



Designing & Representing Qualitative Data: Context and Considerations

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Well, getting grim is the tunnel effect where you're just shuffling through day-night, day-night. And there's nothing. You lose a sense of wonder about living.

The grimness is the relentlessness of the, you know, the crudeness of the cancer treatments and helplessness and in my case, more particular to me, it was just the loneliness.

Overview



What are we talking about?

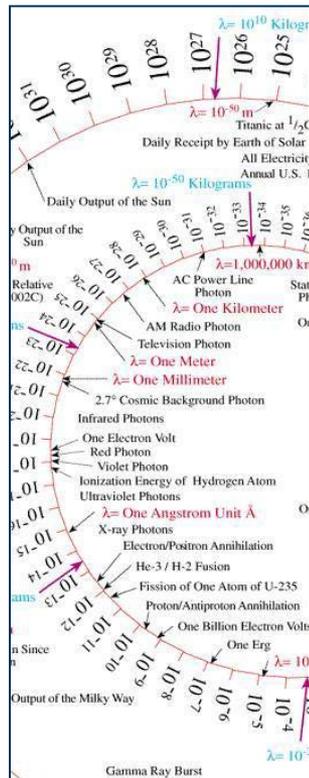
Definitions

Is this new?

Brief history

What should you think about?

Considerations



What are we talking about?

What do we mean by visually representing or displaying qualitative data?

Raw Text

Interviewer: So, when you were 16 and...and out, when you were younger, where did you sleep when you would go?

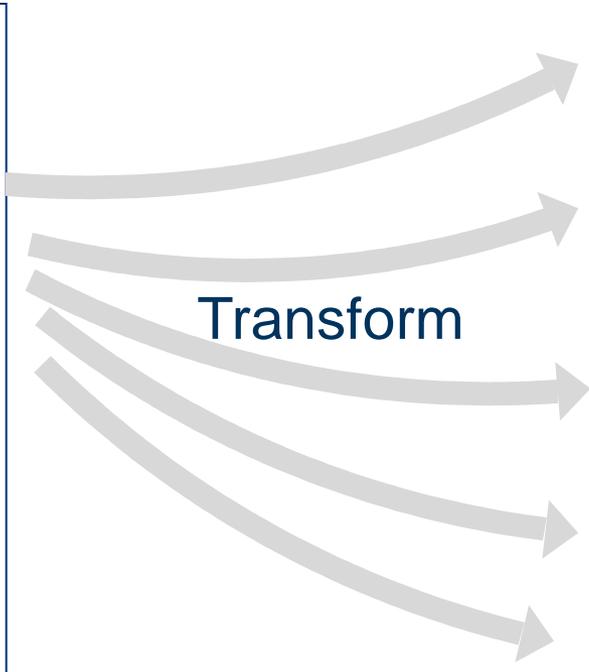
Narrator: It is real easy in California, at the bar, I mean, at the beaches, you know, hang all night at the beach, it was almost like just going to a party, you know. So...

Interviewer: Okay, and so you feel like your first, true experience of homelessness was when you were 30 and was just because of the violence?

Narrator: Was more at 30, yeah, that I was actually now living in it and, you know, they, you know, "You can come there and stay, you know." I said, "Yeah, I know but jeez, the constant violence, having to watch my property all the time from being stolen from all these people in and out, you know, ten, fifteen people ____, I can't ____ who stole what, you know, constantly, every month, I'm being ridiculed by mother because I am getting my payment and everyone in the household is coming to me for that, "Come on, come on, help me, what kind of a brother are you or cousin if you do not hand me some?" You know, so this...that got me out of that too.

Interviewer: So, you were experiencing pancreatitis?

Narrator: I had pancreatitis, chronic pancreatitis caused by a blockage that I had had all my life from a birth defect. Everyone has 2 pancreas at the fetal stage that merge into one. In one out of 200 people that does not happen, it stays separated one way or another, lot of those people go through life, it never affects them, and then there is other cases like mine that it does affect. Pancreatitis is more commonly known by drinking and it is...it is caused by severe, chronic alcoholism, which I was a pretty good alcoholic, but I was always a happy drunk. Alcohol exacerbated it, but they labeled me for 3 years, that is where I began through the system of getting no check or nothing and, you know, finally they identified that I took myself off of the, what is the called the, ____ patch, it is like a morphine patch, it kept me loaded 24x7 and I did not like that because I missed the patch on the weekends, I would just dope-sit like a heroin addict, and also it covered my symptoms too much so I could not feel and sense my body, so I told my...one of my ____ where I used when I needed them and do not use them when I do not and I can listen to my body, this in ____ probably would save my life. I am able to talk to you here today because they found that, after my complaining, and complaining that I am doing everything right because fatty foods exacerbate real bad, I went to the hospital 3 times just eating pizza. In turn, it, it ____ in turn, my kind of chronic complaining and showing them that I am doing everything proper, no drinking, no...no bad eating habits, they finally took me in and did what they call ERCP ____ fiberoptic cameras, found I had a blockage that would have ruptured and killed me, it is supposed to be about the size of a pencil lead, that duct is, and it was size of my pinkie, it was ready to rupture and it would have just aced my inside with toxic acids that literally would burn a hole in your skin but your stomach and intestines having lining to protect you from that, anyway I got it just in time, they gutted me and replumbed me together like a real desperate case, it has been used to teach other students in what actually not to do. I can say they misdiagnosed me 3 years and almost let me die, you know, "Oops, don't this." Like the doctor said, you know, "Hey, I've...I've learned a lot from you." In other words he made a mistake that he is not going to admit to malpractice.

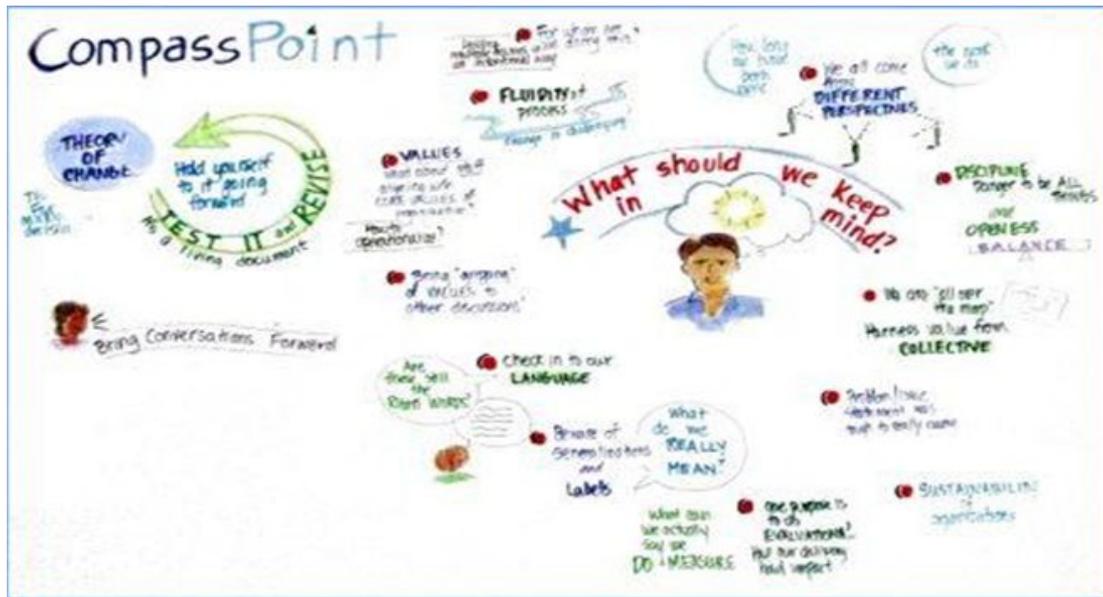


- Patterns
- Connections
- Processes
- Frequencies
- Trajectories
- Categorization

It might look like this:



Graphic recording**



Parallel tag cloud*

*Collins, C. 2013

** Dean-Coffey, J. 2013. (See "Graphic Recording," New Directions for Evaluation. v40:Winter.p.47-67.)

But it can also look like this:

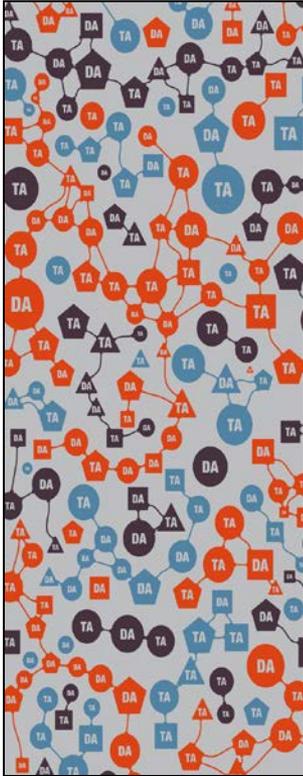
Theoretically-based Principle	Excerpt of Principle	Elements	Evidence of Elements	Evidence of Principles
<i>1. Field Experiences Explore Sociocultural Diversity</i>	The program provides carefully planned and varied field experiences that explore sociocultural diversity in schools and communities (Zeichner et al., 1998, p. 168).	1.1. Careful placement planning and monitoring	⊙ ⊘	● ⊘
		1.2. Careful preparation for placement	⊙	
		1.3. Placement site focused on culturally responsive teaching	●	
		1.4. Reflection guided by culturally competent, relevant, responsive educators	● ⊘	
<p>● Evident (at least one notable event/comment, all/most observations/interviews, all participants; OR more than one notable event/comment, most observations/interviews, most participants)</p> <p>⊙ Partially evident (at least one notable event/comment, all or most participants)</p> <p>⊘ Not evident/countervailing evidence (more than one notable event/comment that element is not present) (can coexist with other signals)</p>				

Evidence matrix



Why visualize? The text is so rich and informative.

-
- 1 **More clearly show patterns**
 - 2 **Increase the amount of data that can be shared**
 - 3 **Improve retention of information**
-



Is this new?

TABLE 1. *Analysis of the answers given to the ingenuity problem by the experimental group*

<i>Subject</i>	<i>Verbatim answer</i>	<i>Classification</i>
1	"It's be 28." E. "How did you get that?" S. "I multiplied." E. "Is that how you get 3 pints of water?" S. "Yes."	Nonsensical-wrong
2	"Fill the 3 and the 4, and you have 7 pints." E. "Is that the way you get 3 pints of water?" S. "Yes."	Superficial-wrong
3	"You'd add. No, you'd divide by your 7 and 4."	Nonsensical-wrong
4	"Fill the one can full—the 7-pint can." E. "Is that the way you will get 3 pints of water?" S. "Yes."	Nonsensical-wrong
5	"You'd multiply 3 by 7 is 21." E. "How are you going to get 3 pints of water?" S. "4 x 7 is 28." E. "Is that the way you'd get 3 pints of water?" S. "I guess so."	Nonsensical-wrong
6	"14 pints. I added 3 plus 7. That's the answer."	Nonsensical-wrong
7	"I'd put the 3 in the 7-pint can."	Superficial-wrong
8	"Put your 3 pints in and then put your 4 pints in the 7-pint can."	Superficial-wrong
9	"21—I multiplied 3 by 7." E. "Is that how you get 3 pints of water?" S. "Yes."	Superficial-wrong
10	"I'd fill up the four and pour one out. You don't need the 7-pint can at all. I'd guess how much to pour out."	Inadequate-wrong
11	"I don't know."	Don't know
12	"Fill the 3 and the 5 and that makes 7 and that's the answer."	Inadequate-wrong
13	"I don't know how to do that."	Don't know
14	"He had a 7- and a 4-pint can. 7 minus 4 equals 3. He poured 4 pints into the 7-pint can and had 3 pints left."	Correct-incomplete
15	"You'd add. The 4-pint can will hold it."	Nonsensical-wrong

1947

TABLE 1. *Analysis of the answers given to the ingenuity problem by the experimental group*

<i>Subject</i>	<i>Verbatim answer</i>	<i>Classification</i>	
1	"It's be 28." E. "How did you get that?" S. "I multiplied." E. "Is that how you get 3 pints of water?" S. "Yes."	N	-
2	"Fill the 3 and the 4, and you have 7 pints." E. "Is that the way you get 3 pints of water?" S. "Yes."	S	-
3	"You'd add. No, you'd divide by your 7 and 4."	N	-
4	"Fill the one can full—the 7-pint can." E. "Is that the way you will get 3 pints of water?" S. "Yes."	N	-
5	"You'd multiply 3 by 7 is 21." E. "How are you going to get 3 pints of water?" S. "4 x 7 is 28." E. "Is that the way you'd get 3 pints of water?" S. "I guess so."	N	-
6	"14 pints. I added 3 plus 7. That's the answer."	N	-
7	"I'd put the 3 in the 7-pint can."	S	-
8	"Put your 3 pints in and then put your 4 pints in the 7-pint can."	S	-
9	"21—I multiplied 3 by 7." E. "Is that how you get 3 pints of water?" S. "Yes."	S	-
10	"I'd fill up the four and pour one out. You don't need the 7-pint can at all. I'd guess how much to pour out."	I	-
11	"I don't know."	D	-
12	"Fill the 3 and the 5 and that makes 7 and that's the answer."	D	-
13	"I don't know how to do that."	D	-
14	"He had a 7- and a 4-pint can. 7 minus 4 equals 3. He poured 4 pints into the 7-pint can and had 3 pints left."	I	+
15	"You'd add. The 4-pint can will hold it."	N	-

1966

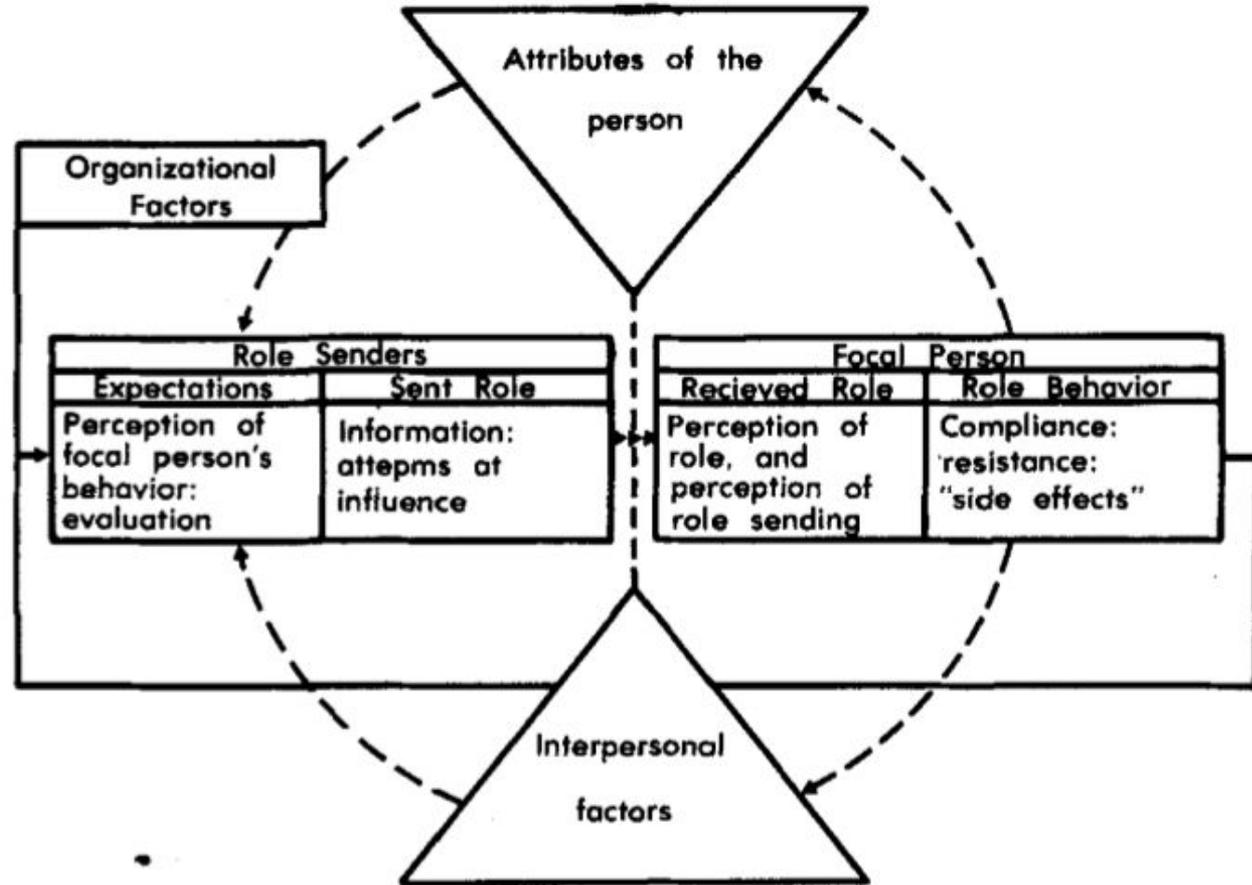


Fig. 1. A theoretical model of factors involved in the taking of organizational roles (Katz Kahn, 1966, p. 187).

1966

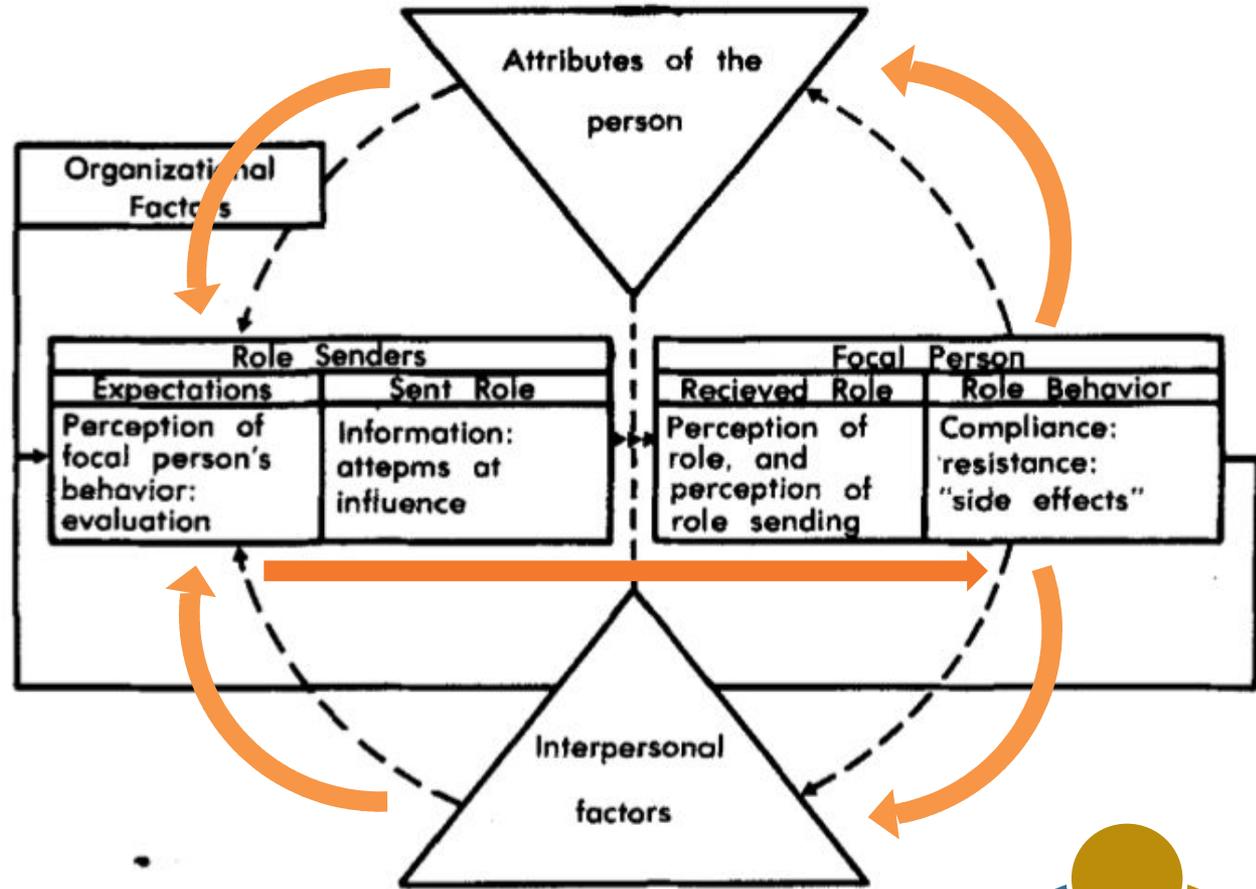
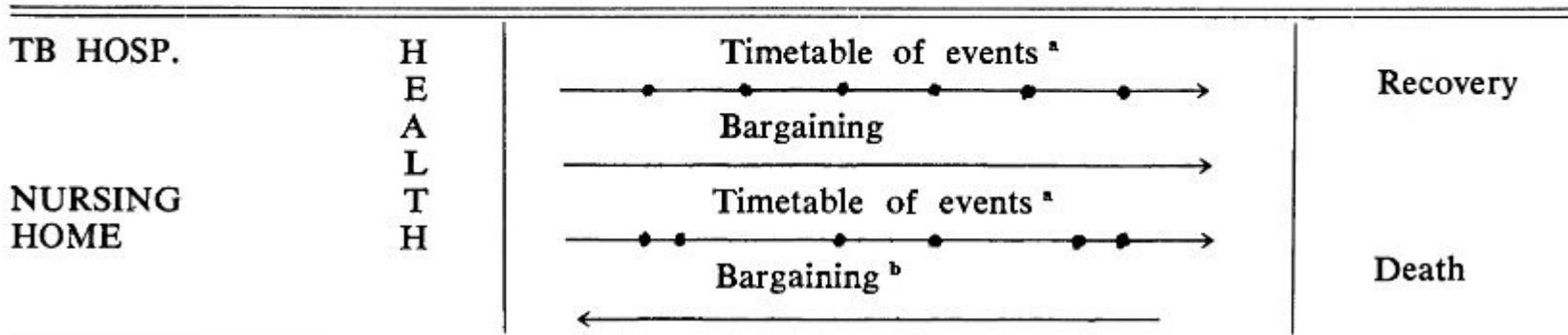


FIGURE 1. SCHEMATIC VIEW OF TB AND NURSING HOME PATIENT CAREERS

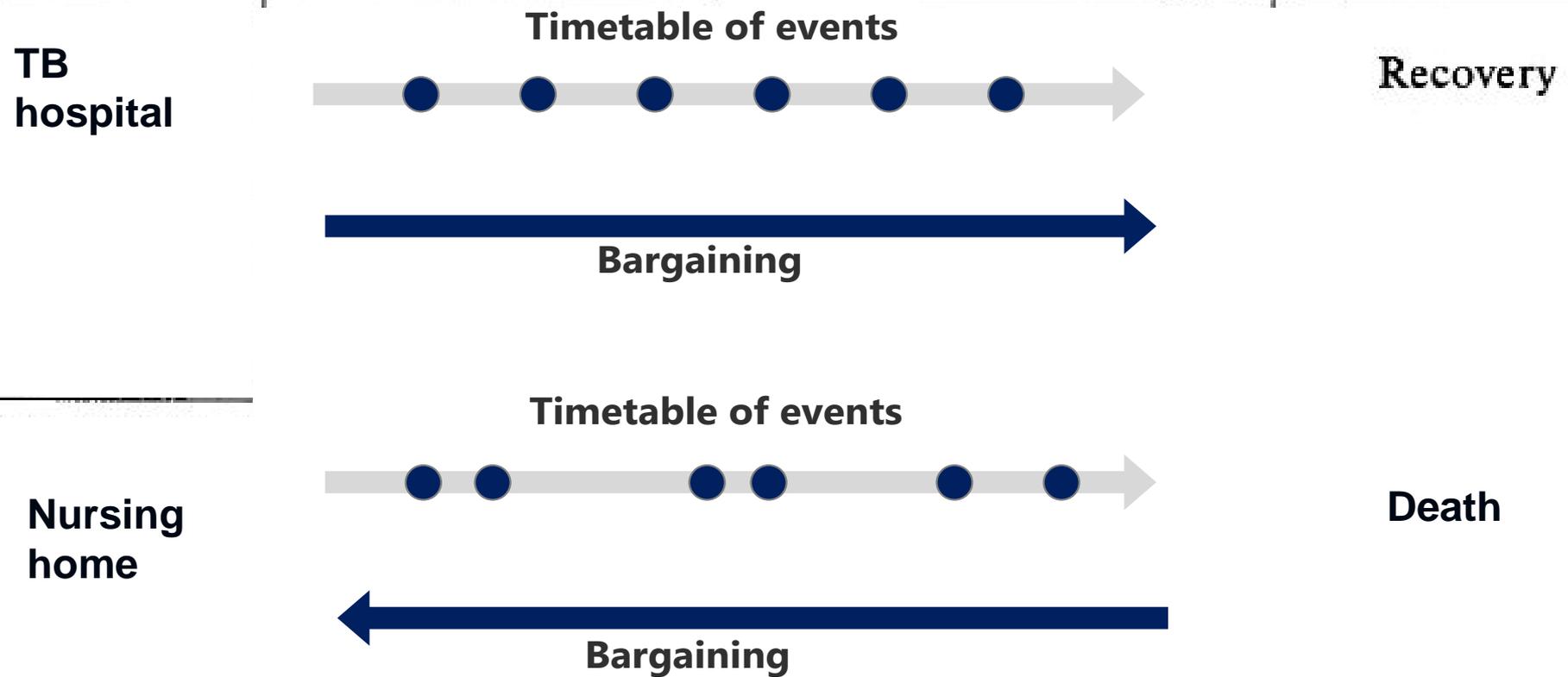


1972



JOURNAL OF HEALTH AND SOCIAL BEHAVIOR

SCHEMATIC VIEW OF TB AND NURSING HOME PATIENT CAREERS



Gustafson, E. "Dying; The Career of the Nursing Home Patient," J of Health and Social Behavior, v.13(3).

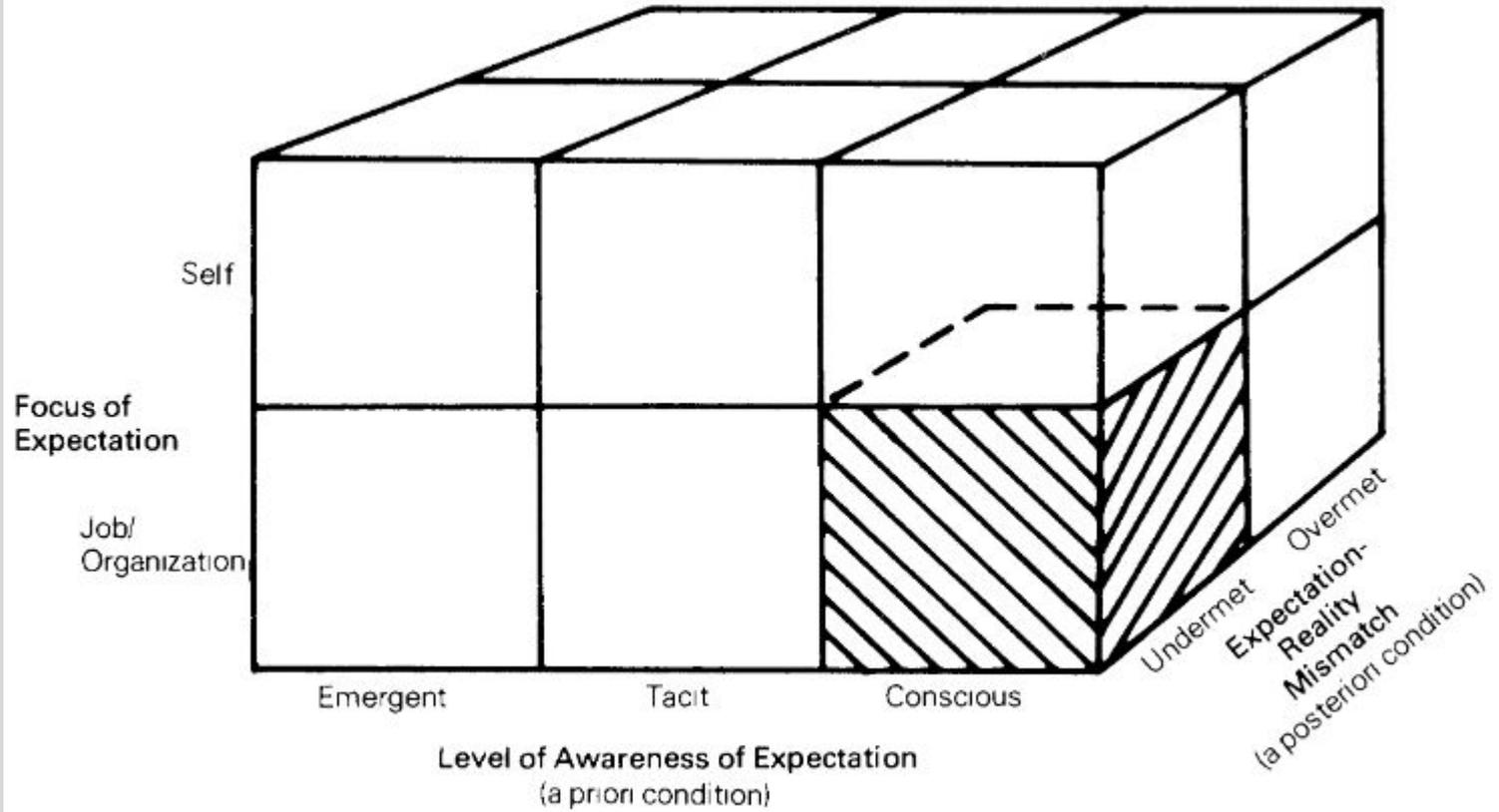


Figure 2. Varieties of surprise.

1980

Louis, M. R. "Surprise and Sense Making: What Newcomers Experience in Entering Unfamiliar Organizational Settings," *Administrative Science Quarterly*, v.25(2).

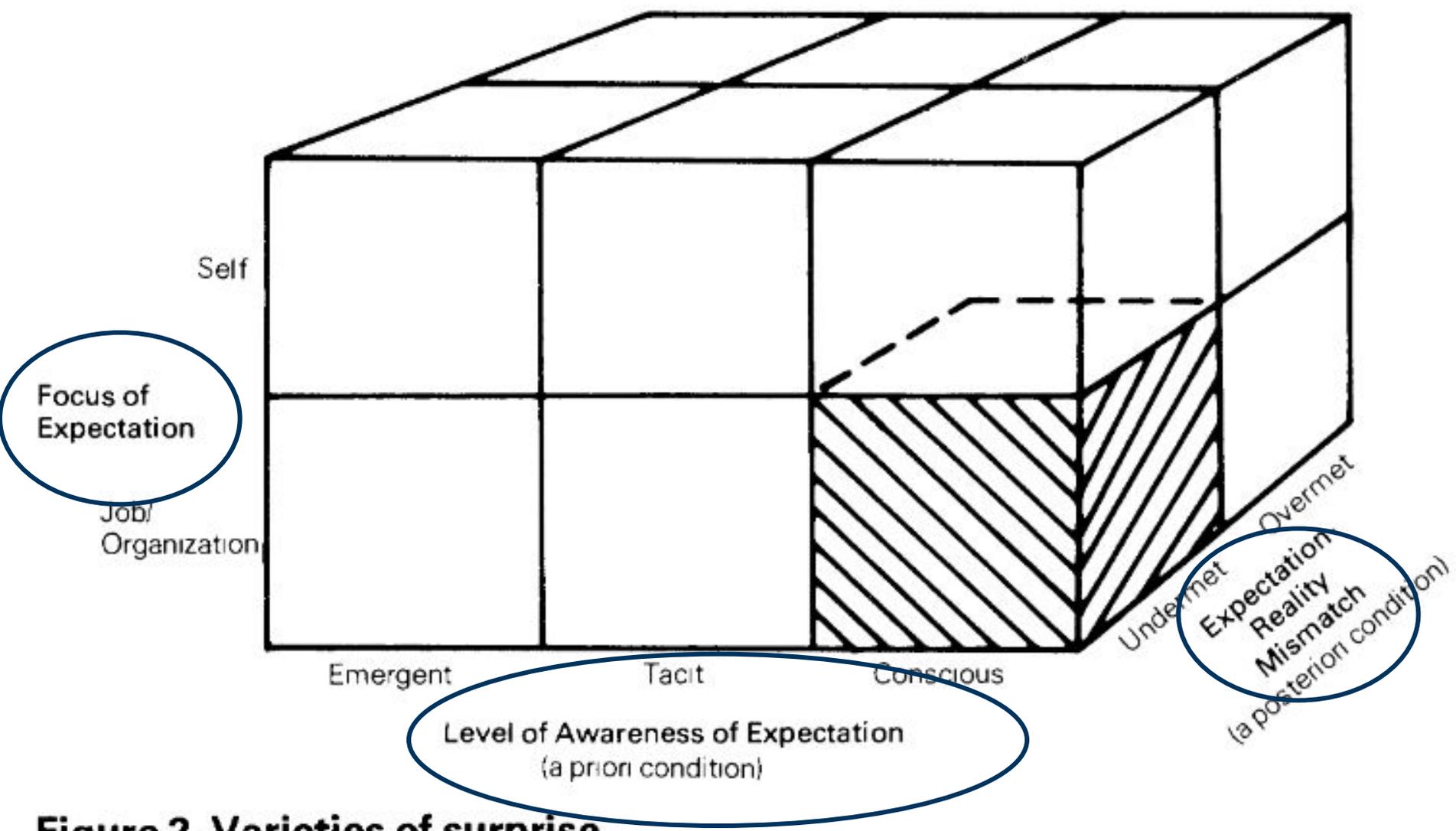


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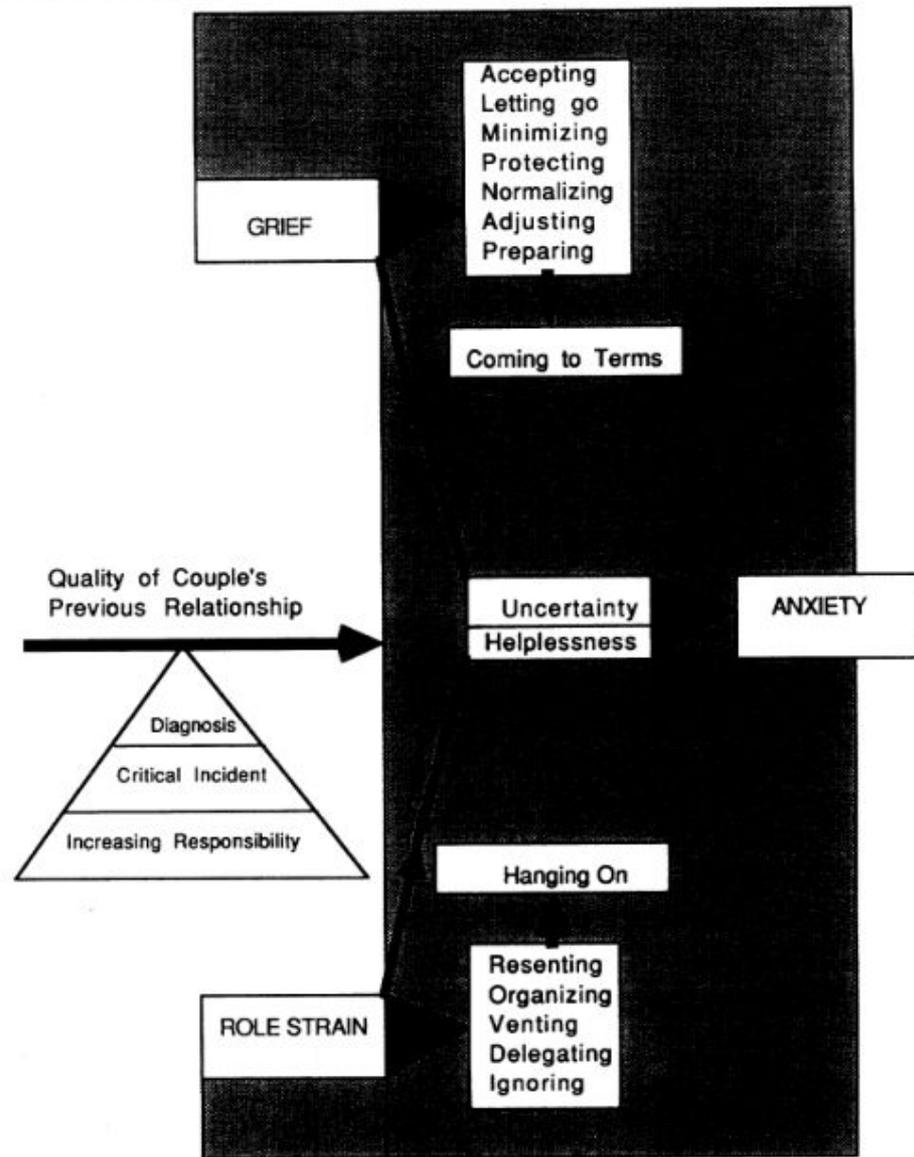


FIGURE 1: Diagrammatic Representation of Events Leading Up to and Following the Diagnosis of Alzheimer's Disease

Morgan, D. G. and Laing, G. P. "The Diagnosis of Alzheimer's Disease: Spouse's Perspectives," *Qualitative Health Research*, v1(3).

1991

Article

Data Display in Qualitative Research

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27% of qualitative
articles “used some type of
data display” (2007-09)



60% matrices



What should you think about?



Consideration 1

Use or goal of the visual representation





Consideration 2

Level you want to display
your data



Level of Display

Theme/
Narrative

Sentence

Word

narrative excerpts

Threats to Validity	Researcher's Role	Methods	Impact of Threats	Relative Importance
1. Poor Representativeness	Use of multiple methods	Triangulation	High	High
2. Poor Measurement	Use of multiple methods	Triangulation	High	High
3. Poor Data Collection	Use of multiple methods	Triangulation	High	High
4. Poor Analysis	Use of multiple methods	Triangulation	High	High
5. Poor Reporting	Use of multiple methods	Triangulation	High	High

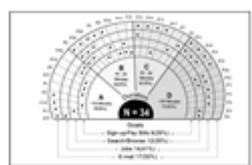
Matrix



Graphic Recording⁶



Map



Spectrum Display⁴



Sentiment Analysis⁵



Word Tree



Phrase Net



Word Cloud



Key Word in Context¹
Semantic Network Analysis
Cluster Analysis



Parallel Tag Cloud²
SparkCloud³

Simple

Complexity

Complex

Henderson, S. and E. Segal. 2013. "Visualizing Qualitative Data in Evaluation Research," *New Directions for Evaluation*. 139:53-71.



Consideration 3

**Balance between text
and summary**



describe

quantify/
summarize



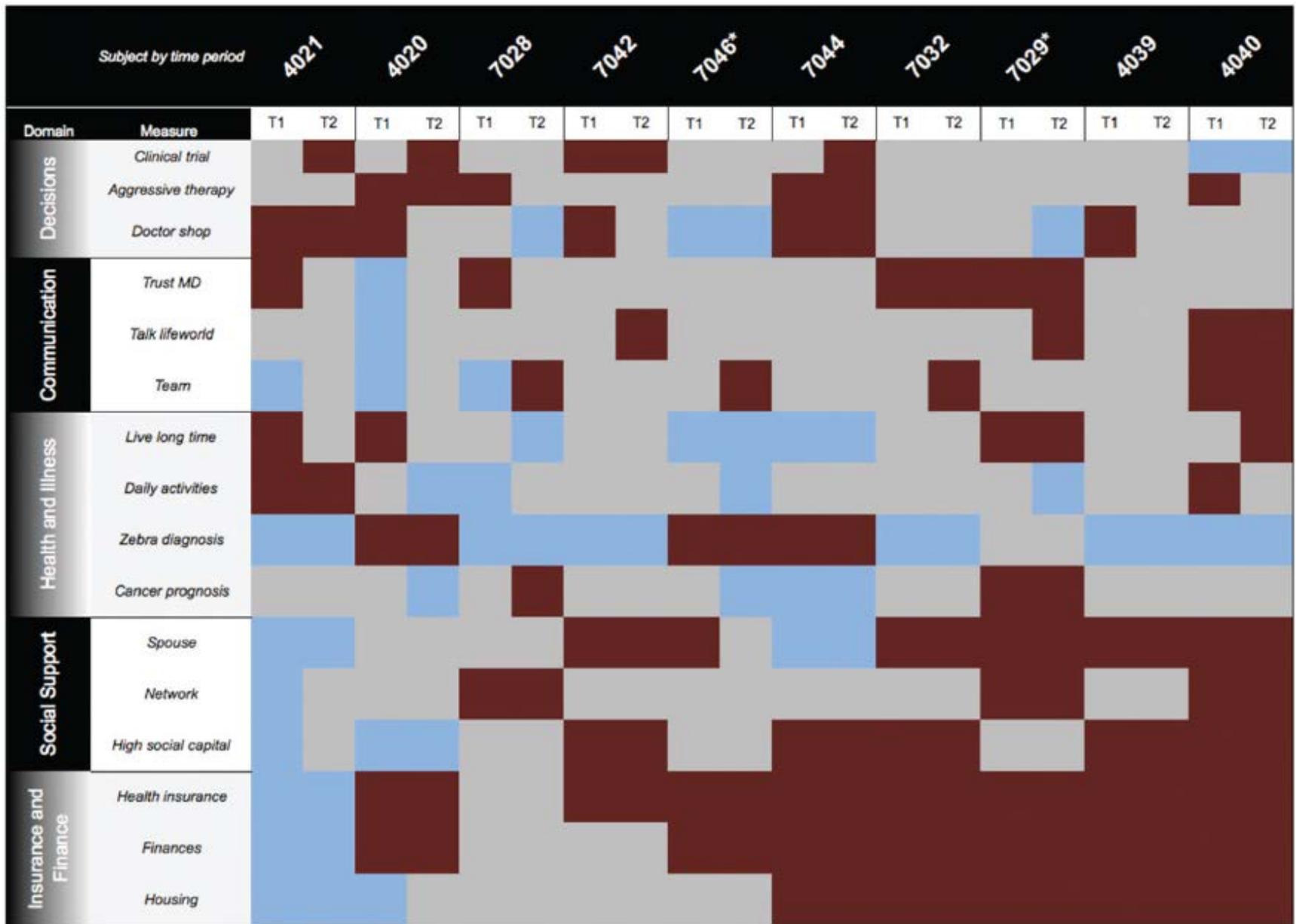
describe

quantify/
summarize

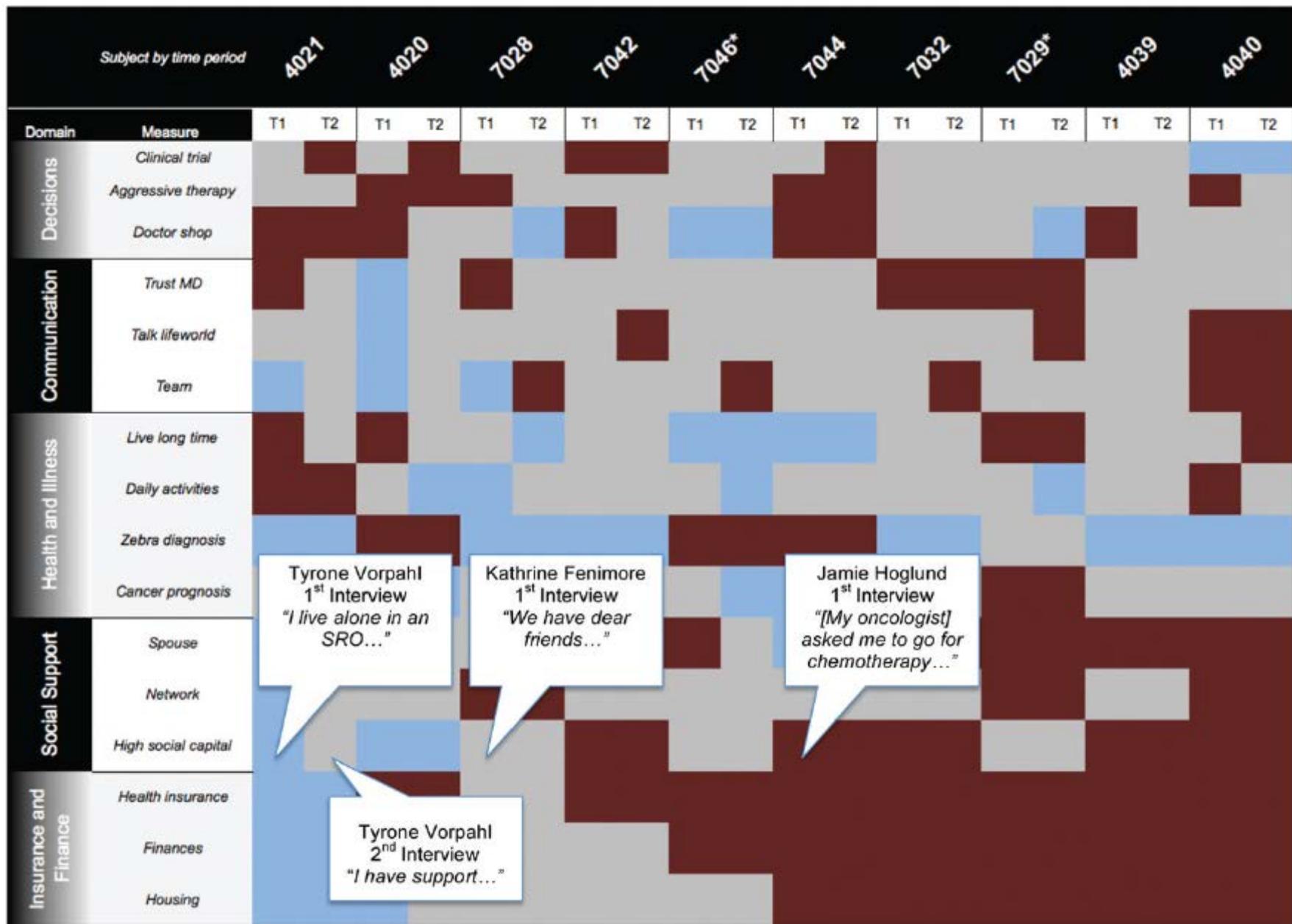


Consideration 4

Static vs Interactive



Abramson, C. M. and D. Dohan. (2015). "Beyond Text: Using Arrays to Represent and Analyze Ethnographic Data," Sociological Methodology. V.45(1):272-319.



Abramson, C. M. and D. Dohan. (2015). "Beyond Text: Using Arrays to Represent and Analyze Ethnographic Data," Sociological Methodology. V.45(1):272-319.

Ode to qualitative data

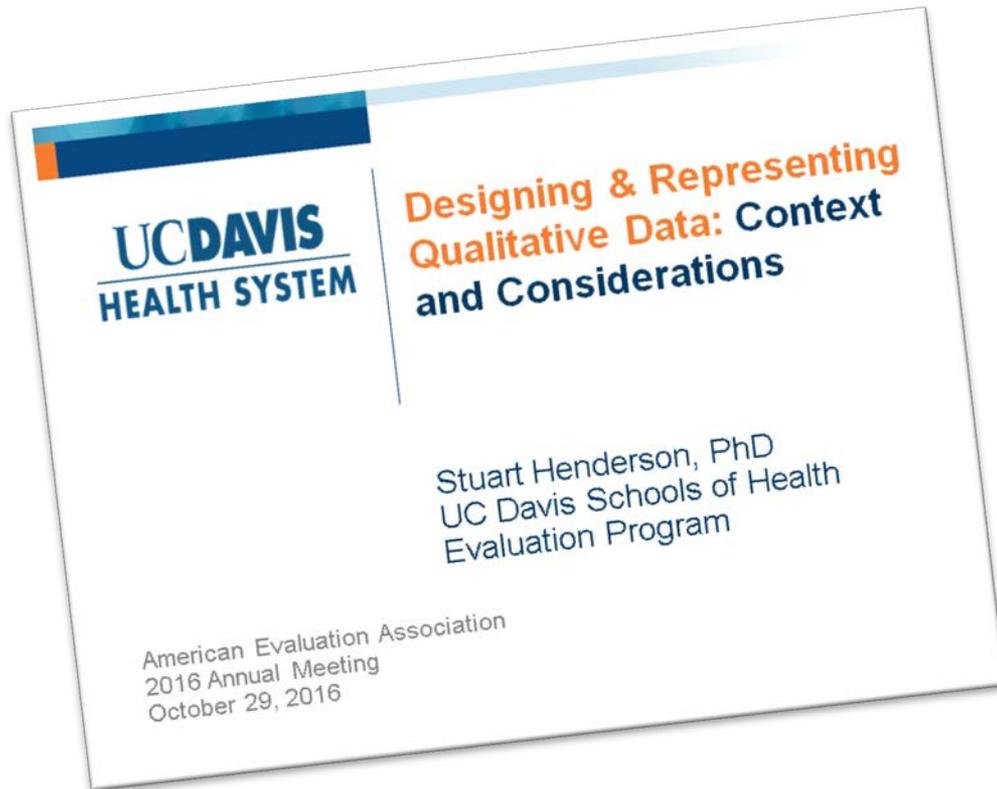
Oh, qualitative data
Thick description
Bringing forth experience and context,
Forsaking numbers to nurture interpretation and nuance.

I read and ponder in the grounded garden of your ideas
Waiting for themes to emerge,
Dizzied with possibilities.

I embrace your stories,
Your anecdotes and tangential musings.

I am not saying goodbye
Rather, welcoming a visual companion
to complement your depth.

Qualitative data,
Thick description,
Hold steady as we move gently forward.



Slide deck is
available in the
AEA public
elibrary

Contact: sthenderson@ucdavis.edu