

# QUALITATIVE DATA ANALYSIS

What is qualitative research?

Qualitative Data Analysis (QDA) is the range of processes and procedures whereby we move from the qualitative data that have been collected into some form of explanation, understanding or interpretation of the people and situations we are investigating. QDA is usually based on an interpretative philosophy.

Dimensions of qualitative methods

Understanding context

How economic, political, social, cultural, environmental and organizational factors influence health?

Understanding people

How people make sense of their experiences of health and disease?

Understanding interaction

How the various actors involved in different public health activities interact each other?

Terms used in qualitative data analysis:

**Theory:** A set of interrelated concepts, definitions and propositions that presents a systematic view of events or situations by specifying relations among variables

**Themes:** idea categories that emerge from grouping of lower-level data points

**Characteristic:** a single item or event in a text, similar to an individual response to a variable or indicator in a quantitative research. It is the smallest unit of analysis

**Coding:** the process of attaching labels to lines of text so that the researcher can group and compare similar or related pieces of information

**Coding sorts:** compilation of similarly coded blocks of text from different sources in to a single file or report

**Indexing:** process that generates a word list comprising all the substantive words and their location within the texts entered in to a program

## Important concepts in Designing qualitative research

Concept	Description
Natural setting	Participants are free from any control & data are collected in their natural environment
Holism	The whole is more than the sum, take magnitude of contextual factors in to account
Human as a research instrument	Researcher is involved in every step being responsive, flexible, adaptive and good listener
Emergent design	Study design emerges as further insights are gained through data collection and analysis
Saturation or redundancy	A stage where additional interview or observation is not believed to add new information-enough is enough!

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### Qualitative vs quantitative data analysis

- Difference in data – instruments – procedures and analyses
- Qualitative:
  - Content – attitudes – individual or shared ideas – experiences
  - Verbal data - observation
- Quantitative:
  - Numerical data – statistics - questionnaire

## Qualitative

- Begins with more general open-ended questions, moving toward greater precision as more information emerges
- Pre-defined variables are not identified in advance
- Preliminary analysis is an inherent part of data collection

## Quantitative

- Key explanatory and outcome variables identified in advance
- Contextual/confounding variables identified and controlled
- Data collection and analysis distinctly separate phases
- Analysis use formal statistical procedures

### Steps in qualitative data analysis

The process of qualitative data analysis:

- Step 1: Organize the data
  - Transcribe the data (you can use hyper TRANSCRBE software) • Translate the data (You can use language translation software like SYSTRAN)• Data cleaning• Label the data – Structuring – Familiarizing
- Step 2: Identify a Framework
  - Read, Read, Read...• Identify a Framework – Explanatory – Guided by the research question – Exploratory-Guided by the data• Framework will structure, label and define data• Framework=Coding plan
- Step 3: Sort data in to Framework
  - Code the data• Modify the Framework• Data entry if use computer packages
- Step 4: Use Framework in descriptive analysis
  - Descriptive analysis – Range of responses in categories – Identify recurrent themes-Stop here if exploratory research
- Step 5: Second order analysis
  - Identify recurrent themes• Notice patterns in the data• Identify respondent clusters – Search for causality – Identify related themes• Build sequence of events• Search data to answer research questions• Develop hypothesis and test

## Types of qualitative data analysis

### Content analysis:

- Content analysis is the procedure for the categorization of verbal or behavioural data for the purpose of classification, summarization and tabulation.
- The content can be analyzed on two levels – Descriptive: What is the data? – Interpretative: what was meant by the data?

### Narrative analysis:

- Narratives are transcribed experiences
- Every interview/observation has narrative aspect-the researcher has to sort-out and reflect up on them, enhance them, and present them in a revised shape to the reader
- The core activity in narrative analysis is to reformulate stories presented by people in different contexts and based on their different experiences

### Discourse analysis:

- A method of analyzing a naturally occurring talk (spoken interaction) and all types of written texts
- Focus on ordinary people method of producing and making sense of everyday social life: How language is used in everyday situations?
- Sometimes people express themselves in a simple and straightforward way
- Sometimes people express themselves vaguely and indirectly
- Analyst must refer to the context when interpreting the message as the same phenomenon can be described in a number of different ways depending on context.

### Framework analysis:

- Familiarization: Transcribing & reading the data
- Identifying a thematic framework: Initial coding framework which is developed both from a priori issues and from emergent issues
- Coding: Using numerical or textual codes to identify specific piece of data which correspond to different themes
- Charting: Charts created using headings from thematic framework (can be thematic or by case)• Mapping and interpretation: Searching for patterns, associations, concepts and explanations in the data

## Grounded theory:

- Analytic induction – Starts with an examination of a single case from a ‘pre-defined’ population in order to formulate a general statement about a population, a concept or a hypothesis
- Then the analyst examines another case to see whether it fits the statement-If it does, a further case is selected – If it doesn’t fit there are two options
- Either the statement is changed to fit both cases or the definition of the population is changed in such a way that the case is no longer a member of the newly defined population – Then another case is selected and the process continues – In such a way one should be able to arrive at a statement that fits all cases of a population-as-defined – This method is only for limited set of analytic problems: those that can be solved with some general overall statement