Qualitative Methods and Content Analysis

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Qualitative vs. Quantitative Research

Qualitative compared with Quantitative

• Less dominant approach
• Less standardized
  – Hard to do statistical inferences, to be compared across studies and to accumulate findings
  – More subjective
• Work intensive \(\rightarrow\) inefficient?
  • It often takes longer time
  • It can be difficult to design
Basic beliefs of alternative inquiry paradigms in social sciences

<table>
<thead>
<tr>
<th>Paradigm</th>
<th>Contribution</th>
<th>World view in a nutshell</th>
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<tbody>
<tr>
<td>Positivism</td>
<td>Objectivity</td>
<td>Find truth!</td>
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<tr>
<td>Post-Positivism</td>
<td>Probabilism</td>
<td>Uncertainty exists around theory (but not reality)</td>
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<tr>
<td>Critical Theory</td>
<td>Values impair objectivity</td>
<td>Knowledge of reality problematic Dialogue and interpretation paramount</td>
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<tr>
<td>Constructivism</td>
<td>There are different realities</td>
<td>Study the constructed reality</td>
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Contrasting alternative inquiry paradigms

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<thead>
<tr>
<th></th>
<th>Positivist</th>
<th>Constructivist</th>
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<tbody>
<tr>
<td>Utility</td>
<td>General</td>
<td>Particularistic</td>
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<tr>
<td>Purpose</td>
<td>Quantitative</td>
<td>Qualitative</td>
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<td>Validation</td>
<td>Consideration</td>
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<td>Approach</td>
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<td>Detached</td>
<td>Involved</td>
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<td>Etic</td>
<td>Emic</td>
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<tr>
<td>Values</td>
<td>Excluded (from the inquiry process)</td>
<td>Included</td>
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Quantitative Research

<table>
<thead>
<tr>
<th>STRENGTHS</th>
<th>WEAKNESSES</th>
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<tbody>
<tr>
<td>• Hypotheses are constructed before data collection</td>
<td>• Research concepts and theories may not reflect local constituencies' understandings.</td>
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<tr>
<td>• Can generalize research findings</td>
<td>• Researcher may miss out on phenomena because of focus on theory testing rather than theory generation</td>
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<td>• Researcher may more credibly assess cause-and-effect relationships.</td>
<td>• Knowledge produced may be too abstract and general for direct application to specific local situations, contexts, and individuals</td>
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<td>• Data collection and analysis can be swift and is useful for large data sets.</td>
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<td>• Provides precise numerical data</td>
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<td>• May have higher credibility with people in power</td>
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</table>

Qualitative Research

<table>
<thead>
<tr>
<th>STRENGTHS</th>
<th>WEAKNESSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Useful for in depth study &amp; for complex phenomena</td>
<td>• Knowledge produced may not generalize</td>
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<td>• Yields understanding of personal experiences of phenomena</td>
<td>• Difficult to test hypotheses and theories.</td>
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<td>• For dynamic processes- how &amp; why phenomena occur</td>
<td>• May have lower credibility with some program administrator or commissioners</td>
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<tr>
<td>• Generates inductively a tentative but explanatory theory about a phenomenon.</td>
<td>• Data collection &amp; analysis can be time consuming.</td>
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<td></td>
<td>• Results can be more easily influenced by researchers' personal biases and idiosyncrasies</td>
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Qualitative Research Techniques & Methods

• Participant Observation
• Interviews/Focus Groups
• Observation of Experimental Natural Settings
• Photography and Videos
• Case Studies
• Ethnography
• Historical Analysis
• Ethno-drama
• Content Analysis
• http://www.culturomics.org

What is Content Analysis

– “a careful, detailed, systematic examination and interpretation of a particular body of material in an effort to identify patterns, themes, biases and meanings (Berg & Latin 2008; Leedy & Ormrod 2005; Neuendorf 2002).”

– “a coding operation and data interpreting process.” (Bogdan & Biklen 2006; Maxfield & Babbie 2006; Morse & Richards 2002)

– “the conversion of qualitative data into quantifiable variables that can be used for hypothesis evaluation” (Currall et al., 1999:16)
Strengths and Weaknesses

**Strengths**
- Virtually unobtrusive and non-reactive
- Can be cost effective: easily accessible and inexpensive materials
- Allows for the study of processes which occur over long periods of time (trends)

**Weaknesses**
- Limited to recorded messages
- Ineffective for testing causal relationships between variables; researchers must resist the temptation to infer such relationships

Major Approaches to Content Analysis

- Conventional: Generate theory or explanations on the content of the document (Grounded Theory Building)
- Directed: In-depth analysis of data with categories from existing theories
- Combining theory generation and theory testing
Manifest vs. Latent Content Analysis

- Manifest Content: those elements that are physically present and countable
  - Surface structure of the message
- Latent Content: extended analysis to an interpretive reading of the symbolism underlying the physical data
  - Deep structural meaning conveyed by the message
  - To accomplish “deciphering” of latent symbolic meaning, researchers must incorporate independent corroborative techniques
  - Researchers should offer detailed excerpts from relevant statements that document the researchers’ interpretations
- Blending manifest and latent content analysis

Desired Leadership Attributes in PRC
Fu and Tsui, 2003

Research Question: How do leadership values and attributes change over time in China?

- Sampling leader stories in February and April of two news papers in 1978, 1988, and 1998
- Establish leadership attributes from extant literature and the data
- Use students to 1) code leadership attributes, 2) categorize attributes into value types
- Report frequency of leadership attributes and value categories over time
Leadership Image Construction in the Popular Press
Chen & Meindl

Research Question: How does the construction of leader image change when company performance experiences ups and downs?
The Case of People Express and Donald Burr
• Sampling business reports about Burr over three performance periods
• Use 72 respondents to read and describe Burr
• Identify image dimensions from descriptors
• 5 people to check agreement of theme categories
• Analyze changes in the frequency of the categories within and across performance periods
• Analyzes metaphors

Group Processes of Board of Directors: Verbal Behaviors of Board of Directors (Currall et al.)

Research Question: (political) group dynamics of board of directors: e.g., level of activity over time, issue contingent level of group conflict, and relative dominance of subgroups
• Participant observation of board of directors meetings
• Content analysis of transcripts of meeting notes
• Abstracting and categorizing for each attendee of board meetings: Verbal behaviors by contribution type (21) and topic type (13)
• Counts of each verbal behavior by person, topic, and contribution
• Check inter-rating reliability
• Test 3 hypotheses
General Comparisons about the Three Studies

1. Theory driven or phenomenon driven? Theory testing or theory building?
2. Involves iteration between data, existing theory, and new theory?
3. What are the bases for sampling the content materials?
4. What is the extent to which statistical analyses have been used?
5. What validity issues have been addressed in each of the articles?

Iterative and Sequential Activities of Content Analysis

1. Develop a coding scheme:
   • Determine basic units (textual or semantic)
   • Sort basic units into categories
2. Count frequency of categories: descriptive data
3. Examine categories for meaningful patterns
4. Relate patterns to research and theory: build new constructs/theories or test existing theories
Basic Principles of Content Analysis

1. Coding unit: Clearly defined, distinct and independent (discriminant validity)

2. Coding categories: exhaustive and mutually exclusive (domain content validity and discriminant validity)

3. Rater ability, independence, and inter-rater reliability (also depending on P. 1 and 2)

Illustration: Currall et al. 1999

1. Iteration between theory and data: 15 Iterations for establishing categories; reexamine the non-effect of ESOP finance and participation on arguments and conflict

2. Develop a coding scheme:
   • Unit boundary of verbal behavior: thematic by topic or contribution
   • Sort basic units into categories: topic or contribution

3. Count frequency of categories: Person X Topic X Contribution (12, 285 Cells)
### Counts Table of Verbal Behaviors by Person, Topic, and Contribution (12,285 Cells)

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#### Illustration Continued

4. Examine categories for meaningful patterns
   - Power and conflict categories
   - Activity level over time: Increase for New Outside Director but decrease for employee director
   - Dominance of subgroups
   - Conduct univariate, bivariate, and multivariate analyses

5. Relate patterns to research and theory: build new constructs/theories or test existing theories
   - New “whats”? New political behaviors
   - New or revised theory of politics in diverse board of directors?
The Art and Technique of Coding

- A priori codes from theory or emergent codes from data
- Coding can be straightforward (surface features, e.g., person or topics) or ambiguous (e.g., contributions)
- Open Coding (Strauss, 1987):
  - Ask the data a specific and consistent set of questions
  - Analyze the data minutely
  - Frequently interrupt the coding to write a theoretical note
  - Never assume the analytic relevance of any tradition variables such as age, sex, social class, and so on until the data show it to be relevant.

Tactics for Generating Meanings

- Counting: Salience, importance, indicators of consistency, continuity, or change
- Clustering: sort things into categories
- Splitting: make more distinctions (e.g., arguments and conflict)
- Seeing pattern through repeated themes, causes/explanations
- Noting relations between variables
- Making conceptual/theoretical coherence
Tactics for Testing or Confirming Findings

• Checking for representativeness of: informants, events, processes
• Checking for researcher effect
• Triangulation:
  – Data Triangulation: Time; Space; Person
  – Investigator Triangulation: Inter-rater reliability
  – Methodological Triangulation: within and between method
  – Theory Triangulation: multiple theories and perspectives

Computer-Assisted Content Analysis

□ Computer Assisted Qualitative Data Analysis (CAQDA)
  □ Potential for using computers for word crunching
  □ Allows versatility of storing materials but also ideas, concepts, questions, models, and theories
□ Multiple functions:
  □ Word processors: create text-based files and find/retrieve sections of the text
  □ Text retrievers: MetaMorph, Orbis, Sonar, Professional, The Text Collector, WordCruncher, or ZYIndex
  □ Textbase managers: capacity for organizing, sorting, and making subsets
  □ Code-and-retrieve programs: assist in dividing text into segments, attach codes and display the code sections (QUALPRO, Martin)
  □ Code-based theory builders: code and retrieve and features.
  □ Conceptual network builders: graphic networks (MECA, SemNet)
Group Discussion

1. Identify a research topic that can be explored by collecting and content analyzing qualitative data

2. Make a plan of how to conduct the study. Consider:
   - Sampling of materials
   - How to collect data
   - How to analyze data
   - Potential challenges in data collection and analyses