The Joy of Coding

Anne Smith

HASLAM
COLLEGE OF BUSINESS
THE UNIVERSITY OF TENNESSEE, KNOXVILLE

Coding

is characterized as

Mysterious!

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Coding Practices and Iterativity: Beyond Templates for Analyzing Qualitative Data

Karen Locke[1], Martha Feldman[2], and Karen Golden-Biddle[3]

Abstract

Researchers can expect to perform analytic actions repeatedly; that this iteration is required is a common observation. Yet, how researchers engage in iteration to progress their theorizing is not articulated. Our analysis provides new insight into what it means to iterate in the service of driving analysis. We examine iteration through the lens of the analytic process of coding in specific research projects. Using a relational definition of coding, we identify the reported coding actions of several studies with rich descriptions of their analytical processes. By doing this, we show that it is useful to understand these coding actions in the context of coding moments that relate to how researchers use the coding actions as their project develops. The moments we identify are *making codes*, *organizing to code*, and *putting patterns together*. To show iteration, we trace the reported coding practices in exemplar articles. These tracings indicate that the reported process is not a fixed or consistent sequence. Rather, iterativity is organized by what is the next needed analytic input

Tabula geminus: A "both/and" approach to coding and theorizing

Glen E. Kreiner

Management and Organization

Research output: Chapter in Book/Report/Conference proceeding › Chapter

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ACHIEVING RIGOR IN QUALITATIVE ANALYSIS: THE ROLE OF ACTIVE CATEGORIZATION IN THEORY BUILDING

STINE GRODAL
Northeastern University

MICHEL ANTEBY
Boston University

AUDREY L. HOLM
Boston University

Scholars have long debated how rigor can be achieved in qualitative analysis. To answer this question, we need to better understand how theory is generated from data. Qualitative analysis is, at its core, a categorization process. Nevertheless, despite a surge of interest in categorization within the social sciences, insights from categorization theory have not yet been applied to our understanding of qualitative analysis. Drawing from categorization theory, we argue that the movement from data to theory is an active process in which researchers choose between multiple moves that help them to make sense of their data. In addition, we develop a framework of the main moves that people use when they categorize data and demonstrate that evidence of these moves can also be found in past qualitative scholarship. Our framework emphasizes that, if we are not sufficiently reflexive and explicit about the active analytical processes that generate theoretical insights, we cannot be transparent and, thus, rigorous about how we analyze data. We discuss the implications of our framework for increasing rigor in qualitative analysis, for actively constructing categories from data, and for spurring more methodological plurality within qualitative theory building.

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Building Transparency and Trustworthiness in Inductive Research Through Computer-Aided Qualitative Data Analysis Software

Paula O'Kane[1], Anne Smith[2], and Michael P. Lerman[3]

Abstract

Many scholars have called for qualitative research to demonstrate transparency and trustworthiness in the data analysis process. Yet these processes, particularly within inductive research, often remain shrouded in mystery. We suggest that computer-aided/assisted qualitative data analysis software (CAQDAS) can support qualitative researchers in their efforts to present their analysis and findings in a transparent way, thus enhancing trustworthiness. To this end, we propose, describe, and illustrate working examples of six CAQDAS building blocks, three combined CAQDAS techniques, and two coder consistency checks. We argue that these techniques give researchers the language to write about their methods and findings in a transparent manner and that their appropriate use enhances a research project's trustworthiness. Specific CAQDAS techniques are rarely discussed across an array of inductive research processes. Thus, we see this article as the beginning of a conversation about the utility of CAQDAS to support inductive qualitative research.

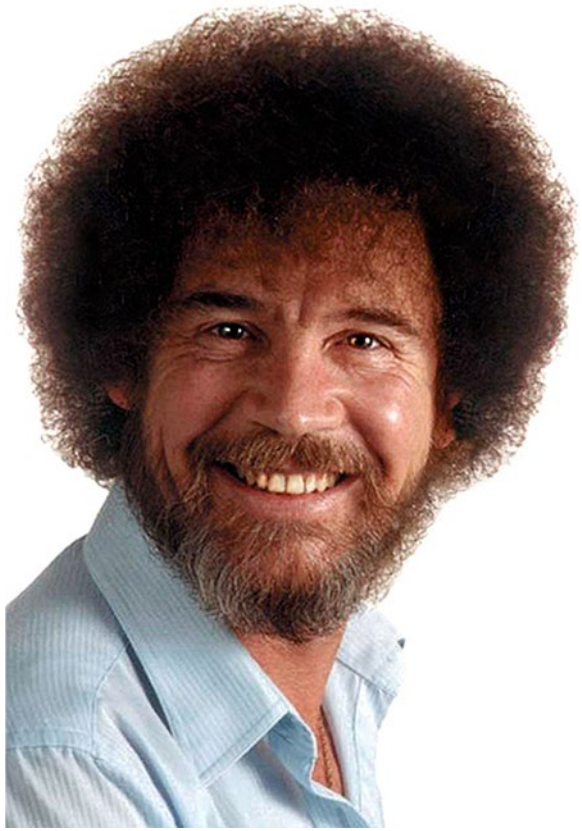
Keywords

inductive research, text coding, Computer Aided Qualitative Data Analysis Software (CAQDAS), NVivo, QDA Miner

What is coding?

"Coding entails the work of scrutinizing, pondering, and organizing collected observations and relating them to theoretically relevant abstract features, possible relationships, and research questions." (Locke, Feldman, & Golden-Biddle, 2022)

"Coding is at the heart of many qualitative methods and is an established methods of 'meaning condensation' (Lee, 1999: 89) in which the researcher identifies and keeps track of the most relevant themes or 'codes' from the data" (Kreiner, 2016: 351)



My approach and assumption:
That coding is a learned skill – like painting – that flourishes with encouragement, joyful enthusiasm, and “happy accidents” as you learn.

Coding has similar features to crafting a painting.

“You are an artist.
Whether or not you believe it, you are an artist.”

Ross & Pearlman, 2020, pg. 13

The Metaphor of Painting: A Pragmatic Approach to Coding

- You are creating the image; you are the instrument to understand the text.
- We play an active role in creating understanding of *what is say* and *what is unsaid.*
- There is no one correct pathway.
- Coding improves with practice.

Preparing for Coding

https://usartsupply.com/products/usa-pl-2435

https://usartsupply.com/products/usa-e-381

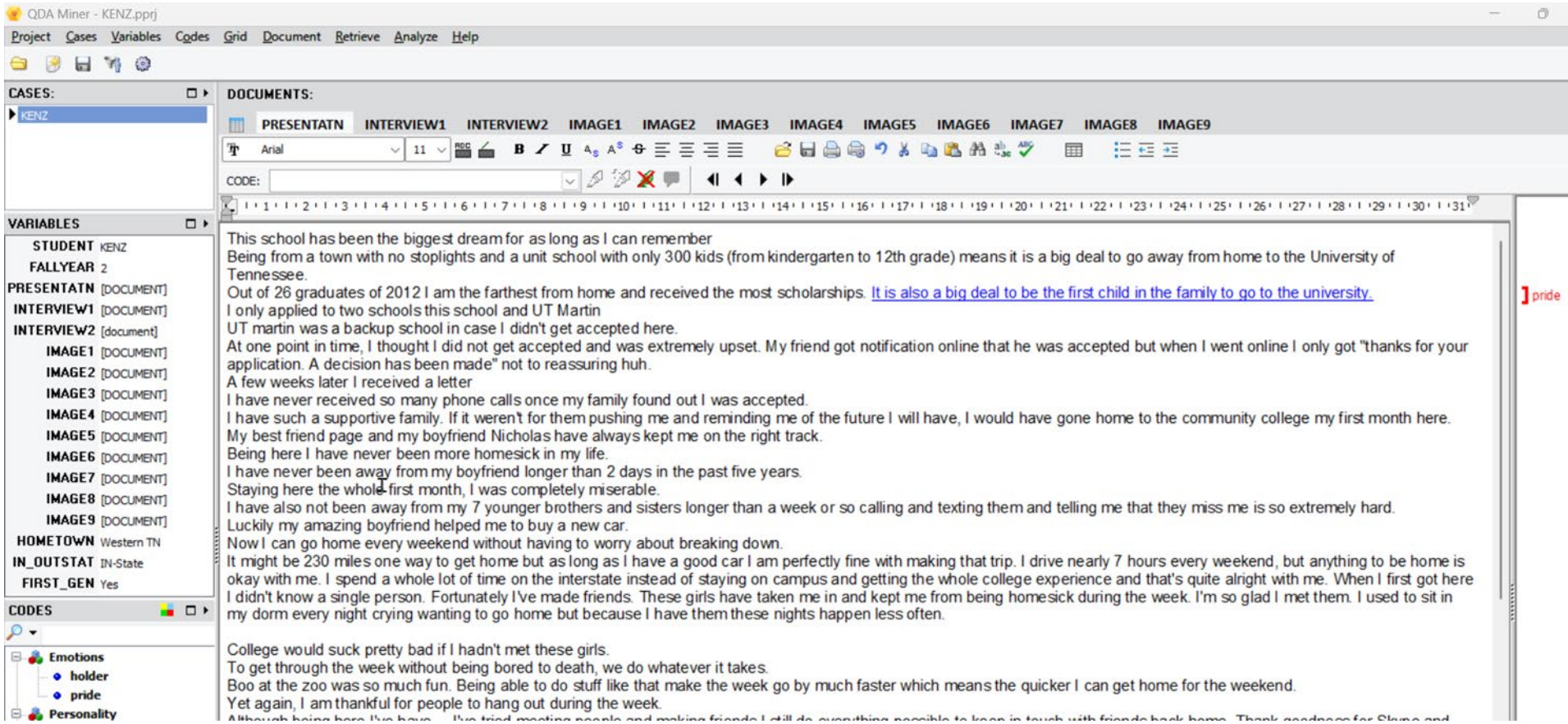
Preparing for Coding

- Capturing the text –
  - Transcription decision (interviews)
  - Converting to readable format (documents)
- Data collection and analysis are not discrete processes
- Decision about mechanism to code

Preparing for Coding

- Labeling each document – attributes/variables
  - Type of Text: interview, observational note, meeting transcription, media, articles, etc.
  - Key Info:
    - Date of collection or observation; publication/outlet of document
    - Who interviewed, author or source of article, etc.
- Create an organized structure in a notebook or CAQDAS

Preparing Project: CAQDAS



Preparing the Canvas

https://www.harborfreight.com/3-in-chip-brushes-12-pk-61492.html

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Large 3-4” Brush: Preparing the Canvas

- Big, broad brush strokes – coding big swaths of data.
- Examples:
  - Capturing time periods
  - Capturing ‘fluff’
  - Capturing answer to a particular question
  - Capturing main events
  - Capturing junctures during an interview

Capturing Time Periods & Fluff in a Document: Letters to Shareholders

- **AMERITECH (1993) CURRENT**

In 1992, some $6.5 billion a year was spent on long distance calls that originated in the region we now serve.To advance our timetable for addressing these customer needs and market opportunities, we've been pressing for change in outdated government policies. In 1993 we filed suits to set aside a rule that prohibits us from offering video content in our region. Also in 1993, we took the lead in the battle to end the long distance restriction imposed by a U.S. District Court 10 years ago at the breakup of the Bell System. Through our Customers First filing with the FCC, and parallel initiatives with the utility commissions in four of the states America serves, we proposed a dramatic and bold plan. In return for an end of the long distance ban and certain other policy reforms, we'll open our network for full interconnection by other suppliers. In return for an end to the long distance ban and certain other policy reforms, we'll open our network for full interconnection by other suppliers.

This action by Ameritech has, in effect, redefined the policy …. We've also asked the Department of Justice for permission to conduct a trial of the Customers First Plan that would allow us to offer long distance service beginning in Illinois in 1995.

- **FUTURE**

When we reviewed issues on the public agenda, we identified three broad areas where there's excellent growth potential and our resources can help an especially effective way. In education, there's an enormous need for innovative techniques-and breathtaking opportunities to create new experiences for students and teachers through the use of information technology. Businesses need access to more information solutions to help them strengthen the national economy and compete in the global, information-based marketplace. And consumers need the better, more affordable health care that information applications can provide, the control over their lives that electronic transactions can afford, and the safety and security that result from better, more mobile communications.

- **FLUFF**

It's a strategy that capitalizes on a spectrum of solid market opportunities. It leverages our skills. And it's thoroughly predicated on the needs of our customers and the goals of our investors. We're proud of this strategic vision. We're proud to report action on so many fronts in support of it. The initiatives of recent years, and especially of 1993, prove that we can and

Capturing Answer to Particular Questions: Plant Manager Interviews

Interview PM: Well, I started out as an industrial engineer right out of school, worked in a manufacturing plant in Knoxville, really great experience because uh, of the breath of manufacturing processes that I was exposed to ear contained, it did everything, stamping, plating, hea automated assembly, they had painting operations great wide variety of experiences to be exposed to school, I decided it was time to go back and work did in two years. I went through the EA program becoming supervisor of industrial engineering at t manager of industrial engineering at that plant....u somewhere between 15000 and 16000 people. D department averaged around 15 during the time I a lot of fun. It was automotive, so it was horrible the automotive industry, turn it down, because the start with. When you are young and got lots of e patience; it is not a good place to work...haha...uh. two guys because we realized that we were saving probably do it on our own, so we started our own opportunity to sell a business that we bought and a partners wanted to keep running the business and and we broke up the partnership. They continued came to work here in 82, which was in this plant, came in as engineering manager, and uh, but basic goal's who hired me at the time was that I would b manager, and uh, unfortunately in 1986 after being Ross was bought by uh, a group of investors calle read the book Barbarians At the Gate by KKR, uh brothers were in with, they were absolutely oppos other. So, one would try to buy won bigger than were being laid at that time kind of got skewed. manager in Pittsburgh resigned from the company months hold I was called into the plant manager's move to Pittsburgh and I am going, I don't know, well, you can stay here and wait for me to go do s go be plant manager tomorrow, and so, and it was along very often. So, I went home and my wife a wanted to stay home with our daughter for a year raise her there, as long as I am home with her, it d opportunity we can't pass up, so off to Pittsburgh think I had proven myself here to be a good mana were given progressive responsibilities and the bu projects and millions of dollars, and I had done th plant consolidations where I was responsible for n that successful and came in on time, so I mean, I g People will say, lets see if Mr. Bradshaw can hand

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success, that's when you can be given more responsibility. I am not sure what prepares you to be a good manager of people. Um, over the years, I have certainly read a lot of leadership books and how to be a leader, but I am not sure how I came about those probably because I have had some really good managers, good teachers that I really looked up to that were good mentors in my career, and even my masters degree I had some really good relationships with those peop have some really good managers to work for that taught me a lot, but be comes from common sense most of the time, and it goes back to some would you like to be treated, treat people that way, how would you like that way, and I think it was those types of things that helped me be mo others...um,

Interviewer 2: Were those traits also found in the mentors that you hav

Interview PM: Oh yeah, absolutely, yeah. Otherwise, how would I kn also been managed by some pretty horrible people, who were bad mana didn't always have the benefit of having good people to work for. Thre where I was working for good people who left and I wound up working wasn't quite so good and you can see their traits and characteristics and and know that is not how you want to manage or want to manage or wa those kind of experiences really galvanize you the other way.

Interviewer 2: Was it because those managers, those bad ones didn't kn jobs that other people did well, or was it that they just didn't have peopl or relate to them?

Interview PM: Well, I think in some cases, they were old school, they is, middle to late seventies, this are guys that have been managing for tw out of it in the fifties who were type A personalities, they were very dict management skills which is what they had been taught, so I think that w in the sixties and seventies to get people to really think about, the term e involvement, in the fifties and sixties didn't exist in manufacturing. Yo going to be involved or empowered to do anything except what we told that was the kind of manager that i was exposed to a couple of times tha not how i want to be, and uh, so, I think you know, having experiences good format for how you want to manage people, and knowing also that person in the room always and that there are people that have ideas and and exposure to...team building...exercises either in their career or in sch things where you have to rely on others for their contribution for the tea really gives you a good experience, to know that, just because you have in one area, you may not be smart in every area and for a team to be suc a big task, one person can't do it all, realizes, what is it Clint Eastwood s has no limitations, and I think you do, it is a pretty profound statement, you don't know it all and you can't do it all, and at some point, you have project that you have been assigned to be successful and bring others in either on time constraints you can't physically get it done in a time invol

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help or whatever. I mean, if I had a laptop when I was in college, I would have been dangerous compared to what we had now, I am talking about hunt and peck with a typewriter typing out a sixty page thesis like this, you know, it was horrible, haha.

Interviewer 2: Uh, going back to some of the mentors that you have had, do you still rely on some of those people today?

Interview PM: Yes, I still have friendships with a couple of them, but actually, the senior industrial engineer that I went to work with 1973, he and I have crossed paths in companies, and he hired me, uh once, I hired him once when I was in Pittsburgh and he was working for, he had left Allied Chemical and was working here in Athens for a plant that made motors, and uh, when it was bought, they changed management, so he left, so he was at home riding his tractor, and I called him up one day and said hey, I need somebody to help me with a project, and so, I hired him to help me build a plant in Sparks, Nevada as a project manager and general contractor type position, and before we were done T corp &B hired him, uh, and he went to work at corporate and I moved from Pittsburgh to South Haven, so then in 92, I left the company to go to one of those great opportunities that didn't quite pan out, we will get into that later, but after two years, I left that company, and he hired me back to T corp &B. So, he has hired me twice and I have hired him once, so that is the kind of relationship...

Interviewer 2: So, let me make sure I got this right, you were a plant manager in Pittsburgh and you had a project to build another plant in Nevada...haha?

Interview PM: Oh yeah.

Interviewer 2: Did you have to go out there a lot or was most of it from in Pittsburgh?

Interview PM: Oh no, in my career, I have managed three plants at the same time twice, so multiple plant responsibility. When I went to Pittsburgh, we had a plant in the suburb of Pittsburgh which was about 20 miles west of Pittsburgh, and we had a second plant in Oakland California that was making similar product, and I was responsible for that, it was a very small plant and it only had 30 people, but still it made the same product that Pittsburgh made which had 200 people. And, the plant in Oakland was owned on leased land that was owned by the port of Oakland and they wanted to expand the port, so we eventually had to move it and we also wanted to build a warehouse in Nevada to serve the west coast because of the tariff situation in California, it is actually cheaper to ship products into California than from inside California to another town in California, because of their laws, it is crazy, so that was our situation at the time. And, so we build the plant in Sparks, which is Reno, which is the same time, Reno is here and Sparks is here, so we closed the plant in Oakland, California and built a new plant in Sparks, Nevada along with the warehouse that was being expanded also.

Interviewer 2: Were you involved with both projects, the plant and the warehouse?

Interview PM: Yeah, it was in the same building, we just divided up the building and put manufacturing on one end up of it with a dividing wall and a warehouse on the other.

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Capturing Answer to Particular Question: Plant Manager Interviews

Interviewer 2: During a typical day, if you had to divide your time up into five different areas or activity buckets, what would they be and how much time do you spend at each activity?

Interview PM: I work on a standard day, and that's...it's not perfect but it's close. From 7 o'clock (am) until 8:30 I, uh, check emails, check our intranet system here. We overnight automatically download all the reports, sales from yesterday, bookings from yesterday, shipments, uh, backlog dollars, backlog items, in stock, out of stocks, a lot of stuff gets run off third shift at night. And when I come in, we got a whole screen that I can go to and just scroll through the reports. So, I look and see how we did, how we're doing, and lay plans, and answer emails. From 8:30 to 9:30, I'm on the floor most of the time, except for today. I was talking with you guys. 9:30 to 10:30 is the plant walk. 10:30 until lunch time is open for any...for any meetings. Uh, a lot of times it's project reviews or project meeting status. Today we got a automation guy in from....who's gonna be quoting probably a $2 million project, uh, and the engineering guys will be meeting with him today, and I will probably sit in on that meeting. Uh, 12:00 to 1:00 is lunch most days. Some days, no lunch (laughs) depending on what I've got done, depending on if I've got other things done up until 12:00. In the afternoons are pretty much open, but there are regularly scheduled meeting times like quarterly ISO audit. It's always at 1:30 on Wednesday in the quarter. There are other...Monday, we have one staff meeting at 1:30 that lasts about an hour and a half one day a week. That's it. No other staff meetings. Uh, so the afternoons are kind of....there's a few fixed meeting times for certain things but other than that, it's open, and it's mostly time on the floor. Um, I actually go sit in a circle. Have you read about that,...standing in a circle? Um, it's, it's um, Toyota Production System technique, although they don't necessarily call it that. Basically you go out and pick a spot and stand there for an hour and observe. It's amazing what you see. (laughs) Because if you're just walking through, you don't see, but if you stop and stand and watch, you see a lot. You see ways to improve, ways to get better, make a list by this, and some cases the thing that we tell them is that this guy has worked with us spent couple of years at Toyota and Japan and a couple of years at Georgetown. He said his sensei would say, "You see, you fix." You see it. You see the problem, you fix it. Don't pass it off on somebody else, and so we do that. I try not to ruin my clothes. My wife gets really mad. (laughs) You get grease on them. She said, "I thought you were the plant manager?", and I say, "That's true but I get my hands dirty every now and then." But basically it's what we try to do is you see a problem, don't push it off. I'll digress a bit. Years and years we went through a number of suggestion systems, employee ideas and suggestion,

DQ

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Capturing main events: Iger's "last" interview & M&As

IGER: I developed a trust with them and convince them would serve them well if they sold to us in Steve's case he owned half of Pixar publicly traded company and converted his ownership of Pixar into all Disney -- that by the way wasn't the motivation behind him doing it wasn't about growing his personal wealth at all but more importantly with Steve I created a trust in him that the assets of Pixar and his people would be in the right hands and so I think in terms of your question what was it about me that convinced them. First of all it was me meaning singular in terms of the pursuit one-on-one in some cases, being as candid as I possibly could be, and I think as authentic as I could be in developing a relationship and not disappointing him either what does that mean he was never disappointed once we did the deal in fact you know months before he died he came to uh he and his wife Lorraine came to our house he toasted to the deal we had done some years earlier convinced that it was the right thing to do for Disney and for Pixar I remember he was it was very heartfelt and tears came to our eyes in part dreading what was potentially in store for him, which is the end of his life um but in part reflecting on what we had done together and truly appreciating it. So I think again it's development of a relationship and like Ike Perlmutter's case different in some ways but similar in others it was me going to New York spending months trying to figure out getting a meeting with them, sitting with them one-on-one once and then twice a couple of days later, and convincing him that it was the right thing to do for the Marvel shareholders such a publicly traded company and the people at Marvel and I think he was intrigued with the notion of investing in Disney plus Marvel and it worked out extremely well and became a large shareholder

Pixar Acquisition

.....

IGER: i heard from Ike yeah I heard from Ike a lot over the years that's what I'd heard we weren't in complete agreement on things um but that's neither here nor there I think it's turned out extremely well for him and certainly for the shareholders of Marvel. ... I think they got Disney's shares somewhere in the neighborhood of $28 a share I know we were up around $200. Even if you look at it today in the range that's pretty good return on investment. And George's [LucasFilms] case was also similar in many ways. I had breakfast with him at DisneyWorld and talked to him about the future of LucasFilms. He was close with Steve Jobs and don't forget Pixar was owned at one point by George [Lucas]; Steve bought it from George and George was impressed with how we had managed Pixar and assimilated Pixar into the company was very concerned about LucasFilms many respects his baby, his legacy and there was a trust there too that I think we demonstrated that we could be trusting in terms of how we had already managed the Marvel assets and the Pixar assets um and I think he was looking to some extent for either long-term wealth preservation or long-term wealth creation and so he took half stock ... he did extremely well as well getting Disney stock I think in the high 50s and Rupert

Comparing acquisitions

....

IGER: ... I don't know would you say money per se but Rupert was intrigued. Rupert was very focused on the scale that was necessary to be successful as a media company in a new world, particularly with the incursion or if you want to call it that of the tech companies getting into the media space. And he had genuine concerns about how his company was positioned in that marketplace and thought that his shareholders and he, including his family, would be better off and combined than going it alone. He was looking for top dollar in many respects, he got it, but again I think he had concerns about how his company was positioned. I know that he did because he expressed them to me when we first sat down.

Fox Acquisition

IGER: Yes, first of all, we divested certain assets including the 39% stake in Sky which went for a very high price [FABER: thanks to my parent company] ... So we reduced the size of the acquisition by a significant amount more than we ever expected and we also sold off the ... the RSNs regional sports networks ... We at the time, we were a little bit disappointed in the price it's a little bit lower than we had hoped but then you look at the assets that we got and to go back to the question you almost you asked me almost at the beginning do we have the scale and the diversity of content to attract a diverse subscription base or audience without the Fox assets, we wouldn't have that. Even if you look at just Disney plus, ... plus years of Simpsons and Avatar and all of the animation that they [Fox] created and National Geographic, I mean I could go on and on. And the talent that came with it, not just the creative talent but the creative management talent that came with it, essential. And the global scale as well. We're launching Disney plus in more markets and they [Fox] had planted more flags from a media perspective in more markets than we had and more successfully and then you look at Star which is the brand that we're launching outside the United States in most markets, that couldn't have happened without the 20th Century Fox assets. Yes, and I think you also have to add the controlling stake in Hulu because in buying that we ended up with over, I think, about two-thirds of Hulu. We subsequently bought out the Time Warner or AT&T Time Warner assets and Comcast remains an owner, but we have ...real optimism about the future of that platform.

Fox Acquisition

....

IGER: George Lucas someone that I have just immense respect for he created the I think the most valuable, most important mythology of our modern day of the 20th century certainly ... all kind of from within him which is amazing ... really having the courage to sell that, his baby to us. I watched film yesterday of the two of us sitting at my desk signing the deal and I was aware at the time of what he was doing very aware [FABER: you're watching old films you're really trying to well] someone did a highlight feel yesterday ... brought tears to my eyes.

Dreamworks Acquisition

Capturing salient junctures in talk: Iger's "last" interview

I think the company's well positioned and I think the fact that we transform the company by creating digital direct to consumer platforms which we did not have before also provides a great opportunity but I think as Bob [Chapek, current CEO] knows and he's already I think demonstrated this is that he's got to move with the time so to speak and not be complacent not rest on laurels or maintain a pat hand I think the one thing that is very clear is that anyone that stands in the way of innovation or adapting to change is going to create problems

....

Well there's guidance out there that the company has provided that I'm either going to update or comment too much on but obviously the company has expressed confidence in its ability to achieve the guidance that it has out there um so and I obviously supported that because that guidance was put out there uh by Bob Chapek when he was CEO and I was I was chairman. Again I think look we can't we can't just maintain a pat hand because the world isn't staying basically the same uh we have to continue to evolve and all that that means not just changing but taking advantage of opportunities aggressively for instance the investment that we're making in international television production, local international television production which is substantially greater than anything we've ever done before. It is an example of what is necessary to achieve not only the guidance but to reach more people in in the world that is evolving right before our eyes ... you know I don't know whether I'm answering your question or not, except that I think the time I mean the point what it will take to get to the kind of scale that maybe certain people expect well that are out there that that the company has put out there

...

FABER: It's nice there is a lot of people saying well like you know what's going on between Bob Chapek [current CEO] and Iger and is that a good relationship or not you know. There's been a lot written about this yeah absolutely how should people view that is that should be that a concern in some way to Disney shareholders if you guys aren't have been communicating well

IGER: It shouldn't be a concern to Disney shareholders at all that that any dynamic between us would have an impact on the company long term. I'm leaving, he's in. It's his company he's going to manage it as he sees fit with the board under circumstances that are very different than existed when I was CEO and chairman, because they're changing as we've talked they're changing so rapidly and um you know he'll make his own decisions and I you know I hope that he's learned good lessons I believe that he has in terms of um you know some of the things that I did along the way and what worked and what didn't work and

During Broad Coding: You are reading the transcript as a whole

- This type of broad coding can provide a background structure onto which new coding can be added throughout analysis/reanalysis.
- **It gets you into coding with a wide brush:**
  - Highlight those phrases or sentences that capture your attention. Add a code (DQ: “that’s interesting”) and a note about something that jumps out at you
  - Reading with “fresh eyes” if you did not collect the data or refamiliarizing yourself with interview.

“You’ll never believe what you can do till you get in there and try it.”

Ross & Pearlman, 2020, pg. 111

Detailed Coding

https://www.thesprucecrafts.com/art-supplies-shopping-list-for-acrylic-painting-2577375

https://www.bobross.com/floral-fan-brush-4/

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Once canvas prepared, then consider more detailed coding

- Ross uses fan brushes and palette knives to start some marks of mountain edges.
- Hard to see pattern of what marks are or what will become
- Hard to see where the painting is going **BUT**
- There is a focal point (research question) leading to small close-up painting/coding using data and/or using theory to tag data.

Just as in painting: Keeping a Focal Point (Research Question) but Getting Close to the Data

- Code at a level in which the coded segment makes sense if extracted!
- Don't try to theorize or get too abstract, but it is okay to use theoretical concepts (Kreiner, 2016 "sensegiving").
- Keep moving through the text, and don't try to parse/match codes – keep moving!
- Everything does not have to be coded I (but usually most is coded, especially given broad coding!)

“Find out what works the best for you, and that’s what you want to use.”

Ross & Pearlman, 2020, pg. 107

Major Strategic Actions – Restructuring: Examples from Two Letters to Shareholders

NYNEX 1989

In line with our four strategic priorities, the corporate-wide restructuring we began in 1990 continued in 1991, when we exited the real estate development business and sold the NYNEX Business Centers and The DATA Group. These actions have allowed us to redirect important resources to our mission of helping people communicate. In July 1991, we incorporated NYNEX Science & Technology, our highly regarded research and development unit, as a separate business unit in the Telecommunications Group, enabling Science & Technology to better focus on projects designed to benefit the majority of our customers. At the same time, NYNEX Information Resources Company, publisher of the NYNEX Yellow Pages Directories, was transferred to our Worldwide Services Group. This move enables Information Resources to seek broader access to world markets for its growing data-base management and information-delivery businesses. In December, we consolidated certain overseas software units and streamlined The BIS Group Limited, our London-based information services subsidiary. We also realigned several international offices so that we now operate overseas primarily through NYNEX Network Systems Company, our international network services unit, as well as other companies in NYNEX's Worldwide Services Group.

AMERITECH 1994

We accomplished that in 1993, restructuring our five geographically based operating companies into customer-specific business units supported by a single, regionally coordinated network unit. We also strengthened our market position by moving to a single brand identity-Ameritech. And we underlined the energy of our restructured company with a dynamic new logo. Our focus will be on customer benefits, customer experiences.

Capturing stories (Kreiner, NQs in an interview): Plant Manager

One of my managers, the first time she went out [in Kaizen circle], she was standing out on a corner of the department, just standing there observing. Somebody came up to her and asked, "Are you in a time out?" (laughs) They wanted to know if she was in a time out. (laughs) She said no. So she explained to them what she was doing, and they were like, "Wow, that's really neat." You know. Of course, people are people. They were kind of aghast that we were actually standing on the floor. You know. Observing and making notes and writing down ideas, involving them. They come up and ask questions, and we talk to them. They're like "Holy Cow".

Capturing Vivid Images: Plant Manager

"When I'm walking around, I'm also looking at the cafeterias. Are they clean? Are they stocked? Because that's always a problem. Generally most companies will stock their machines once a day, and it's got to cover 24 hours. If the midnight shift is always out of donuts or always out of Mountain Dew, you're going to have a lot of unhappy people."

Coding answers to question: Plant Managers and daily activities in 5 buckets

Interview PM: I work on a standard day, and that's...it's not perfect but it's close. From 7 o'clock (am) until 8:30 I, uh, check emails, check our intranet system here. We overnight automatically download all the reports, sales from yesterday, bookings from yesterday, shipments, uh, backlog dollars, backlog items, in stock, out of stocks, a lot of stuff gets run off third shift at night. And when I come in, we got a whole screen that I can go to and just scroll through the reports. So, I look and see how we did, how we're doing, and lay plans, and answer emails. From 8:30 to 9:30, I'm on the floor most of the time, except for today. I was talking with you guys. 9:30 to 10:30 is the plant walk. 10:30 until lunch time is open for any...for any meetings. Uh, a lot of times it's project reviews or project meeting status. Today we got a automation guy in from....who's gonna be quoting probably a $2 million project, uh, and the engineering guys will be meeting with him today, and I will probably sit in on that meeting. Uh, 12:00 to 1:00 is lunch most days. Some days, no lunch (laughs) depending on what I've got done, depending on if I've got other things done up until 12:00. In the afternoons are pretty much open, but there are regularly scheduled meeting times like quarterly ISO audit. It's always at 1:30 on Wednesday in the quarter. There are other...Monday, we have one staff meeting at 1:30 that lasts about an hour and a half one day a week. That's it. No other staff meetings. Uh, so the afternoons are kind of....there's a few fixed meeting times for certain things but other than that, it's open, and it's mostly time on the floor. Um, I actually go sit in a circle. Have you read about that....standing in a circle? Um, it's, it's um, Toyota Production System technique, although they don't necessarily call it that. Basically you go out and pick a spot and stand there for an hour and observe. It's amazing what you see. (laughs) Because if you're just walking through, you don't see, but if you stop and stand and watch, you see a lot. You see ways to improve, ways to get better, make a list by this, and some cases the thing that we tell them is that this guy has worked with us spent couple of years at Toyota and Japan and a couple of years at Georgetown. He said his sensei would say, "You see, you fix." You see it. You see the problem, you fix it. Don't pass it off on somebody else, and so we do that.

Check emails and reports

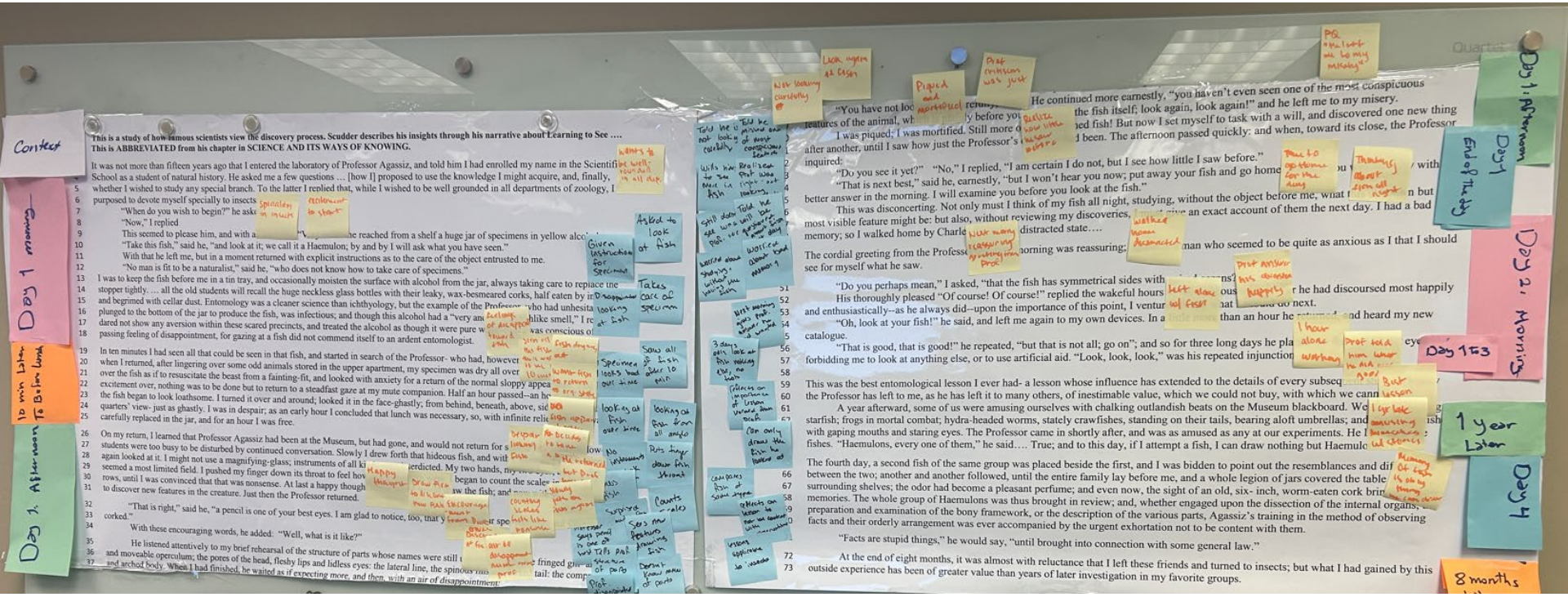
Walking plant floor

Meetings

Meetings

Time on shop floor solving problems

Coding Scudder: Excerpt



Detailed coding

- Gets you close to the data.
- Might see things that jump out or a vivid, memorable story
- BUT
- You can feel you are getting lost
- Takes a tremendous amount of time
- Realize that you will undertake coding many times during a research project (see Kaplan & Orlikowski's 2013 Organization Science, Figure A.1)

"… happy little accidents and diversions are going to happen along the way"

Ross & Pearlman, 2020, pg. 111

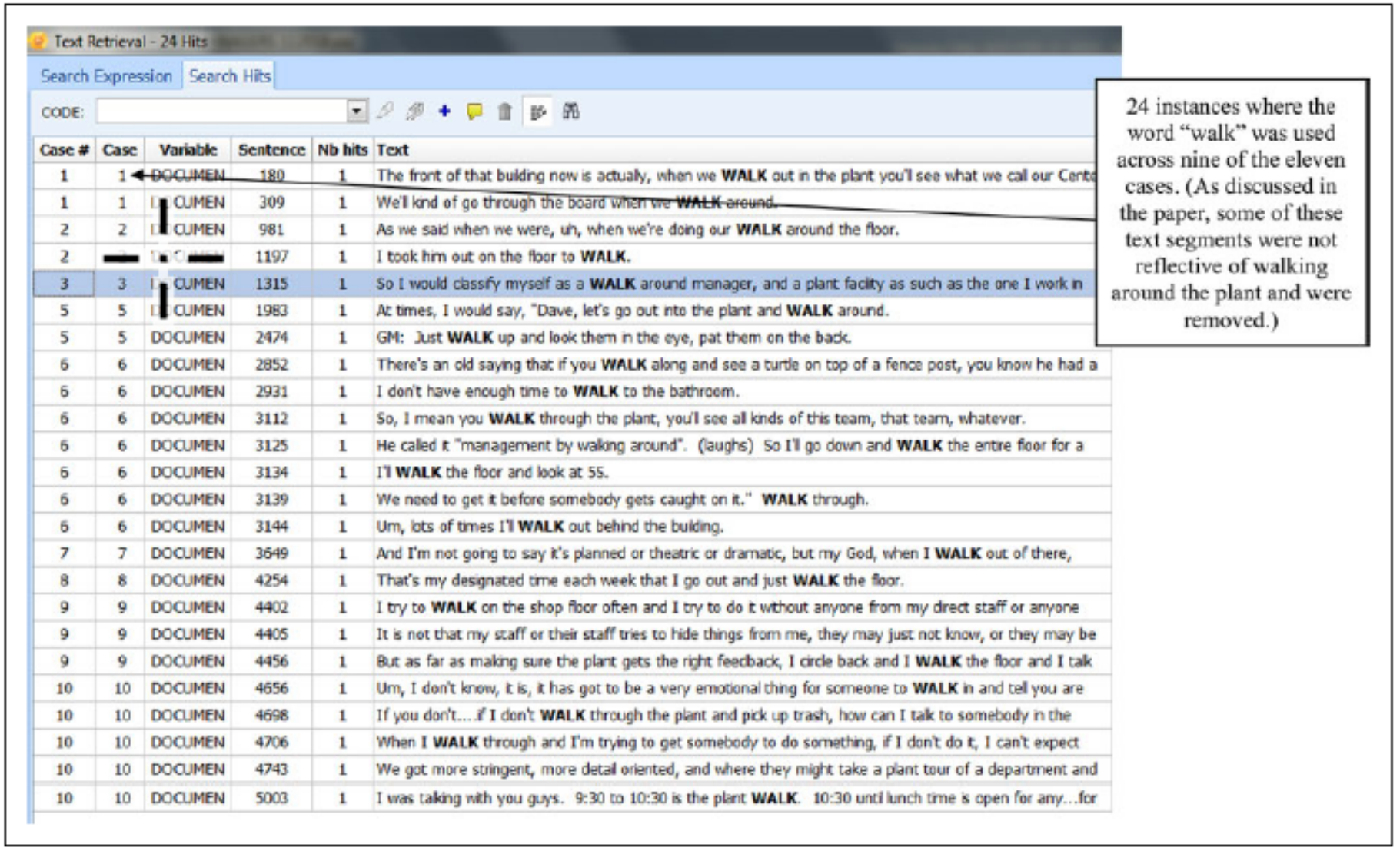
Exploring Hunches and Going Deeper ….. Searching for Particular Words

https://www.personalizeverything.com/blogs/custom-paint-by-numbers-for-adults/top-10-paint-by-number-tips-and-tricks

Thin brush: Jarzabkowski, Lê, & Feldman, 2012, pg. 912

- In *Coding and Analysis* - ISOLATED E2E in data:
- Specifically, we looked at how actors iterated between the abstract concept of E2E and their emerging performance of E2E in practice, and we looked into the implications of that performance for the restructuring of relationships and activities to deliver an equivalent Connectif.
- To support our analysis, **we searched the meeting data for all references to E2E by actors …. extracting all data on the terms "end-to-end," "end to end," "end2end," "end-2-end," "E2E," "E-2-E," "end-to," and "end to**." …. we searched the entire database using the same terms to check our analysis and gain additional data on participants' experiences of E2E. …
- **after reading and discussing these data, we iteratively devised and revised a coding scheme based on how people were using and defining the term E2E. As is customary in inductive coding, we began with empirical codes. These categorized the specific aspects of coordinating that actors were enacting with things such as technologies, business processes, and services as they endeavored to work E2E in delivering Connectif. We also coded the intended and unintended outcomes that actors experienced as they tried different activities for coordinating these things E2E.**

Walk & Talk: Shop Floor Engaging



Case #	Case	Variable	Sentence	Nb hits	Text
1	1	DOCUMEN	180	1	The front of that building now is actually, when we **WALK** out in the plant you'll see what we call our Cente
1	1	DOCUMEN	309	1	We'll kind of go through the board when we **WALK** around.
2	2	DOCUMEN	981	1	As we said when we were, uh, when we're doing our **WALK** around the floor.
2	[redacted]	[redacted]	1197	1	I took him out on the floor to **WALK**.
3	3	DOCUMEN	1315	1	So I would classify myself as a **WALK** around manager, and a plant facility as such as the one I work in
5	5	DOCUMEN	1983	1	At times, I would say, "Dave, let's go out into the plant and **WALK** around.
5	5	DOCUMEN	2474	1	GM: Just **WALK** up and look them in the eye, pat them on the back.
6	6	DOCUMEN	2852	1	There's an old saying that if you **WALK** along and see a turtle on top of a fence post, you know he had a
6	6	DOCUMEN	2931	1	I don't have enough time to **WALK** to the bathroom.
6	6	DOCUMEN	3112	1	So, I mean you **WALK** through the plant, you'll see all kinds of this team, that team, whatever.
6	6	DOCUMEN	3125	1	He called it "management by walking around". (laughs) So I'll go down and **WALK** the entire floor for a
6	6	DOCUMEN	3134	1	I'll **WALK** the floor and look at 5S.
6	6	DOCUMEN	3139	1	We need to get it before somebody gets caught on it." **WALK** through.
6	6	DOCUMEN	3144	1	Um, lots of times I'll **WALK** out behind the building.
7	7	DOCUMEN	3649	1	And I'm not going to say it's planned or theatric or dramatic, but my God, when I **WALK** out of there,
8	8	DOCUMEN	4254	1	That's my designated time each week that I go out and just **WALK** the floor.
9	9	DOCUMEN	4402	1	I try to **WALK** on the shop floor often and I try to do it without anyone from my direct staff or anyone
9	9	DOCUMEN	4405	1	It is not that my staff or their staff tries to hide things from me, they may just not know, or they may be
9	9	DOCUMEN	4456	1	But as far as making sure the plant gets the right feedback, I circle back and I **WALK** the floor and I talk
10	10	DOCUMEN	4656	1	Um, I don't know, it is, it has got to be a very emotional thing for someone to **WALK** in and tell you are
10	10	DOCUMEN	4698	1	If you don't....if I don't **WALK** through the plant and pick up trash, how can I talk to somebody in the
10	10	DOCUMEN	4706	1	When I **WALK** through and I'm trying to get somebody to do something, if I don't do it, I can't expect
10	10	DOCUMEN	4743	1	We got more stringent, more detail oriented, and where they might take a plant tour of a department and
10	10	DOCUMEN	5003	1	I was talking with you guys. 9:30 to 10:30 is the plant **WALK**. 10:30 until lunch time is open for any...for

Figure 1. Text retrieval: Plant manager study, *walk*, exploring hunches displayed as a text table (QDA Miner).

Plant Manager & Community

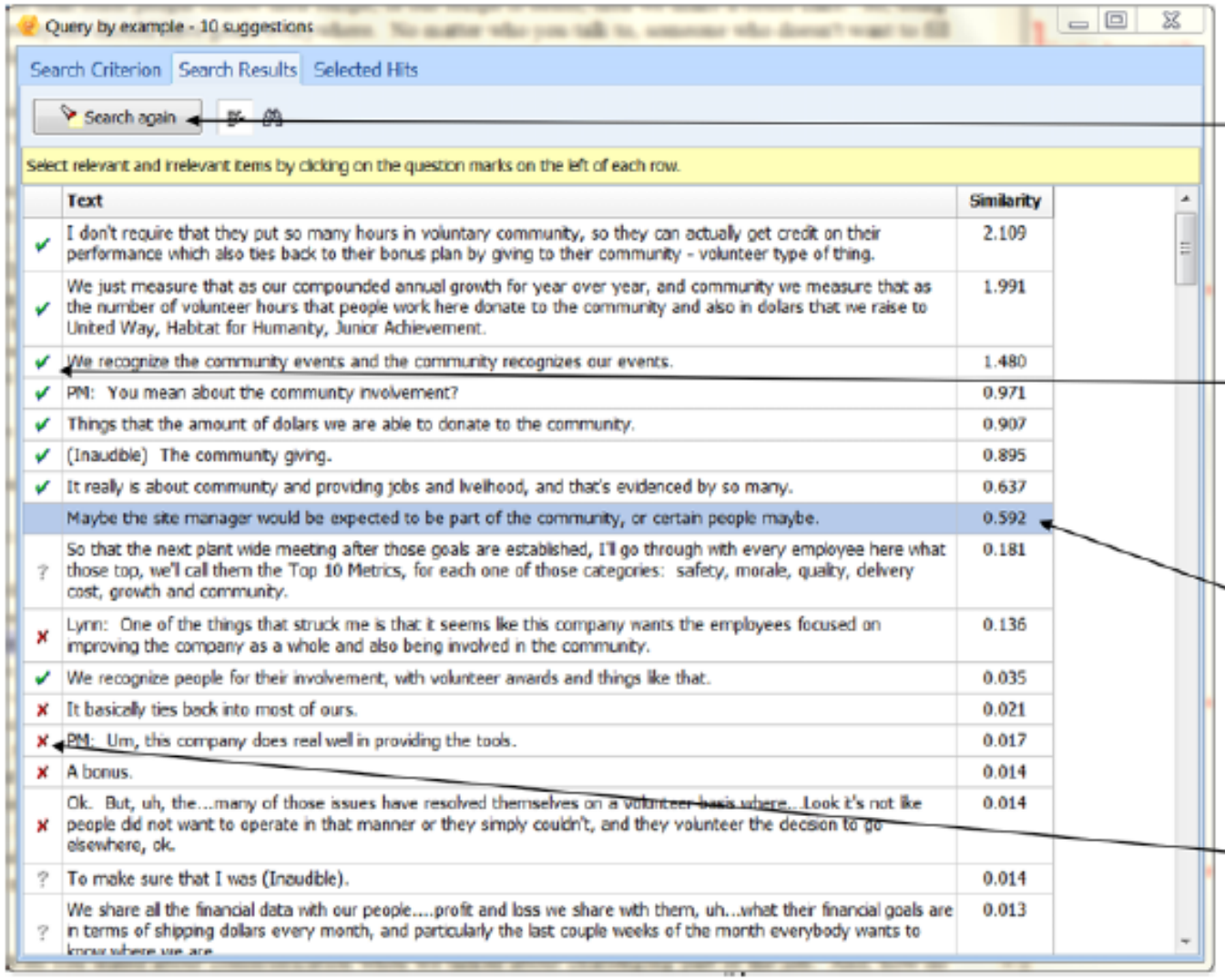


Figure 4. Query by example: Plant manager study, exploring hunches, *outreach to the community* (QDA Miner).

Blending, Layering, and Identifying Patterns

https://www.bobross.com/2-inch-background-brush/

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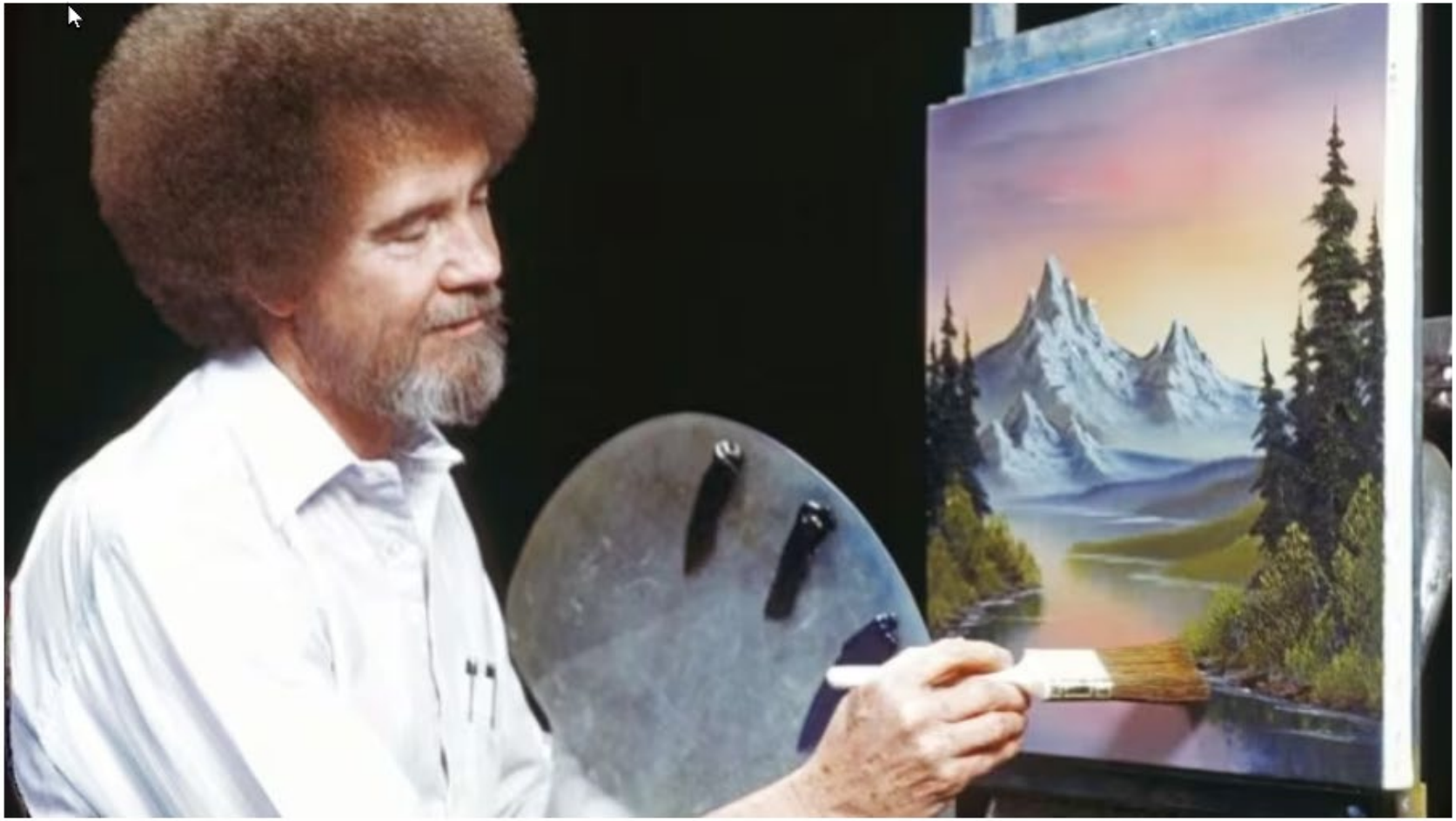


Bob Ross does his happy little thing. Scene from The Joy of Painting. (Bob Ross, Inc.)

After Coding Activities: Stand Back -- What Have I learned?

- Are there buckets (categories) in which I can put codes, after which I may review the codes in the bucket more closely?
- Do codes resemble each other?
- How do categories fit together/compare?
- Are there differences in categories/codes by time periods? Different types of people?

Categorizing

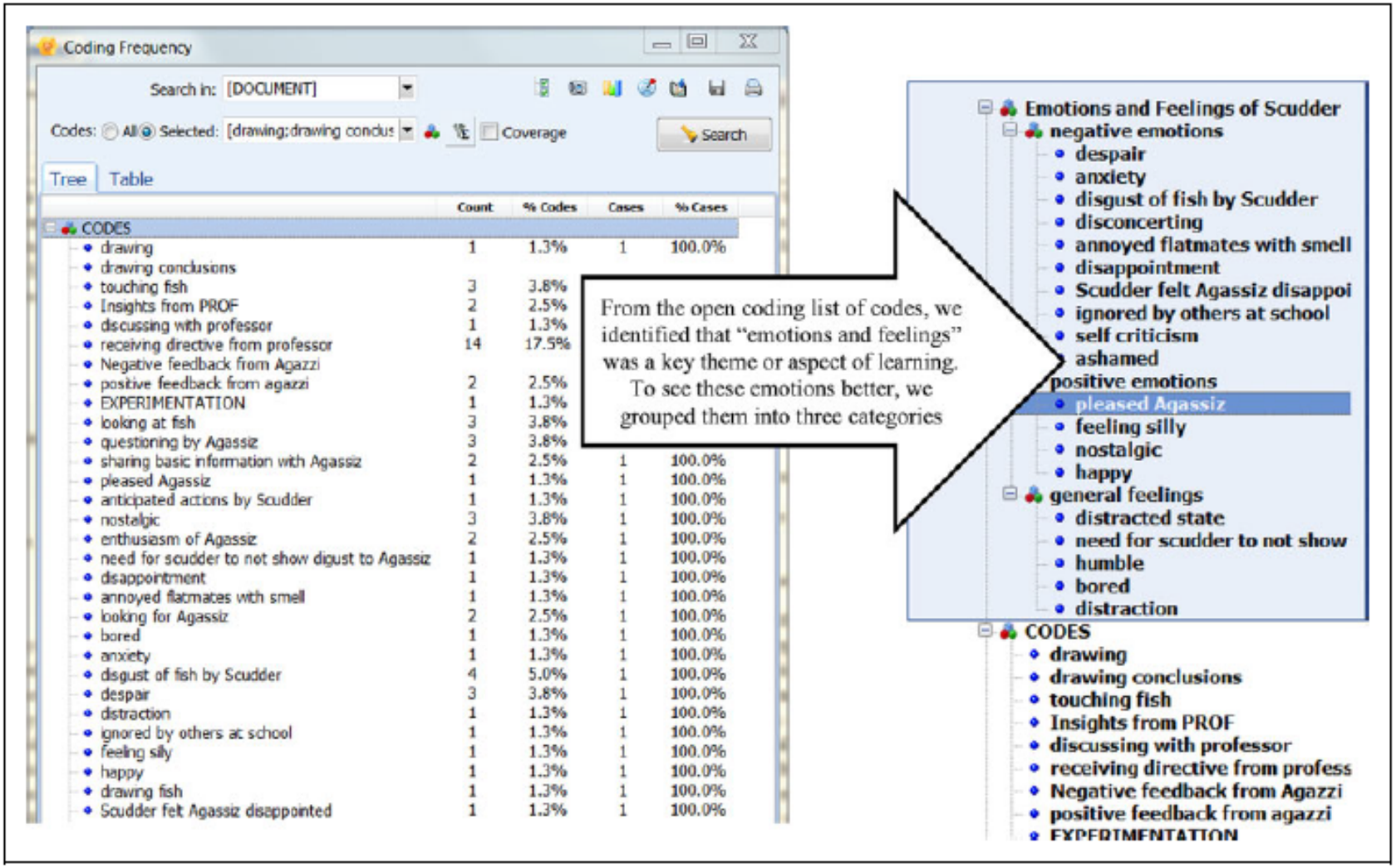


Figure 5. Code frequency: Scudder (1997) text, codebook clean-up (QDA Miner).

Condensing

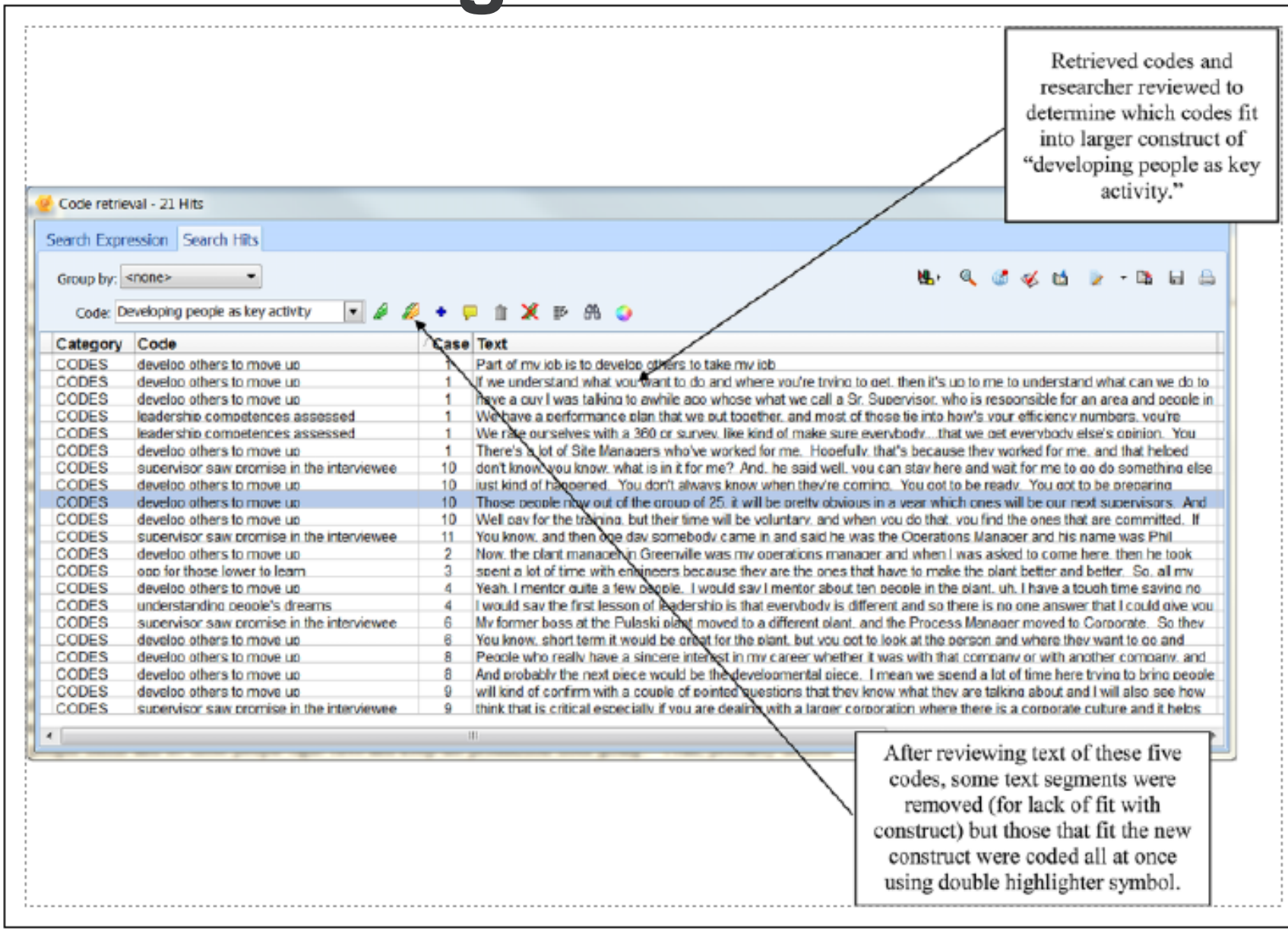
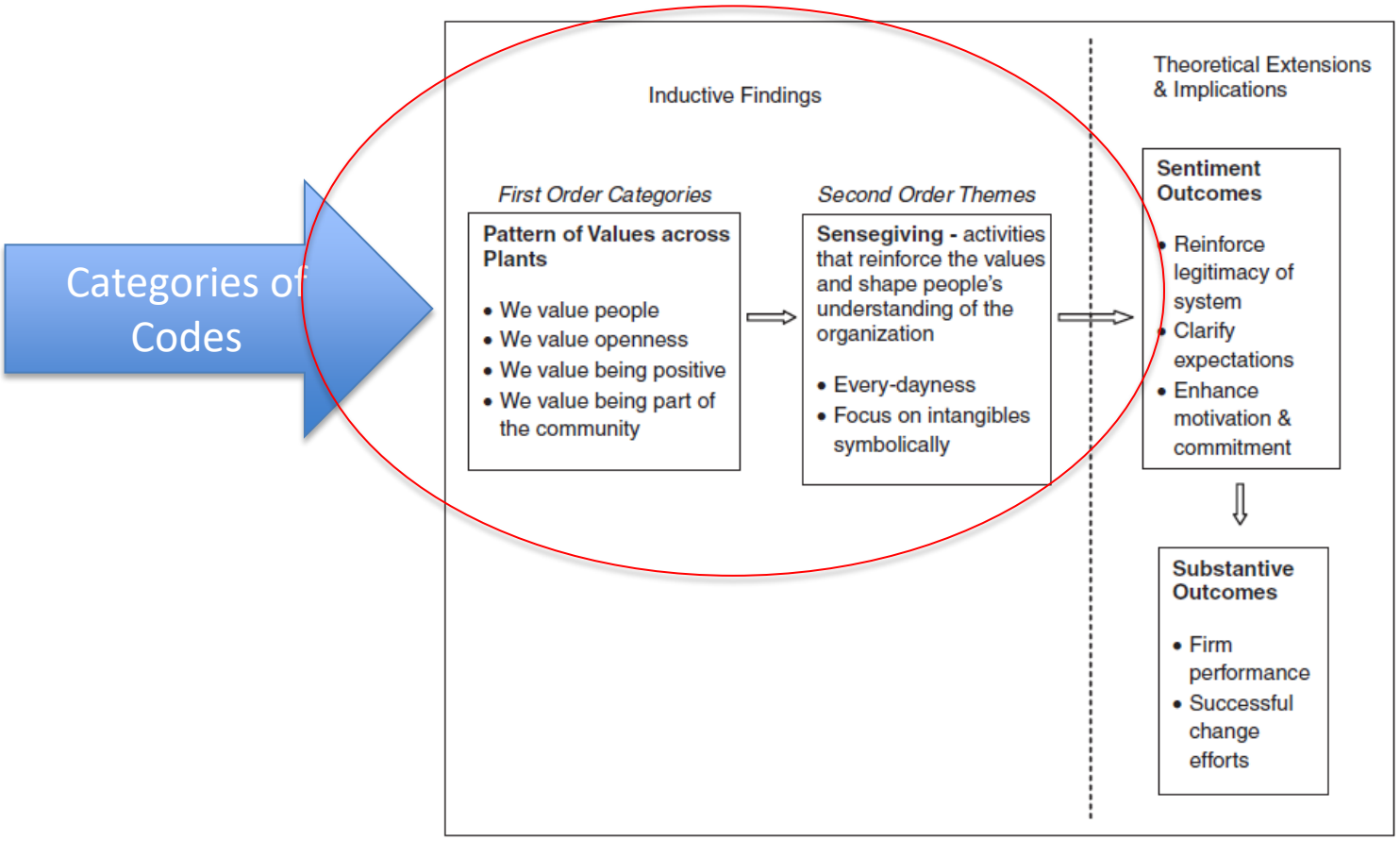


Figure 15. Code retrieval: Plant manager study, higher-order constructs (QDA Miner).

Blending – Plant Managers' Daily Practices (Smith et al., 2010 JABS)



Layering and Comparing (Smith & Zeithaml, JMI 1999)

Early International Expansion

- CODES:
  - Entry Modes
  - Product/Service Offerings
  - Geographic Dispersion
  - Words used to describe this process
  - Common frustrations

Later International Expansion

- CODES:
  - Entry Modes
  - Product/Service Offerings
  - Geographic Dispersion
  - What changed from early phase? Involvement of top managers, resources
  - Common mistakes, failures

Layering and Comparing: Two-Family Founded Firms and Process over time: Negative Case

Codes and Quotes
FOUNDER CHARACTERISTICS
Competences paramount and nonoverlapping (4/4 cases)
Clear division of responsibilities–initial founders (4/4 cases)
Ongoing communications, mutual adjustment (4/4 cases)
Joint sharing of responsibilities; co-CEO working arrangement
FAMILY MEMBERS AS EXECUTIVES
Family members work way up in firm or bring substantial outside experience before entering executive level (4/4) Family members at executive level provide evidence of nonoverlapping capabilities (3/4)
Current CEO/family member did not spend substantial time in operations
OPENNESS TO OUTSIDERS AS EXECUTIVES Outsiders in executive suite are encouraged and actively sought for needed skills (3/4)
Outside consultants used extensively; outside board members and chair; when problems at top, hiring an outside executive not considered.

Actions from Grodal, et al., 2021

Dropping categories	Dropping categories that were generated during the initial part of data analysis but that turned out not to have theoretical traction	Upon attending his first role-playing game event, the researcher noted that "there was no organization to the group: there was no membership chairman, no one that one had to meet to gain access; one simply walked in" (Fine, 1983: 244). Yet, rapidly, that category lost relevance as others gained more theoretical traction.
Merging categories	Uniting two or more existing categories to create a superordinate category	"In reviewing our first-level constructs and relating these to prior research, we concluded that all of them represented different phases and forms of identity work." Thus "identity work" was adopted as the label of a merged code. (Creed, Dejordy, & Lok, 2010: 1342)
Splitting categories	Separating a category into two or more subordinate categories	Splitting the category of Total Quality Management (TQM) "tools" into four subcategories, ranging from the least technical (general TQM methods) to the most technical (statistical tools). (Zbaracki, 1998: 610)
Relating or contrasting categories	Comparing several categories with one another to identify relationships between them (or the lack of such relationships)	Contrasting "grass-fed" and "conventional" to identify their similarities and differences. (Weber et al., 2008)
Sequencing categories	Temporally organizing categories that researchers have identified in the data	Researchers "sought evidence of boundary and practice work patterns that co-occurred in time, by actor type and by objective. We identified four cycles of interconnected boundary work and practice work. … We constructed raw data tables for each cycle to provide another iteration between the raw data and this higher level of abstraction. … These cycles together formed a complete lifecycle of institutional stability and change." (Zietsma & Lawrence, 2010: 200)
Developing or dropping working hypotheses	Formulating an overarching theory and, by iterating through the data, either finding increasing evidence for it, leading to its elaboration, or finding contradictory or unsupportive evidence, leading to its abandonment	"Throughout this cyclical process, we actively and continually called into question our emerging theoretical understanding by exposing it to further data analysis." (de Rond & Lok, 2016: 1971)

“The more you paint, the easier it becomes. It’s like anything else”

Ross & Pearlman, 2020, pg. 25

Progression across a research project

- Progression is not a sequence but iteration, blind alleys, and rabbit holes.
- There are many paths to insights.
- Process of Zooming in and Zooming out, detailed coding and broad brushes.

Personal Photo of Public Artwork, “A Startling Whirlwind of Opportunity”, University of Tennessee Knoxville

Encouragement, Gentle Feedback, Guidance .....

"There. I knew you could do it"

Ross & Pearlman, 2020, pg. 107

https://www.nytimes.com/2019/07/12/arts/bob-ross-paintings-mystery.html

Personal Thank Yous

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Readings about Coding

- **O'Kane, P., Smith, A.D., & Lerman, M.P. (2021).** Building transparency and trustworthiness in inductive research through computer aided qualitative data analysis software. Organizational Research Methods, 24(1), 104–139.
- **Grodal, S., Anteby, M., & Holm, A. L. (2021).** Achieving rigor in qualitative analysis: The role of active categorization in theory building. Academy of Management Review, 46(3), 591–612.
- **Kreiner, G. E. (2016).** Tabula Geminus: A "both/and" approach to coding and theorizing. In K. D. Elsbach & R. M. Kramer (Eds.), Handbook of Qualitative Organizational Research: Innovative Pathways and Methods. Routledge/Taylor & Francis Group, 350-361.
- **Charmez, K. (2014).** The logic of grounded theory coding practices and initial coding. In Constructing Grounded Theory (Second edition), 109-137.
- **Braun, V., & Clarke, V. (2022).** Exploring the world in detail: Doing coding. In Thematic Analysis: A Practical Guide. Los Angeles: Sage, 51-74.
- **Langley, A. (1999).** Strategies for theorizing from process data. Academy of Management Review, 24(4), 691–710.
- **Saldaäna, J. M. (2015).** The coding manual for qualitative researchers (3rd ed.). SAGE Publications.
- **Gibbs, G. (2018).** Analyzing qualitative data. SAGE Publications Ltd. [great videos on youtube]
- **Miles, M. B., Huberman, A. M., & Saldaäna, J. (2014).** Qualitative data analysis: A methods sourcebook (Third edition.). SAGE Publications, Inc..

References: Papers & Data

- **Plant Managers** (Smith, Plowman, & Duchon, 2010, Journal of Applied Behavioral Science; 2009, Journal of Operations Management)
- **RBOCs** (Smith & Zeithaml, 1999, Journal of Management Inquiry; 1996, Organization Science)
- **Letters to Shareholders & CAQDAS techniques** (O'Kane, Smith, Lerman, 2021, Organizational Research Methods)
- **Negative Cases** – Hymer & Smith, forthcoming, Journal of Management.
- **Family Business Paper** - Pieper, T.M., Smith, A.D., Kudlats, J., & Astrachan, J.H. (2015). Entrepreneurship: Theory & Practic.
- **Scudder** – Scudder, S.H. (1997). Learning to see. In (Eds.) J. Hatton & P.B. Plouffe Science and Its Ways of Knowing. Addison-Wesley Professional.
- **Kaplan & Orlikowski** (2013, Organization Science)
- **Iger interview** – CNBC, December, 2021
  https://www.cnbc.com/video/2021/12/27/exclusive-cnbcs-exit-interview-with-disney-chairman-bob-iger.html?&qsearchterm=exclusive%20interview%20bob%20iger%202022
- ALSO FOUND on YouTube: https://www.youtube.com/watch?v=8FyEtRn1rtQ