

Mixed-Methods Research & Qualitative Data Analysis

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ALWAYS LEARNING

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Mixed-Methods Research

ALWAYS LEARNING

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Mixed Methods Research

- Employs both quantitative and qualitative techniques due to the nature of the research problem then needs to be investigated;
- Involves not only collecting, analyzing, and interpreting both qualitative and quantitative data but also *integrating* conclusions from those data into a cohesive whole;
- Requires a researcher to possess both qualitative and quantitative research skills.

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Why Use Mixed Methods Research?

- **Completeness:** A research problem and its subproblems are fully addressed by utilizing both qualitative and quantitative data.
- **Complementarity:** Quantitative and qualitative aspects of the study compensate each other weaknesses and therefore, benefit the quality of research.
- **Hypothesis generation and testing:** Qualitative data often provide insights about cause-and-effect relationships and form a hypothesis that will be tested with quantitative methodology.
- **Development of appropriate research tools and strategies:** two approaches of data collection yield more reliable and valid data.
- **Triangulation:** A researcher can make a more convincing case for particular conclusions if both qualitative and quantitative data lead to those conclusions.
- **Resolution of puzzling findings:** Qualitative findings may reveal the meaning of quantitative data.

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Common Mixed Methods Designs

- Convergent designs
- Embedded designs
- Exploratory designs
- Explanatory designs

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Convergent Designs

- Qualitative and quantitative data are collected in parallel, usually at the same time and with respect to the same research questions.
- Equal weight is assigned to the two types of data
- Data are collected for triangulation, with the hope that analyses of both data sets lead to similar conclusions about the phenomenon under investigation.

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Embedded Designs

- Both qualitative and quantitative data are collected within the same time frame.
- One approach dominates—a qualitative or quantitative—with the other approach serving in a supplementary role.
- The two data sets are collected to address somewhat different but related research questions.

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Exploratory Designs

Encompasses two phases

- In Phase 1, a researcher uses **qualitative methods** to get a general sense of characteristics, phenomena, and/or issues related to the topic of study.
- In Phase 2, a researcher employs the qualitative data from observations, interviews, or both and provides a basis for a more systematic, quantitative study.
- For example, the results of a few unstructured interviews might help the researcher develop appropriate questions for a questionnaire administered to a much larger sample.

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Explanatory designs

Encompasses two phases.

- Phase 1 involves collecting quantitative data in an experiment, ex post facto study, or survey. This first phase yields only numbers, in the forms of percentages and averages.
- Phase 2 is a follow-up—for instance, asking participants to describe what they were thinking or feeling during an experimental intervention or to elaborate on their answers to survey questions—can help the researcher gain the meaning of the numbers.

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Planning a Mixed-Methods Study

1. Identify Research Questions and Hypotheses. You may develop two sets of questions that are framed for qualitative and quantitative approach.
2. Conduct the Literature Review. Studies that have two-phases may require a research to review additional literature.
3. Address Validity Concerns. Explain how a study's quantitative and qualitative parts come together—or in some cases *don't* come together.
4. Consider Special Ethical Issues. The researcher may have to submit two separate proposals, one for each phase of the study. If researchers plan to use the same participants in Phase 1 and Phase 2, they should give participants in Phase 1 data collection the option of participating—*voluntarily*—in a second, follow-up part of the study.

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Analyzing and Interpreting Mixed-Methods Data

Two important considerations:

1. Whether you will assign quantitative and qualitative data an equal weight in drawing conclusions.
2. How will you integrate your quantitative and qualitative findings as you interpret and report these findings.

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Qualitative Data Analysis

Sekaran, U., Bougie, R., (2020) Research methods for Business, 8th ed., Chichester: Wiley

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Qualitative Data

- Qualitative data: data in the form of words.
- Examples: interview notes, transcripts of focus groups, answers to open-ended questions, transcription of video recordings, accounts of experiences with a product on the internet, news articles, and the like.

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Analysis of Qualitative Data

- The analysis of qualitative data is aimed at making valid inferences from large amount of collected data.
- Steps:
 - 1. data reduction
 - 2. data display
 - 3. drawing and verifying conclusions

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Data Reduction

- **Coding:** the analytic process through which the qualitative data that you have gathered are reduced, rearranged, and integrated to form theory.
- **Categorization:** is the process of organizing, arranging, and classifying coding units.

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Data Display

- **Data display:** taking your reduced data and displaying them in an organized, condensed manner.
- Examples: charts, matrices, diagrams, graphs, frequently mentioned phrases, and/or drawings.

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Drawing Conclusions

- At this point where you answer your research questions by determining what identified themes stand for, by thinking about explanations for observed patterns and relationships, or by making contrasts and comparisons.

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Reliability in Qualitative Research

- ***Category reliability*** “depends on the analyst’s ability to formulate categories and present to competent judges definitions of the categories so they will agree on which items of a certain population belong in a category and which do not.” (Kassarjian, 1977, p. 14).
- ***Interjudge reliability*** can be defined degree of consistency between coders processing the same data (Kassarjian 1977).

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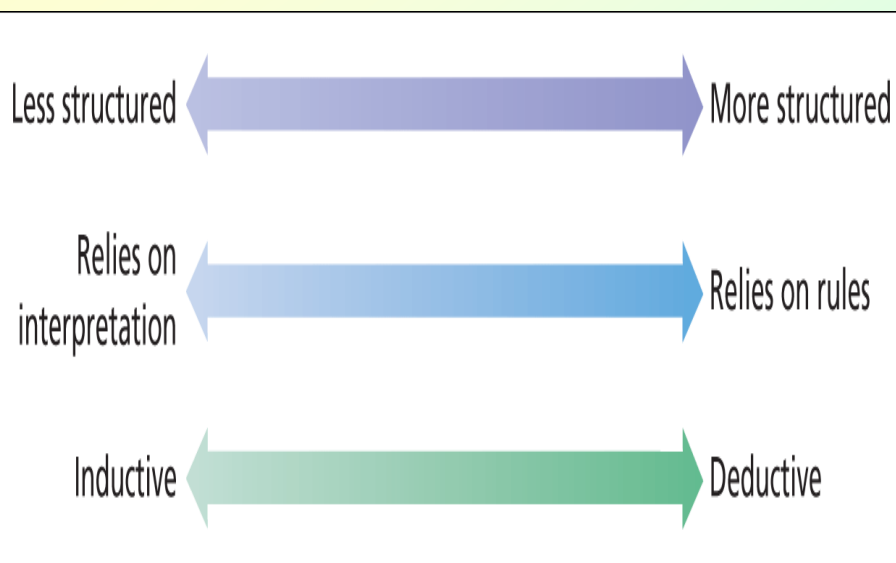
Validity in Qualitative Research

- Validity refers to the extent to which the qualitative research results:
 - accurately represent the collected data (internal validity)
 - can be generalized or transferred to other contexts or settings (external validity).

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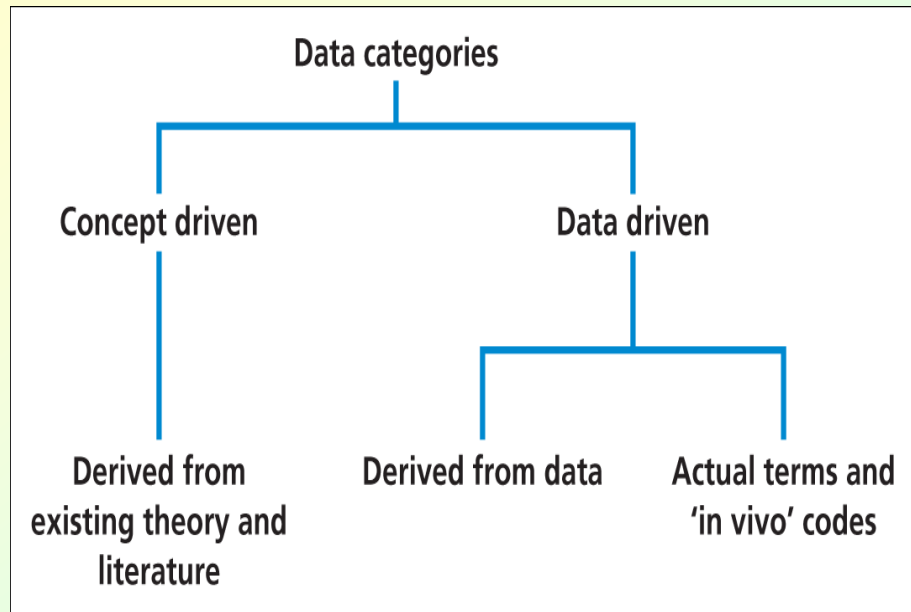
Figure 13.1 Dimensions of qualitative analysis

(Source: Mark Saunders (2020), RM for BS)



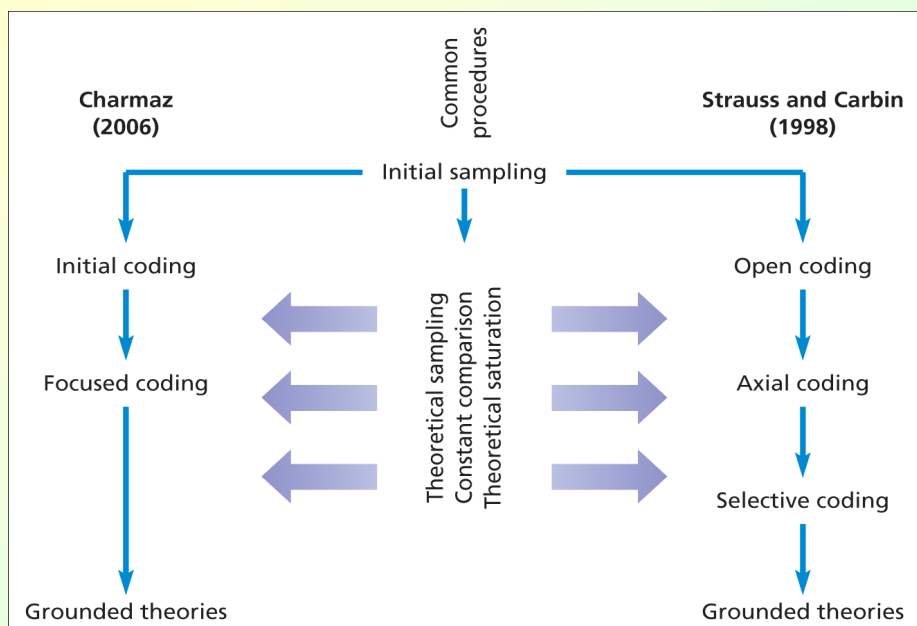
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Figure 13.2 Types of category and codes



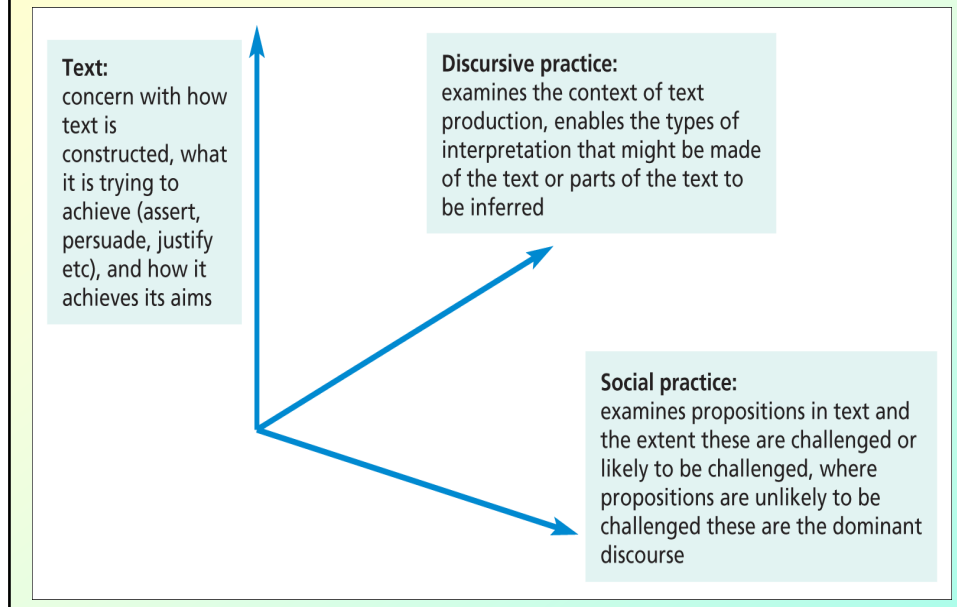
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Figure 13.3 Comparing approaches to grounded theory method



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Figure 13.4 A three-dimensional analytical framework for critical discourse analysis



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Qualitative v. Quantitative Methods:

- Quantitative research is hard and reliable . . . qualitative research is deep and rich' (Bryman, 1996: 94).¹
- 'Qualitative and quantitative methods are more than just differences between research strategies and data collection procedures. These approaches represent fundamentally different epistemological frameworks for conceptualising the nature of knowing, social reality, and procedures for comprehending those phenomena'. (Filstead, 1979: 45).²

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Comparative Characteristics -1

Characteristics	Quantitative Methods	Qualitative Methods
origins	natural science	social science
philosophic roots	positivism	naturalism, feminism
research design	deductive, systematic	inductive, flexible
contribution to theory	theory-testing, seeks explanation and universal laws	theory building, seeks explanation and solutions
researcher	observer, outsider	participant, insider
researcher's attitude	objective	subjective, empathetic
people regarded as	objects	subjects
location	laboratory	field-based

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Comparative Characteristics -2

samples or cases	random, large	non-random, small
focus	individual	group
record	frequency	social meanings
data	numeric	non-numeric
measures	concept-indicators	concepts
data collection	surveys, structured questionnaires	personal, unstructured interviews
represented by	tables and charts	transcripts, quotes
analysis	statistical	non-statistical
generalisability	high	none claimed
costs	high	low
findings	nomothetic	ideographic

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Quantitative Methods

- strengths
 - widespread acceptance, scientific, credible, dependable, preferred by news media, objective, bias-free
- weaknesses and criticisms
 - positivistic, unable to grasp complexities of social world, sterile
- defence and counter claims
 - can be applied to most social world, less imperfect than qualitative methods, statistical analysis identifies margins of error, most concepts can be represented by proxy-indicators, 'puts science into political science', 'hard and reliable'

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Qualitative Methods

- strengths
 - best suited to tackle and understand complexities of social world, unique capacity to learn and understand underlying values of individuals and groups, enables minorities to be studied who would be overlooked by sample surveys or unwilling to disclose their identities, empowers subjects
- weaknesses and criticisms
 - soft option, subjective, unreliable, anecdotal, exaggerated, outlier-based, participation contaminates the social field, agents provocateurs, unscientific, no audit trail
- defence and counter-claims
 - intellectually-demanding, only means to address minorities, accepts that language is never neutral, rigorous analysis of talk and text now available using software, audit trail created, good supervision eliminates extent of bias and over-identification, 'rich and deep'

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Mixed-Methods

- Best of both worlds?
- advantages of synergy, triangulation
- mixed methods more widely accepted where
 - one method is dominant
 - other used in secondary, supportive manner
 - example 1: election turnout:
 - example 2: increasing abstention