

Chapter 9 Research Design: Qualitative Methods

In Chapters 7 and 8, we examined quantitative research designs. In this chapter, we consider qualitative research designs. Essentially, quantitative research is a collection methods (experimental, causal-comparative, correlation, and survey research) used to inquire into a problem, issue, question, theory, etc. of interest to a researcher or research team. Typically, a question or theory, composed of variables, is measured in a systematic way and data are analyzed with statistical procedures.

Qualitative research is a system of inquiry which seeks to build a holistic, largely narrative, description to inform the researcher's understanding of a social or cultural phenomenon. Qualitative research takes place in natural settings employing a combination of observations, interviews, and document reviews. First we will review the qualitative research process, and then six qualitative research strategies: case study, focus group, and the ethnographic, phenomenological, grounded theory, and historical research perspectives.

I. Qualitative Research: Processes

A. The "General" Qualitative Research Process

1. McMillan and Schumacher (1993, p. 479) defined qualitative research as, "primarily an inductive process of organizing data into categories and identifying patterns (relationships) among categories." This definition implies that data and meaning emerge "organically" from the research context.
2. Common Assumptions: Qualitative research, as a strategy, is predicated on underlying assumptions and perspectives. Wiersma (1995, pp. 211-212) summarized these as:
 - a. Phenomena are viewed in its entirety or holistically. It is not possible to reduce complex phenomena into a few interdependent or independent factors.
 - b. Investigators research in "nature." Researchers do not impose their assumptions, limitations, and delimitations or definitions, or research designs upon emerging data. The researcher's role is to record what he or she observes and/or collects from subjects' in their natural environment.
 - c. "Reality" exists as the subjects see it. The researcher is to record, fully, accurately and unbiasedly, that reality as seen through the eyes of subjects.
 - d. Post hoc conclusions emerge from the data. A priori conclusions are avoided.
3. Common Reference Points: Virtually all qualitative research is done in "natural" settings, variables are not manipulated. While there are several qualitative research strategies and subspecialties, they are based on a number of common reference points.
 - a. Working Design: A preliminary plan is drawn, but is intended to be flexible. Here the field sites are selected through purposeful sampling,

given the study's purpose. The time duration of fieldwork is determined and other relevant operational issues are addressed.

- b. Working Hypotheses: Using an inductive mode of inquiry, qualitative researchers, refrain from positing firm hypotheses or any hypotheses at all. General research questions are typically posed and as data collection and analysis proceed, more specific questions usually emerge. These more specific questions and/or hypotheses may be extended, deleted, or reframed as data collection and analysis continues. The objective of this process is the emergence of a comprehensive, accurate description of the phenomena being investigated from the perspective of those who experience it.
- c. Data Collection: The chief data collection devices are observation, interview, artifact (i.e., records, documents, etc.), oral histories, and specimen records (behavior recorded through observation). Qualitative research data records are typically quite massive. Also, the qualitative researcher is advised to keep fairly detailed records of his or her thoughts, feelings, and behaviors while data are collected. It is important to determine whether or not the researcher is himself or herself a source of bias. These notes also contain changes in the work design and research questions or hypotheses.
- d. Data Analysis and Interpretation: Data analysis and collection are iterative. Data must be organized and reduced (data classification and reduction). Data are organized by coding. Descriptions of behavior, statements, feelings, thoughts, etc. are identified and coded. Wiersma (1995, p. 217) identifies three types of codes:
 - (1) Setting or context codes: These codes describe the setting or context descriptors of the phenomenon under study. Given that copious field notes are taken, codes for specific or regularly occurring characteristics contribute to efficient and effective field note production.
 - (2) Perception codes: These codes are used to accurately record subjects' reported perception, understanding, etc. about relevant people, circumstances, or things.
 - (3) Process codes: It is a given in qualitative research that naturally occurring systems change. These codes are used to note event or process evolution and factors which cause or contribute to said evolution.

These codes need not be mutually exclusively and rarely are. The specific coding system employed by a researcher usually emerges as the iterative data analysis and interpretative process unfolds. The coding system employed by the qualitative researcher should be (1) comprehensive and tailored to his or her needs, (2) accurate in recording what is being

observed or reported, and (3) useful in describing and enabling understanding of the phenomenon under study.

4. Perspectives for Designing the Qualitative Study

- a. Funnel Approach: In the working design phase, the researcher has a very general research question or hypothesis which is used to select the initial research site, subjects, data to be collected, etc. Based on results generated from the earlier initiative, the research question or hypothesis becomes increasingly focused. This process is repeated until data collection, analysis, and interpretation focus exclusively on the phenomena under study and produces “solid” conclusions.
- b. Modified Analytic Induction Approach: According to Wiersma, (1995, p. 219) in this approach, the researcher starts with specific research question(s); identifies virtually all instances (or cases) of the phenomenon under investigation; and investigates each case, employing an iterative process where the research question or phenomenon explanation is revised until he or she arrives at a suitable comprehensive, descriptively rich narrative.

5. Establishing A Qualitative Study’s Validity

- a. Internal validity (i.e., the design integrity of the study) relies on logical analysis; it is virtually impossible to control variables in “natural” settings. Thus, it is essential that full descriptions of the research site and subjects, data collection devices and procedures, etc. be presented. Two strategies for arguing for internal validity include interpretive validity and trustworthiness.
- b. Interpretive validity is the degree to which data interpretation and conclusions are considered accurate so as to be reflective of the subjects’ or phenomenon’s “reality.” There are four dimensions to interpretive validity; the greater the degree of acceptance by other researchers, the more valid the original researcher’s interpretation is perceived (Altheide and Johnson, 1994).
 - (1) Usefulness: Usefulness is determined by the extent the report informs and stimulates further research.
 - (2) Contextual Completeness: This refers to the fullness and richness of the description (usually in narrative form) of the report.
 - (3) Research Positioning: Qualitative researchers have been referred to as data collection devises, given the centrality of the researcher in qualitative strategies. Thus, the researcher must document his, her, or their direct and indirect effects on the research site(s), participants, etc.
 - (4) Reporting Style: This refers to the extent the research report authors’ description is perceived as authentic.
- c. Trustworthiness

- (1) A study's "trustworthiness" is increased when data analysis and conclusions are triangulated; subjects' perceptions are verified in a systematic manner; and the project's data chain of evidence is established (Gall, Borg, and Gall, 1996)
- (a) Triangulation: The use of multiple data collection devices, sources, analysts, etc. to establish the validity of findings.
 - (b) Member Checking: Research participants should review findings for accuracy and representativeness.
 - (c) Chain of Evidence: The logical relationship between research questions, research procedures, raw data, and results should be such that a reasonably prudent person would arrive at the same or similar conclusions. Five strategies for establishing the data's chain of evidence are:
 - (1) Outlier Analysis: Highly dissimilar cases should be examined and differences explained. This will contribute to strengthening the findings' integrity.
 - (2) Pattern Matching: This is similar to the goal attainment methods for evaluating a project. Here, the perceived benefits of an intervention are matched against those found. If such are matched, then the argument for "trustworthiness" is enhanced.
 - (3) Representativeness Check: This strategy is akin to monitoring used in survey research. An interview or artifact is reviewed to assess its representativeness as compared to other similar interviews or artifacts.
 - (4) Long-term Involvement: This is similar to trend analysis. If data are collected over the long-term, then situation specific influences are "canceled" out.
 - (5) Coding Check: Here, multiple researchers code the data and check for differences. Those differences are then resolved. A high level of agreement between coders is very desirable.
6. Qualitative Reliability and Generalizability
- a. Where possible, it is wise to use multiple observers and "run" inter-rater reliability coefficients, if standard rating forms were used. Establish fully developed procedures for resolving disagreements among raters. Document that present findings are consistent with those of other investigators, conducting similar research. Draw on the procedures for establishing a study's trustworthiness. Combined, these strategies strengthen reliability arguments.
 - b. The qualitative researcher does not share the same level of concern for generalizability as does the quantitative researcher. Qualitative external validity concerns itself with comparability (i.e., the ability of other researchers to extend knowledge based on the "richness and depth" of the description) and translatability (i.e., the extent to which other researchers understand the results given the theory and procedures underlying the study.)

B. Qualitative Research Design Strategies

1. Case Study: In a case study, a single person, program, event, process, institution, organization, social group or phenomenon is investigated within a specified time frame, using a combination of appropriate data collection devices (Creswell, 1994, p. 12). Case studies are routinely employed in business, medicine and law.
2. Ethnography: Rooted in anthropology, ethnography involves the study of an intact group, logically defined, in its natural context for a sustained time interval. The researcher is typically an observer or a participant observer (Creswell, 1994, p. 11).
3. Phenomenology: The researcher develops an understanding of a subject's or subjects' "reality" however he, she, or they so perceive (Leedy, 1997, p. 161). In essence, this approach investigates an individual's or group's perception of reality as he or she constructs it. These realities may be expressed as an event, program, relationship, emotion, etc. Phenomenology is rooted in philosophy.
4. Grounded Theory: Grounded theory is a general research methodology used in building naturalistic theory and is rooted in sociology (Strauss and Corbin, 1994, p. 275).
5. Focus Groups: Focus groups are panels, facilitated by a moderator, who meet for a specified time period to exchange perspectives, knowledge, and/or opinions on a particular topic. Groups are rarely more than a dozen members.
6. Historical Research: Historical research relies on records, diaries, oral histories, photographs, and other artifacts to describe, analyze, and explain past events, philosophies, etc. The artifacts and records used are driven by the particular study and its research question(s). Historical research relies significantly on inductive, logical reasoning.

II. Qualitative Research Strategies

A. Case Study

1. Purpose: Case studies are constructed to richly describe, explain, or assess and evaluate a phenomenon [e.g., event, person, program, etc.] (Gall, Borg, & Gall, 1996, p. 549).
2. Process: The "case" is studied onsite within its natural context. The data gathering process is often interactive as the researcher or researchers associate with persons involved in the "case" under study.
3. Data Collection: Data is collected primarily by fieldwork, but secondary data collection is usually employed as well. It is important that the researcher(s) understand the phenomenon from the perspective of the participants.

4. Data Analysis: Gall et al. (1996) outlined three approaches to case data analysis:
 - a. Interpretational Analysis: When employing this strategy, the researcher is looking for patterns (threads, constructs, commonalities, etc.) within the data to explain the phenomenon.
 - b. Structural Analysis: Investigating patterns which may be found in conversations, text, activities, etc., with little or no explication as to pattern meaning.
 - c. Reflective Analysis: The description and evaluation of the studied phenomenon based on judgement and intuition by a highly qualified expert.
 - d.
5. Communicating Findings
 - a. The case narrative richly and fully reports the subject's perceptions about the phenomenon being investigated (Leedy, 1997, p. 158).
 - b. According to Leedy, researchers using the reflective analysis strategy try to draw their readers into the participants' experiences by using emotive writings, poems, etc.
 - c. Leedy goes on to point out that researchers using the other two analysis approaches tend to use an objective writing style and effectively use tables, figures, matrices, etc.

B. Ethnographic Research Strategy

1. Purpose: Goetz and LeCompte (1984, pp. 2-3) describe ethnography as, “[an] analytical description of social scenes and groups that recreate for the reader the shared beliefs, practices, artifacts, folk knowledge, and behaviors of those people.” Great emphasis is given to the relationship between culture and behavior.
2. Process: Ethnographic research is very labor and time intensive, involving extensive fieldwork in a natural setting. Usually a general research question(s) is (are) identified. Once entry is gained and rapport (or trust) is established, the research questions are continually refined becoming more focused. It is not uncommon for the larger research question(s) to be segmented into more numerous, focused ones.
3. Data Collection: Ethnographic researchers use multiple data collection devices so that interpretations may be grounded and triangulated. Leedy, (p. 159) outlines three specific data collection devices:
 - a. Participant Observation: Here the researcher may participate in the phenomenon under study to varying degrees. Observation runs a continuum from detached observer to complete participant observer. The researcher must take great care to be as objective as possible. He or she is the single greatest source of bias within this strategy. The researcher will

- usually record his or her thoughts, feelings, etc. when developing field notes so as to guard against bias when interpreting the collected data.
- b. Ethnographic Interviews: These types of interviews are usually purposeful, employing open-ended items so that the subject's reality and perceptions can be documented, understood, and interpreted.
 - c. Artifact Collection: This is a secondary data collection strategy which typically includes unofficial documents, official documents, objects, etc. which provide insight into the lives, experiences, and perceptions of subjects.
4. Data Analysis: Data analysis within ethnographic research occurs as data are collected. The researcher codes and classifies data (e.g., events, observations, quotes, etc.) into a meaningful taxonomy. New data are compared and contrasted to old so as to note patterns, etc. This iterative process continues until the researcher is able to make "assertions" which describe the participants' "reality" and perspectives.
 5. Communicating Findings: Findings are reported in the form of research based assertions supported by analytical vignettes, interview quotes, and interpretative observations, all intended to present a holistic, rich description of the experiences and perceptions of participants.

C. Phenomenological Research

1. Purpose: Phenomenology seeks to understand a person's or persons' perspectives as he, she, or they experience and understand an event, relationship, program, emotion, etc. (Leedy, 1997, p. 161). The researcher often has a significant personal interest in the phenomenon under study as well.
2. Process: Once a phenomenon is selected, the researcher engages in much the same process as used in ethnographic study.
3. Data Collection: Phenomenologists may study one subject, but typically 6-10, who is or are purposefully selected. These researchers rely on semi-structured in-depth interviews. The researcher and subject(s) must work rather closely together to collect data.
4. Data Analysis: The researcher(s) must search interview transcripts to locate "meaningful units" which are small bits of text which are independently able to convey meaning. Phenomenologists search for themes and patterns, not categories by logically linking these "meaningful units."
5. Communicating Findings: Phenomenologists communicate findings through detailed narratives exploring themes and patterns which emerged from data analysis and reduction. These themes and patterns are then placed within the context of virtually all instances of the phenomenon under study.

D. Grounded Theory Research Strategy

1. Purpose: Using naturalistic iterative data collection and relationship analysis processes, researchers derive, from the data, a theory (Creswell, 1994, p. 12). The theory is the expected outcome of the inquiry.
2. Process: Using the iterative processes of data collection and analysis, relationships between concepts are continually identified and refined so as to enable theory development.
3. Data Collection: Grounded theorists employ the same data collection devices as do other qualitative researchers. The process is iterative with early data being compared and contrasted with “newer” data to refine, discard, generate, or extend questions, hypotheses, or conclusions.
4. Data Analysis: Using the iterative process between data collection and analysis within grounded theory, the researcher seeks to identify patterns of interaction between and among subjects (not necessarily individuals) by logically linking two or more data categories (i.e., similar topics sharing the same meaning). Strauss and Corbin (1990) explained the three major data coding strategies used in grounded theory research:
 - a. Open Coding: As the initial coding effort, data are deconstructed into the simplest form possible, examined for commonalities, and sorted into categories.
 - b. Axial Coding: As the intermediate step, data are reassembled based on logical connections between categories.
 - c. Selective Coding: At this third stage of coding, the “core” category is determined and the relationships between it and secondary categories are posited. Core and secondary category relationships are later validated. Categories needing further refinement or development are completed.

Two or more related categories (or concepts) give rise to a theory (McMillan & Schumacher, 1993), which is referred to as a proposition (Strauss and Corbin, 1990, p. 278). Since several conceptual relationships (i.e., concepts) are required to define a theory, such theories are said to be conceptually dense.

5. Communicating Findings: Strauss and Corbin (1990) write that to achieve “integration”, the core category (or concept) is presented as a story line which becomes the lens through which all other categories are examined. The relationships are compared to the data for validation, refinement, or discard.

E. Focus Groups

1. Purpose: Focus groups are panels, facilitated by a moderator, who meet for a specified time period to exchange perspectives, knowledge, and/or opinions on a particular topic. Groups are rarely more than a dozen members. Focus

groups are often sponsored by research, marketing, corporate, or political organizations.

a. Focus groups

- (1) Can quickly and cheaply identify core issues of a topic.
- (2) Can observe reactions to a research question or product in an open forum.
- (3) Can explore new or unexpected information or reactions in subsequent focus groups.
- (4) Enable subjects to respond in their own words and their emotional intensity can be measured.

b. Focus group disadvantages are

- (1) The failure to use probability sampling seriously limits generalizability.
- (2) The convenience sampling strategy commonly used in focus groups may introduce bias into the research process. To counteract, ensure that group membership is representative of the population of interest.

2. Process: A topical guide is employed, by the focus group leader, to manage the discussion and ensure that all subjects participate. Cooper and Schindler (p. 143) recommend running separate groups when seeking data from subgroups of a defined population. They argue that freer and more intense discussion will ensue. Locating members for focus groups is usually done informally, which could result in bias.
3. Data Collection: Focus groups may be conducted in person, over the telephone or Internet, or videoconferencing. It is common to record activity either on paper, tape, or video to enable accurate transcription and reporting. Using trained observers and standard reporting forms is also common. It is also routine practice to blend survey research methods into focus group data collection.
4. Data Analysis: Focus group data are analyzed in much the same manner as are case studies.
5. Communicating Findings: After data are analyzed and interpreted, reports are issued which is a blend of rich narrative and any quantitative data are presented in the usual manner.

F. Historical Research

1. Purpose: Historical research relies on records, diaries, oral histories, photographs, and other artifacts to describe, analyze, and explain past events, philosophies, etc. The artifacts and records used are driven by the particular study and its research question(s). Historical research relies significantly on inductive, logical reasoning.

2. Process: While lacking highly defined methodological traditions, historiography is widely used. Essentially, it is a four step process, with considerable overlap:
 - a. Identification of the Research Problem: Here is identified the reason for the research project and its corresponding, assumptions, questions or hypotheses. If hypotheses are posed, they are in the form of speculations as to reasons, processes, consequences, and/or characteristics of an event, issue, personage, circumstance, etc. under investigation. Any posited hypotheses should be based on accurate factual assumptions.
 - b. Collection and Evaluation of Source Materials: Documents (e.g., books, newspapers, journals, letters, transcripts, etc.), artifacts (e.g., pictures, equipment, records, tapes, film, pottery, art works, etc.), information databases (hardcopy or electronic), and/or oral histories are examined. These documents, artifacts, databases, etc. are either primary or secondary sources:
 - (1) Wiersma (1995, p. 234) defines a primary source as, “an original or first-hand account of the event or experience.”
 - (2) A secondary source is any account that is not primary. Primary sources are more desirable than secondary sources.
 - c. Once evidence is collected it must be examined. External and internal criticisms are essential components of the examination.
 - (1) External Criticism: External criticism is used to determine the physical authenticity (i.e., validity) of the record, document, or artifact related to its investigation.
 - (2) Internal Criticism: Historical researchers employ internal criticism to assess the degree, if any, of bias within the content of a record, document, or artifact. Internal criticism also seeks to ascertain the historical meaning and accuracy of an artifact’s content.
 - d. Synthesis of Information: Once each document is authenticated, its contribution to the research underway must be determined. As the synthesis process evolves, it may be necessary for the researchers to reframe research questions or hypotheses given available data. It may be necessary to repeat the second or even first step in the process.
 - e. Analysis, Interpretation, and Formulating Conclusions: Historical research relies on inductive logical information analysis. At this step, conclusions are derived and hypotheses either supported or not. Alternative explanations should be “explained away.” Also, the researcher should be as objective as possible. There should be substantial citations to support the author’s (s’) conclusions.
3. Data Collection: As noted above, data collection is a function of identifying documents, artifacts, etc.; examining their authenticity; chronologically

ordering them; and then determining value or contribution to the research effort.

4. Data Analysis: Cross-referencing (triangulation) is essential to establish the veracity of a single document, artifact, etc. Each document, artifact, etc. needs to undergo chronological examination. Core ideas, concepts, and facts, need to be “pulled together” so as to make sense given the context of the period of time or event under study.
5. Communicating Findings: Reports of historical research are usually presented in narrative, absent headings; however, this is changing. The purpose of the study is typically cited first and placed within a context. Next, are presented any research questions or hypotheses with supportive or contradictory evidence; the hypothesis is either retained or refuted. Once all the evidence is presented, conclusions are drawn.

Review Questions

Directions. Read each item carefully. There are review items for qualitative research.

1. The qualitative research design where the researcher “a single person, program, event, process, institution, organization, social group or phenomenon is investigated within a specified time frame, using a combination of appropriate data collection devices” most likely refers to:

a. Phenomenology	c. Case study
b. Ethnography	d. Historical
2. The research design which “involves the study of an intact group, logically defined, in its natural context for a sustained time interval. The researcher is typically an observer or a participant observer” is:

a. Phenomenology	c. Case study
b. Grounded theory	d. Ethnography
3. The qualitative research design, where the purpose of which is to understand participants’ perspectives and view of social realities is:

a. Phenomenology	c. Historical
b. Grounded theory	d. Ethnography
4. Regarding historical research, which one of the following statements is incorrect?
 - a. Can be quantitative or qualitative depending on the purpose of the study
 - b. Is used to explain the past and describe relationships between persons, places, and events
 - c. Is conducted in natural surroundings
 - d. Is very similar to quasi-experimental research
5. The first step in historical research is

a. Formulation of a research question	c. Primary source identification
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- a. Usefulness
b. Research positioning
- c. Contextual completeness
d. Reporting style
15. Which one of the following is not a common assumption shared by qualitative research traditions?
- a. Phenomena are viewed holistically.
b. Investigators research in “nature.”
c. A priori conclusions are either confirmed or disconfirmed.
d. A subject’s perception is reality.
16. Regarding qualitative research data analysis, the coding strategy, which describe the “natural” setting is called
- a. Context codes
b. Process codes
- c. Perception codes
d. Response codes
17. Which statement about qualitative research reliability is incorrect?
- a. Multiple raters or observers are recommended.
b. If standardized rating scales or checklists are employed, compute equivalence reliability coefficients.
c. Compare present project findings with those of prior researchers.
d. Draw on procedures to establish “trustworthiness.
18. Which statement concerning qualitative research generalizability is incorrect?
- a. Qualitative generalizability concerns itself with comparability.
b. Qualitative generalizability concerns itself with translatability.
c. Is as critical to the qualitative and as the quantitative researcher.
d. Is related to the qualitative study’s validity.
19. Qualitative research traditions have several common reference points. Which statement is not correct?
- a. Working design
b. Variable manipulation
- c. Working hypothesis
d. Massive data sets
20. The qualitative research tradition where the researcher must search transcripts to find “meaningful units” so that themes and patterns emerge is called ____ research
- a. Phenomenological
b. Historical
- c. Grounded theory
d. Case study
21. The purpose of triangulation is:
- a. To publish
b. To provide validation information
- c. To provide more data
d. To provide reliability information

Answers: 1.c, 2. d, 3. a, 4. d , 5. a, 6. c, 7. a, 8. d, 9. d, 10. c, 11. c, 12. b, 13. b, 14. a, 15. c, 16. a; 17. b, 18. c, 19. b, 20. a, 21. b.

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