# Qualitative Research Design and Approaches

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#### SESSION OUTLINE



Overview of Qualitative Research



Types of Qualitative Research



Designing Qualitative Research



Sampling in Qualitative Research



Analyzing Qualitative Data



Ethics Guidelines in Qualitative Research

### Ice Breaking



#### What is Qualitative Research?

- O Qualitative research is a type of scientific research that:
  - O Seeks answers to a question;
  - O Uses a predefined set of procedures;
  - O Collects evidence;
  - O Produces findings that were not determined in advance; and
  - O Produces findings that are applicable beyond the immediate boundaries of the study.



## What is qualitative research?



- O Multimethod in focus, involving an interpretative, naturalistic approach to its subject matter (Denzin & Lincoln, 1994)
- O Values and seeks to discover participants' perspectives of their world
- Relies on people's words and observable behavior as the primary data

## What is qualitative research?



- O Provides complex textual description of how people experience in a given research issue.
- Provides information about the "human" side of an issue behaviors, beliefs, opinions, emotions and relationships of individuals.
- O Helps to interpret and better understand the complex reality of a given situation and implications of quantitative data.



# Characteristics of Qualitative Research



- O Natural setting as the direct source of data
- O The researcher is the key instrument
- O Descriptive
- O Concerned with process rather than outcomes or products
- O Inductive analysis of data
- O Focus on understanding constructed meaning

#### Natural Setting

- O Concern for context
  - OCrucial in deciding whether or not the findings may have meaning in some other contexts as well
- O Action can be understood when it is observed in the setting in which it occurs
  - O"... human behavior is significantly influenced by the setting in which it occurs..."

(Bogdan & Biklen, 1992)

#### The Researcher is the Key Instrument

- O Data are mediated through this human instrument (researcher), rather than some inanimate inventory, questionnaire or computer (Merriam, 1998).
- O Qualitative methods depend upon the researcher's ability to process information, respond sensitively to social cues and adjust the research design as data are interpreted and new questions emerge.
- O The researcher is able to interact with the situation and provide immediate feedback and request verification of data.

#### Descriptive



- O Words, pictures
- O Results contain quotations from the data to illustrate and substantiate the presentation
- O Data are analyzed with all their "richness" as closely as possible to the form in which they were recorded or transcribed.
- O Thick description

#### Concerned with process

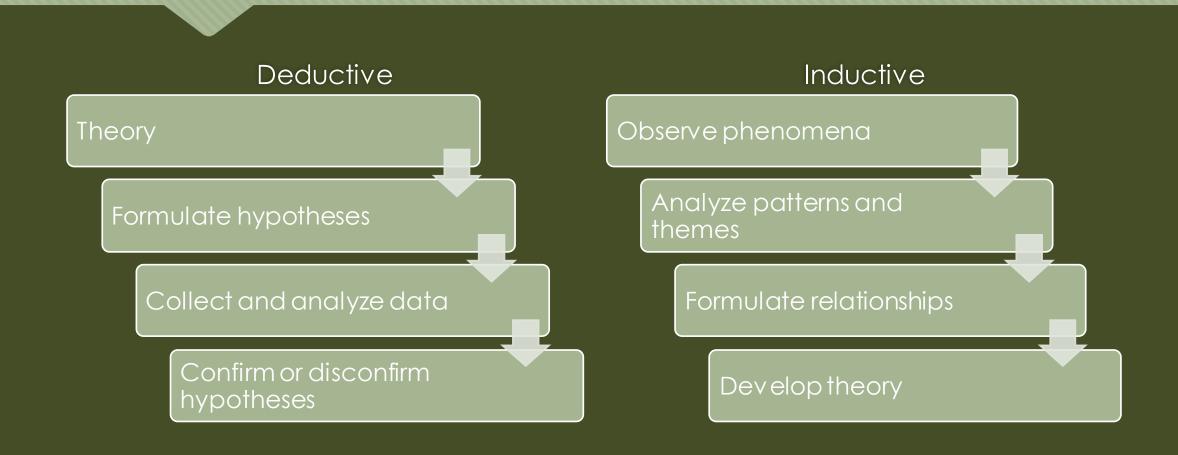
O Quantitative research:

Company expectation Customers' satisfaction index

O Qualitative research:

How the expectations are translated into daily activities, procedures and interactions

#### Deductive and Inductive Reasoning



## Focus on understanding constructed meaning

- OMeaning and knowledge are constructed in a social context
- O Effort to understand research participants' subjective perspectives
- OOften accomplished by including research participants as members of the research team (e.g. action research)

## Comparison of Quantitative and Qualitative Research Approaches

|                       | Quantitative   | Qualitative   |
|-----------------------|--|---|
| General framework     | <ul> <li>Seek to confirm hypotheses about phenomena</li> <li>Instrument use more rigid style of eliciting and categorizing responses to questions</li> <li>Use highly structured methods such as questionnaires, surveys and structured observation</li> </ul> | <ul> <li>Seek to explore phenomena</li> <li>Instruments are more flexible, iterative style of eliciting and categorizing responses to questions</li> <li>Use semi-structured methods such as in-depth interviews, focus groups and participant observation</li> </ul> |
| Analytical objectives | <ul> <li>To quantify variation</li> <li>To predict causal relationships</li> <li>To describe characteristics of a population</li> </ul>  | <ul> <li>To describe variation</li> <li>To describe and explain relationships</li> <li>To describe individual experiences</li> <li>To describe group norms</li> </ul>   |

## Comparison of Quantitative and Qualitative Research Approaches

|                             | Quantitative  | Qualitative  |
|-----------------------------|---|--|
| Question format             | <ul> <li>Closed-ended</li> </ul>  | Open-ended   |
| Data format                 | <ul> <li>Numerical</li> </ul>   | • Textual  |
| Flexibility in study design | <ul> <li>Stable from beginning to end</li> <li>Participant responses do not influence or determine how and which questions researchers ask next</li> <li>Study design is subjected to statistical assumptions and conditions</li> </ul> | <ul> <li>Flexible in designing interview questions (addition, exclusion or wording)</li> <li>Participant responses affect how and which questions researchers ask next</li> <li>Study design is iterative, data collection and research questions are adjusted according to what is learned</li> </ul> |
|                             |   |  |

#### Types of Qualitative Research

- O Case study
- O Ethnography
- O Grounded theory
- O Phenomenology and ethnomethodology
- O Biographical method
- O Historical social science
- O Participative inquiry
- O Clinical research



(Denzin & Lincoln, 1994)

#### What is case?

- O Case is "a contemporary phenomenon within its real life context, especially when the boundaries between a phenomenon and context are not clear and the researcher has little control over the phenomenon and context" (Yin, 2002).
- O Case is "a thing, a single entity, a unit around which there are boundaries". It can be a person, a program, a group, a specific policy etc (Merriam, 1998).



### What is case study?

- O Case study is an empirical inquiry that investigates the case or cases by addressing the "how" and "why" questions concerning the phenomenon interest.
- O <a href="https://www.youtube.com/">https://www.youtube.com/</a> watch?v=FuG8AzK9GVQ

- O Case study knowledge is more concrete, more contextual, more developed by reader interpretation and relies on the determination of reference by the reader (Stake, 1995; Merriam, 1988).
- Qualitative case study approach
  - more concerns on understanding and describing a process rather than behavioral outcomes (Merriam, 1988);
  - when the concepts and context are not well defined because it can help to gain insights, understanding and explanations of certain phenomenon (Eisenhardt, 1989).

# What is case study?



#### Characteristics of case study

- O Stake (1995) defines four characteristic of case study
  - Holistic interrelationship between the phenomenon and its context
  - ii. Empirical observation in the field
  - iii. Interpretive researcher-subject interaction
  - iv. Emphatic reflecting the vicarious experiences of the subjects

#### Characteristics of case study

- O Merriam (1988) lists four essential characteristics of qualitative case studies:
  - i. particularistic focusing on a particular situation, event, program or phenomenon;
  - ii. descriptive the report of case study is a rich, thick description of the phenomenon under study;
  - iii. heuristic illuminating the reader's understanding of the phenomenon by explaining the reasons; and
  - iv. inductive for the most part relying on inductive reasoning for discovering new relationships, concepts and understanding

#### Type of case studies

**Descriptive** - one that is focused and detailed, in which propositions and questions about a phenomenon are carefully scrutinized and articulated at the outset.

**Illustrative** - serve primarily to give readers a common language about the topic in question.

**Exploratory/pilot** - usually the precursor to a formal, large-scale research project and the aim is to prove that further investigation is necessary.

**Explanatory** - to explain the reasons for observed phenomenon and the focus of such research is on the specific case using a theory rather than to make generalizations

#### Type of case studies



The case study design relies on the nature of the research questions (Yin, 2009), the amount of control of the issues under study, and the types of desired end products (Merriam, 1988).

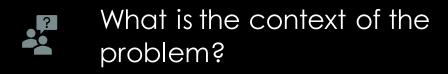


- Individual case study
- Set of individual case studies
- Community study
- Social group study
- Studies of organizations
- Studies of events, roles and relationships
- Multiple case studies

Key
Questions
in
analyzing
the case







What are the key facts that should be considered?



What would you recommend—and why?

#### Case Study Research Design

Case study research - a qualitative approach in which the investigator explores a bounded system (a case) or multiple bounded system (cases) over time, through detailed, in-depth data collection involving multiple sources of information (e.g., observations, interviews, audiovisual material, and documents and reports), and reports a case description and case-based themes (Creswell, 2007)

Qualitative case study - research design and data collection efforts are focused on the research questions (how? and why?)

#### Case Study Research Design

It allows researchers to gain holistic and meaningful characteristics of individual life cycles, organizational and managerial processes, neighborhood change, international relations, and the maturation of industries for the purposes of exploratory, descriptive and explanatory research rather than hypothesis testing (Yin, 2003).

Unit of analysis – e.g: in an organizational study – individual staff, a department/unit or the whole organization

### Planning a case study

01

Selecting a Case

Choose the subject, topic or case

02

Identifying the audience/user

03

Determining the research goal

- Type of case study
- Ethics

#### Planning a case study

#### O Developing a case

- The case study's questions
- The study's propositions
- How information and data will be collected and analyzed
- The logic behind the propositions
- How the findings will be interpreted
- O <a href="https://www.youtube.com/watch?v=k9KK\_0zr3LU&t=194s">https://www.youtube.com/watch?v=k9KK\_0zr3LU&t=194s</a>

#### Case Study Protocol

Overview of the case study - objectives, topic and issues.

Procedures for gathering information and conducting interviews.

Questions that will be asked during interviews and data collection.

Final case study report (research report)

#### Application of the case study design



#### Challenge:

the ability to access the field or company



#### Data collection:

Participant-observation;

Direct observation

In-depth and open-ended interviews;

Questionnaires; and

Analysis of documentation

Archival records

Physical artifacts

Application of the case study design

O Data analysis is "the process of making sense out of the data which involves consolidating, reducing and interpreting what people have said and what the researcher has seen and read – it is the process of making meaning" (Merriam, 1998)

#### Ethnography

- O Interpretive approach for describing, analyzing and interpreting a culture-sharing group's shared patterns of behavior, beliefs and language that develop over time
- O Examine groups not individuals
- O Not to generate theory
- O To understand culture, ethnographer spends considerable time "in the field" interviewing, observing and examining documents to provide detailed descriptions of the culture

#### **Grounded Theory**

- O Theory generation
- O Inductive
- O Emphasizes the use of data analysis steps of open, axial and selective coding and the development of a logic paradigm or a visual picture of the theory generated

#### Action Research



- O Seeks full collaborative inquiry by all participants
- O Engages in sustained change
- O Seeks to "decentralize" traditional research by maintaining a commitment to local contexts rather than seeking general truth
- O In organization, members of staff collaboratively inquire into their own practice, make changes and assess the effects of those changes

#### Designing Qualitative Research

- O Stating the research problem
  - O Justify the research problem
  - Oldentify deficiencies in the evidence
  - ORelate the discussion to audience
- O Linking theory and research topic
- O Conceptualizing initial curiosities

#### Data Collection

- OIn-depth interviews
- O Focus groups
- OObservation
- O Participant in the setting
- O Analysis of documents and materials

#### Interview

- O Fully structured
  - OHas predetermined questions with fixed wording, usually in a pre-set order
- O Semi-structured
  - O Widely used in qualitative research
  - OHas predetermined questions but the order can be modified
  - OQuestions wording can be changed and explanations given
- O Unstructured
  - OThe interviewer has a general area of interest and concern

## Focus Groups

- O A group interview on a specific topic
- O Open-ended group discussion guided by the researcher
- O 6-12 participants is common
- O Range and amount of data are increased
- O Group dynamics help in focusing on most important topics



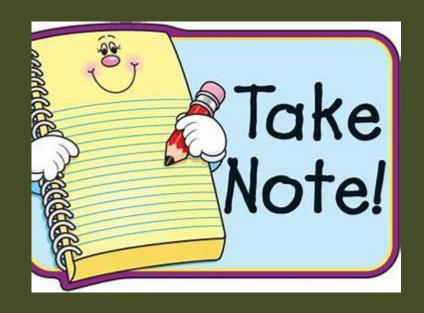
#### Observation

- O Participant observation
- O Non-participant observation
  - O Observer becomes part of the observed group
- O Structured observation
  - O Attend to pre-specified aspects to be observed



## Form of Qualitative Data

- O Field notes
- O Audio / video recordings
- O Pictures
- O Transcripts
- O Documents
- O Artifacts
- **O** Memos



## Sampling in Qualitative Research

- O Only a sample (subset of population) based on research objectives and the characteristics of the study population (e.g. size and diversity) to determine which and how many people to select.
  - ORandom sampling (select representative individuals) to generalize from sample to the population
  - OPurposeful sampling (select people or sites who can best help us understand the phenomena to develop a detailed understanding

#### A realistic site is where:

- O Entry is possible (convenient sampling) and build on insights and connections from that early data collections (snowball sampling)
- O There is high probability that a rich mix of the processes, people, interactions, programs and structures of interest are presented
- O The researcher is likely to build trusting relations with participants
- O Data quality and credibility are reasonably assured

#### Sample Size

- O Number of observation sessions
- O Number of interviews
- O Number of participants



## Sample Size

- O Difficult to pre-specify the number of observation sessions, interviews and participants required
- O Researcher is expected to make several visits to the field to collect data
- O Data are analyzed between visits
- O Iterative
- O Visits continue until the categories found through analysis are saturated
  - O When further data collection appears to add little or nothing to what you have already learned

(Robson, 2002)

## Sample Size

- O An estimate number of participants needed to reach saturation depends on:
  - OThe scope of the study
  - OThe nature of the topic
  - OQuality of the data
  - OStudy design
  - OResearch method

(Morse, 2000)

## **Analyzing Qualitative Data**

- O Constant comparative method
  - O Gather data, sort into categories, collect additional information, compare new information with emerging categories
  - O Inductive from indicators (small segments of information) to several codes to abstract categories
  - O Phases
    - OOpen coding
    - O Axial coding
    - OSelective coding

## Open Coding

- O Formation of initial categories and sub-categories of information
- O The categories can be used on all form of data collected (e.g. interviews, observations, field notes etc.)

## **Axial Coding**

- O Select one open coding category, position it at the center of the process being explored (core phenomena) and the relate other categories to it.
- O These other categories are the causal conditions (factors that influence the core phenomena), strategies (actions taken in response to the CP), contextual and intervening conditions (specific and general situational factors that influence the strategies) and consequences (outcomes from using the strategies).
- O Draw a diagram (coding paradigm) which portray the interrelationship of causal conditions, strategies, contextual and intervening conditions and consequences.

## Selecting Core Category

- O Select core category for central phenomena as a basis for writing the theory
- O Criteria
  - O It must be central
  - O It must appear frequently in the data
  - O The explanation that evolves is logical and consistent
  - O The name of the central category should be abstract
  - O As the concept is refined, the theory grows in depth and explanatory power
  - O When conditions vary, the explanation still holds, although the way in which a phenomena is expressed might look somewhat different

# Open Coding Categories

Axial Coding Paradigm

Categories Context Categories Core Causal Strategies Consequences category or conditions Categories phenomena Categories Intervening conditions Categories

(Creswell, 2002)

## Selective Coding

- O Write a theory from the interrelationship of the categories in the axial coding model
  - OAn abstract explanation for the process being studied
  - OA process of integrating and refining the theory through such techniques as writing out the story line that interconnects the categories and sorting through personal memos about theoretical ideas

#### Ethics Guideline in Qualitative Research

- O Respect for persons autonomy of research participants
- O Beneficence minimize risks and maximize the benefits
- O Justice fair distribution of the risks and benefits
- O Deploying self degree of participation
- O Informed consent oral and written consent
- O Building trust anonymity and confidentiality
- O Interpersonal relationship

### Trustworthiness of Interpretive Research

- O Credibility
  - O How credible are the findings of the study?
- O Transferability
  - O How transferable and applicable are these findings to another setting or group of people?
- O Dependability
  - O How can we be reasonably certain that finding would be replicated?
- Confirmability
  - O How can we be certain that the findings reflect the participants and the inquiry itself rather than a fabrication from the researcher's biases or prejudices?

## Credibility

Multiple methods Multiple researchers

Multiple datasets

Multiple theories

- O Technique to establish credibility
  - ORigorous techniques and methods for gathering high-quality data
  - OCarefully analysis
  - OAttending to issue of validity, reliability and triangulation

(Patton,1990)

O Member checking (Lincoln & Guba, 1985)

## Transferability

- O Thick description
  - OProvide a detailed description of
    - OContext in which the research takes place
    - Odesign and method
    - Odata collection and analysis

(Geertz, 1973)

## Dependability

- O An attempt to account for changing conditions in the phenomena chosen for study
- O Audit trail
  - OTo keep a full record of all activities while carrying out the study
  - OEnsure the dependability of procedures, findings and conclusions

## Confirmability

- O Researcher is interested in providing evidence to allow readers to confirm result of his study
- O Techniques
  - O Audit trail
  - OTriangulation
  - OMember checking
  - OReflective journal

