

# Qualitative Methodology

Data collection & analysis

Methodology 2

Dr Michelle Taylor  
Michelle.Taylor@ed.ac.uk

## Aims: Qualitative Methodology

- Awareness of different kinds of qualitative data & types of qualitative analysis
- Knowledge of main features of qualitative data collection & analysis
- The ability to make **informed choices** about research methodology & epistemology
- Appreciation of the differences between qualitative and quantitative methods

Qualitative	Quantitative
Naturalistic	Numerical
Rich, detailed	Classified, summarised
Inductive	Deductive
Time consuming	Fast, efficient
Contextual detail	Reliable, generalisable
Small sample	Larger samples
Subjective involvement of researcher	Researcher remains objective
Process-oriented	Answers scientific questions
Interpretative	Predictive
Reality socially constructed	Facts have objective reality
Emic (insiders view)	Etic (outsiders view)

## Overview: Qualitative Methodology

- Key concepts
- Qualitative data-collection techniques:  
(Participant) observation, interviews, focus groups
- Qualitative analysis  
Content analysis  
Grounded Theory  
Interpretative Phenomenological Analysis (IPA)

## Epistemology

Epistemology = branch of philosophy concerned with the theory of knowledge

How and what, can we know?

- What is the status of claims to knowledge?
- How can we tell our knowledge claims are reliable and valid?

## Quantitative psychology: underlying philosophy

### Positivism:

- = epistemological position of 'scientific psychology'
- we can describe 'what's out there' and get it right
- goal of research = objective knowledge
- related to empiricism...

### Empiricism:

- Knowledge derived from observation

### Hypothetico-deductivism (Karl Popper):

- Relies on deduction and falsification
- Derives hypotheses and tries to falsify them

### Criticisms of the 'scientific method'

- Critique of the 'scientific method'
  - Does not allow for new theory development
  - Hypothetico-deductivism is elitist...
  - ...and a myth
- Feminist critique
  - Male as norm
  - (Male) Science as objective and neutral

### 1960s & 70s 'crisis' critics

- Ethical concerns
- Treating humans as automata
- Experiments eliminate meaning
- View of cause-effect relations
- Reductionist
- Ignores social context

### Alternative Epistemology: Social Constructionism

- Human experience is mediated historically, culturally, and linguistically
- Our perception or experience is one version
- KnowledgeS, not knowledge
- Central role of language
- Ways of constructing social reality in a culture
  - when and how are important
  - implications for human experience and social practice

### Qualitative Methodology: Shared concerns

- Interest in **meaning**:
  - How do people make sense of the world?
  - How do people experience the world?
- Interest in **participants'** meanings rather than **researchers'** meanings
- No interest in preconceived variables & cause-effect relationships
- Aim is to insightfully describe or explain but not to predict

### Epistemological differences: 'qualitative methodologies'

- Methods differ according to emphasis on reflexivity and language
- **Reflexivity** = awareness of the researchers' contribution to the construction of meanings
  - Personal reflexivity
  - Epistemological reflexivity
- Role of reflexivity differs per qualitative approach: dependent on epistemology
- **Language** used in research plays a part in the construction of meaning

### Big Q / little q two meanings of qualitative research (Kidder & Fine, 1987)

#### Big Q

- open-ended inductive methodologies, theory generation, exploration of meaning, social constructionist

#### little q

- non-numerical data collection in hypothetico-deductive research
- begin with researcher derived hypotheses and pre-defined categories against which data are checked

### **Doing Qualitative Research - Issues and considerations**

- Type of data (i.e. naturalistic)
- Validity
  - Participants free to challenge, feedback, ecological validity, reflexivity
- Reliability
- Representativeness
  - Generalisability, comparison with other studies
- Ethical considerations
  - Protect from harm or loss, deliver benefits,

### **Doing qualitative research**

- Qualitative research questions
  - Provisional and 'open' rather than based on a hypothesis and 'closed'
  - Often process oriented: 'How' questions
- Choosing the 'right' method
  - Bottom up process
  - Theory generation, exploration of meaning
  - New unexpected categories of meaning and experience can come up
  - Interviews, observation and/or focus groups

### **Methods of Qualitative Data Collection**

#### **Data collection: Observation**

- Used in a variety of research BUT also a specific means of data collection
- Dimensions of observation (Flick, 1998)
  - covert - overt
  - systematic - not systematic
  - natural setting - experimental setting
  - researcher participates - researcher is passive
  - involves self-observation (reflexivity) - no self-observation

#### **Data collection: Participant Observation**

- Natural settings (e.g. hospital, schools)
- Observer can be covert or overt
- Involves self-observation
- Observations are not systematic
- Researcher engages in variety of activities
  - participation, documentation, interviewing and reflection
- Balance between participation and observation
- Notes of observations
  - substantive, methodological, analytical

#### **Participant Observation**

##### **Advantages**

- Useful when phenomena cannot be replicated in lab
- Good ecological validity
- Insight into chronology of events & development over time
- Insight into processes

##### **Disadvantages**

- Questionable reliability and validity (subjective)
- Time consuming and labour intensive
- Selective observations
- Circumstances can be difficult for researcher
- Outsiders perspective

## Interviews

- Unstructured
- **Semi-structured**
- Structured

## Semi-Structured Interviews

- Most common method of data collection in qualitative research in psychology
- Fits in with several approaches to data analysis
- Easier to arrange than other forms of qualitative data collection

## Semi-structured Interviews

- Usually face-to-face (but also: telephone/internet)
- Use of interview agenda:
  - Open, non-leading questions (possibly combined with few closed)
  - Order of questions flexible
- Relatively non-directive, but not completely
- Balance between controlling interview and leaving space for participant to take control

## Semi-structured Interviews

### Recording the interviews

- Choice has to be made: tape recorder/video recorder/note taking?

### If recorded, interviews will be transcribed:

- Different levels of detail depending on method of analysis
  - e.g. Conversation/discursive analysis requires use of transcription notation to record non linguistic features

## Semi-structured Interviews

### Advantages:

- Face to face and therefore possibility to establish rapport
- Beneficial for research and respondent, especially when sensitive issues are discussed.
- Opportunity to monitor interpretation of questions (unlike questionnaires or experiments)
- Flexibility, room for generating meanings

## Semi-structured Interviews

### Disadvantages

- Requires time & effort
- Self-report method:
  - Relies on ability to describe own behaviour/experiences
  - Differs per situation/person?
- Questions are asked which normally would not be asked
- What do answers say about normal, everyday situations?

## Focus Groups

### Features

- Group interview
- Not more than 6/7 people present
- Moderator: Gently steering & clarifying
  - Skills needed to get everyone to talk!

### Focus groups

- Homogenous/heterogeneous
- Pre-existing/newly formed
- Concerned/naïve

## Focus Groups

### Advantages (in comparison to interviews)

- More data in less time due to interactions
- Insight into joint constructions & development of meaning & attitudes
- Less artificial and more ecologically valid

### Disadvantages

- Less suitable for sensitive topics
- Practically more difficult to organise
- Data transcription & analysis complicated

## Qualitative Methods of Analysis

### Qualitative Methods: Data analysis

- Content Analysis
- Grounded Theory
- Interpretative Phenomenological Analysis (IPA)

## Content Analysis

- little q = non numerical data used in a hypothetico-deductive research design
- Establishing set of categories / codes from textual data (questionnaires, interviews, newspapers)
- Count the number of instances in the data
- Generate items for a scale / check researcher defined categories

## Doing content analysis...

1. Establish units of analysis (words, sentences, themes)
2. Decide how categories will be derived (from data, existing research, or theory)
3. Decide what kind of categories (broad or narrow)
4. Consider reliability and validity

## Content Analysis: Example

A quote from a nurse interviewed as part of a study on hand washing on the ward:

*"I try to wash my hands after seeing each patient or whatever, I really do. But sometimes it's just that...you do wash them when you can but sometimes is kind of depends on the patient and how busy you are and where you are and things like that. I mean they're always telling us to wash your hands, wash your hands. But sometimes your hands just get sore, or there's no basin right there and I think most nurses would tell you the same. The patients I see aren't ill, usually, it's not like working in A and E."*

## Content Analysis

### Advantages

- (Interrater) Reliability
  - Precisely defined categories
  - Well trained coders
- Validity
  - Representative samples

### Disadvantages

- Imposing conceptual framework on data:
  - Data 'forced' into analytic categories
  - Does not take account of meanings/experiences as relevant for participants
  - Variability and context dependence of meaning neglected

## Principles of Grounded Theory

- Grounded Theory = progressive identification and specification of categories of meaning
- Combination of category identification (method) and theory generation (process)
- Provides an explanatory framework for identifying, refining and integrating categories to develop a *grounded theory* (which is grounded in the data)
- Key strategies: constant comparison, theoretical sampling, and theoretical coding

## Grounded Theory: coding

1. 'Low level' coding, using concrete categories (descriptive)
2. Developing codes into 'higher level', more abstract categories (analytic)
3. Theoretical Coding:  
Linking categories to each other, developing (theoretical) relationships between concepts

## Grounded Theory: concepts

### Constant Comparison:

- Focus on similarities and differences
- Allows subcategories to emerge
- Variation in the data & phenomenon is captured by the emerging theory

### Theoretical Sampling:

= checking the emerging theory against reality by collecting more data that may challenge or elaborate the emerging ideas/theory

## Grounded Theory: concepts

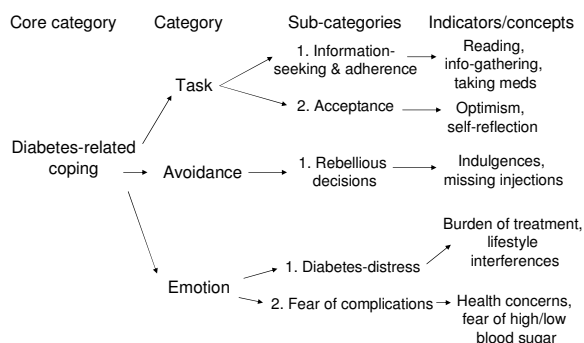
### Negative case analysis:

- Identification of instances that don't fit the emerging theory

### Theoretical Saturation:

- Data-collection & analysis is an iterative process until 'saturation' achieved: no new (sub) categories emerge
- This is the ideal...

## Grounded Theory: Example from diabetes study



## Grounded Theory

Differences between grounded theory & content analysis:

- Content analysis is not about theory generation
- Categories are pre-defined and mutually exclusive
- Counting is not important in grounded theory

## Grounded Theory

### Advantages:

- Concepts & theories grounded in concrete data/phenomena
- Attention to complexity, variability & context of social/psychological phenomena

### Disadvantages:

- Epistemological roots (positivist?)
  - Does not sufficiently acknowledge role of researcher & dependence of observations on theory/perspective
- Suitability for psychological research

## Phenomenology

**Phenomenology** = branch of philosophy concerned with the way humans gain knowledge of the world.

Interested in how the world is **experienced** by certain people in a certain context rather than abstract statements about the world

Focus on **phenomena** that appear in our consciousness as we engage with the world around us

## The Phenomenological Method

3 distinct phases of contemplation to derive the essence of phenomena:

- **Epoche**
  - Suspension of assumptions, judgments and interpretations
- **Phenomenological reduction**
  - Describe the phenomenon in terms of colour, texture, shape, and size, as well as thoughts and feelings
- **Imaginative variation**
  - Structural components of the phenomenon to identify the conditions associated with it (e.g. space, time, social relationships)

## Interpretative Phenomenological Analysis (IPA)

1. Making unfocused notes which reflect initial thoughts
2. Identify themes **per individual**
  - e.g. sense of self, loss etc
3. Cluster themes together to reflect wider concepts or shared meanings
  - e.g. anger, sadness, insecurity = emotions
4. Produce summary tables for each respondent: structured themes and illustrative quotes
5. Integration of summary tables for each respondent: master themes indicating shared experiences

## IPA: Example of a summary table

### Cluster label 1

Theme 1	brief quote/keyword	page & line number
Theme 2	brief quote/keyword	page & line number
Theme 3	brief quote/keyword	page & line number

### Cluster label 2

Theme 1	brief quote/keyword	page & line number
Theme 2	brief quote/keyword	page & line number
Theme 3	brief quote/keyword	page & line number

### Cluster label 3

Theme 1	brief quote/keyword	page & line number
Theme 2	brief quote/keyword	page & line number
Theme 3	brief quote/keyword	page & line number

## IPA: Example of a summary table

### Cluster 1: Psychological states

Depressed	sad, upset, down	line 4
Positive emotion	excited, elated, joyful	lines 6-9
Fear/anxiety	scared, worried, anxious	lines 1-3

### Cluster 2: Social support

Family	I turn to my family for advice	lines 3-5
Friends	My friends phone me all the time	line 12
Health professional	I follow advice of my GP	lines 8-9

### Cluster 3: Physical states

Fatigue	tired, exhausted, sleepy	line 7
Symptoms	painful, dizzy, nauseous	line 17
Hungry	good appetite, unsatiable	line 12

## Interpretative Phenomenological Analysis

### Benefits:

- Provides insight into 'life world', subjective experiences
- Specific guidelines allow identification and integration of themes

### Limitations :

- Relies on people being able to verbalise experiences
- Overemphasis on perceptions of phenomena but doesn't ask why

## Summary

- Huge variety of qualitative data collection techniques and data analysis
- Thus, be careful with talking about 'qualitative methods' in general
- Willig (2001): Qualitative research is creative, reflexive process rather than mechanical application of recipe
- Morgan (1998): Qualitative research: science or pseudo-science?

## Reading

### Recommended reading

- Willig, C. (2001). *Introducing Qualitative Research in Psychology*. Open University Press. (Chapters 1,2,3 & 4)

### Additional reading

- Breakwell, G. et al. (eds.) (1995). *Research Methods in Psychology*. (Several chapters).
- Hayes, N. (1997). *Doing Qualitative Analysis in Psychology*. Psychology Press.
- Henwood, K. & Nicolson, P. (1995). *Qualitative Research*. Special issue of *The Psychologist*, vol. 8 (3), 109-129.
- Morgan, M. (1998). *Qualitative Research: Science or pseudo-science?* *The Psychologist*, vol. 11, 481-488.
- Smith, J.A., Harre, R., & Van Langenhove, L. (1995). *Rethinking Methods in Psychology*. London: Sage.
- Strauss, A.L. & Corbin, J. (1990). *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*. London: Sage.