

### Unifying seemingly different things:

- We need to condense data and form a pattern so that the subject we are dealing with can be understood clearly, and to find out how the data are related to each other in some way. This can be done by putting the data in a category, theme, or proposing an outcome.
- Matrices and tabular displays are used to find the connection between intersecting data.
- Mixed-method studies can unify both qualitative and quantitative data.
- Qualitative data can be often variable which makes it hard to unify the data, especially when multiple opinions are taken from participants through surveys or interviews, and there may be outliers (extremes of data). So here we have to acknowledge the variation. Or find a higher-level category or theme to unify the data.

### Concepts:

- A concept is a word or short phrase representing a broader meaning of the words i.e a bigger picture.
- Analysts use concepts to make us understand that what is studied has a deeper meaning and importance to what meets the eye.
- A concept cannot be touched, for example a smartphone is touched, but the idea of communication is the bigger picture. A concept suggests an idea rather than an object.
- Touch test: a technique used to turn what we experience with our senses to something with a larger magnitude; a concept.
- Concepts also refer to actions we can observe; example: seeing someone study for step 1, this is an action, but the concept here we are seeing someone build their future!
- A concept can be similar to a “category”, however it is more of a label for collecting a pattern and comparing it. The category consists of an observable action. Example: going to sleep hungry, looking for jobs, living homeless. Those are all categorized under similar actions. But the concept here is poverty.
- Concepts unify related realities.
- The researcher finds the broader meaning of the pattern.
- Concepts are important building blocks for theory development, we label them and define them so they can represent a broader phenomenon.

- Example: notes were taken about art class for grade 5, three observations were put together to form the code “qua” concept. 1) Detention forms, attendance files were seen. 2) Teacher has a plastic tub with students’ names and work in them. 3) The teacher raises her hand to get children to stop talking. We can find other concepts here which are organization and procedures.

If a researcher wanted to analyze these observations we can rephrase them to **managing classroom**.

After we collected enough observations from selected patterns we can combine concepts for form assertions, propositions, theme or theory.

Example of an assertion: teacher organization is key to a successful classroom management

### Propositions

- It is a predictive statement usually with two primary elements that propose a conditional event such as if A happens then B happens. Or because this happened that’s why this will happen.
  - Propositions aren’t written usually with these phrases but just to understand the meaning, this is an explanation suggested by the proposition.
  - Example: to ensure students prepare for class, the teacher had a pop quiz.
  - Other example: Nominees who do not win competitions bond together over their shared defeat. Worker performance and productivity will increase when observers are present ( Hawthorne effect)
  - Propositions meet analytic goals for qualitative research, they unify an action and a reaction. They make a research-based truth claim about something in social life. They also explain how why or what actions happen with reactions. Lastly they predict possible outcomes which is important for theory development.
  - Propositions establish evidence-based reasons why certain outcomes happen when certain conditions exist and variables intervene. Continuing on the classroom example above, the propositions is: to ensure student preparation for classes, the teacher administered an occasional pop quiz.
  - The antecedent condition is: almost no students prepare for class, either to lack of interest or some being absent.
  - Mediating variable: pop quizzes affect students’ final course grades, so this is due to the students concern for good grades.
  - Outcome: better prepared students for class.
- Some propositions might not always fully predict what would happen so we use the words “might, likely, possibly”.

- The best propositions are pattern derived, (i.e from patterns observed) and patterns driven.
- In summary an analyst observes certain antecedent conditions, mediating variables, consequential (happening one after another) outcomes occurring frequently, this provides evidence for propositional claims. Influences and affects summarized by patterns can show us that not everything in social life that happens is random.

#### Matrices and tabular displays

- A matrix is an intersection of lists, set up as rows and columns, it summarizes and arranges data by factors such as time, date, site, variable etc. for an easy unified view.
- It helps the analyst understand the condensed material better in an organized way. Easier for compare and contrast.
- Unlike quantitative analysis, qualitative analysis uses words and phrases in cells rather than numbers, the cell content can have quotes from participants or “in vivo codes”, concepts or themes developed by the researcher.
- Matrices are useful for comparing things side by side such as different categories or time-frame.
- The researcher can move data around in the layout of rows and columns looking for a new relationship or discovery by using cut and paste, forming a new theme or concept.
- Here is an example of a matrix, the 4 main rows represent the analyst’s summaries of 234 participants’ collective responses to 4 major survey questions:
  - 1) Perception of teachers
  - 2) Personal challenges faced
  - 3) Good memories
  - 4) Effect on adulthood
  - The 4 main columns group together participants who graduated from high school in a certain decade. Each cell represents an intersection between a specific survey question and the response. If a particular pattern was observed in two or more responses, it is highlighted with an arrow.

Figure 9.2 A matrix of "lifelong impact" across high school graduates from the 1950s to 2000s.

COHORT/ Survey Item	1950s-1970s HS GRADUATES	1980s HS GRADUATES	1990s HS GRADUATES	2000s HS GRADUATES
<b>Perceptions of Teachers</b>	"Enthusiastic" and "motivating" "Challenging," "encouraging," "inspiring"		"Supportive" in "safe spaces"; "experienced" and "demanding"	
<b>Personal Challenges Faced</b>	"Shyness," "lack of confidence," search for "identity"	Explorations of "self"	A need to "belong" and "fit in"	"Fear"
<b>Fondest Memories</b>	Extrinsic rewards Connections with audience "Camaraderie" "Friendships" and "fun"	"Feeling part of something bigger" "Community," "family," "teamwork"	Connections with self, characters portrayed, peers Independent production projects	Intrinsic rewards
<b>Affects on Adulthood</b>	Work ethics ("confidence," "leadership skills," "public speaking skills," presentation of self)	Benefits to self, increased social consciousness	"Outgoing"	"Maturity," stronger "identity"

- Purpose of this matrix: determine whether participants from different age ranges held different memories and perceptions of high school experiences.
- Analyst should pay attention to certain shifts such as the extrinsic rewards to intrinsic in the 2000s column. Reading this matrix should be vertical and horizontal looking for any possible relationships.
- In summary: studies in qualitative content analysis, mixed methods etc. with multiple participant groups use matrixes and tabular display as a way to unify concepts for analytic reflection.

### Mixed Methods:

- It is an intentional blending of qualitative and quantitative data collection and analysis for studies that will benefit from their combined outcome (unification). Two methods out of many are discussed here:
- First method: we analyze data to see if there is a link between the qualitative and quantitative data i.e if they go well together. (Data harmonizes with each other).
- Second method: analytic synthesis is started when the quantitative results help guide the qualitative results (or vice versa).
- Semantic differential: is a standardized quantitative survey instrument that asks participants to mark in one of seven spaces a rating somewhere between bipolar adjectives in response to a statement, for example  
How much do you like this summary?

I want to rip it ... I hate it ... Neutral ... I like it ... I love it

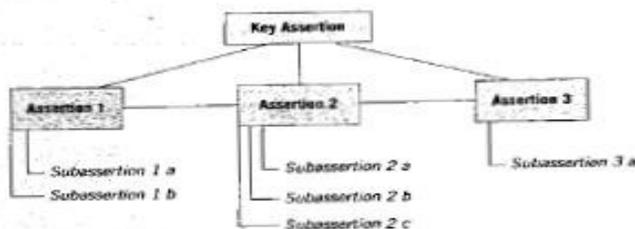
- Simultaneous/convergent quantitative and qualitative survey would be labeled: QUAN + QUAL. (when both qualitative and quantitative results are used together both exerting the same load of effect)
- Sequential design: when the quantitative results play a lesser role than the qualitative results, this will be labeled as “quan → QUAL “

### Chapter 10

- Plot: overall structure of a story
- Storyline: units of action contained within the plot.
- Assertion: declarative statements of summative synthesis about the researcher's fieldwork observations, supported with the data corpus.
- If any disconfirming evidence appears that negates the validity of the assertion the statement is revised to accommodate the data.
- Example: people who smoke get lung cancer. This assertion is weakened by the fact that many people smoke for decades and never get cancer, so the assertion is revised to become “people who smoke have a higher chance of getting lung cancer than people who do not”. We put this sentence keeping in mind some people who do not smoke can get lung cancer.
- Erikson promotes analytic induction and making inferences about data based on examination of corpus and accumulated knowledge.
- Goal is not to look for proof to support assertion, rather to look for plausibility of inference.

- Assertions range from factual description to research impression, to claims of reference.
- Factual: teachers work with homeless kids
- Research impression: teachers seemed helpless by the ....
- Claims of reference: growing number of homeless youth suggests that..
- Low-level inference: summarize what is happening within a particular site
- High-level inference: summarize something larger, for example a low-level inference can be about a classroom but high-level inference about schooling or education.
- High level inference is derived from a synoptic generalization (view of a whole) about the data's suggested meaning
- Key assertion: the central argument encompassing a claim, this statement is derived from/supported by the subassertions.
- Subassertions and assertions provide the evidentiary warrant or foundation of data to build the key assertion (so it is read from down up)
- Key assertion and subassertions interrelate with each other through key linkages.

Figure 10.1 The key assertion derives from assertions and subassertions.



Source: Based on Erickson, F. (1996). Qualitative methods in research on teaching. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 119-161). New York, NY: Macmillan.

- Coding/theme-ing the data before making assertions not necessary
- Erickson advises reading the data multiple times before making assertions in order to gain holistic awareness of content.
- Same as themes, statements are arranged in outline format according to their evolving status, they are revised whenever needed.
- Vignettes (discussed next) can be used to support assertions
- Assertion development uses holistic, summative interpretation of data.

Read example on page 248 if you want to understand assertions more

- Key assertions can be revised as more data is collected with both confirming and disconfirming evidence to represent the claim.

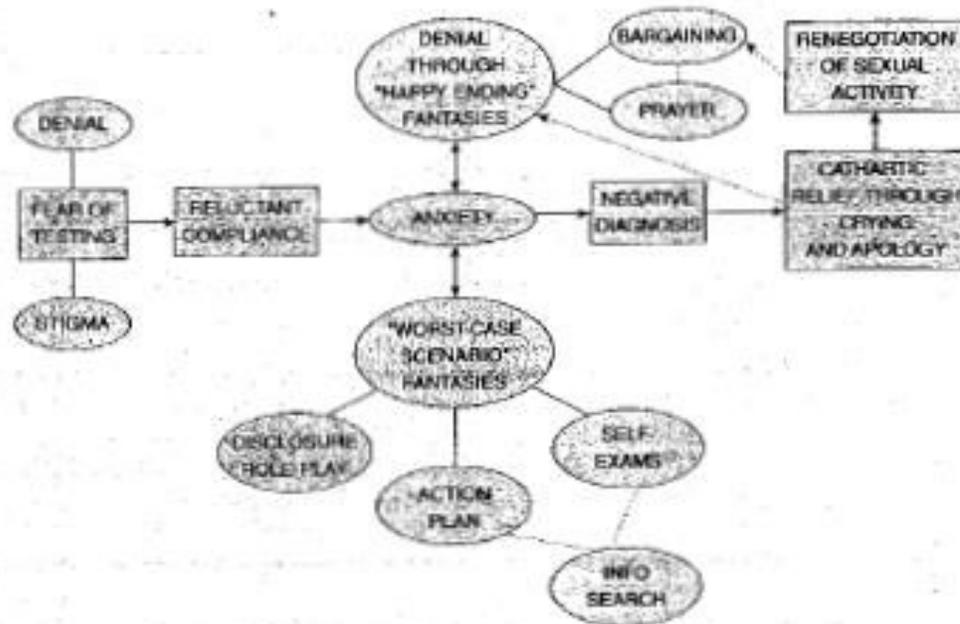
### Vignettes:

- Erickson developed vignettes not just as a presentational form in reports but also as a method to analyze significant interaction process among participants
- Purpose is to stimulate a clear experience of participants and their actions, reactions and interactions.
- Vignettes are written from researchers point of view
- Selected vignettes can appear on a final report as part of evidentiary warrant to raise curtains on a certain study or to summarize the data corpus into a meaningful reflection.
- Vignettes are like video clips of social life to better understand phenomena investigated.
- Read vignette on page 251 if you want.

### Diagrammatic displays

- A visual method for understanding a process
- A diagram is an active illustrated representation of participants experiences under investigation
- It is visual storytelling of key factors at work in data and understanding participants action, reaction and interaction
- A diagram is a researcher's interpretation of interpersonal and intrapersonal social dynamics
- Reading a diagram: enclosed shapes are usually major categories, rectangles for phases or stages of action. Solid line for a direction connection or subcategory. Dashed line interrelationship
- One way arrows are linear paths of action through time while bidirectional arrows suggest cyclic or repetitive behavior.
- Figure is read left to right

Figure 10.2 A model in progress of HIV test anxiety



- This is a model of HIV testing in gay men, first the gay man undergoes HIV testing, then he waits for the results for 3 days at least, then receives negative results. Storyline begins with fear of testing rooted in 2 causes; denial that he has HIV and social stigma or shame from having HIV. Then we see reluctant compliance because he doesn't want to take the test but someone convinces him (doctor or friend etc.), the primary emotional state while waiting for results is anxiety, so patient then feels denial and starts thinking no I don't have it I'm fine, he can also put worst-case scenarios and start planning on them (action plan). Some may conduct self-exam on their skin when they are paranoid. Others will search for more info about HIV.
- Eventually when tests are out, if negative diagnosis then relief through crying and apology. Some may have renegotiation of sexual activity in future.
- Notice the dashed arrow between cathartic relief and denial through happy ending.

- The figure above is a graphic outline of the experience of taking and waiting for an HIV test. This is a work in progress, it can be revised as new data from more participants is collected.
- Those figures can also be used as analytic tools for mapping the evolving process of human action, reaction, and interaction. (If we repeated the experiment today when the HIV testing result come out on the same day, would the men still go through the same flow in the diagram?)

### Interpreting the routines, rituals, rules, roles and relationships of social life

#### Analytic meta-memos:

Reflective form of analysis, they are researcher-crafted monologue that articulate mental processing of data that have been collected.

Meta-memos integrate previously written reflections into a new whole.

Two or more memos mixed together stimulates thinking about data's connections, interrelationships and the bigger picture.

When thinking analytically, we need to find a connection between two or more elements rather than waiting for a connection to pop up on its own.

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