Research Methods in Social Sciences

4

Methods

Research Design Strategies

Quantitative

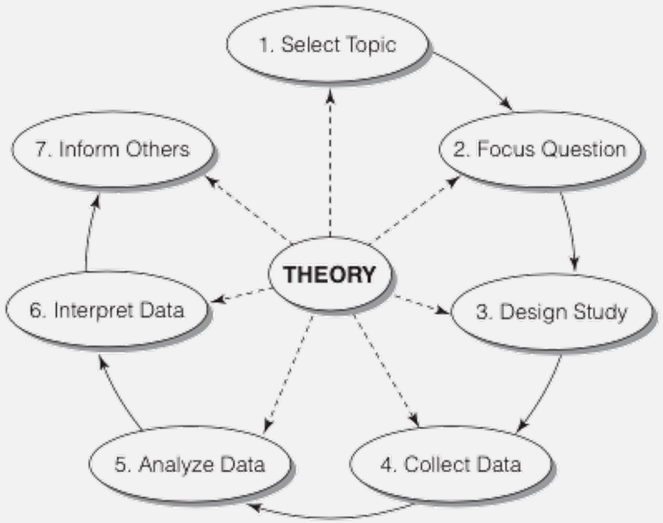
- Measure objective facts
- Focus on variables
- Reliability the key factor
- Value free
- Separate theory and data
- Independent of context
- Many cases, subjects
- Statistical analysis
- Researcher detached

Qualitative

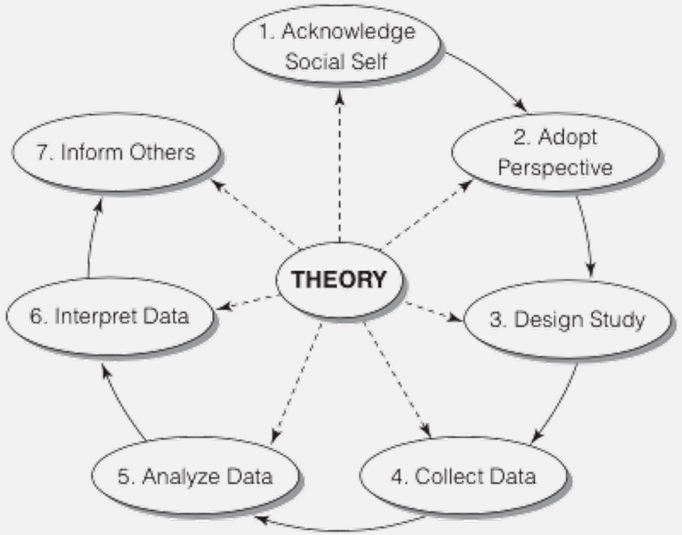
- Construct social reality, cultural meaning
- Focus on interactive processes, events
- Authenticity the key factor
- Values present and explicit
- Theory and data fused
- Situationally constrained
- Few cases, subjects
- Thematic analysis
- Researcher involved

Research Design Strategies

Quantitative



Qualitative

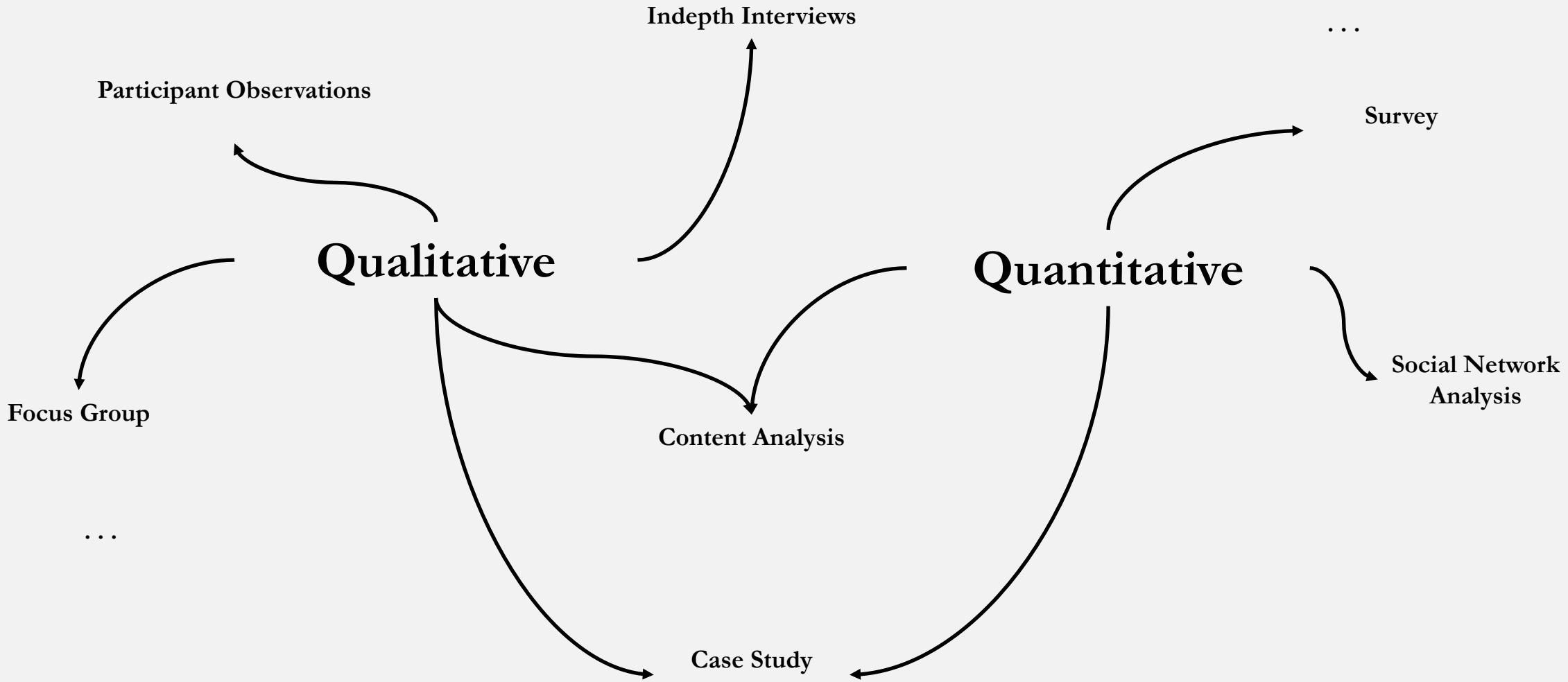


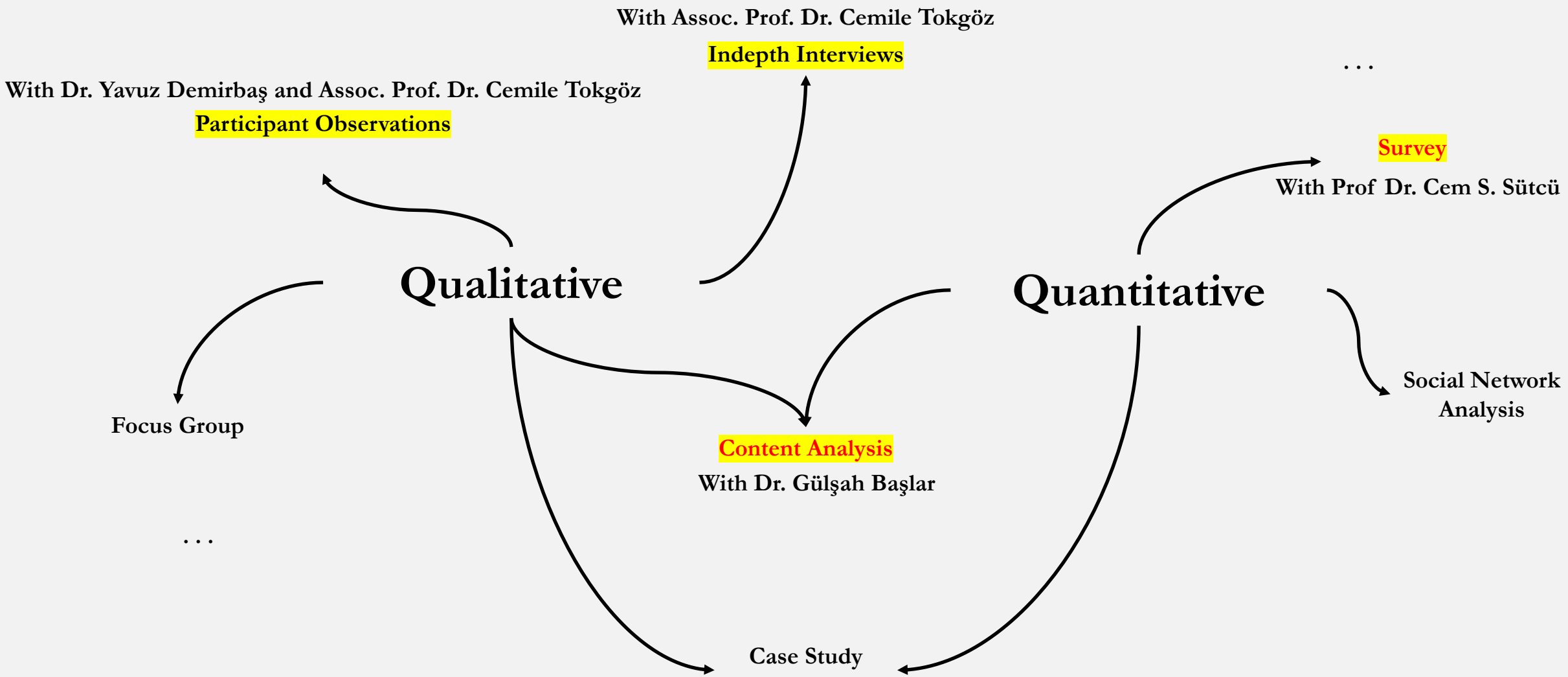
Quantitative Research[1]

- Researchers test hypotheses that are stated at the beginning.
- Concepts are in the form of distinct variables.
- Measures are systematically created before data collection and are standardized.
- Data are in the form of numbers from precise measurement.
- Theory is largely causal and is deductive.
- Procedures are standard, and replication is frequent.
- Analysis proceeds by using statistics, tables, or charts and discussing how what they show relates to hypotheses.

Qualitative Research[1]

- Researchers capture and discover meaning once they become immersed in the data.
- Concepts are in the form of themes, motifs, generalizations, and taxonomies.
- Measures are created in an ad hoc manner and are often specific to the individual setting or researcher.
- Data are in the form of words and images from documents, observations, and transcripts.
- Theory can be causal or noncausal and is often inductive.
- Research procedures are particular, and replication is very rare.
- Analysis proceeds by extracting themes or generalizations from evidence and organizing data to present a coherent, consistent picture.


Indepth Interviews
. . .
Participant Observations
Survey
Qualitative
Quantitative
Social Network Analysis
Focus Group
Content Analysis
. . .
Case Study


With Assoc. Prof. Dr. Cemile Tokgöz
Indepth Interviews
With Dr. Yavuz Demirbaş and Assoc. Prof. Dr. Cemile Tokgöz
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Survey
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Social Network Analysis
. . .
Case Study

Survey

The collection of information from a sample of individuals through their responses to questions[2]. it is often used to describe and explore human behavior, surveys are therefore frequently used in social and psychological research[3].

Survey research may use a variety of data collection methods with the most common being questionnaires and interviews. Questionnaires may be self-administered or administered by a professional, may be administered individually or in a group, and typically include a series of items reflecting the research aims. Questionnaires may include demographical, behavioral, or direct questions.

Survey

1
Research questions, hypothesis and research model.

What type of questions
can measure the research question?

2
Designing the questionnaire

Can the participants fill the questionnaire properly?
How long does it take to finish it?
How well is the questionnaire interface for conducting the research?

3
Applying the questionnaire

Research Universe,
Research Sample?

4
Analysis of the data

Does your research model needs a revision?

5
Reporting

Survey

Sampling Errors

Measuring Errors

Type of error	Source of error	Strategies to reduce error
Coverage error	Unknown or zero chance of individuals in the population being included in the sample	Multimode design
Sampling error	Individuals included in the sample do not represent the characteristics of the population	Clearly identified population of interest; diverse participant recruitment strategies; large, random sample
Measurement error	Questions/instruments do not accurately reflect the topic of interest; questionnaires/ interviews do not evoke truthful answers	Valid, reliable instruments; pretest questions; user-friendly graphics, visual characteristics
Nonresponse error	Lack of response from all individuals in sample	User-friendly survey design; follow-up procedures for nonresponders

Content Analysis[4]

Content analysis is a research tool used to determine the presence of certain words, themes, or concepts within some given qualitative data (i.e. text). Using content analysis, researchers can quantify and analyze the presence, meanings, and relationships of such certain words, themes, or concepts.

Sources of data could be from interviews, open-ended questions, field research notes, conversations, or literally any occurrence of communicative language (such as books, essays, discussions, newspaper headlines, speeches, media, historical documents). A single study may analyze various forms of text in its analysis. To analyze the text using content analysis, the text must be coded, or broken down, into manageable code categories for analysis (i.e. "codes"). Once the text is coded into code categories, the codes can then be further categorized into "code categories" to summarize data even further.

Content Analysis[4]

Uses of Content Analysis:

- Identify the intentions, focus or communication trends of an individual, group or institution
- Describe attitudinal and behavioral responses to communications
- Determine the psychological or emotional state of persons or groups
- Reveal international differences in communication content
- Reveal patterns in communication content
- Pre-test and improve an intervention or survey prior to launch
- Analyze focus group interviews and open-ended questions to complement quantitative data

Advantages of Content Analysis[4]

- Directly examines communication using text
- Allows for both qualitative and quantitative analysis
- Provides valuable historical and cultural insights over time
- Allows a closeness to data
- Coded form of the text can be statistically analyzed
- Unobtrusive means of analyzing interactions
- Provides insight into complex models of human thought and language use
- When done well, is considered a relatively "exact" research method
- Content analysis is a readily-understood and an inexpensive research method
- A more powerful tool when combined with other research methods such as interviews, observation, and use of archival records. It is very useful for analyzing historical material, especially for documenting trends over time.

Disadvantages of Content Analysis[4]

- Can be extremely time consuming
- Is subject to increased error, particularly when relational analysis is used to attain a higher level of interpretation
- Is often devoid of theoretical base, or attempts too liberally to draw meaningful inferences about the relationships and impacts implied in a study
- Is inherently reductive, particularly when dealing with complex texts
- Tends too often to simply consist of word counts
- Often disregards the context that produced the text, as well as the state of things after the text is produced
- Can be difficult to automate or computerize

Flow of the Content Analysis Method

1
Research Question

2
Category Creation/Conceptualization of the Research

3
Development of Category Scale

4
Sampling Decisions

5
Pilot Study

6
Refining the Scale

7
Gathering the Content

8
Coding

9
Analysis and Report

Coding Approaches to Content Analysis

Type of Content Analysis	*Study Starts With*	*Timing of Defining Codes or Keywords*	*Source of Codes or Keywords*
Conventional content analysis	Observation	Codes are defined during data analysis	Codes are derived from data
Directed content analysis	Theory	Codes are defined before and during data analysis	Codes are derived from theory or relevant research findings
Summative content analysis	Keywords	Keywords are identified before and during data analysis	Keywords are derived from interest of researchers or review of literature

In-Depth Interviews

Qualitative interview is a type of framework in which the practices and standards be not only recorded, but also achieved, challenged and as well as reinforced[6]. With in-depth interviews the respondents have to answer presest (generally semi-structured) open-ended questions.

Semi-structured interviews are based on a semi-structured interview guide, which is a schematic presentation of questions or topics and need to be explored by the interviewer[7]. To achieve optimum use of interview time, interview guides serve the useful purpose of exploring many respondents more systematically and comprehensively as well as to keep the interview focused on the desired line of action. In order to have the interview data captured more effectively, recording of the interviews is considered an appropriate choice but sometimes a matter of controversy among the researcher and the respondent. Hand written notes during the interview are relatively unreliable, and the researcher might miss some key points. The recording of the interview makes it easier for the researcher to focus on the interview content and the verbal prompts and thus enables the transcriptionist to generate "verbatim transcript" of the interview.

Flow of the In-Depth Interviews

1
Research Question(s)

2
Development of the Key Questions

Interviews are generally semi-structured. Key questions are to help the researcher to keep track of the interview process. Researcher can change the tone and format of the question due to the interview process.

3
Identifiying the Participants

Snowball sampling method is generally used to identify participants. In snowball sampling method researcher keeps the interviewing process until the answers to the key questions are getting similar and a pattern (patterns) emerged.

4
Seting up the Interview Environment

Preparation of the tools of recording of the interview is essential in this step.

5
Interviewing

Research should create a psychologically safe place for the participant(s). Active listening is essential.

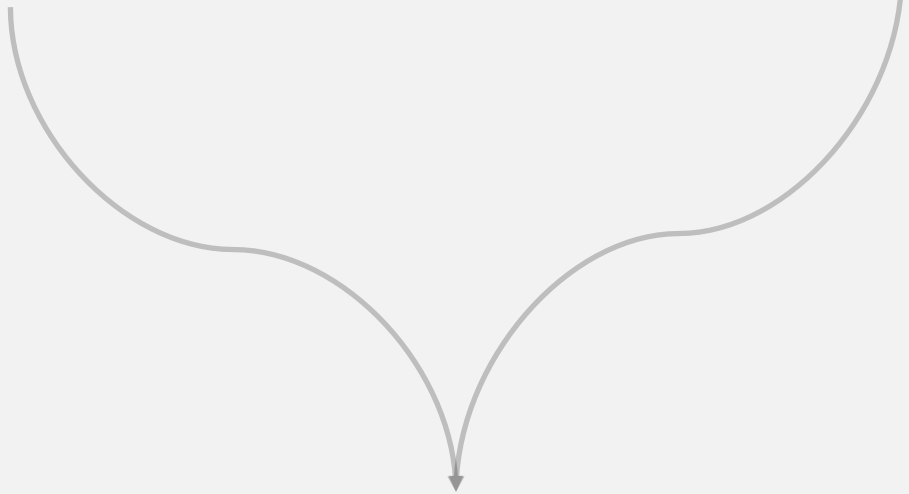
6
Text Creation and Coding

7
Analysis and Report

Research Design Strategies

Quantitavie

Qualitavie



Mixed

Mixed Method

A mixed methods design is characterized by the combination of at least one qualitative and one quantitative research component[8].

Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e. g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration[9].

The overall goal of mixed methods research, of combining qualitative and quantitative research components, is to expand and strengthen a study's conclusions and, therefore, contribute to the published literature. In all studies, the use of mixed methods should contribute to answering one's research questions[8].

Mixed Method

Five purposes for mixing in mixed methods research[10]:

1. *Triangulation* seeks convergence, corroboration, correspondence of results from different methods;
2. *Complementarity* seeks elaboration, enhancement, illustration, clarification of the results from one method with the results from the other method;
3. *Development* seeks to use the results from one method to help develop or inform the other method, where development is broadly construed to include sampling and implementation, as well as measurement decisions;
4. *Initiation* seeks the discovery of paradox and contradiction, new perspectives of frameworks, the recasting of questions or results from one method with questions or results from the other method;
5. *Expansion* seeks to extend the breadth and range of inquiry by using different methods for different inquiry components.

Mixed Method

Qualitative dominant [or qualitatively driven] mixed methods research is the type of mixed research in which one relies on a qualitative, constructivist-poststructuralist-critical view of the research process, while concurrently recognizing that the addition of quantitative data and approaches are likely to benefit most research projects. Quantitative dominant [or quantitatively driven] mixed methods research is the type of mixed research in which one relies on a quantitative, postpositivist view of the research process, while concurrently recognizing that the addition of qualitative data and approaches are likely to benefit most research projects.

The area around the center of the [qualitative-quantitative] continuum, equal status, is the home for the person that self-identifies as a mixed methods researcher. This researcher takes as his or her starting point the logic and philosophy of mixed methods research. These mixed methods researchers are likely to believe that qualitative and quantitative data and approaches will add insights as one considers most, if not all, research questions[9].

Mixed Method

Six *sets* of mixed methods research designs[8]:

1. Convergent parallel design ("paralleles Design") (the quantitative and qualitative strands of the research are performed independently, and their results are brought together in the overall interpretation),

2. Explanatory sequential design ("explanatives Design") (a first phase of quantitative data collection and analysis is followed by the collection of qualitative data, which are used to explain the initial quantitative results),

3. Exploratory sequential design ("exploratives Design") (a first phase of qualitative data collection and analysis is followed by the collection of quantitative data to test or generalize the initial qualitative results),

Mixed Method

4. Embedded design ("Einbettungs-Design") (in a traditional qualitative or quantitative design, a strand of the other type is added to enhance the overall design),

5. Transformative design ("politisch-transformatives Design") (a transformative theoretical framework, e. g. feminism or critical race theory, shapes the interaction, priority, timing and mixing of the qualitative and quantitative strand),

6. Multiphase design ("Mehrphasen-Design") (more than two phases or both sequential and concurrent strands are combined over a period of time within a program of study addressing an overall program objective).

Mixed Method

In these designs, mixing occurs in an interactive manner at all stages of the study. At each stage, one approach affects the formulation of the other, and multiple types of implementation processes can occur[11].

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