Research Methodology: Introduction to Qualitative Research

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Learn without limits.

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1) OVERVIEW

- Basic understanding of qualitative research
- Characteristics of the qualitative research process
- Understand the importance of an appropriate research question
- Explore different approaches to qualitative research
- Data collection process
- Basic understanding of qualitative data analysis.

- Paradigm (Kuhn, 1962):
  - The beliefs that tend to define the nature of enquiry for researchers;
  - Paradigms define belief systems that attach users to particular worldviews; and
  - Cannot be mixed or synthesized (unless one decides to adopt a mixed methods design)
  - Ontology + Epistemology = Paradigm
- Two main paradigms (Guba, 1990):

❖ Positivism/realism (Quantitative)

- Reality that can be fully understood and studied
- Researchers can objectively study this reality
- Deductive reasoning.

❖ Interpretivism and constructionism/relativism (Qualitative)

- Individuals construct their own realities;
- As researchers we can subjectively study these realities; and
- Inductive reasoning.

2) INTRODUCTION TO QUALITATIVE RESEARCH

- Ontology:
  - Specifies the nature of reality to be studied
  - Beliefs about the nature of reality therefore determine what can be known about it. How are we able to sort existing things
  - Interested in addressing the question of *"What is reality?" or "What is true?"*
- Epistemology:
  - Concerned with the relationship between the knower (researcher) and knowledge (the phenomenon being studied) during the process of discovery.
  - How a person comes to understand knowledge or how we come to know what we know
  - Interested in addressing the question of *"How can I know reality?"*
- Methodology:
  - Refers to how the researcher will go about practically investigating that which is to be known.

2) INTRODUCTION TO QUALITATIVE RESEARCH

Paradigm/Dimension	Ontology	Epistemology	Methodology
Positivist	• One single reality or truth • Stable external reality • Law like	• Knowledge can be measured • Objective • Detached observer	• Experimental • Quantitative • Hypothesis testing
Interpretive	• **Internal reality** • **Subjective experiences**	• **Knowledge is interpreted** • **Empathetic** • **Observer based**	• **Interactional** • **Interpretative** • **Qualitative**
Constructionist	• **Multiple realities** • **Socially constructed reality** • **Discourse**	• **Suspicious** • **Political** • **Observer constructed versions**	• **Deconstruction** • **Textual analysis** • **Discourse analysis**

2) INTRODUCTION TO QUALITATIVE RESEARCH

- Deductive reasoning (Quantitative):
  - General to specific;
  - Top-down approach;
  - Based on a specific theory with predetermined variables;
  - Reach logical deducted, specific and valid conclusions.

- Inductive reasoning (Qualitative):
  - From specific to general;
  - Bottom-up approach;
  - Build theory;
  - Reach probable conclusions (in an attempt to understand phenomenon); and
  - Move beyond the information – focus on rich description.

2) INTRODUCTION TO QUALITATIVE RESEARCH

Deductive reasoning – Quantitative approach

- General problem
- Research problem
- Conceptualisation
- Research question
- Hypothesis
- Operationalisation
- Sampling
- Data collection and analysis
- Interpretation

Structured process

Inductive reasoning – Qualitative

- Research question
- Theoretical framework
- Fieldwork
- Analysis
- Fieldwork
- Revisit theoretical framework
- Fieldwork
- Analysis…

Unstructured process

2) INTRODUCTION TO QUALITATIVE RESEARCH

- Qualitative research:
  - Definition – Qualitative research involves an *interpretative, naturalistic approach* to the world. Qualitative researchers *study phenomena in their natural settings*, attempting to *make sense of, or interpret phenomena* in terms of the meanings that people bring to them (Denzin & Lincoln, 2005).
  - Characteristics -
    - Purpose: To understand meaning;
    - Researcher is the research instrument;
    - Usually involves fieldwork; and
    - Employs inductive reasoning.
  - Iterative nature –
    - Back-and-forth between the process-
    - Fieldwork and analysis;
    - Researcher and participants;
    - Researcher and empirical materials;
    - Methodology and empirical materials; and

DATA COLLECTION

3) QUALITATIVE DATA COLLECTION

- **Three ways of collecting qualitative data:**
  - Listening to informants;
  - Observing/Observations; and
  - Examining materials.
- **Methods:**
  - Interviews;
  - Focus groups;
  - Observation;
  - Artefacts (objects);
  - Documents and records;
  - Visual methods;

3) QUALITATIVE DATA COLLECTION

- **Interviews:**
  - One-on-one research technique in which a respondent answers a researcher's questions (Powell & Single, 1996)

❖ Structured –
- Closed-ended questions (10+ questions);
- Pre-determined response options; and
- Mainly quantitative data and limited qualitative data.

❖ Semi-structured –
- Open- ended questions (10-12 questions);
- Short answers; and
- Qualitative data (thin descriptions).

❖ Unstructured (in-depth) –
- Open- ended questions (4-5 questions);
- Discussion – conversation with participants where probes are used in order to reflect and help attain information and develop further questions;
- Qualitative data (thick descriptions).

3) QUALITATIVE DATA COLLECTION

- **Interview guide development:**
  - Developing questions -
    - What is the purpose of this study?
    - What territory should be covered?
    - What are the main priorities?
    - What are the different components within my theory?
    - What questions will help me answer the RQ?
    - How should the topics be ordered?
    - What is the paradigm that I am working in?
    - What probes can be used?
      - Non-directive;
      - Encourage participants to tell you more;
      - E.g. “Mms and ahs”
      - Gentle queries, “I am not sure I understand what you mean, please tell me more about…”
      - Requesting clarification, “Please help me understand…”

3) QUALITATIVE DATA COLLECTION

- **Interviews guide:**
  - ❖ Opening questions
    - General questions
    - Tension release
  - ❖ Introductory questions
    - Reflect on experience
    - Participants' connection to overall topic
  - ❖ Key questions
    - 2-5 Key questions
    - Core of the discussion
    - Most important part of the analysis
  - ❖ Closing questions
    - Reflection
    - Summary
  - ❖ Final question
    - Is there anything else?

3) QUALITATIVE DATA COLLECTION

- **Interviews: Audio recordings**
  - ❖ Good equipment;
    - Ensure that you are familiar with equipment before hand, make sure it works;
  - ❖ Back-up batteries/charge before hand
    - Power source;
  - ❖ Use of a microphone is better in groups;
    - Ask participants to identify themselves before they speak, allocate numbers (e.g. “Participant 1”) – for transcribing purposes.
  - ❖ Minimise external noise;
    - Quiet environment;
  - ❖ Test sound
    - Test before commencing the interview.

3) QUALITATIVE DATA COLLECTION

- **Conducting group interviews:**
  - 6-8 Participants
  - Seating arrangement: Circular
  - Researcher acts as facilitator – remain non-directive
  - Start with brief overview and introductions
  - Clearly state the purpose of the interview
  - Negotiate ethics
  - Audio and video recordings – motivate
  - Avoid expressing personal ideas
  - Prevent dominant members from monopolizing the discussion

3) QUALITATIVE DATA COLLECTION

- **Observation/s:**
  - ❖ Purpose: To describe and interpret;
  - ❖ Directly or indirectly;
  - ❖ Define behavior to observe;
  - ❖ Select behavior to observe;
  - ❖ Event sampling, and time sampling;
  - ❖ Focus on what is seen and heard;
  - ❖ Relate observation to constructs;
  - ❖ Observation schedule;
    - ○ Date;
    - ○ Frequency;
    - ○ Duration;
    - ○ Time;
    - ○ Rating scales (if quantifying data).

QUALITATIVE APPROACHES

4) QUALITATIVE APPROACHES

- Numerous approaches to qualitative research.
- All characterised by:
  - Questions about the reality that humans encounter or face;
  - Focus is on ***understanding;***
  - Data expressed in the form of words, images, texts, etc.
  - In-depth exploration (thick description); and
  - Researcher is the main instrument.
- Prominent approaches/research strategies:
  - Phenomenology;
  - Ethnography;
  - Case study;
  - Participatory Action Research (PAR);
  - Narrative inquiry; and
  - Grounded theory

4) QUALITATIVE APPROACHES

- **Phenomenology**

  - **Definition:** Identifying the essence of human experiences and perceptions regarding a particular phenomenon as described by the participant and focusing on the meaning of the lived experience/s.
  - **Goal:** Explore and describe conscious experiences (lived experiences) of everyday human life.
  - **Experiences include:** Perceptions, beliefs, memories, feelings, decisions and experiences.
  - **Research methods:** Conversation, in-depth interviews, diaries, journals, narrative sketches.

4) QUALITATIVE APPROACHES

- **Ethnography**
  - **Definition:** The process and product of describing and interpreting the behavior of a distinct culture.
  - **Goal:** Understanding human behavior from an insider's perspective.
  - **Experiences include:** researchers immerse themselves into the context to develop an intimate feel.
  - **Research methods:** Interviews, field notes, observation, diaries, artefacts and documents.

4) QUALITATIVE APPROACHES

- **Case study**
  - **Definition:** A strategy of inquiry in which the case is at the centre stage and the research explores in depth a programme, event, activity, process, or one or more persons.
  - **Goal:** Explore a contemporary phenomenon within a real life context.
  - **Research methods:** Interviews, field notes, observation, diaries, artefacts and documents.
  - **Types of design:** Intrinsic (single case), instrumental (social issue) and collective (group of cases).

4) QUALITATIVE APPROACHES

- **PAR**

  - **Definition:** PAR aims to produce knowledge in an active partnership with those affected by that knowledge, and for the express purpose of improving their social, educational and material conditions.
  - **Goal:** Produce knowledge, social justice and raising consciousness and awareness.
  - **Research methods:** Observations, interviews, field notes, action experiments, accounts written by participants (co-researchers), drawing and painting, and activities to encourage creative expression.

4) QUALITATIVE APPROACHES

- **Narrative inquiry**

  - **Definition:** Focuses on a story as the object of inquiry to explore how individuals make sense of their lives.
  - **Goal:** Explore people's lived experiences as narrative accounts.
  - **Research methods:** Literary work, diaries, autobiographies, conversations, oral stories, interviews and narrative sketches.

4) QUALITATIVE APPROACHES

- **Grounded theory**
  - **Definition:** A qualitative method which goal is to develop theoretical accounts on the basis of a close, inductive engagement with the context of the study
  - **Goal:** Theory building based on the lived experiences of participants
  - **Research methods:** Interviews, focus groups, observation and field notes.

4) QUALITATIVE APPROACHES

- **Sampling**
  - ❖ Guiding principles:
    - Appropriateness- participants who can best answer the research question; and
    - Adequacy- enough data to provide a rich description of the phenomenon.
  - ❖ Sample size:
    - Sufficiency – reflects the range and sites of the research; and
    - Saturation – no new relevant data emerge.
  - ❖ Non-probability sampling strategies:
    - Purposive;
    - Snowball
    - Quota; and
    - Theoretical.
  - ❖ Saturation:
    - No new insights emerge from the data.

DATA ANALYSIS

5) QUALITATIVE DATA ANALYSIS

- Important consideration: Data are narrative constructions, and not the original experience.
  - Thus, we are always removed from the actual experience and can only reach approximations of the truth.
- Principles of analysis:
  - Interaction between data collection and analysis;
  - Flexibility

    – Willing to adhere to iterative process, change reasoning to fully answer the research question;
  - Reflexivity

    – Reflecting on what one is doing, thinking about the situation and writing;
  - Context is important;

    – Data are not value-free, but embedded in a specific context;
  - Support findings with evidence;

    – Verbatim quotes; and

    – Literature check.

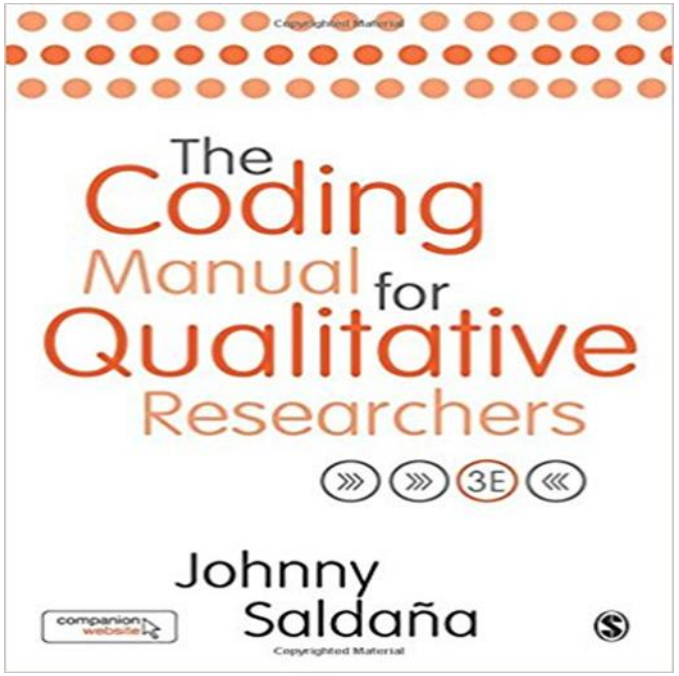
5) QUALITATIVE DATA ANALYSIS

- " The true test of a competent qualitative researcher comes in the analysis of the data, a process that requires analytical craftsmanship and the ability to capture understanding of the data in writing" (Henning et al., 2011, p.101).
- Data must be interrogated:
  - Implications:
    - Data should be coded and categorised;
    - Prolonged engagement;
    - Triangulation important, but not necessary:
      - ✓ Implies coming from various points to reach a true position;
      - ✓ Theoretical triangulation;
      - ✓ Multi method triangulation;
      - ✓ Respondent triangulation; and
      - ✓ Investigator triangulation..

5) QUALITATIVE DATA ANALYSIS

- **Coding is key!**
  - "Any researcher who wishes to become proficient at doing qualitative analysis must learn to code well and easily. The excellence of the research rests in large part on the excellence of the coding process" (Strauss, 1987).

- What is coding?
- Why do we code?
- How to start coding?
- Defining codes
- What do codes become?



5) QUALITATIVE DATA ANALYSIS

- **Qualitative content analysis/ thematic analysis:**
  - Basic way of ‘working’ the data.

1) First step: transcription of the data:

  - Leave a margin on the right hand side and double spacing (space for notes etc.);

2) Immersion:

  - Reading through all the transcripts to gain an overview; and
  - Some codes and themes might become apparent, but do not start with the coding process as of yet.

3) Begin open coding:

  - Open coding is an inductive form of coding, thus require a proper overview of the data at hand;
  - Select a unit of meaning (e.g. a sentence, paragraph or line by line);
  - Allocate a code to the unit of meaning;
  - Open coding, means you ‘make up’ the code as you work through the transcript; and
  - Initially one should not attempt to make use of the same codes.

5) QUALITATIVE DATA ANALYSIS

4) Begin with categorisation:

- Once a transcriptions are coded, related codes can be regrouped as categories;
- Allow the data and/or theoretical framework to guide you in the labelling of the categories that you need to design.

5) Inducing themes or *seeing the whole:*

- Key questions that can guide you to see the whole:
  - ✓ What are the relationships in meaning between all of these categories?
  - ✓ What do these categories mean when they are together?
  - ✓ What do these categories say about each other?
  - ✓ What is missing?
  - ✓ How do these categories address or answer the research questions?
  - ✓ How do these categories link to what I already know about the topic?
  - ✓ What additional data would be required? How will I go about collecting these data?

5) QUALITATIVE DATA ANALYSIS

6) Formulate the argument:

- When the researcher is satisfied that each theme represents a reasonably ‘researched’ chunk of reality, they can be used as the basis for arguments;
- Purpose; Present each theme as a reasoned point with particular premises that leads to a conclusion;
- The conclusion or point, is related to the RQ;
- To formulate this argument:
  - ✓ Data should be integrated as evidence in the argument;
  - ✓ There should be a merger between literature and data; and
  - ✓ Thus, synthesis of the empirical and theoretical to address the RQ.

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Thank you