# Introduction to Qualitative Research & Coding

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some slides were adapted from Dr. Zawadi Rucks-Ahidiana and Dr. Claudia von Vacano and/or originally developed for DH Summer Institute, commissioned by D-Lab/DH at Berkeley

- It's Okay Not to Know (IOKN2K) D-Lab
- 280 workshops
- 1,100 consultations
- working groups
- special research projects
- approx. 6,000 scholars served per year

dlab.berkeley.edu

# Agenda

- Introduction of Facilitator & Participants
- Introduction to Qualitative Research
  - Review of Basic Concepts
  - Methodologies & Methods
  - UC Berkeley Resources
- Introduction to Coding
  - What is Coding? What are Codes?
  - Defining Codes
  - Organization of Coding Scheme
  - Multi-Step Nonlinear Process
  - Best Practices
  - What is Analysis?

# Introduction of Facilitators & Participants

#### Josué Meléndez Rodríguez

- Qualitative Research Lead at D-Lab
- PhD Student at School of Social Welfare
- Research on Social Wellbeing in/through Higher Education
- MA in Postsecondary Education & MSW in Macro Practice
- 10+ years of practice experience in social services and education

#### Participants

- Names
- Educational & Work Backgrounds
- Current Research
- Interests/Goals for Training

# Introduction to Qualitative Research -Review of Basic Concepts

- Qualitative, Quantitative, & Mixed-Methods
  - Differences, Advantages, & Tensions
- Philosophical Considerations
  - Ontology What is reality?
  - Epistemology How can we know about reality?
  - Axiology Whose knowledge has value?
- Theories & Frameworks
  - Tacit & Formal Theories
  - Conceptual & Structural Frameworks
- Systematic Flexibility
  - Determine Question(s)
  - Conduct Literature Review
  - Determine Methodology & Methods
  - Collect Data
  - Code & Analyze Data
  - Determine & Write Findings
  - Frame & Write Discussion



Introduction to Qualitative Research, cont.

# Methodologies & Methods

Methodologies

- Case Studies
- Ethnographies
- Grounded Theory
- Phenomenologies
- Narratives

# Methods

- Case Studies
- Ethnographic Methods
- Observations
- Interviews
- Text/Video/Picture Analysis



#### Methodologies & Methods, cont.

Туре	Methods	Description	Resulting Data
Observation	Ethnography	Observations & informal interviews over longer time periods as a member of observed group	Field notes, photos, audio/video
	Participant observation	Observations over shorter time periods as member of observed group	Field notes, photos, audio/video
	Non-participant observation	Observations over shorter time period as outsider to observed group	Field notes, photos, audio/video
Interview	Structured interviewing	Ordered interview questions with precise wording used for every interview	Transcripts, field notes, audio/video
	Semi-structured interviewing	Interview questions & order are not necessarily the same for every interview	Transcripts, field notes, audio/video
	Unstructured interviewing	No predetermined interview questions	Transcripts, field notes, audio/video
Documents	Historic	Older electronic or paper textual or visual files	Pdfs, photos
	Current	Recently created electronic or paper textual or visual files	Pdfs, photos, text files
Social Media	Web Scraping	Textual data from websites such as Twitter, Facebook, or blogs	Text segments, metadata

Introduction to Qualitative Research, cont.

# **UC Berkeley Resources**

D-Lab

- Workshops & Presentations
- Working Groups & Consultants
- Work Spaces

#### Graduate School of Education (GSE)

- Introduction to Qualitative Research
- Advanced Qualitative Research
- Year-Long Qualitative Research Seminar Fellowships

Qualitative Research Design: An Interactive Approach by J. Maxwell

### **Reading Recommendations**

Stanford Encyclopedia of Philosophy at plato.stanford.edu The Coding Manual for Qualitative Researchers by J. Saldaña

Thinking Qualitatively: Methods of Mind by J. Saldaña

School of Public Health

- **Community-Based Participatory Action** Research (CBPAR)
- Critical Theories in Social Science Research (cross-listed with the Law School)

Institute for the Study of Societal Issues (ISSI)

- Presentations
- Trainings

Other recommendations may be available based on specific areas of interest.

Qualitative Inquiry & Research Design: Choosing Among Five Approaches by J. Creswell

Qualitative Data Analysis: A Methods Sourcebook by M. B. Miles, A. M. Huberman, & J. Saldaña

Paradigms of Research for the 21st Century: Perspective & Examples from Practice edited by A. Lukenchuk

Qualitative Research: Bridging the Conceptual, Theoretical, & Methodological by S. M. Ravitch & N. Mittenfelner Carl

#### Introduction to Coding

#### What are Codes? What is Coding

Coding is a way of organizing the data around some common idea, concept, or category ACROSS sources.

nity Economic Develop No. 99-7-796-62-6



The code of "financial planning" is applied to the selected text from documents A, B, and C, because they all discuss this topic. Introduction to Coding, cont.

Deductive and Inductive Coding

You create codes because you deem the identified topics/concepts/ideas as important and relevant to your study.

- Deductive Coding
  - Codes emerge from your research question and/or the literature review.
- Inductive Coding
  - Codes emerge through engagement with your actual data sources and/or data set.

#### Introduction to Coding, cont. Defining Codes

Your codes should be defined, just as variables in a quantitative study should be defined. The level of specificity will depend on various factors, such as the complexity of your coding scheme, whether you have a team of coders or are conducting coding on your own, requirements of your field or committee or journal of choice...

- Inclusion/Exclusion Criteria
- Weighing Scale

Introduction to Coding, cont.

### Organization of Coding Scheme

Whether deductive or inductive, codes are organized into a coding scheme that you then use to systematically identify relevant segments of data within your entire data set.

- Flat Coding
  - Codes are organized at the same conceptual level.
- Hierarchical Coding
  - Codes are organized into groups and subgroups based on whatever conceptualization the researcher deems appropriate/relevant.

#### Introduction to Coding, cont. Multi-Step Nonlinear Process

Different researchers engage the coding process in different ways... However you choose to create and organize codes, you should expect it will be a multi-step process, maybe 4, 5, or more rounds, and that there will be a great deal of "back-and-forth" throughout the process.



#### Introduction to Coding, cont. Best Practices

- Treat Coding as an Iterative Process
  - Test Codes and Revise
    - Look for codes that aren't being used, aren't distinct enough from other codes, are defined too broad or too specific...
  - Review Coding Process
    - Make sure you and other coders are being consistent in your application of the codes across the data set.
- Actively Work with 20-30 Codes at a Time
  - You'll likely have more than 20-30 codes, but should actively code with only 20-30 codes to ensure consistency.
- Break Up the Coding Process
  - You can code for a specific chapter rather than the whole dissertation/book.
  - You can split the codebook thematically, and code in rounds.
- Keep a Codebook
  - Include information noted on "Defining Codes" slide, and regularly refer back to it.
  - This is a living document that should be revised as needed.
- Memo as You Code
  - Make notes reflecting on the coding process, perhaps noting ideas for codes that aren't yet included and/or revisions to existing codes.
  - You may also write analytic memos, making a note that reflects initial thoughts about the meaning of your work (i.e., preliminary analysis)

#### Introduction to Coding, cont. What is Analysis?

The process of identifying themes related to your research findings. This is different than identifying ideas/concepts/topics that come up throughout your data set. It's "bigger picture" stuff...

- Overarching Themes
  - What is happening in your data overall?
- Subgroup Themes
  - What is happening in your data for specific subgroups?
- Typology Themes
  - What is happening in your data by specific dimensions of coded data?

# What is Analysis?, cont.



What is Analysis?, cont.

# Creating an Analysis Plan

An analysis plan is a living document that you revise as you discover new questions, add codes to your codebook, and revise your plan based on null findings.

#### The plan should document:

- Research questions you want to answer
- Codes, attributes, and queries you'll use to answer each question
- Relevant subgroups and typologies

#### What is Analysis?, cont. Multi-Step Nonlinear Process

- 1. Identify Specific Questions to Answer
  - These questions will be more specific than the research questions that motivate your study, and will focus on your actual data.
- 2. Identify Codes and Attributes Associated with the Specific Questions
  - $\circ$   $\,$  Which codes help answer the specific question?
  - What aspects of codes are you interested in? (i.e., co-occurrence)?
  - If you have a hypothesis, plan to test both to prove and disprove.
- 3. Identify Relevant Subgroups
  - Make note of subgroups within the data or aspects of the data that are important to your research.
  - What unit of analysis is important to answer your question (e.g., individual or group, stakeholder type, document age)?
  - How might codes vary across subgroups?
- 4. Identify Relevant Typologies of Coded Data
  - How might the concepts/ideas/categories for which you coded contribute to your research question?

#### What is Analysis?, cont. **Types of Analysis**

You may hear different verbiage related to qualitative and other types of analysis. As with many other concepts, different researchers, including established and respected methodological leaders, may use different terms to refer to the same thing or the same terms to refer to different things... You should familiarize yourself with whatever terminology is used in your field, by your colleagues, etc. to determine what language you should use to describe your chosen methodology.

- Qualitative Text Analysis
- Qualitative Content Analysis
- Content Analysis
- Thematic Analysis
- Discourse Analysis
- Audio Analysis
- Visual Analysis
- Video Analysis
- Picture or Image Analysis
- Computational Text Analysis

