LAST WEEK
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When are qualitative methods most appropriate to use?
What are two outcomes of ethnography in the context of HCl?
Describe the difference between generalization and representation.
What is a setting?
What data collection methods are used in ethnography?
What is the point of participant observation?
What are three purposes interviews serve in the context of ethnography?
When does data analysis start with ethnography?
How do we attain rigor when field data is messy?
GROUNDDED THEORY
QUALITATIVE DATA ANALYSIS

Grounded Theory*

One of the most widely used qualitative analysis framework in today’s social sciences

Used to generate substantive theory from data

KEY CONCEPTS

An **approach** to describe relationships where little is known or to provide a fresh take on existing knowledge

A **method** to systematically build integrated sets of concepts from systematically obtained empirical data

A **process** of composing knowledge through intimate contact with subjects and events under study

A **theory** that is shaped by data as well as by the researcher
KEY CONCEPTS: INDUCTION

Theory is developed from within the data

An inductive approach

The researcher begins with an area of study and allows the theory to emerge from the data (as opposed to a pre-conceived theory in mind)

Theory is developed by moving from the specific to the more general

Resulting theory fits at least one dataset perfectly
KEY CONCEPTS: FIT

A theory must fit, be relevant and adaptable

Fitness

The categories (elements) of the theory must fit the data

Data should not be forced to fit pre-existing categories

Categories emerge from data and are modified by data

Relevance

A theory should be able to explain what happened, predict what will happen and interpret what is happening

Adaptability

A theory must be modifiable, based on new data
Important to minimize subjectivity by:

Maintaining an open disposition, a willingness to be surprised

Think comparatively; comparing incident to incident

Study multiple viewpoints of the phenomena in question

Researcher should periodically step back and ask ‘what is going on here?’

But...

You can objectify your findings through interrater reliability.

More on this soon...
THE PROCESS

Reading (and re-reading) a textual database (e.g., a corpus of field notes)

“Discovering” or labeling variables (called categories, concepts and properties)

Identifying interrelationships
THE PROCESS*

Open Coding  Axial Coding  Selective Coding  Comparative Analysis  Theory Building

OPEN CODING

Coding for concepts that are significant in the data as abstract representations of events, objects, relationships, interactions, etc.

Reliability analysis ensures objectivity of coding

Cohen’s Kappa, >.70 acceptable

*I kicked it before, and I was told not to…[laughs]…when it first came.*

*abusing the robot*

AXIAL CODING

Concepts are categorized into explanations of arising phenomena (e.g., repeated events, actions, and interactions)

- Abusing the robot
- Yelling at the robot
- Impersonating the robot
- Naming names

Negative treatments of the robot
SELECTIVE CODING

Integrate categories into a central paradigm—a “big picture” of the findings through building relationship across categories and contextualizing phenomena in data.

Diagramming or tables could be used to build relational models.
COMPARATIVE ANALYSIS

Compare the central phenomenon across several dimensions to understand how it is affected by social, physical, or organizational structures.

Perceptions of the robot

Transcript from high-workload unit

Negative

"[The robot] does tend to be annoying when [there are] 15 things are going on."

Transcript from low-workload unit

Positive

"I think [the robot] is a delight. I think it works fine, as it is."
THEORY BUILDING

Build a final theoretical model based on the results of the comparative analysis

“Embed” existing theory in this model
RECAP OF PROCESS

Open Coding → Axial Coding → Selective Coding → Comparative Analysis → Theory Building

- Concepts
- Categories
- Causal Relationships
- Stories
- Theories
THANKS!

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