Qualitative Research Methods

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Learning Objectives

- Explain qualitative research.
- Identify data collection techniques.
- Apply basic coding and analysis.
- Evaluate trustworthiness.

What is Qualitative Research?

- Explores non-numerical phenomena.
- Focuses on meaning, experience, and process.

Philosophical Foundations

- Interpretivism: reality is socially constructed.
- Constructivism: knowledge is built through interaction.
- Naturalistic Inquiry: studies phenomena in real contexts.

Interpretivism

- Reality is socially constructed.
  - Example: A researcher studies how teachers define 'good teaching' by interviewing them. Each teacher’s answer reflects their personal and cultural understanding—there is no single objective truth.

Constructivism

- Knowledge is built through interaction.
  - Example: In a classroom, students learn about democracy by discussing political systems and holding a mock election. Their understanding develops through dialogue and shared experiences.

Naturalistic Inquiry

- Studies phenomena in real contexts.
  - Example: A researcher observes farmers' irrigation practices in their actual fields to understand local methods without manipulating the environment.

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Characteristics of Qualitative Research

- Natural setting.
- Researcher as instrument.
- Descriptive data.
- Inductive analysis.
- Focus on meaning.

When to Use Qualitative Methods

- Explore how and why things happen.
- Understand human experiences.
- Generate new theories.

Common Data Collection Techniques

- 1. Interviews
- 2. Focus Groups
- 3. Case Studies

Interviews

- One-on-one method.
- Structured, semi-structured, or unstructured.
- Useful for individual insights.

Types of Data: Structured, Semi-Structured, and Unstructured

Structured Data

- Definition:
- Data that is organized in fixed fields (like rows and columns).

- Examples:
- - Tables in MySQL or Excel
- - Student records (NIM, Name, Age, Major)
- - Transaction logs

- Characteristics:
- - Predefined schema
- - Highly organized
- - Easy to query using SQL

- Analogy: Like data in a spreadsheet — everything fits neatly into cells.

Semi-Structured Data

- Definition:
- Data that does not fit perfectly into tables but still has some structure (tags, hierarchy, or key-value pairs).

- Examples:
- - JSON, XML, HTML files
- - Email headers (To, From, Subject)
- - Sensor data with variable attributes

- Characteristics:
- - Flexible schema
- - Easier to store than structured data, harder to query directly
- - Often stored in NoSQL databases

- Analogy: Like a form where every submission might have slightly different fields.

Unstructured Data

- Definition:
- Data with no predefined structure or format — cannot be easily stored in traditional databases.

- Examples:
- - Images, videos, audio files
- - Social media posts, chat messages
- - Scanned documents, surveillance footage

- Characteristics:
- - No fixed schema
- - Requires advanced processing (AI/NLP/CV)
- - Typically large in size

- Analogy: Like a box full of mixed items — text, photos, audio — you can't just "query" it easily.

Focus Groups

- Group discussions guided by facilitator.
- Encourages reflection and interaction.

Case Studies

- In-depth study of individuals, groups, or organizations.
- Multiple data sources.
- Holistic understanding.

Example Interview Questions

- Topic: Remote Work Experiences
- 1. How has remote work affected productivity?
- 2. What challenges arise?
- 3. How do you stay connected?

Introduction to Data Coding

- Coding = organizing text into categories.
- Steps: read, highlight, code, group.

Example of Coding Table

- Example:
- "I enjoy flexibility" → Flexibility → Autonomy → Work-life balance.

Thematic Analysis

- Identify patterns, relationships, and overarching themes.

Data Analysis Tools

- NVivo, Atlas.ti, MAXQDA, Dedoose.

Ensuring Trustworthiness

- Credibility, Transferability, Dependability, Confirmability.

Strengths

- Rich data, contextual insights, new theories.

Limitations

- Time-consuming, subjective, limited generalizability.

Summary & Activity

- Summary: Meaning-focused, theme discovery.
- Activity: Conduct and code a short interview.