

Qualitative vs Quantitative Research Methods

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Introduction

- Every discipline has theoretical and philosophical assumptions about science, knowledge, truth.
- These assumptions have methodological implications for doing research.
- **Positivism:** Objective knowledge can be gained from direct experience or observation. Science is value free. No place for intuition. General laws are found. Numerical data is analyzed.
- **Anti positivism:** Anti positivist are critical realist. Objectivity is a social phenomenon. A broader context is needed. Multiple measures are required to reach the truth.

Two basic questions in qualitative researches are:

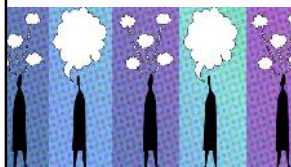
- **Philosophical:** What counts as good evidence? Can research give us ways of understanding what might be true or false?
- **Theoretical:** What roles does language has? What is the nature of people's subjective experience?

KEEP IN MIND THAT...

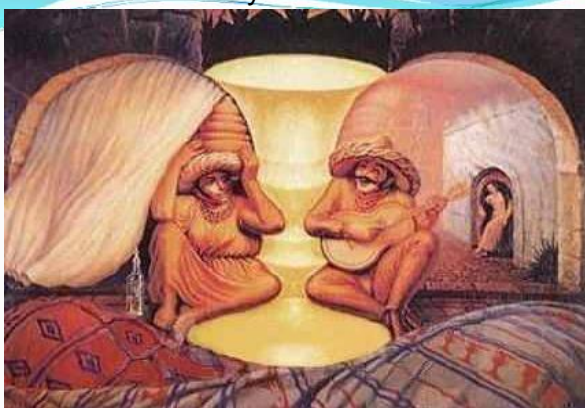
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- **Qualitative research generally deals in words, images and the subjective**

Quantitative research generally deals in numbers, logic and the objective



What do you notice here?



Peeling the Onion

- Qualitative research focuses on depth, meaning, and detail
- Adjectives like rich, deep, thick often used in talking about qualitative data
- Phrases like 'webs of signification'
- Deliberate focus on 'subjectivities', the participant is the expert
- Focus on building understanding from the ground up (refer grounded theory for more on this)
- Valuing the insider perspective is crucial

Quantitative and Qualitative Methods

- Quantitative methods relate to numbers. Data must be able to be numericised and presented in terms of statistical patterns/ associations. Commonly positivist
- Qualitative methods – non quantifiable, focus on values, processes, experiences, language and meaning. Data is often words/ text. Commonly non-positivist
- Both methods have their strengths and weaknesses.

Differences between quantitative and qualitative research

Aspects of Research	Quantitative	Qualitative
General framework	Seeks to answer research question using structured methods	Seeks to answer research question using semi or unstructured methods
Relationship between researcher and subject	Distant	Close
Relationship between theory/concepts and research	Confirmation of hypothesis (deductive)	Emergence of theory (inductive)
Research Strategy	Structured	Unstructured
Image of Social Reality	Static and external to actor	Processual and socially constructed by actor
Nature of Data	Hard, reliable	Rich, deep

Models of process and theory

- Linear model of research process
- Circular model of research process

What sort of research questions can qualitative methods best answer?

Consider the following:

- ‘Lived experience’
- ‘Insider’ perspectives
- Context/ Meaning oriented rather than measurement oriented
- “WHY, HOW”

Diversity of qualitative methods

- Approaches to collect data;
 1. Ethnography
 2. Interview
 3. Observation
 4. Focus group
 5. Case study
 6. Language based:
 - Conversation analysis
 - Discourse analysis
 - Narrative analysis
 - Content analysis

Importance of Rapport



What really is rapport?

How can it be achieved?

What might be some of the barriers/ facilitators?

Qualitative interviewing:

- Everyone thinks they know something about interview:
- Media, police
- psychiatrist
- Psychologist
- Job selection
- Survey
- Focus group
- Ethnography

In-Depth Interviewing

- An in-depth interview is a **conversation with a purpose** - a conversation between researcher and informant, focusing on the **informant's perception** of self, life and experience, and **expressed in his or her own words**.
- It is the means by which the researcher can gain access to, and subsequently understand the private **interpretations of social reality that individuals hold**.

(Minichiello et al, 1995:p. 61)

Qualitative interviewing – conceptual underpinnings

- Primary focus of in-depth interviewing is to understand the significance of human experiences as described from the actor's perspective and interpreted by the researcher
- Geertz (1973) talked about the idea of people being suspended in webs of significance – any analysis of this is not about experimental science in search of law but an interpretive one in search of meaning

Implications for research design

- Who talks to who, when, where and why?
- Who avoids talking to who, when, where and why?
- Who talks about who, when, where and why?
- What do they talk about, when, where and why?
- What do they keep quiet about when, where and why?
- And in each case, under what circumstances?
- Each person acts in relation to other individual/group
- There is a need to crosschecking of views and facts
- Ethical concerns

Ethical Issues

- Informed consent
- Confidentiality
- Right to withdraw
- Assessing risk of harm
- Researcher safety
- Deception
- Debriefing
- Limitations to the researcher's role
- Honesty and integrity in the research process

Major types of interview

- Structured/standardized interview
- Semi-structured interview
- Unstructured/intensive/Qualitative/in depth interview
- Focused interview(single topic)
- Group interview (variety of topics)
- Case history interview
- Life history interview

Conducting interviews

- Know the schedule
- Consider the issues in introducing the research
- - Confidentiality, right to withdraw and ask questions
 - Identify the auspices
 - Mention the research funding
 - Kind of information
 - Selection process
- Rapport
- Clear instructions

Asking questions

- Remember the prominent sources of error
 - poorly worded questions
 - Characteristics of interviewer
 - Misunderstanding, response set
 - Memory problems
 - Recording
 - Processing
- Order of questions
- Probing
- Prompting
- Leaving the interview

Importance of Meaning: Example of Age

- “In a way you experience those stereotypes being applied to you because if you don’t meet people’s expectations, they’re going to start categorising you as old. They’re going to start saying ‘he can’t do that’, so then they don’t expect so much of you... People look at you and say ‘well, he’s not actively doing things now, he’s not being stimulated by that activity, if we watch him long enough he’ll soon decline.”
- - What meanings can we derive here?

Interview Strategies

- Funnelling (start with the ‘grand-tour’ question)
- Story-telling (puts researcher in role of active listener, rather than questioner)
- Solicited Narratives (requested written pieces)
- Probing (importance of follow-up)
- Linking (making a link between an earlier comment and current comment)

contd...

- Puzzled (clarifying something that doesn’t seem to make sense, naive positioning)
- Encouraging (please go on)
- Acknowledging/Understanding (show your growing understanding)
- In general your role is as ‘learner’ not ‘expert’.

Qualitative Interviewing

Exercise

- We are going to develop an interview guide on the topic of wellbeing, do an interview and bring back some findings to analyse
- First, lets consider some of the challenges of conceptualising wellbeing

Outsider Perspectives (Etic)	Insider Perspectives (Emic)

Interviewing Exercise Wellbeing

- Your task is to work in small groups (4) and come up with a qualitative interview guide on the topic of health and wellbeing
- Your interview guide can be written as an aid to hold a 'conversation with purpose'
- You want to understand what health and wellbeing might mean from an insider perspective.
- Time allocation 20-30 minutes
- Be ready to report your question lines back to the class

Interviewing Exercise Wellbeing

- Your task now is to conduct an interview on the topic of health and wellbeing
- Need one volunteer from each group to be an interviewee
- You can interview anyone except the person from your group
- This is a *training* interview so consider reasonable ethical boundaries
- Try to explore one theme raised by your participant in some depth eg ideas of physical wellbeing, emotional wellbeing, nutrition, social wellbeing
- You wont be recording these so please take some notes
- Roles: 1. interviewer 2.intervieww3 Scribe 4. Observer (to report back findings)
- Bring back a few key findings (dot points) and a couple of quotes
- Time: 20-30 minutes

Brainstorm key findings from exercise

- Interviewee feedback
- Interviewer feedback
- Scribe feedback
- Observer feedback (major findings)
- How can we reduce this chaotic data to something meaningful?

QUALITATIVE RESEARCH FOCUS GROUPS

- A focus group is an informal discussion among selected individuals about specific topics with researcher as moderator.
- Focus group bring together people with pre-existing ties, e.g. family, university students etc.
- Ex: Development of questionnaire on QOL
Examining interpersonal processes
Facilitating change

QUALITATIVE RESEARCH FOCUS GROUPS

Characteristics: A group interview

6-12 people
Lead by a trained moderator
in-depth discussion on 1 particular topic or concept
Relaxed, informal atmosphere
1-3 hour duration

Goal:

Learn and understand what people say and why?

QUALITATIVE RESEARCH FOCUS GROUPS

- | | |
|---------------|------------------------|
| • ADVANTAGES | DISADVANTAGES |
| • Synergy | Representativeness |
| • Spontaneity | Misjudgement |
| • Speed | Moderator subjectivity |
| • Security | |
| • Flexibility | |
| • Inexpensive | |

Ethnography

- Origins lie in the disciplines of Anthropology and sociology
- In-depth study of natural behaviours in a culture or social group through observation and active participation.
- **Purpose** – to understand relationships between behaviour and culture
- Chain **sampling**
- **Common terms** used by ethnographers: Symbols, cultural patterning, tacit knowledge, situational reduction.
- **Types:**
 - Macro ethnography (cultural groupings, e.g. Indians)
 - Micro ethnography (Study of specific cultural grouping, e.g. local Govt.)

Emic/ Etic perspectives

Emic perspective: Insider meanings or viewpoints and responses of the ingroup or the members of the culture under study are noted down.

Etic perspective: Outsider meanings or viewpoints and responses of outgroup members are noted down.

Examples

- In education – to understand schooling process (e.g., immigrant children) Involves widespread observations (participant & nonparticipant)
- Comparative analysis of cultural groups (eating habits of north and south Indian)
- Analysis of cultural past of group of people (e.g. Harappan civilisation – ethnohistory)

Steps of ethnographic method

Most ethnographers oppose the rigid steps. Many guides to carry out such studies are available (Fetterman, 1989):

1. Selection of setting
2. Review of literature
3. Identification of variables
4. Access and maintaining good relations
5. Cultural immersion
6. Data collection
7. Development of theory

Key ideas in Qualitative inquiry

- Non-probability Sampling
- Iterative inquiry
- Inductive research logic
- Saturation
- Participant as expert

Participant Observation Research

- This is a qualitative approach in which a researcher **observes and participates in small-scale every-day social settings**
- The researcher **talks with and observes** the people in these settings around the area of his or her interest.
- Through interaction over weeks, months or years, the **researcher learns** about the area of interest from experiencing and these people – about their life histories, belief systems, aspirations, etc
- Ethnography is an encompassing term which emphasizes participant observation as a means to understand a particular cultural space

What is the Data in Participant Observation Research?

The data consist of **field notes**. Field notes form the data from which the concepts, the relationships among the concepts and the theory are developed. The following are the different types of field notes used in a participant observation study.

- jotted notes
- direct observation notes - thick description
- inference notes
- personal notes
- diagrams/maps/taxonomies/family trees
- Audio/visual recordings

Language based methods

- Linguistical Analysis
 - Looking at the linguistics and grammar
- Conversation Analysis
 - Treating the interview as a conversation
- Narrative Analysis
 - Treating the interview as a story
- Discourse Analysis
 - Try to evaluate the truth of the responses
- Content analysis
 - Text is coded (exhaustive)

Discourse analysis

- Method which highlights importance of language
- Makes explicit the social and political context of how language is deployed
- Key theoretical origin - Wittgenstein (1889-1951) - view that language not simply neutral medium of communication
- Encouraged a more politicised view of language

Key concepts in discourse analysis

- Tool for revealing power
- Based on particular view of power
- Shows agency of people
- Fairclough (2003:4) “people not only act and organise in particular ways, they also represent their ways of acting and organising, and produce imaginary projections of new or alternative ways, in particular discourses.”

Key Terms in Discourse Analysis

- Active and passive voice - (passive used to denote distance/objectivity - eg “the author argues”)
- Ambiguity - (vague terms used deliberately to convey multiple meanings - eg ‘community’)
- Audience - (tone of language used to target particular audience - exclude another - eg “they” “those people”)
- Cohesion - (clustering terminology to convey a particular tone/ message - eg “targets, planning, objectives, evidence based”)
- Context - (describing the political, social, cultural, historical context of language)
- Discourse - (language in use - any activity designed to convey meaning)

Content Analysis

- A research method that detects, records and analyses the presence of specified words or concepts in a sample form of communication
- Inferences can then be made about the messages within the texts (p 15, Walter)

Process of Content Analysis

- Text is coded (eg by word, theme)
- Codes can be explicit (eg objective 'facts') or implicit (eg implied meaning)
- Codes should be exhaustive (all aspects of concern identified), exclusive (avoid overlap of codes) and enlightening (interesting/ coherent)

Conceptual Analysis

- Concepts chosen for examination
- Then tally the presence of that concept in the text
- Need:
 1. Codebook (explanation of all concepts)
 2. Translation rules (description of how researcher codes concepts)
 3. The above allow for the possibility of testing inter-coder reliability

Qualitative Data Analysis

- Data analysis is an ongoing exercise concerned with establishing meaningful patterns
- Concerned with building theory from the 'ground up' utilising emic perspective
- Analysis helps the researcher to move from **description** to a more general or overarching **conceptualisation** or **interpretation** of meaning.

What is Coding?

- Coding is one of the main processes used to analyse qualitative data, *to discover concepts* within the data
- It is the analytical method through which researchers generate and use concepts to *reduce large amounts of data to smaller more manageable chunks*.
- It is a means by which a qualitative researcher *organises his or her data into categories, represented by codes*.
- Coding helps the researcher to *make sense of the data*.

Three Types of Qualitative Data Coding

- **Open Coding** :The researcher *locates initial concepts and assigns initial codes* or labels in an attempt to condense the mass of data into categories or codes.
- **Axial Coding** :In axial coding the researcher *begins with a set of tentative codes or preliminary concepts and looks at relationships or connections among these concepts*.
- **Selective Coding**: Selective coding involves scanning the data and the developed codes to look *selectively* for cases that illustrate themes and makes comparisons and contrasts *after most or all of the data collection is complete*, that is at "saturation point".

Analytic Memo Writing

- The analytic memo is a special type of memo or note written by the researcher to him or herself.
- It is a memo or a discussion of thoughts and ideas about the coding process

Theory Building

- Sometimes referred to as grounded theory
- Based on premise of building theory from grounded experience (inductive logic)
- Opposite to hypothesis based research (deductive logic)
- Questions aimed at understanding world from insider perspective

Quality of qualitative research

Henwood & Pidgeon (1992) proposed seven attributes:

- Importance of fit
- Process of integration
- Reflexivity
- Documentation
- Theoretical sampling and negative case analysis
- Sensitivity to negotiated realities
- Transferability

Reliability and validity in qualitative research

Triangulation: The use of variety of different perspectives on research questions .Four types (Tindall, 1994):

- Data triangulation
- Investigator triangulation
- Method triangulation
- Theoretical triangulation

Reflexivity: The researcher reflects (writes at the end of the study) on how their values, beliefs, experiences, interests and political orientation may affect their research
Personal, Functional and disciplinary

Consider the following:

- Strong presence of participant voice
- Strong sense of 'being there'
- Resonates with insider perspective
- Transparency
- Embedded within appropriate methodological literature
- Position on rigour
- Strong interpretation
- Evidence of theory building

Potential Ethical Issues in Qualitative Research

- Boundaries between researcher and participant
- Informed voluntary consent
- Leaving the field or finishing the research
- Who owns the research?
- Confidentiality (of individuals and communities)
- Importance of process consent where consent is an *ongoing* part of the data collection process is a means of more readily ensuring informed consent

Verifying your data

- Validity
 - Can you check the truth of the statements?
- Reliability
 - Are there any internal contradictions? Did you include the same question twice expressed in different ways to check the truthfulness of the responses?
- Generalizability
 - How do the answers agree with broader research and other interview answers?

