LIVING AN INEXPENSIVE LIFESTYLE
 - EI MEANS YOU CANNOT CONTROL EVERYTHING



Themeing the Data: Outline

I. EI MEANS LIVING AN INEXPENSIVE LIFESTYLE

- A. EI IS SETTING PRIORITIES
- B. EI MEANS THINKING BEFORE YOU ACT
- C. EI IS BUYING CHEAP
- D. EI IS FINDING CHEAPER FORMS OF ENTERTAINMENT
- E. EI IS SAVING A FEW DOLLARS NOW AND THEN
- F. EI IS TAKING CARE OF ONE'S OWN HEALTH
- G. EI IS TAKING ADVANTAGE OF UNEXPECTED OPPORTUNITY

II. EI MEANS YOU CANNOT CONTROL EVERYTHING

- A. EI MEANS SACRIFICE
- B. EI MEAN KNOWING YOUR FLAWS
- C. EI MEANS KNOWING YOUR LUCK
- D. EI IS NOTICING PERSONAL AND NATIONAL ECONOMIC TRENDS
- E. EI MEANS THINKING BEFORE YOU ACT



Themeing the Data: Theoretical Constructs

Theoretical Construct 1: EI Means Knowing the Unfortunate Present

Supporting Themes:

EI MEANS YOU CANNOT CONTROL EVERYTHING
EI IS SETTING PRIORITIES
EI MEAN KNOWING YOUR FLAWS
EI MEANS SACRIFICE

Theoretical Construct 2: EI is Cultivating a Small Fortune

Supporting Themes:

EI MEANS LIVING AN INEXPENSIVE LIFESTYLE
EI MEANS THINKING BEFORE YOU ACT
EI IS BUYING CHEAP
EI IS FINDING CHEAPER FORMS OF ENTERTAINMENT
EI IS SAVING A FEW DOLLARS NOW AND THEN

Theoretical Construct 3: EI Means a Fortunate Future

Supporting Themes:

EI IS NOTICING PERSONAL AND NATIONAL ECONOMIC TRENDS
EI MEANS THINKING BEFORE YOU ACT
EI IS TAKING ADVANTAGE OF UNEXPECTED OPPORTUNITY
EI IS TAKING CARE OF ONE'S OWN HEALTH
EI MEANS KNOWING YOUR LUCK



Themeing the Data: Analytic Memoing

EMERGENT THEMES: FORTUNE/FORTUNATELY/UNFORTUNATELY

I first reorganized the themes by listing them in two groups: "is" and "means." The "is" statements seemed to contain positive actions and constructive strategies for economic intelligence. The "means" statements held primarily a sense of caution and restriction with a touch of negativity thrown in. The first outline with two major themes, LIVING AN INEXPENSIVE LIFESTYLE and YOU CANNOT CONTROL EVERYTHING also had this same tone. This reminded me of the old children's picture book, *Fortunately/Unfortunately*, and the themes of "fortune" as a motif for the three theoretical constructs came to mind.

Knowing the Unfortunate Present means knowing what's (most) important and what's (mostly) uncontrollable in one's personal economic life. **Cultivating a Small Fortune** consists of those small money-saving actions that, over time, become part of one's lifestyle. **A Fortunate Future** consists of heightened awareness of trends and opportunities at micro and macro levels, with the understanding that health matters can idiosyncratically affect one's fortune. These three constructs compose this particular individual's EI--economic intelligence.



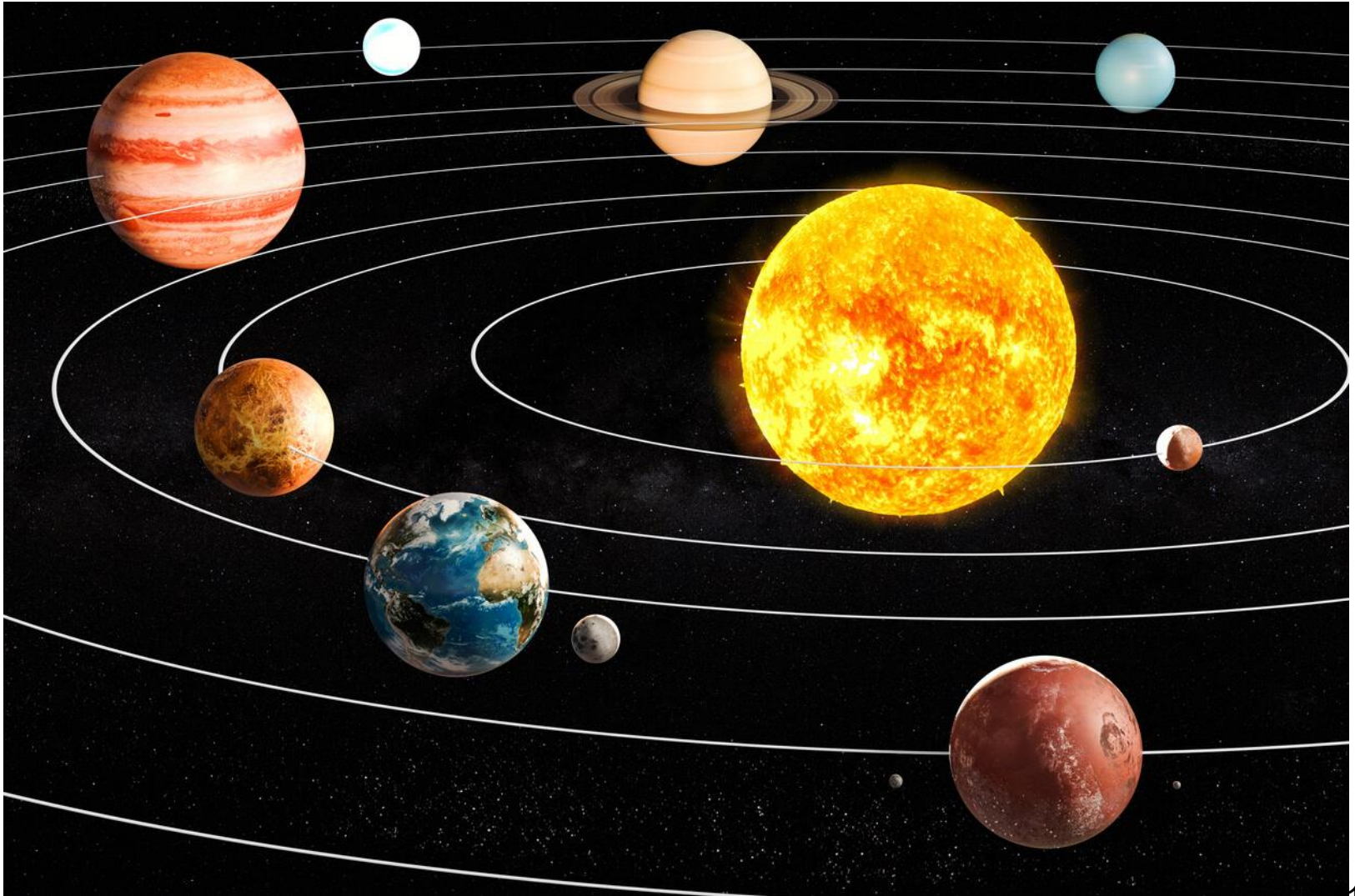
An Example of Subcategories to Categories to a Core Theme

Table 1. Core Theme, Categories, and Subcategories.

Core theme	Categories	Subcategories
Active involvement in problem solving inspired and motivated students with exceptional talent	Academic initiative and engagement	1.1 Research focus
		1.2 Extracurricular research participation
		1.3 Advanced learning pursuit
	Transition preparation	2.1 Education and career goal planning
		2.2 Perspective change
		2.3 Independence and confidence building
	Practical skill development	3.1 Self-management skills acquisition
		3.2 Leadership learning
		3.3 Social relationship expansion

from Wu, Pease & Maker's "Students' Perceptions of a Special Program for Developing Exceptional Talent in STEM," *Journal of Advanced Academics*, 2019

The Solar System as a Metaphor for the Central Theme, Related Themes, and Subthemes





Themeing the Data Exercise

- See Workbook: Interview Data with Mary
- Research Question: What does it mean to be a teacher?
- 1st Cycle Themeing:
 - **TEACHING IS** [the observable]____
 - **TEACHING MEANS** [the conceptual]____
- Analytic Memo
- Outline the Themes and/or Create Theoretical Constructs

I. EI MEANS LIVING AN INEXPENSIVE LIFESTYLE

- A. EI IS SETTING PRIORITIES
- B. EI MEANS THINKING BEFORE YOU ACT
- C. EI IS BUYING CHEAP
- D. EI IS FINDING CHEAPER FORMS OF ENTERTAINMENT
- E. EI IS SAVING A FEW DOLLARS NOW AND THEN
- F. EI IS TAKING CARE OF ONE'S OWN HEALTH
- G. EI IS TAKING ADVANTAGE OF UNEXPECTED OPPORTUNITY

II. EI MEANS YOU CANNOT CONTROL EVERYTHING

- A. EI MEANS SACRIFICE
- B. EI MEAN KNOWING YOUR FLAWS
- C. EI MEANS KNOWING YOUR LUCK
- D. EI IS NOTICING PERSONAL AND NATIONAL ECONOMIC TRENDS
- E. EI MEANS THINKING BEFORE YOU ACT

I: What are some of the biggest struggles and frustrations you come up against when working with [young people]?

MARY: Frustrations are the things that you can't control. The home life situations that they bring, the baggage that they bring. There are days where I just, you know, I say my breasts are dry, I have no more to give. I feel like I've breast-fed everybody.

And so I'm very sensitive to when a kid is having a bad day and I'll call them on it. Not because I'm trying to pry but I want them to know, okay, I know something is up with you so I'm not going to pressure you necessarily today for whatever work we're doing. But if it's something big and you need to talk, you can. Uh, and usually, 90% of the time they do and they'll cry or whatever. And I try to help them process rather than enable them, try to help them process, okay, what are the other perspectives going on here? What can you really control here?

It's just, it's, they wear everything out there on their sleeve and it, and being sensitive to that, it does emotionally drain you sometimes.

Oh, they're just so full of life and love and hope and optimism and, uh, they will go on the journey with you and they will teach you along the way, um.

They're just fun, they're full of, you know, they're the clay. They haven't, they haven't been molded and I don't, I don't want to be a manipulator of the molding. But it's really fun to give them options in their molding and see where they run with it. It's exciting.



Themeing the Data Exercise

- See Workbook: Interview Data with Mary
- Research Question: What does it mean to be a teacher?
- 1st Cycle Themeing:
 - **TEACHING IS** [the observable]____
 - **TEACHING MEANS** [the conceptual]____
- Analytic Memo
- Outline the Themes and/or Create Theoretical Constructs

I. EI MEANS LIVING AN INEXPENSIVE LIFESTYLE

- A. EI IS SETTING PRIORITIES
- B. EI MEANS THINKING BEFORE YOU ACT
- C. EI IS BUYING CHEAP
- D. EI IS FINDING CHEAPER FORMS OF ENTERTAINMENT
- E. EI IS SAVING A FEW DOLLARS NOW AND THEN
- F. EI IS TAKING CARE OF ONE'S OWN HEALTH
- G. EI IS TAKING ADVANTAGE OF UNEXPECTED OPPORTUNITY

II. EI MEANS YOU CANNOT CONTROL EVERYTHING

- A. EI MEANS SACRIFICE
- B. EI MEAN KNOWING YOUR FLAWS
- C. EI MEANS KNOWING YOUR LUCK
- D. EI IS NOTICING PERSONAL AND NATIONAL ECONOMIC TRENDS
- E. EI MEANS THINKING BEFORE YOU ACT



1st Cycle Themeing

MARY: ¹ Frustrations are the things that you can't control. The home life situations that they bring, the baggage that they bring. ² There are days where I just, you know, I say my breasts are dry, I have no more to give. I feel like I've breast-fed everybody. ³ And so I'm very sensitive to when a kid is having a bad day and I'll call them on it. Not because I'm trying to pry but I want them to know, okay, I

¹ TEACHING MEANS A LACK OF CONTROL

² TEACHING IS EMOTIONALLY DRAINING

³ TEACHING MEANS EMPATHY



1st Cycle Themeing

know something is up with you so I'm not going to pressure you necessarily today for whatever work we're doing. ⁴ But if it's something big and you need to talk, you can. Uh, and usually, 90% of the time they do and they'll cry or whatever. ⁵ And I try to help them process rather than enable them, try to help them process, okay, what are the other perspectives going on here? What can you really control here?

⁴ TEACHING IS LISTENING TO PROBLEMS

⁵ TEACHING IS HELPING STUDENTS PROCESS



1st Cycle Themeing

⁶ It's just, it's, they wear everything out there on their sleeve and it, and being sensitive to that, it does emotionally drain you sometimes. Oh, they're just so full of life and love and hope and optimism and, uh, ⁷ they will go on the journey with you and they will teach you along the way, um. They're just fun, they're full of, you know, they're the

⁶ TEACHING IS EMOTIONALLY DRAINING

⁷ TEACHING MEANS JOURNEYING



1st Cycle Themeing

clay. They haven't, ⁸ they haven't been molded and I don't, I don't want to be a manipulator of the molding. But it's really fun to give them options in their molding and see where they run with it. It's exciting.

⁸ TEACHING IS PROVIDING OPTIONS



1st Cycle Themeing: List of 8 Themes

TEACHING MEANS A LACK OF CONTROL

TEACHING IS EMOTIONALLY DRAINING

TEACHING MEANS EMPATHY

TEACHING IS LISTENING TO PROBLEMS

TEACHING IS HELPING STUDENTS PROCESS

TEACHING IS EMOTIONALLY DRAINING

TEACHING MEANS JOURNEYING

TEACHING IS PROVIDING OPTIONS



2nd Cycle Themeing: Is / Means and Alphabetizing

TEACHING IS EMOTIONALLY DRAINING

TEACHING IS EMOTIONALLY DRAINING

TEACHING IS HELPING STUDENTS PROCESS

TEACHING IS LISTENING TO PROBLEMS

TEACHING IS PROVIDING OPTIONS

TEACHING MEANS A LACK OF CONTROL

TEACHING MEANS EMPATHY

TEACHING MEANS JOURNEYING



2nd Cycle Themeing: Outlining

TEACHING IS EMOTIONALLY DRAINING (X2)

TEACHING MEANS EMPATHY

**TEACHING IS LISTENING TO
PROBLEMS**

TEACHING MEANS A LACK OF CONTROL

TEACHING MEANS JOURNEYING

**TEACHING IS HELPING STUDENTS PROCESS
TEACHING IS PROVIDING OPTIONS**



2nd Cycle Themeing: 2 Theoretical Constructs

TEACHING AS EMPATHIC COUNSELING

SUPPORTING THEMES:

TEACHING MEANS EMPATHY

TEACHING IS LISTENING TO PROBLEMS

TEACHING IS HELPING STUDENTS PROCESS

TEACHING IS PROVIDING OPTIONS

TEACHING IS EMOTIONALLY DRAINING

TEACHING IS EMOTIONALLY DRAINING

TEACHING AS AN IMPROVISED JOURNEY

SUPPORTING THEMES:

TEACHING MEANS JOURNEYING

TEACHING MEANS A LACK OF CONTROL



An Analytic Memo About Mary

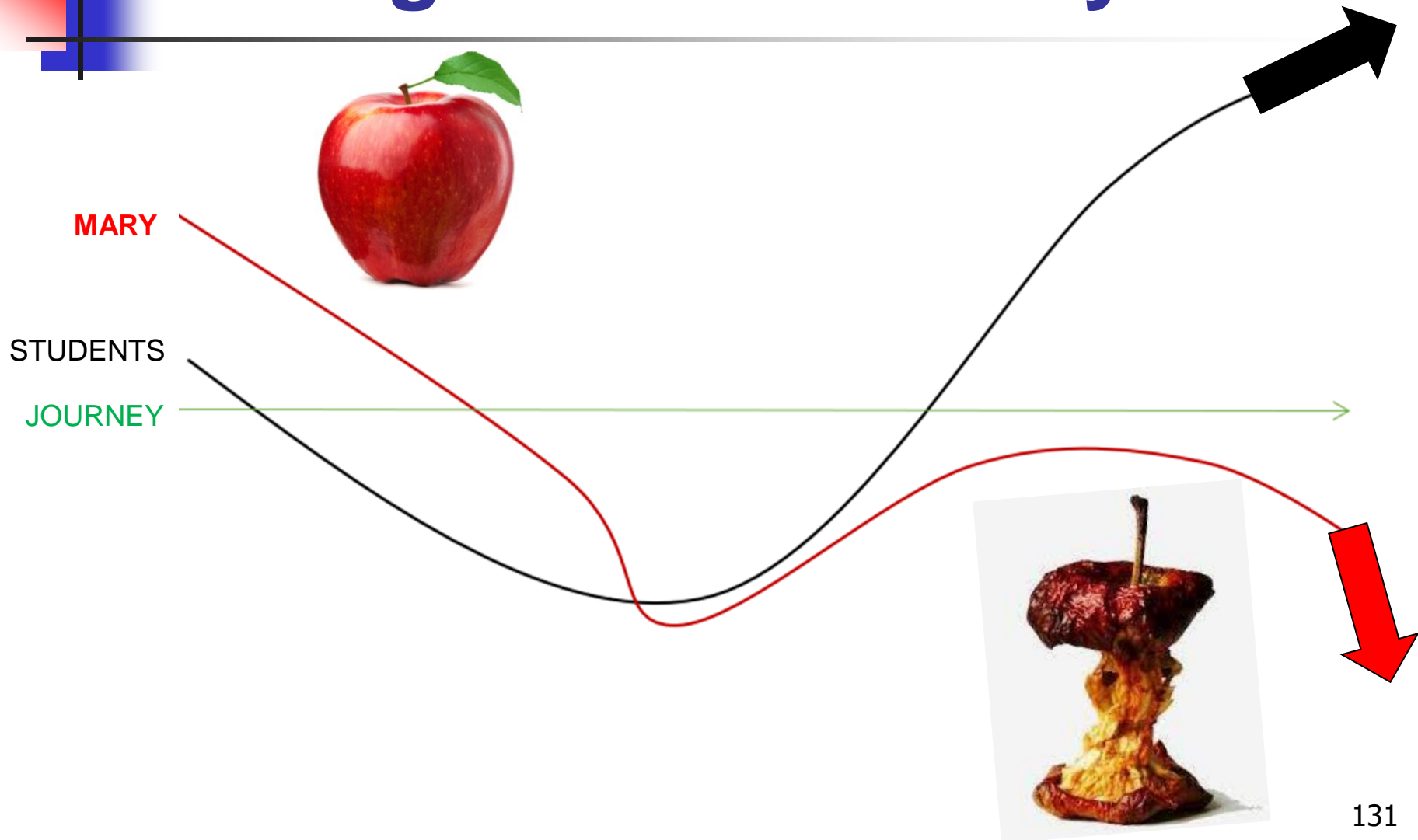
RELATING TO MARY

Been there, done that. I too have had my fair share of listening to students' problems. I think women take on more of the listening, though, since students may feel more comfortable disclosing their issues to them.

I'm surprised by how open-ended Mary is with guidance; she provides "options," helps students "process" rather than give specific direction or advice. She doesn't want to "mold" young people but I bet she does a lot more molding of them than she wants to admit. Observations of her classes and interactions with her students will let me know if I'm right.

I've always quipped that teaching is social work. Mary's doing her fair share.

A Diagram About Mary



A Found Poem About Mary with Selected In Vivo Codes

they will teach *you*

having a bad day
frustrations
baggage

“i know you need to talk”

they’ll cry
help them process
rather than enable them

they’re fun
full of life
 and love
 and hope
 and optimism

they will teach *you*

(i’ve breast-fed everybody)

(my breasts are dry)

(emotionally drained)

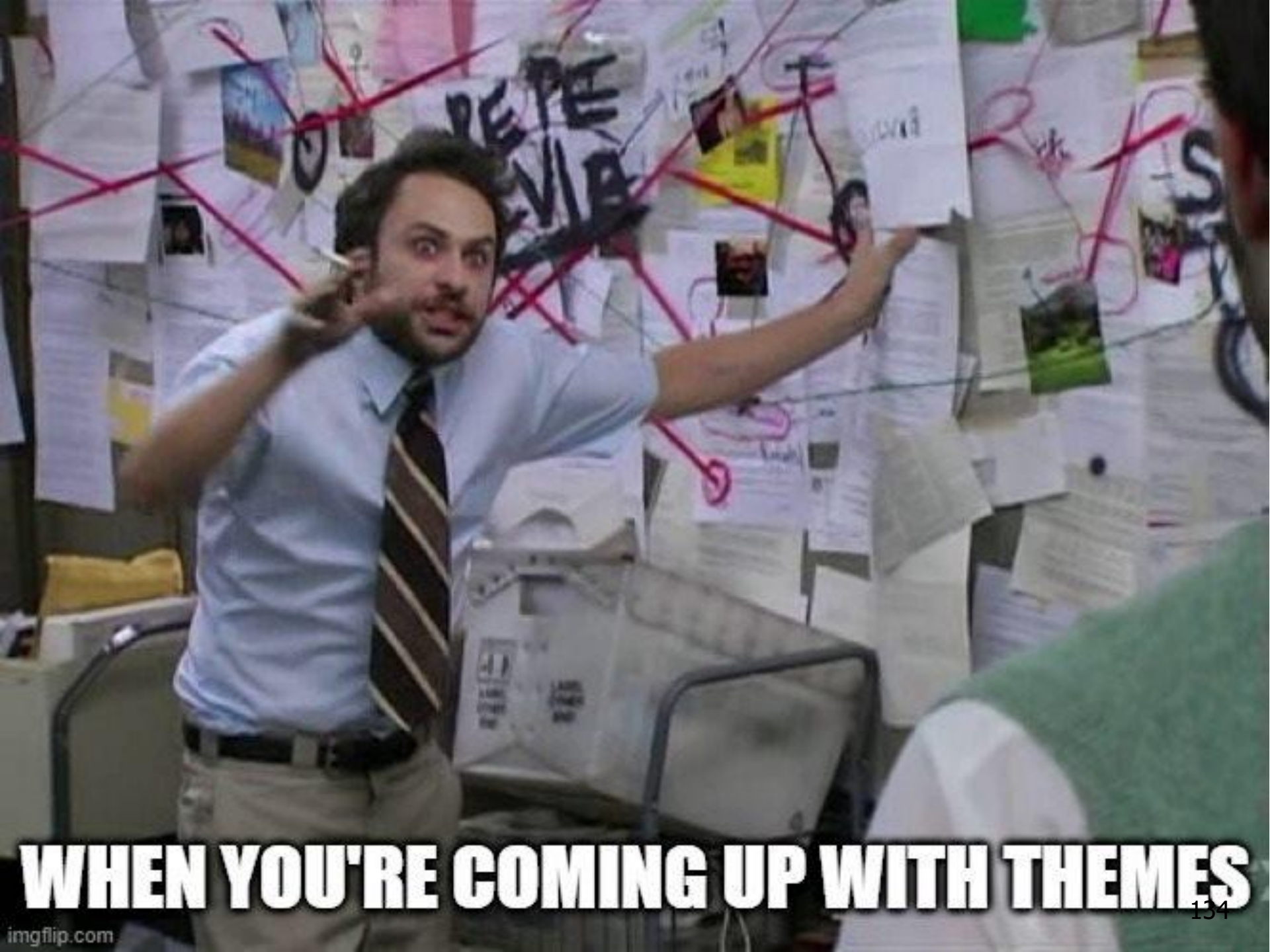
(no more to give)





Remember...

- A theme is an *extended phrase* or *sentence* that identifies what a unit of data is *about* and/or what it *means*.
- 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.
- Themes serve phenomenology, the study of lived experiences.
- "A theme captures a 'moment'; it tells a story." (Braun & Clarke, 2021, p. 137)
- "A theme is nothing more than a song title." (anecdotal)



WHEN YOU'RE COMING UP WITH THEMES




Part 6

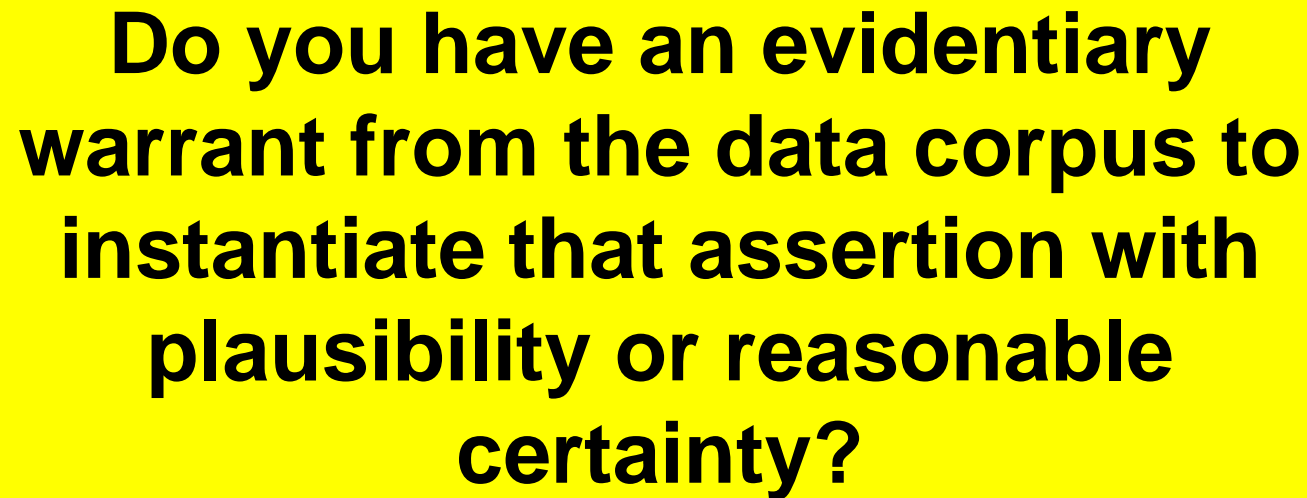
Assertion Development



Assertions



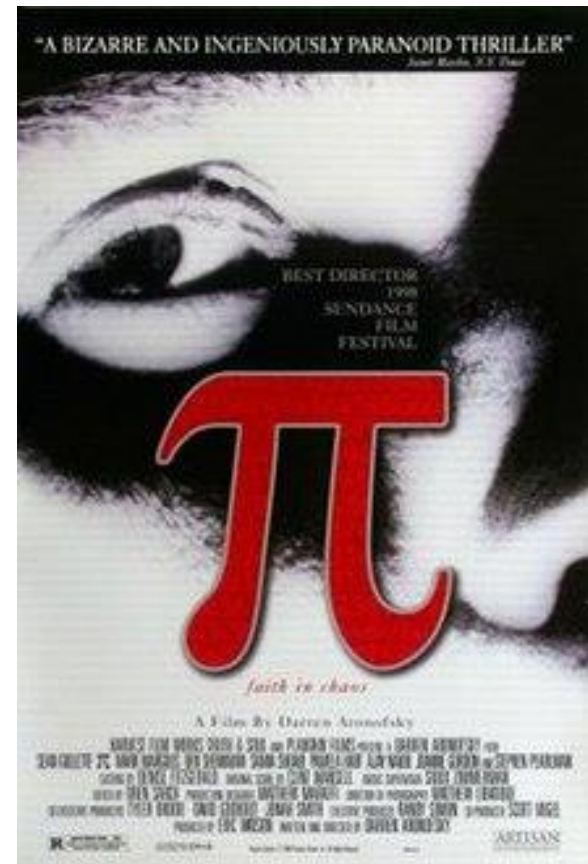
I love
you!



**Do you have an evidentiary
warrant from the data corpus to
instantiate that assertion with
plausibility or reasonable
certainty?**

Qualitative Data Analysis: Assertion Development

- A scene from π [Pi]





A Scene from π [Pi]

- Max is a mathematical genius but a recluse and mentally ill
- The film was released in 1998, so the technology is from the era
- Max makes **assertions** about patterns in nature, **instantiated** by an **evidentiary warrant**; when he discusses the stock market, he makes **high-level inferences** and a **synoptic generalization**; he will test his hypothesis (or **key assertion**) through **analytic induction**





A Scene from π [Pi]

Restate my [**subassertions:**] assumptions:

1. Mathematics is the language of nature.
2. Everything around us can be represented and understood through numbers.
3. If you graph the numbers of any system, patterns emerge.

Therefore, [**assertion:**] there are patterns everywhere in nature. Evidence [**evidentiary warrant**]:

The cycling of disease epidemics;

The wax and wane of caribou populations;

Sunspot cycles;

The rise and fall of the Nile.



A Scene from π [*Pi*]

So what about the stock market? [**synoptic generalization:**] A universe of numbers that represents the global economy. [**high-level inference:**] Millions of human hands at work, billions of minds, a vast network screaming with life. An organism, a natural organism.

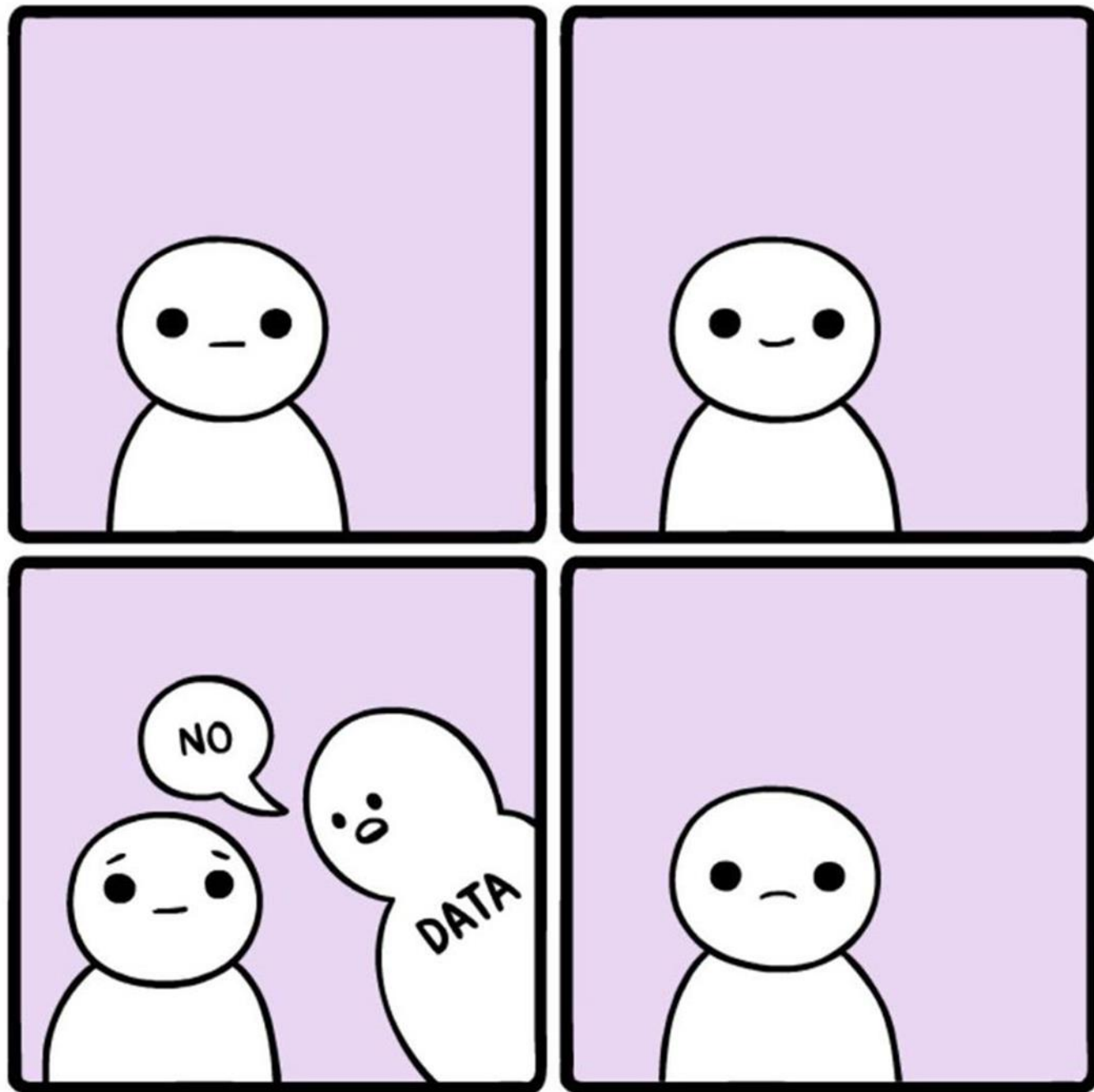
My hypothesis [**a key assertion to be instantiated through analytic induction**]: Within the stock market there is a pattern as well. Right in front of me, hiding behind the numbers, always has been.



Assertions

Frederick Erickson* outlined interpretive methods for qualitative field research in education. The heuristics are based on the development of **assertions** — declarative statements of summative synthesis about the researcher's fieldwork observations, supported with or **instantiated** by evidence from the data corpus. If any **disconfirming evidence** or discrepant cases appear that negate the validity of the assertion, the statement is revised to accommodate the data.

* Erickson, F. (1986). Qualitative methods in research on teaching. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 119–161). Macmillan.





Assertions

Erickson promotes **analytic induction** or constructivist exploration of and inferences about the data, based on a careful examination of the corpus and an accumulated knowledge base with each reading. The goal is not to look for "proof" to support assertions, but **plausibility** of inference-laden observations about the local and particular social world under investigation, and their possible implications for broader generalizations. We assert with "**reasonable certainty**."

HARRY POTTER: It was Malfoy.

PROFESSOR McGONAGALL: That is a very serious accusation, Potter.

PROFESSOR SNAPE: Indeed. Your evidence?

HARRY POTTER: I just know.

(pause)

PROFESSOR SNAPE: You "just . . . *know*"?



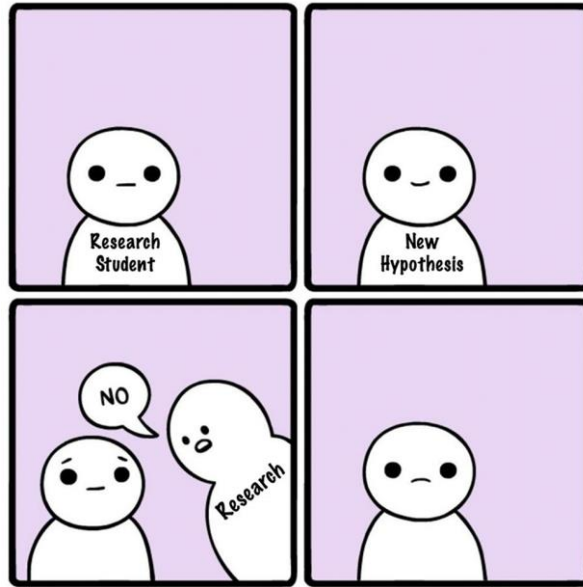


On Data

- “In God we trust; all others must have data.” (Anonymous)
- "Without data, you're just another person with an opinion." (W. Edwards Deming)
- "Without verification, you're just another researcher with a hunch." (Miles, Huberman, & Saldaña)

Assertion Examples

A Poor Assertion: "Anyone who smokes cigarettes gets lung cancer."



A Strong, Evidence-Based Assertion: "People who smoke cigarettes are at much higher risk than non-smokers for developing various cancers."



The Differences Between Assertions and Propositions

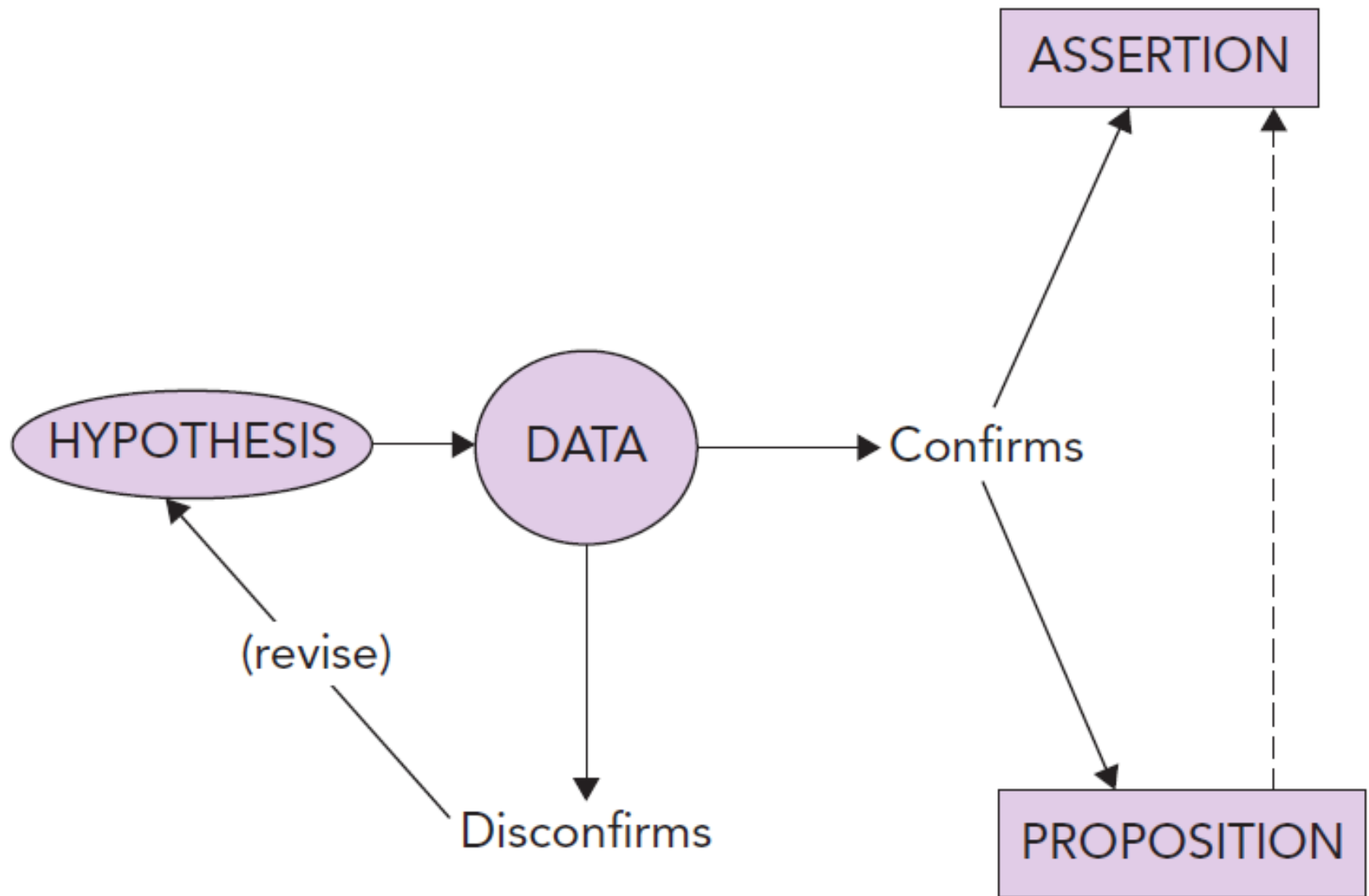
An **assertion** is a statement about what the researcher believes and confirms to be true after reviewing the data. Example:

At one point in time, Arizona had the highest rate per capita of COVID-19 infections in the world.

A **proposition** is a *conditional* statement of what the researcher believes and confirms to be true, structured as if/then, cause/effect, influences/affects, when/then, etc. Example:

COVID-19 infection and death rates rise in a locality when it does not implement proper mitigation measures.

All propositions are also assertions, but not all assertions are propositions.





Inferences

Low-level inferences address and summarize what is happening within the particulars of the case or field site — the "micro," such as an individual classroom. **High-level inferences** extend beyond the particulars to speculate on what they mean in the more general social scheme of things — the "meso" or "macro," such as schooling in general or national education policy. High-level inference extends beyond the case yet derives from it to posit a **synoptic** generalization (a view of the whole) about the data's suggested meanings. **Inference to the best explanation** (IBE) achieves reasonable certainty.

IBE and Assertions: A Scene from *Sherlock Holmes*



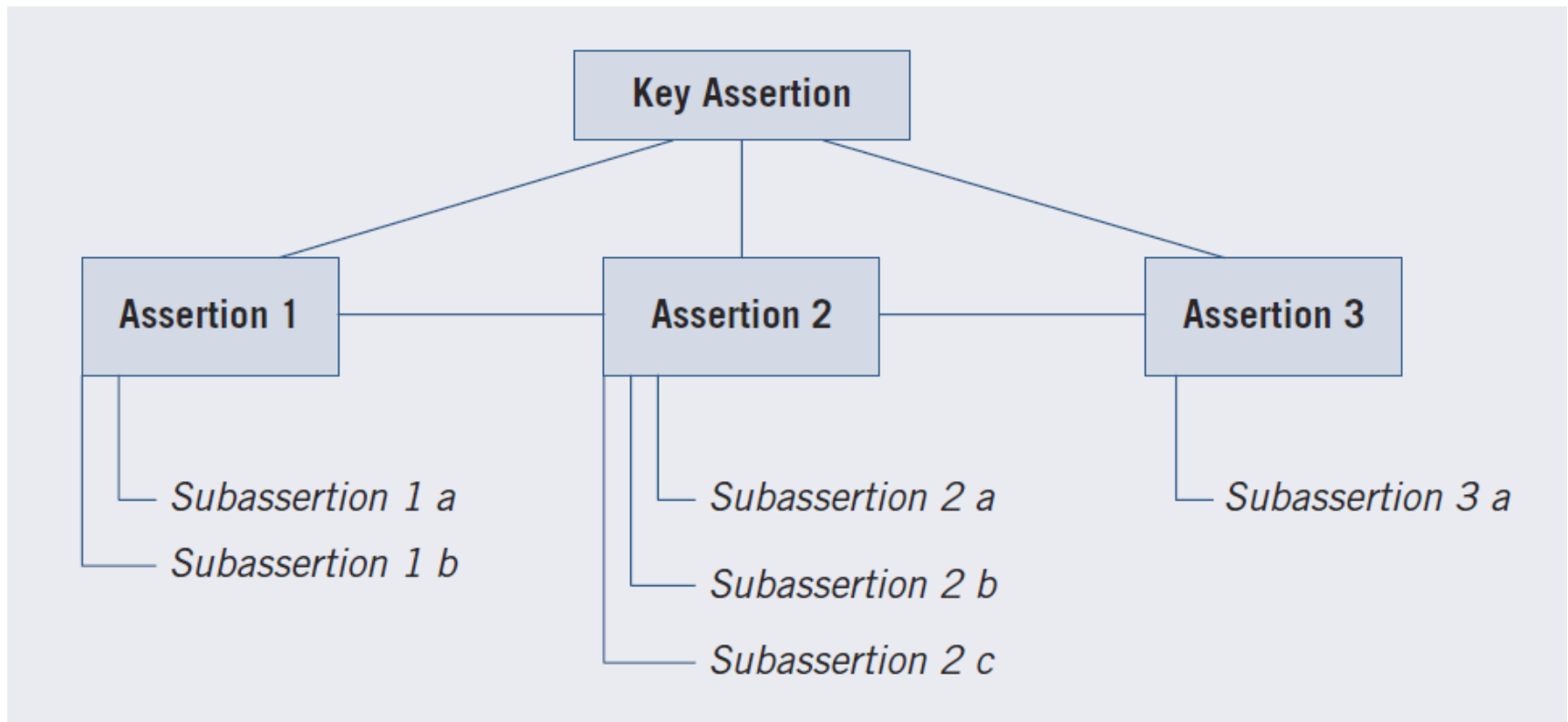




Key Assertion, Assertions, and Subassertions

The central argument or all-encompassing interpretive claim about the researcher's fieldwork is labeled the **key assertion**. This statement derives from, is supported by, and is linked to its related assertions, which are in turn further supported by their constituent **subassertions**. The subassertions and assertions provide the **evidentiary warrant** or data foundation on which the key assertion is built. The key assertion and assertions should also interrelate with each other through **key linkages** or statements of connection.

Key Assertion, Assertions, and Subassertions





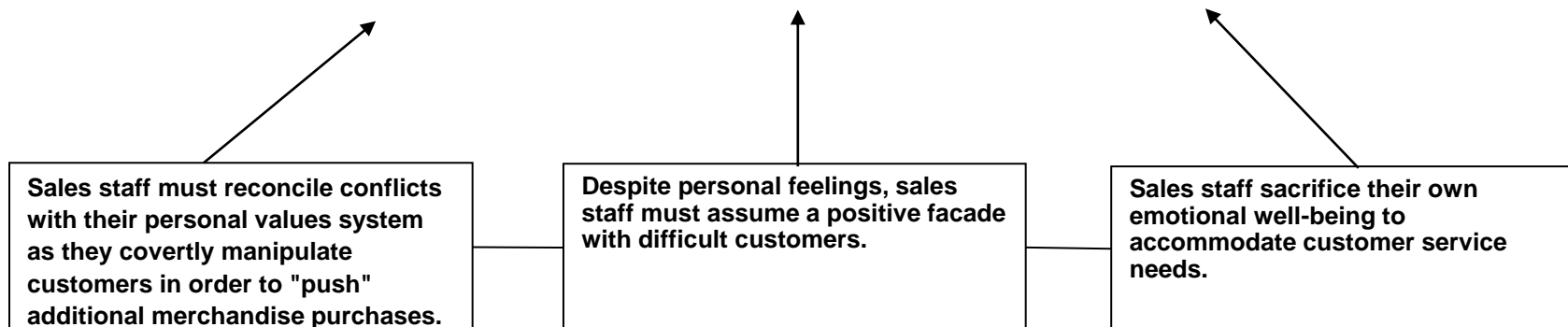
Sample Assertions

- Sales staff must reconcile conflicts with their personal values system as they covertly manipulate customers in order to "push" additional merchandise purchases.
- Despite personal feelings, sales staff must assume a positive facade with difficult customers.
- Sales staff sacrifice their own emotional well-being to accommodate customer service needs.



A Key Assertion Derived from Three Assertions

Salespersonship consists of personal devaluation through covert manipulation of and emotional subservience to consumers.





Vignettes

Erickson advocates the development of **vignettes** as not just a presentational form in reports but as a method for analyzing moments of significant interaction processes among participants. The literary genre of the short story is perhaps most comparable to how narratives about participants are composed. The qualitative researcher embellishes on yet remains strongly grounded in the empirical materials to render an evocative account of social life. The purpose is to stimulate within readers a vivid and engaging experience with the participants and their actions, reactions, and interactions.



Data Source for a Vignette

MONIQUE: "There were times when someone came in that was always like, "Give me"—and he came in repeatedly—"Give me a discount. Give me a discount. Give me a discount." And he did it in such a way that it was . . . He was like really cheerful and, "Oh, you can do it for me." Almost like a creepy, flirty type of way, and it was . . . It always happened when the manager would be, like, in the back working on closing out the books for the night, and I'd be like cleaning the floors and doing final touches. It always happened late at night or whatever...."



Sample Vignette (Excerpt)

Monique had been working on her feet for six hours straight. It was almost closing time as she mindlessly folded t-shirts that thoughtless customers earlier had picked up and threw down haphazardly into a messy pile. The front door to the clothing store swung open as ten minutes remained to her shift. Monique felt a surge of dread when she saw it was one of their regular customers whom she nicknamed "Creepy Flirty Guy." He always seemed to visit the store right before closing when the manager was locked away in his office closing the books for the night. Creepy Flirty Guy continuously asked for discounts on regularly priced merchandise. It was not that that Monique minded, but his cheerfully insistent and inappropriately flirtatious way of doing so. . . .



Assertion Development

Assertion development utilizes holistic, summative interpretations of the data. Loosely, the method relies on asking, "After reading and reflecting on the data, what are your evidence-based impressions that summarize what's going on?"

Characteristics of Pseudoscience



1. Is **UNFALSIFIABLE** (can't be proven wrong): Makes vague or unobservable claims
2. Relies heavily on **ANECDOTES**, personal experiences, and testimonials
3. **CHERRY PICKS** confirming evidence while ignoring/minimizing disconfirming evidence
4. Uses **TECHNOBABBLE**: Words that sound scientific but don't make sense
5. Lacks **PLAUSIBLE MECHANISM**: No way to explain it based on existing knowledge
6. Is **UNCHANGING**: Doesn't self-correct or progress
7. Makes **EXTRAORDINARY/EXAGGERATED CLAIMS** with insufficient evidence
8. Professes **CERTAINTY**: Talks of "proof," with great confidence
9. Commits **LOGICAL FALLACIES**: Arguments contain errors in reasoning
10. Lacks **PEER REVIEW**: Goes directly to the public, avoiding scientific scrutiny
11. Claims there's a **CONSPIRACY** to suppress their ideas

These sources can be legitimate data.

Peer review may not always be available.



Assertion Development Exercise

- See Workbook: Read Betty's open-ended social media data and compose a "first impression" analytic memo.
- Research Question: In what ways do elders cope with their health care and medical needs?
- Develop **3-5 low-level** assertions that summarize and/or interpret the narrative.
- Develop at least **1 high-level** assertion that transcends Betty's particular story—e.g., what the case says about physical therapy, healing, coping, seniors, health care, medicine, etc.

BETTY: I flew home Nov.5th [2019] and started 4 months of medical tests and Physical Therapy TIL Covid hit! I had every test from my brain to my feet. Cats, exRays, 2 milograms-neck & lower back, bone marrow, PetScan from chest to knees, nerve conduction, 5 different specialists.

I don't have cancer, blood tests showed unusual problem from bone marrow, just got retested and follow up with Cancer Center, looked good this time, next retest in April 2021.

I have tons of arthritis everywhere, much due to horse riding and being thrown on my left should and neck when in my early 20's, another on my tail bone...stove me up for a week inmy early 30's, and 2x 1 drunk plowed into car trunk while I was at a red light...I was in H.S...had bad swollen neck whip lash...PT with neck stretching 3x weekly back then. Finally discs collapsed and surgery in 2016. Have moderate to

severe nerve damage neck to spine from injuries.

Also complete digestive tract nerve damage from Diabetes from throat clear through to my ting yang . Vertigo was taken care of by a few PT treatments that fixes that. Fibromyalgia & Chronic Fatigue, Future Hip & knee replacement...

(anytime I'm ready/Dr.says) I'm NOT ready, hoping NEVER, I opt for steroid shots into my hip done at the Hospital by using ExRay machine so Dr.inserts needle precisely where it is to be. I can get them 2x yearly at the most, so that's what I've done past 3 yrs.

Spinal stenosis, and stenosis at base of neck where spinal nerves pass through.....this is the area that really reeks havoc on me. Muscles & nerves. Very weak there. When it strikes, it draws my head down & forward, causes severe pressure and aching at base of neck across shoulder and

zaps me of ALL strength to where I'll collapse if I don't lay down, it also causes very labored breathing. I was actually at the Heart specialist when I was in the throws of this once. They saw what it did to me. Immediately gave me EKG..BP goes high, labored breathing, drank water, they laid me down in another room, takes about 1/2 hr to recover to get up to walk again.

I started PT on my neck and my gait for walking, cause since last [state] trip I had to start using walker out there. Still using walker, but dropped PT again just as I resumed it for the week in late June, [my brother] passed. So I stopped again. Really need PT but can't take chances w Covid. Too many health issues. Heart is ok, a blip where it speeds up, so take a med for that, otherwise ok. It's pretty much nerve endings

through out, muscle/skeletal, arthritis, Fibromyalgia-CFS,
Diabetes, Gastro-perisis, IBS, BP..... Severe Anxiety
Disorder, depression.....other than that, everything is just
peachy!!



Assertion Development Exercise

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Betty's Conflicts

- COVID-19 pandemic stopped treatment
- Arthritis from riding accident
- Whip-lash from car accident
- Discs collapsed
- Nerve damage
- Digestive tract nerve damage
- Diabetes
- Vertigo
- Fibromyalgia
- Chronic Fatigue
- Blood pressure
- Hip and knee replacement
- Spinal stenosis: weakness, aching, labored breathing
- Brother passing
- Too many health issues: "It's pretty much nerve endings through out, muscle/skeletal, arthritis, Fibromyalgia-CFS, Diabetes, Gastro-perisis, IBS, BP..... Severe Anxiety Disorder, depression"



Analytic Memo Example

When Betty documented her medical history on social media, it was primarily physical, with hints at the mental/emotional toward the end ("Severe Anxiety Disorder, depression"). I wonder if this is a result of or correlated with the physical troubles.

"Living in the chaos narrative" struck me when I wrote it. I recall from a counseling friend that "some people don't want to be healed," but I feel that Betty would really prefer a more normal life. With her in her early 70s, she will most likely live this way until her passing, what Arthur Frank calls an "illness-as-normality" narrative.

Her final sentence, "other than that, everything is just peachy!!" can be interpreted in several ways: sarcastic, self-deprecating, ironic, resigned, even cheery despite it all.



Analytic Memo Example

Nevertheless, she's proactive with her health through tests, medication, physical therapy, cautious with COVID-19, remaining ambulatory, a "take-charge" attitude with her treatments ("I'm NOT ready, hoping NEVER, I opt for steroid shots...").

At times there's exaggeration/hyperbole: "every test from my brain to my feet," "tons of arthritis everywhere," "severe," "complete," "clear through to," "NOT ready, hoping NEVER," "really reeks havoc," "very weak," "severe," "labored," etc. Like a sitcom line goes, "God, she is just so much work!" Health care as work. This is her job—or rather, in retirement years, her occupation.

Dramaturgically, health and medical conflicts abound, but her tactics seem what is medically necessary, with physical therapy being mentioned the most. She doesn't mention seeing a counselor or mental health professional.



Analytic Memo Example

Perhaps this is her tragic flaw—not taking care of her mental/emotional self? Not much emotion at all is overt in her narrative. She herself writes, "everything is just peachy!!" (with 2 exclamation points).

There is some subtext, but I may be making inferential leaps here: She wants people to know her story in all its detail—that if she's perceived as "weak," it's because she's had unfortunate accidents in her youth. No need to be an intimate friend—she'll recount her story to total strangers. She just needs someone to listen—or in a social media context, to read. And perhaps to understand. She doesn't directly ask for sympathy. This has been her life: pain, physical therapy, more pain, more physical therapy, a new condition, it just goes on and on....

Coping: it means just going on going on.



Assertions Based on Inferences

- **A Poor Inference/Assertion:**
 - Betty is a wreck and her health is a complete mess.
- **Low-level Inferences/Assertions:**
 - Betty wants to live pain free.
 - Betty resists surgery for pain management.
 - Extreme words appear in caps in Betty's narrative: TIL, NOT, NEVER, ALL, suggesting a "take charge" attitude toward her health care.
- **A High-level Inference/Assertion:**
 - During retirement years, some seniors' health care is a full-time, painful, uncompensated occupation.



On Patterns and Disconfirming Evidence (Outliers)

In some cases, the unique datum that appears just once and nowhere else in the data corpus, or a datum that appears just two or three times across different cases or time periods, may hold important meaning for generating a significant insight in later analysis.

Unfortunately, that same number of just one, two, or three instances of a datum may also suggest something unimportant, inconsequential, and unrelated to your research questions and purpose. The analyst must reconcile which one of these possibilities is at work.



On Patterns and Disconfirming Evidence (Outliers)

Harding (2019) recommends that a [datum] shared by approximately one-fourth of the study's respondents merits consideration in the analysis and a possible contribution to the research findings. He also advises that roughly three-fourths of the total number of participants should share a similar [datum] between them (related to an experience or opinion found in their data) for a “commonality” to be established, such as a category or theme [or assertion].



On Patterns and Disconfirming Evidence (Outliers)

Elliott and Timulak (2021) label categories or themes that appear in at least 80% of participants *general*; 50% as *typical*; by at least 2 informants but fewer than half total, *variant*; and by just 1 participant, *unique*.

Just as statistics are probabilistic and not deterministic, Braun and Clarke (2006) offer a realist perspective that a pattern in data is rarely 100% complete and non-contradicted.



A Summary of the Assertion Development Process

"A good interpretivist researcher analyzes evidence as follows: He reads and rereads the body of evidence as a whole; generates preliminary assertions (specific statements of what he believes to be true) by inductive means; warrants each assertion by first assembling all segments of data that confirm the assertion, assembling all the data segments that seem to disconfirm the assertion; examines extreme cases for how they shed light on patterns; weighs the evidence, discarding or redefining assertions that do not stand up to the warranting process; looks for an organization system that links assertions to one another (e.g., hierarchies or processes); for each surviving assertion, constructs a vignette, something like a short story with actors, settings, and an arc that demonstrates the truth of the assertion in narrative form; and frames assertions and vignettes in interpretive commentary, with general and particular data." (Coulter & Smith, 2009, p. 587)



Remember...

- **Assertions** are declarative statements of summative synthesis about the researcher's fieldwork observations, supported with or **instantiated** by an **evidentiary warrant** from the data corpus.
- If any **disconfirming evidence** or discrepant cases appear that negate the validity of the assertion, the statement is revised to accommodate the data.
- The goal is not to look for "proof" to support assertions, but **plausibility** of **inference**-laden observations about the local and particular social world under investigation, and their possible implications for broader generalizations. We **infer to the best explanation** in order to assert with **reasonable certainty**.
- A **pattern** in data is rarely 100% complete and non-contradicted.



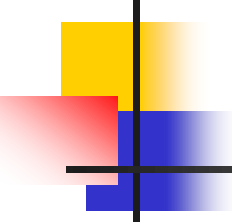
Part 7

Analytic Writing and Software



Analytic and Formal Writing

The **analytic and formal writing** style is the most predominant one in the scholarly literature and the form that seems to exemplify what a majority of academics consider "rigorous" investigation and "solid" research. Wolcott (1994) identifies this style as scientific in character. It is sound technical writing that illustrates how key factors interrelate and presents the patterned regularities of data through a sense of ordered management. Van Maanen (2011) notes that the formal tale emphasizes theory generated from logical analyses, though he cautions that such writing can make the researcher's work appear dry, awkward, and stilted.

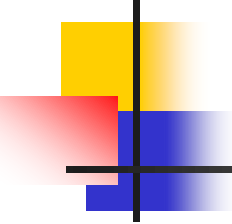


Analytic and Formal Writing Example

Jenna Whitehead, Kimberly A. Schonert-Reichl, Eva Oberle, and Lara Boyd. (2022). What do teachers do to show they care? Learning from the voices of early adolescents. *Journal of Adolescent Research*.
<https://doi.org/10.1177/07435584221076055>

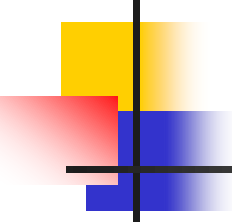
Abstract

This mixed methods study examined how middle school students (ages 11–13) in middle-class neighborhoods in Western Canada characterized a caring teacher. Specifically, qualitative content analysis was conducted on 199 sixth and seventh grade students' written responses to the question “What are three things that teachers do to show they care?” Guided by recent work in the area of mindfulness in teaching, we identified 19 themes: one was categorized as



Analytic and Formal Writing Example

General Teaching (e.g., “They teach”), and 18 that were grouped into one of three thematic categories associated with mindful teaching: *Calm* (e.g., calm/not reactive), *Clear* (e.g., democratic communication), and *Kind* (e.g., empathy). In their descriptions of caring teachers, almost all students (97.5%) used Kind themes, while many used Clear themes (41%); with fewer students using Calm (13.6%) or General Teaching (10.6%) themes. Chi square analyses revealed that girls were more likely to mention Clear themes compared to boys, while boys were more likely to use the



Analytic and Formal Writing Example

specific themes of nurturance and helpfulness. Additional demographic differences were also explored. This research adds to the growing body of studies aimed at elucidating the role of mindful teaching in caring student-teacher relationships, particularly from the perspectives of early adolescents.

Keywords

mixed-methods, early adolescence, qualitative methods, education/school, student perspectives, student-teacher relationships

Table 4. Themes and Sample Student Responses.

Category	Themes	Sample Student Responses ^a
Calm	Calm/not reactive	"Does stuff calmly like not yelling," "She uses a calm and kind voice with everyone"
	Patience	"Be patient when someone doesn't understand material"
Clear	Democratic communication	"Listens to you," "Talk to the students as if they're her friend"
	Presence/attunement	"Seeing if someone needs something," "They listen with their eyes"
	Classroom management	"Creates a calming environment to work in," "Resolve a problem before it gets big"
Kind	Kind/nice	"Kind to you," "They are kind," "Being nice to me"
	Caring	"Cares for you," "She always shows that she cares about us"
	Nurturance	"They congratulate what you do," "They show me support," "Says positive words"
	Helpful: School related	"Help you to learn more," "Help with work," "Help you to understand more clearly"
	Helpful: Personal	"Help with friends," "Help you calm down"
	Helpful: Generic	"Help us," "She is helpful," "They help you"
	Friendliness/warmth	"They say good morning," "She smiles a lot," "Greet you"
	Compassion	"They comfort you when the person is sad," "They help you when you're hurt"
	Generosity	"Giving me supplies if I need some," "They are generous,"
	Empathy: Person-related	"Notice when you're upset," "Try to understand you and your problems"
	Empathy: School-related	"Makes sure you understand," "Give us breaks when we need them"
	Equal treatment & respect	"Inclusion," "My teacher respects us," "Respecting boundaries"
	Trustworthy	"I can trust her," "They are trustworthy," "They are not a fake teacher"
General Teaching		"Teach," "Teach us," "They educate you,"

^aExamples in quotation marks are original responses from participants in this study. Spelling errors have been corrected for clarity. Each phrase in parentheses is a codable unit.

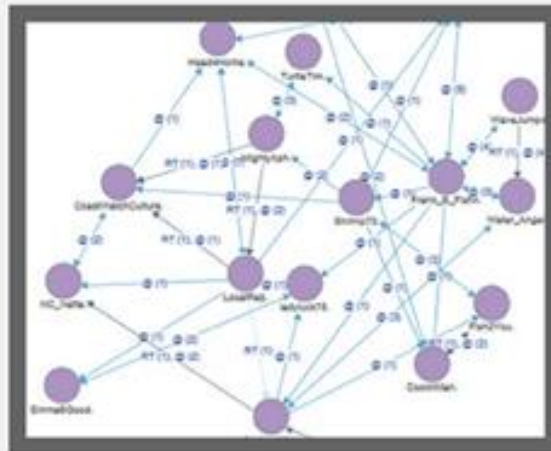


CAQDAS (Computer Assisted Qualitative Data Analysis Software)

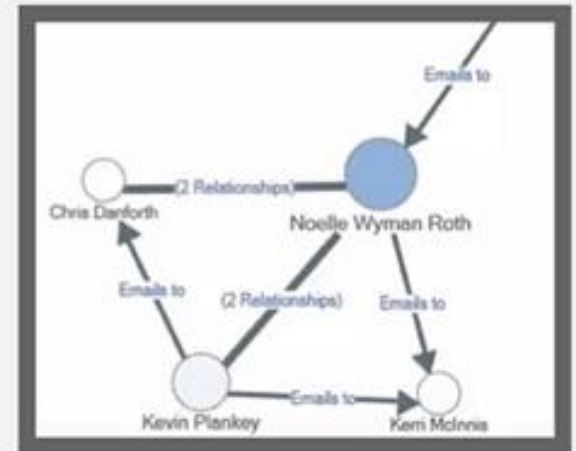
- ATLAS.ti: www.atlasti.com
- Dedoose: www.dedoose.com
- HyperRESEARCH: www.researchware.com
- MAXQDA: www.maxqda.com
- NVivo: www.qsrinternational.com
- QDA Miner: www.provalisresearch.com
- Quirkos: www.quirkos.com
- Transana (for audio and video data materials): www.transana.com



Automate coding



Analyze social networks



Enhanced data visualization

ATLAS.ti

The screenshot displays the ATLAS.ti software interface. The main window shows a text document titled "P 2: Lumper vs. splitter" with the following text:

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.

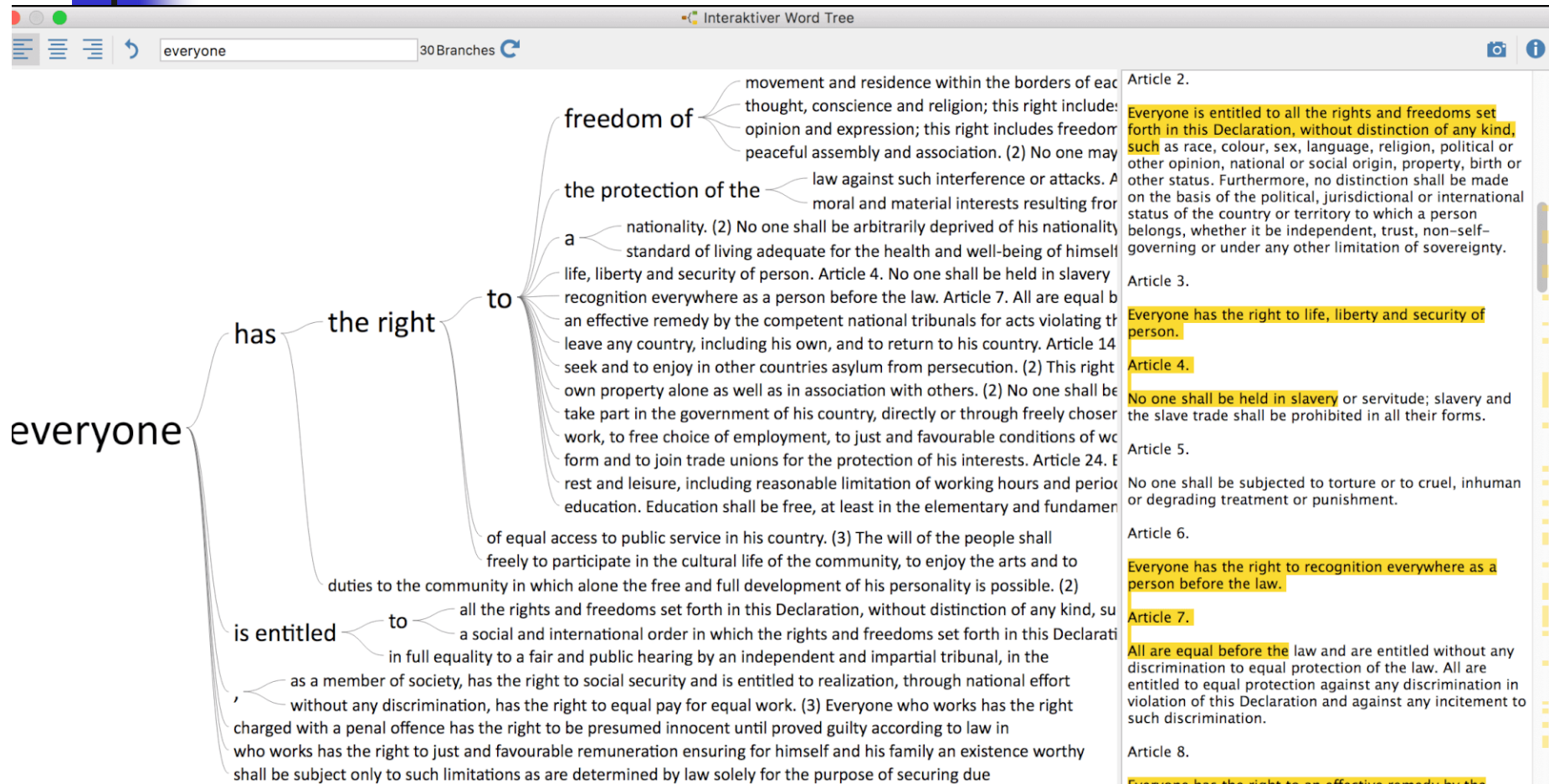
The sentence "There was just a lot to learn that I had never even thought about." is highlighted in blue. On the left side, there is a "Codes" panel with a search bar and a list of codes:

- A lot to learn
- I really had to learn
- I thought I was so ready
- Inner city schools
- Reality
- The culture
- Unique situation

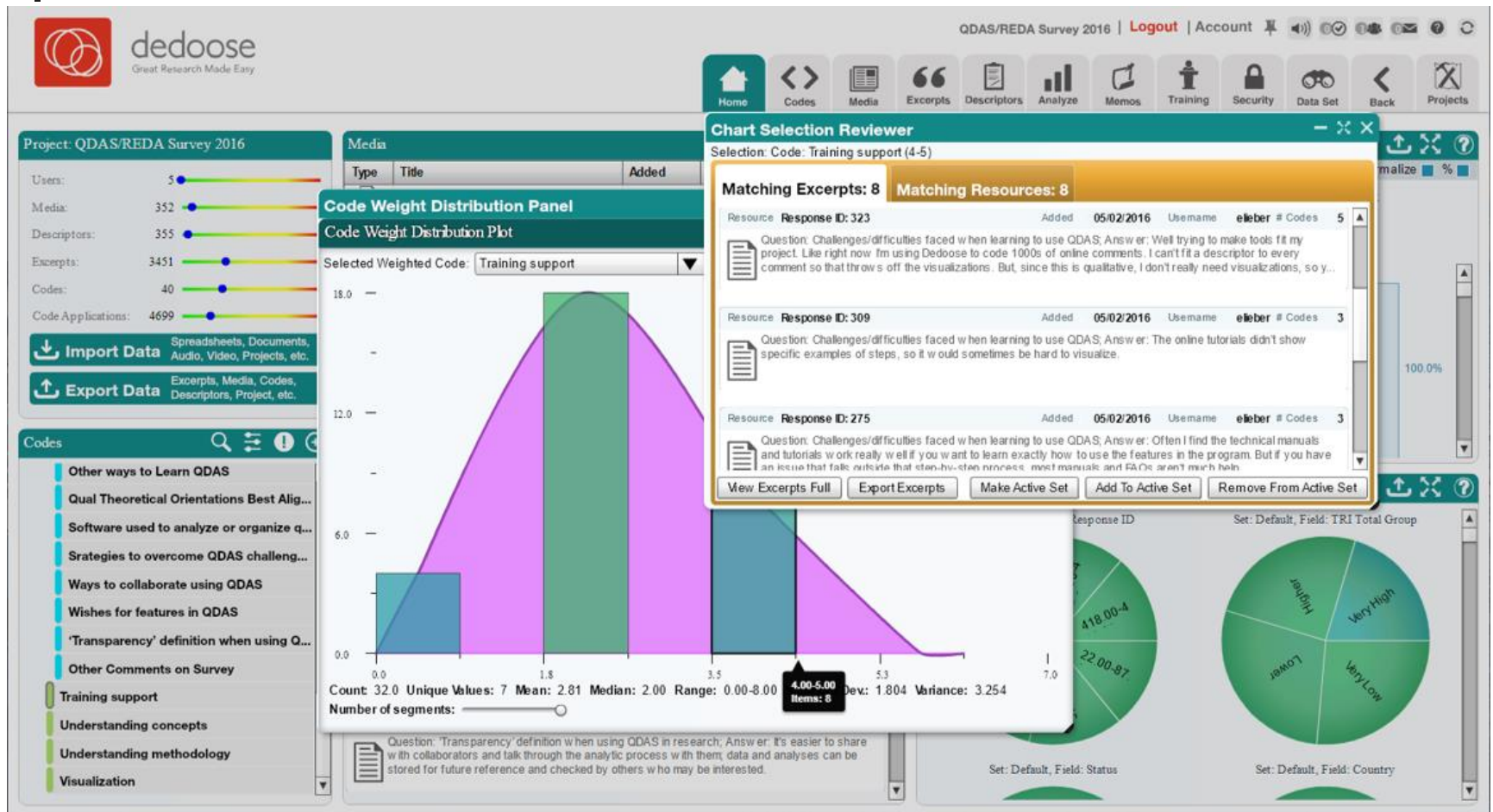
On the right side, there is a "Reality" panel with a list of codes:

- A lot to learn
- I thought I was so ready
- Unique situation
- Inner city schools
- I really had to learn
- The culture
- A lot to learn

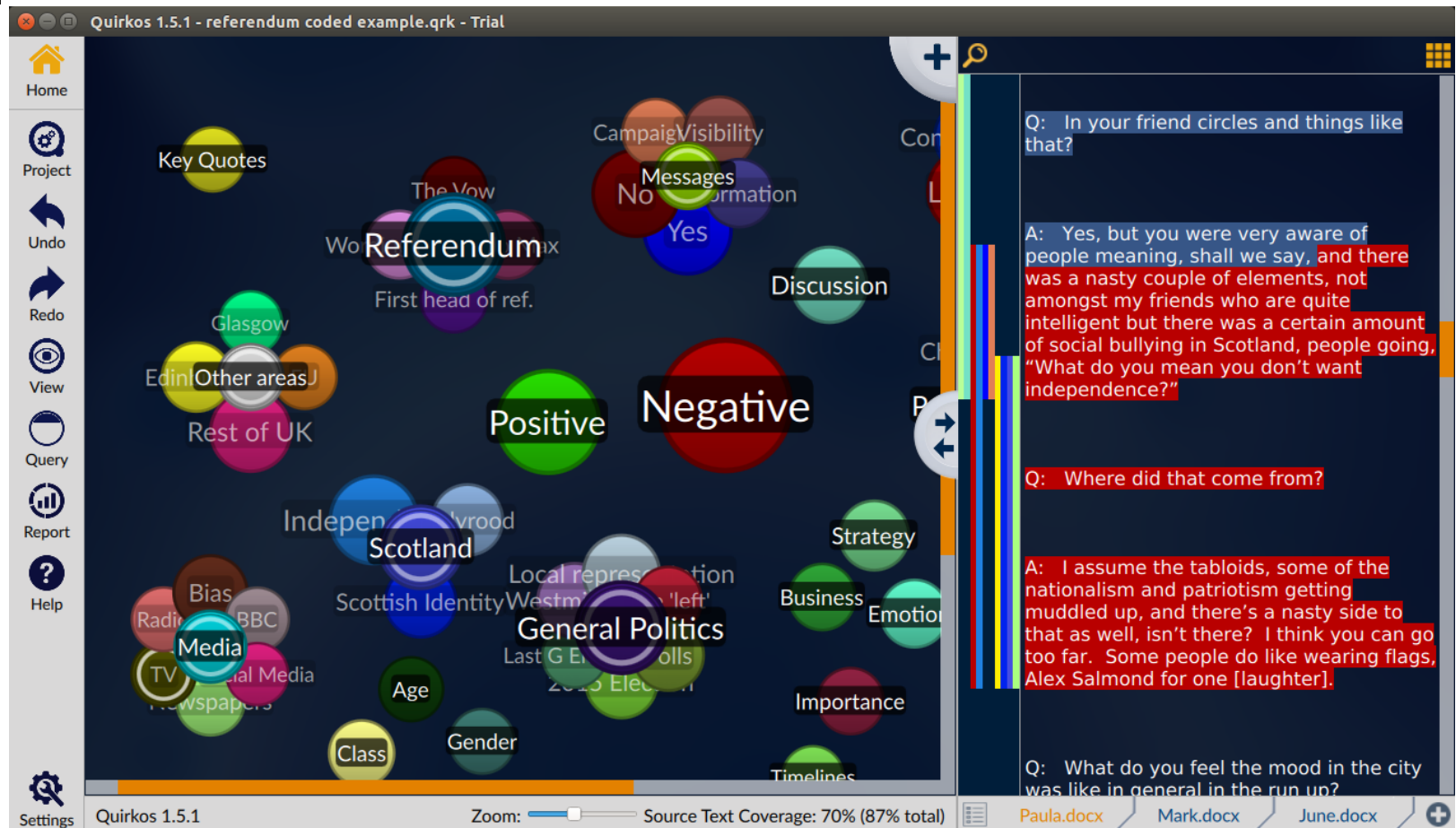
MAXQDA



Dedoose



Quirkos



Transana

Transana - Professional

File Document Tools Options Window Help

Visualization

0:20:00.0 0:40:00.0 1:00:00.0 1:20:00.0

Time: 0:00:21.7 Current: 0:40:37.8 Selected: 0:00:00.0 Total: 1:21:59.2

Transcript - Classroom Video > 3-Cut Pie > 3-cut Pie - Drawings and Gestures

Selection: 0:40:37.4 - 0:40:40.7

Transcripts for 3-Cut Pie

780 S: It sounds like that (name) was trying to do, she's trying to say
781 it's like a cake, pretend like it's a square cake, and the top. SO it's
782 like you cut it... (Indecipherable)
783 S: So it's not exactly drawn right
784 T: Hands down please. Hand's down please. She's still talking.
785 S: How do we draw a cake.
786 S: I don't know.
787 S: Wait
788 S: Right in the middle if you have the line going across.
789 S: Wait let (name) show his drawing.
790 S: Okay, umm, here there's aren't separate peices are they? Because
791 the pie...
792 S: Yeah they are.
793 T: I need that diagram to have a different color for the lines tha
794 are cuts.
795 (name demonstrates)
796 S: See if you do it like that.
797 S: There's three cuts.
798 S: yeah but that's what you're supposed to have three.
799 S: Yeah, but that's not eight pieces, that's only six.
800 S: One, two, three, four, [and then you... yeah this has to go all

76
77
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79
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81 Round 14 starts -- a correct solution mis-perceived in
82 two ways
83
84
85 That's three cuts.
86
87 But that's only 6 pieces
88
89 You go all the way through
90
91 Those aren't equal
92
93

Video Media File: "E:\Data\David\Video\Transana\Workshop\Leader\3-cut Pie\MIRANDAS_3_CUT_PL...

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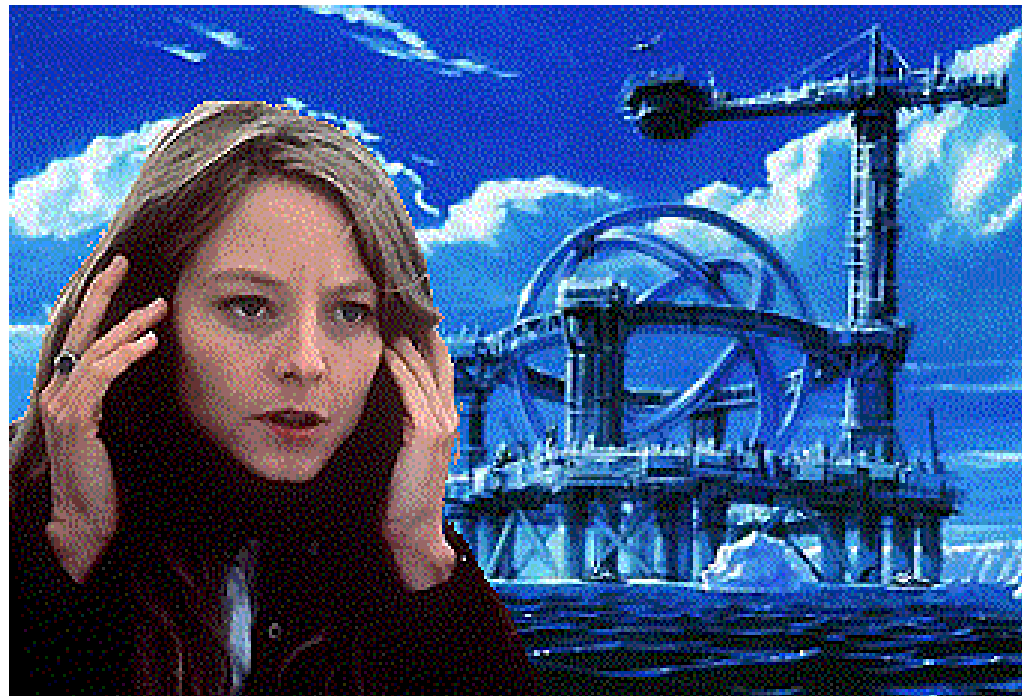
Data

Database Episode Items Selected Items Keywords

Time	Item ID	Keyw
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Scenes from *Contact*

How is the scientists' dilemma similar to coding and qualitative data analysis?





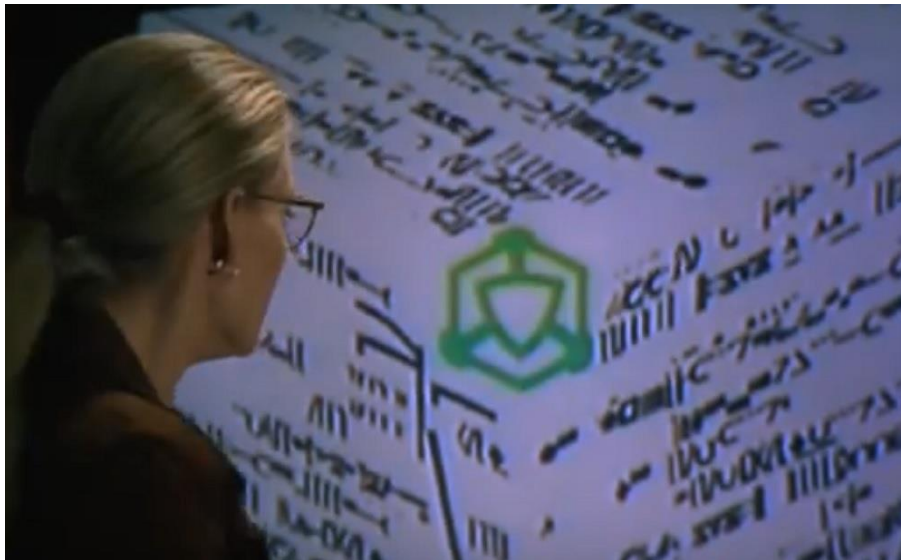
Framing for *Contact*

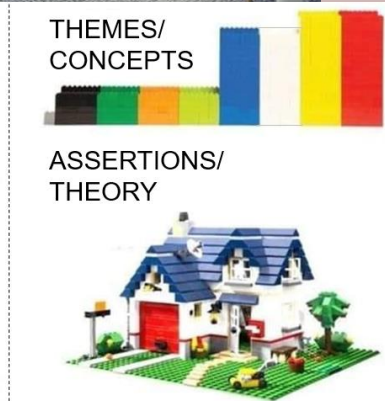
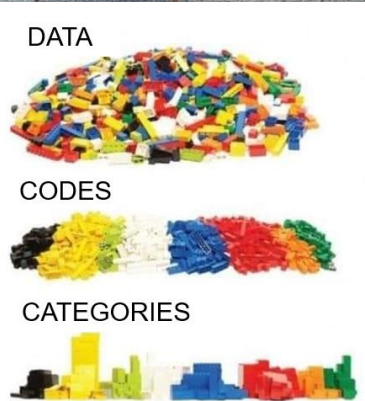
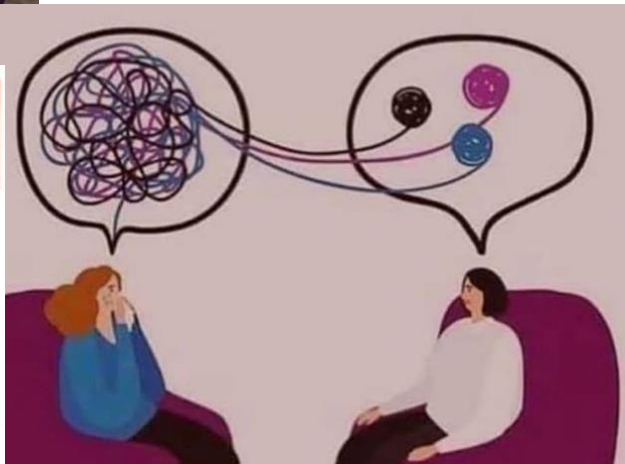
- The first TV broadcast transmission on earth was Hitler announcing the opening of the Olympic Games—hence, the reference to data in "the Hitler image," which aliens from the star Vega have returned back to earth
- The man who helps Ellie solve the mystery is her secret benefactor, industrialist S. R. Hadden, who stole the data from Ellie's lab
- How is the scientists' dilemma similar to coding and qualitative data analysis?



An Important Qualitative Data Analysis Lesson

- How is the scientists' dilemma similar to coding and qualitative data analysis?
- "There it was all the time, staring you in the face. Buried within the message itself is the key to decoding it."







An Analytic Poem (adapted from the works of Harry F. Wolcott)

Only understanding matters.

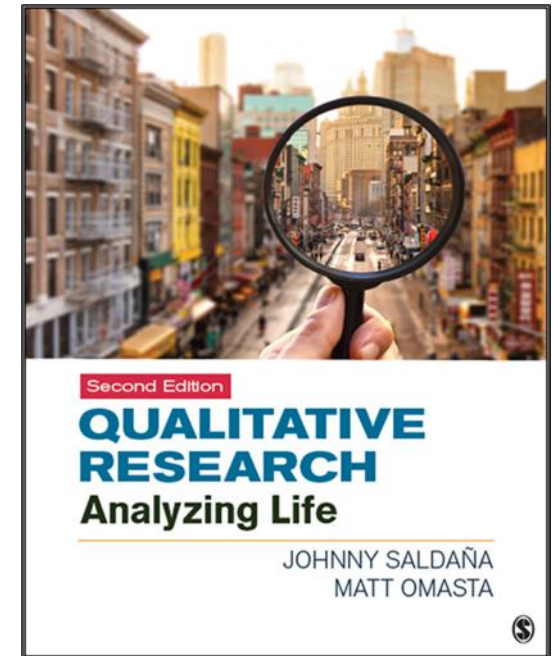
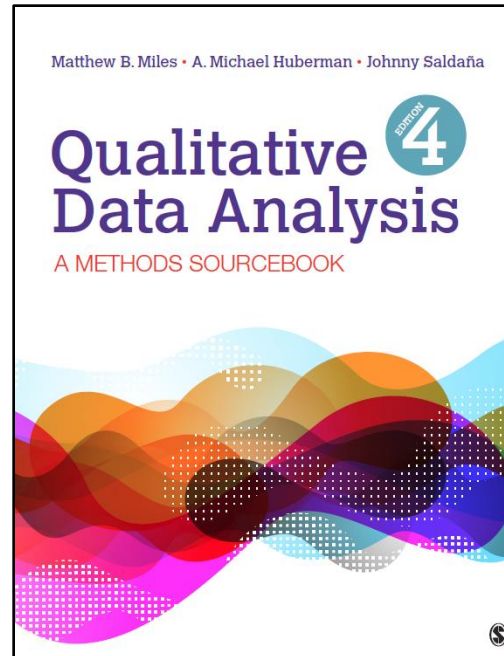
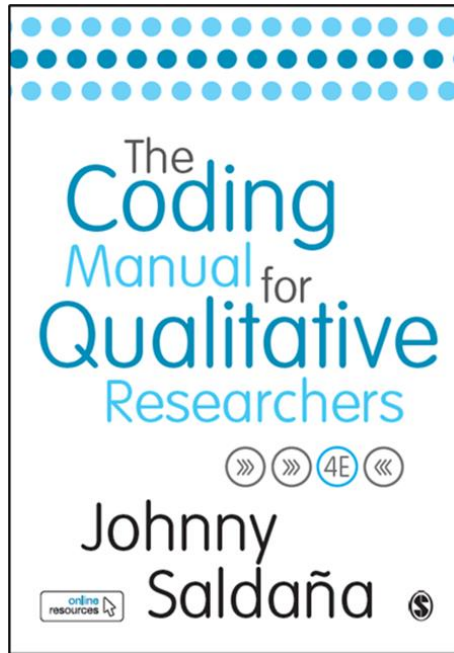
We must not just transform our data,
we must transcend them.

Insight is our forté.

The whole purpose of the enterprise is
discovery and
revelation.

We do it to be profound. . . .

Learn More About Qualitative Data Analysis





Q & A

?



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