Qualitative Data Analysis

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Learning Objectives

This session seeks to discuss qualitative data analysis methods for case study research.

• By the end of the session, students will be able to understand and explain within case analysis and cross-case analysis.

• Students will also learn about how to write case studies.
Chapter 8


Data Analysis and Representation

Chapter 8

www.tinyurl.com/creswell2007a
Other Readings

  – www.tinyurl.com/8m27nd2

  – www.tinyurl.com/9co7xfa

Other books – www.goo.gl/l6RA2
Components of Case Study Research Design

1. A study’s questions;
2. Its propositions, if any;
3. Its unit(s) of analysis;
4. the logic linking the data to the propositions;
5. the criteria for interpreting the findings.
Recap: Forms of Qualitative Data

1. Observation (non-participant – participant)
2. Interviews (close – open)
3. Documents and Text (private – public)
4. Audio-visual (audio, pictures, mobile phone text, social media, video et cetera)
Core Strategies for Qual. Data Analysis

1. Coding the data
   - Reducing the data into meaningful segments and assigning names to the segments

2. Combining the codes into broader categories or themes

3. Displaying and making comparison in data graphs, tables, and charts
## Case Study Research Process

### Table 1

**Process of Building Theory from Case Study Research**

<table>
<thead>
<tr>
<th>Step</th>
<th>Activity</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting Started</td>
<td>Definition of research question</td>
<td>Focuses efforts</td>
</tr>
<tr>
<td></td>
<td>Possibly a priori constructs</td>
<td>Provides better grounding of construct measures</td>
</tr>
<tr>
<td>Selecting Cases</td>
<td>Neither theory nor hypotheses</td>
<td>Retains theoretical flexibility</td>
</tr>
<tr>
<td></td>
<td>Specified population</td>
<td>Constrains extraneous variation and sharpens external validity</td>
</tr>
<tr>
<td></td>
<td>Theoretical, not random, sampling</td>
<td>Focuses efforts on theoretically useful cases—i.e., those that replicate or extend theory by filling conceptual categories</td>
</tr>
<tr>
<td>Crafting Instruments and Protocols</td>
<td>Multiple data collection methods</td>
<td>Strengthens grounding of theory by triangulation of evidence</td>
</tr>
<tr>
<td></td>
<td>Qualitative and quantitative data combined</td>
<td>Synergistic view of evidence</td>
</tr>
<tr>
<td></td>
<td>Multiple investigators</td>
<td>Fosters divergent perspectives and strengthens grounding</td>
</tr>
<tr>
<td>Entering the Field</td>
<td>Overlap data collection and analysis,</td>
<td>Speeds analyses and reveals helpful adjustments to data collection</td>
</tr>
<tr>
<td></td>
<td>including field notes</td>
<td>Allows investigators to take advantage of emergent themes and unique case features</td>
</tr>
<tr>
<td></td>
<td>Flexible and opportunistic data collection</td>
<td></td>
</tr>
<tr>
<td></td>
<td>methods</td>
<td></td>
</tr>
</tbody>
</table>
## Case Study Research Process

<table>
<thead>
<tr>
<th>Analyzing Data</th>
<th>Within-case analysis</th>
<th>Gains familiarity with data and preliminary theory generation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cross-case pattern search using divergent techniques</td>
<td>Forces investigators to look beyond initial impressions and see evidence thru multiple lenses</td>
</tr>
<tr>
<td>Shaping Hypotheses</td>
<td>Iterative tabulation of evidence for each construct</td>
<td>Sharpens construct definition, validity, and measurability</td>
</tr>
<tr>
<td></td>
<td>Replication, not sampling, logic across cases</td>
<td>Confirms, extends, and sharpens theory</td>
</tr>
<tr>
<td></td>
<td>Search evidence for “why” behind relationships</td>
<td>Builds internal validity</td>
</tr>
<tr>
<td>Enfolding Literature</td>
<td>Comparison with conflicting literature</td>
<td>Builds internal validity, raises theoretical level, and sharpens construct definitions</td>
</tr>
<tr>
<td></td>
<td>Comparison with similar literature</td>
<td>Sharpens generalizability, improves construct definition, and raises theoretical level</td>
</tr>
<tr>
<td>Reaching Closure</td>
<td>Theoretical saturation when possible</td>
<td>Ends process when marginal improvement becomes small</td>
</tr>
</tbody>
</table>

*Photo Illustrations from Getty Images – www.gettyimages.com*
## Organizing Qualitative Data for Case Study

<table>
<thead>
<tr>
<th>Step</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Managing</td>
<td>Create and organize files for data</td>
</tr>
<tr>
<td>Reading, Memoing</td>
<td>Read through text, make margin notes form initial codes</td>
</tr>
<tr>
<td>Describing</td>
<td>Describe the case and its context</td>
</tr>
<tr>
<td>Classifying</td>
<td>Use categorical aggregation to establish themes or patterns</td>
</tr>
<tr>
<td>Interpreting</td>
<td>Use direct interpretation Develop naturalistic generalizations</td>
</tr>
<tr>
<td>Representing, visualizing</td>
<td>Present in-depth picture of the case using narrative, tables and figures</td>
</tr>
</tbody>
</table>
Data Analysis Spiral

Procedures
- Representing, Visualizing
- Describing, Classifying, Interpreting
- Reading, Memoing
- Data Managing

Data Collection (text, images)

Examples
- Matrix, Trees, Propositions
- Context, Categories, Comparisons
- Reflecting, Writing Notes Across Questions
- Files, Units, Organizing

Figure 8.1 The Data Analysis Spiral
Analysis within Case study

Within Case Analysis:

• Analysis consists of making a detailed description of the case and its setting.

• In Categorical Aggregation, the researcher seeks a collection of instances from the data, hoping that issue-relevant meanings will emerge.

• Also, the researcher establishes patterns and looks for a correspondence between two or more categories.
Analysis within Case study

Case study Research:

• In *direct interpretation*, on the other hand, the case study researcher looks at a **single instance** and draws meaning from it without looking for multiple stances.

• It is a process of pulling the data apart and putting them back together in more meaningful ways.
Analysis within Case study

Cross-case study

• Analytic technique when the researcher studies two or more cases.

• A word table can be created to display the data from individual cases according to some uniform framework.
Analysis within Case study

Case study Research:- Cross-case

• The implication of this is that the researcher can look for similarities and differences among the cases.

• Finally, the researcher develops naturalistic generalizations from analyzing the data; generalizations that people can learn from the case either for themselves or to apply to a population of cases.
<table>
<thead>
<tr>
<th>Tests</th>
<th>Case Study Tactic</th>
<th>Phase of research in which tactic occurs</th>
</tr>
</thead>
</table>
| Construct validity | • Use multiple sources of evidence  
                     • Establish chain of evidence  
                     • Have key informants review draft case study report | data collection                       |
| Internal validity  | • Do pattern-matching  
                     • Do explanation-building  
                     • Address rival explanations  
                     • Use logic models          | data analysis                         |
| External validity  | • Use theory in single-case studies  
                     • Use replication logic in multiple-case studies | research design                       |
| Reliability        | • Use case study protocol  
                     • Develop case study database    | data collection                       |

Figure 2.3 Case Study Tactics for Four Design Tests
SOURCE: COSMOS Corporation.
• Thank YOU