

A Very Brief Primer of Qualitative Research

Overview

- Qualitative vs. quantitative research
 - What is quantitative research?
 - What is qualitative research?
- Theoretical positions
- Methods of qualitative research
 - Limitations
- Interpreting qualitative materials
- Writing qualitative research

Features of Quantitative Research

- Requirements:
 - Clearly isolate effects and probable causes
 - Properly operationalize theoretical relations
 - Measure and quantify phenomena
 - Create research designs allowing the formulation of general “laws” of behavior

Features of Qualitative Research

- Goals:
 - Create and test new interpretations
 - Develop new empirically grounded theories
- Small sample sizes - “purposefully” chosen
- Often allows study of phenomena (objects) in their everyday context
- Information-rich data
 - Concentrates on words and observations to express reality and attempts to describe people in natural situations
- Central criteria:
 - Findings must be grounded in empirical material
 - Methods must be appropriately selected and applied to the object under study

Quantitative Example

- How satisfied are you with your volunteer position?
 - [5] Very Satisfied
 - [4] Satisfied
 - [3] Neither Satisfied nor Dissatisfied
 - [2] Dissatisfied
 - [1] Very Dissatisfied

Quantitative Example: Results

- Average score of 4.1
- Majority of the workers were satisfied
- Volunteers who had served for over 3 years had a lower level of satisfaction (average score was 1.7).
- Why?

Qualitative Example

- Four focus groups of 8 volunteers
- Groups divided based on time with organization
- Found that workers were dissatisfied because they did not have enough educational materials available.

Exemplar Theoretical Positions

- Symbolic Interactionism
- Ethnomethodology
- Structuralist models

Symbolic Interactionism

- Definition: Examines the subjective meanings individuals attribute to their activities and their environments
- Assumptions:
 - Act toward things due to the meanings these things have for them.
 - Meaning of such things comes from social interaction
 - Meanings are handled in, and modified through, an interpretative process used by the person in dealing with the things s/he encounters.
- Method
 - Subjective theories: How do people explain the world for themselves?

Ethnomethodology

- Definition: Interested in the routines of everyday life and their production and the central concern is methods used by members to produce reality in their everyday life
- Focuses on how social interactions are organized not the subjective meaning for the participants
- Basic assumptions
 - Interaction is structurally organized
 - Contributions of interaction are both context shaped and context renewing
 - Thus, no conversational interaction can be dismissed as accidental or irrelevant

Structuralist Models

- Definition: Cultural systems frame the perception and making of subjective and social reality
- Researchers attempt to understand how culture affects participant's experiences and activities.

The Research Process: Not really different

1. Form the overall question
2. Form the specific research questions
3. Select the research groups
4. Select the appropriate designs and methods
5. Evaluate (and reformulate) the specific research questions
6. Collect the data
7. Evaluate (and reformulate) the specific research questions
8. Analyze the data
9. Generalize and evaluate the analyses
10. Prepare the findings

Types of Qualitative Research

- Visual methods
 - Observation
- Verbal methods
 - Structured interview
- Visual and verbal methods can be used together
 - Ethnography

Observation

- **Definition:** Maintain distance from the observed events in order to avoid influencing them
- **Features**
 - Observed field from an external perspective
 - Mainly applied to the observation of public spaces
 - Goal: Observe events as they occur naturally
- **Steps**
 - Select the setting
 - Define what is to be documented
 - Train the observer(s)
 - Focus on those observations relevant to the research question

Observation

- Limitations
 - Overt or covert?
 - Ethical concerns - Informed consent
 - How involved should the observer become?
 - Access issues

Observation

- Example (Humphreys, 1975)
 - Conducted an observational study of the “acquisition” behavior of drug addicts.
 - Observed “hidden” meeting places in this subculture
 - Took role of watch-keeper
 - Observe all that happened without having to take part in the events

Structured Interview

- Definition: Situation in which an interviewer asks each respondent a series of preestablished questions with a limited set of response categories.
 - Script is followed in a standardized and straightforward manner
 - All respondents receive the same set of questions asked in the same order or sequence
 - Little flexibility in questions
- Aim: Capture precise data of a codable nature in order to capture data within preestablished categories.

Guidelines for a Structured Interview

- Use standard explanations of the study
- Never deviate from the study introduction, sequence of questions, or question wording
- Never let another person interrupt the interview; do not let another person answer for the respondent or offer his or her opinions on the question.
- Never suggest an answer or disagree with an answer. Do not give the respondent any idea of your personal views on the topic of the question or survey.
- Never interpret the meaning of a question; just repeat the question.
- Never improvise, such as by adding answer categories, or make wording changes.

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Structured Interview Example

- Example
 - When was the last time that you searched for new information on the Web and you had a difficult time finding what you were looking for?
 - a. What information were you trying to find?
 - b. What was the first strategy you used to try to find the information?

Structured Interview Example (cont.)

- Example
 - When was the last time that you searched for new information on the Web and you had a difficult time finding what you were looking for?
 - c. Why did you use this strategy?
 - d. Did you try different strategies to find the information? What were they?
 - e. Did you find the information? What strategy proved successful?

Structured Interview

- Limitations
 - The researcher must be careful not to ask extra questions of one participant and not another
 - Limits the researcher to answering the research question(s) and you may miss the discovery of new and surprising results

Ethnography

- Combination of observation and participation
- What are the activities?
- Aim: Understand the complex behavior without strategy that limits the inquiry.
- Not necessarily a structured interview.

Features of Ethnography

- A strong emphasis on exploring
- A tendency to work primarily with ‘unstructured’ data
- Investigation of a small number of cases
- Analysis of verbal descriptions and explanations,

The Ethnographic Interview

- Series of friendly conversations where the interviewer slowly introduces new elements to assist participants to respond as participants.
- Guidelines
 - a specific request to hold the interview
 - interviewer must explain the project, why he or she will note certain statements
 - At least two types of questions
 - Ethnographic questions
 - Contrast questions

Ethnography

- Ethnographic study (Chin, 1999)
 - Question: Do “ethnically correct” toys have an effect on poor children’s self esteem?
 - Participants: 10-year-old, poor, working-class African American children
 - Fieldwork setting: Newhallville neighborhood
 - Seventh-poorest of its size in the country in 1980
 - Lost 20,000 manufacturing jobs since the 1950s
 - Dominated by service jobs, the drug trade, and government aid
 - 91.7% minority population

Ethnography

- Mattel's new line of dolls
 - Light, medium, and dark skin tones
 - Newly sculpted facial features
 - Hair types
- Research indicates that these dolls should increase children's self-esteem.
 - “Our children gain a sense of self-importance through toys. So we make them look like them”.



Ethnography

- Interviews/Observations
 - Race did not emerge in discussion
 - Brought existing dolls into their own worlds
- Important fundamental social, political, and historical issues that impact children's experiences and perceptions of themselves as people in the world.
- Children are more than racial beings.

Documentation of Data

- Four types of field notes:
 - Condensed accounts
 - Expanded account
 - A fieldwork journal
 - Notes about analyses and interpretations

Documentation of Data

- Research diary
- Documentation sheets
- Transcriptions
- Recording equipment

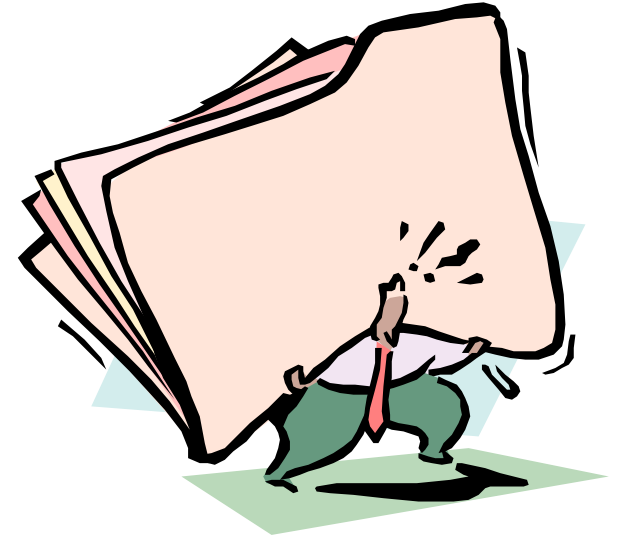
Interpreting Qualitative Research

- Five phases to interpretation:
 - Describing dynamics of the research and team process
 - Organizing the data
 - Look for patterns in data
 - Corroborating/Legitimizing
 - Representing the account

Interpreting Qualitative Research

- Four strategies to increase the quality and credibility of your data
 - Convergence of methods, researchers, and data
 - Periodic discussion working hypotheses and results
 - Iterative evaluation of the terms of reference of interpretations and their assessment
 - Outside review during study to validate data and interpretations.

Data Analysis



- Coding and categorizing
 - Theoretical coding
 - Thematic coding
 - Content analysis
- Sequential analyses
 - Conversation analysis
 - Narrative analysis

Data Analysis

- Theoretical coding
 - Open coding: Want to express data and phenomena in the form of concepts
 - Segment the data
 - Attach concepts to the segments
 - Categorize the concepts that are particularly relevant to the research question
 - Axial coding: Addition of subcategories and their relationship to the categories
 - Selective coding: Theory is checked against the data

Data Analysis

- Thematic coding
 - Underlying assumption: In different worlds or social groups differing views can be found
- Procedure
 - Case analysis
 - System of categories for each case study
 - Core categories are established

Qualitative Content Analysis

- Categories are brought to the empirical material and not necessarily developed from it
- Procedure
 - Define the material
 - Situation of data collection
 - Who was involved?
 - Formally characterize the material
 - How was the material documented?
 - Analyzing the text

Sequential Analyses

- This method of analysis believes that the contents of interviews are only presented in a reliable way if they are presented as a whole.
 - Example
 - Conservation analysis
 - Narrative analysis

Conversation Analysis

- Interested in the formal analysis of everyday situations
- Assumptions
 - Interaction proceeds in an orderly way and that nothing in it should be regarded as random
 - Context of interaction not only influences this interaction but is produced and reproduced in it

Conversation Analysis

- Procedure
 - Identify certain statement(s) as a potential order in a certain type of conversation
 - Assemble a collection of these cases
 - Identify how this produces order in interactions

Narrative Analysis

- Narratives are stimulated and collected in the narrative interview in order to reconstruct biographical processes
- Aim: Analyze the construction of reality
- Different methods for narrative analysis
- Limitation: Is the narrative reality or not?

Analogy Study

- Administered a questionnaire to gain insight into the user models that people might have when interacting with the Web
- Questionnaire
 - “If you could provide an analogy of the Web to someone (e.g., your spouse or friend) how would you describe it?”
- Participants
 - Young with Web experience
 - Old with/without Web experience

Example Segments

- *“A way to communicate with the world.”*
- *“The WWW is like an endless encyclopedia of information that is constantly updated, expressing not only facts but opinions too.”*
- *“It is like a giant telephone switchboard where ‘calls’ are completed to innumerable sites.”*
- *“It’s like walking into a clearance sale at Radio Shack and everyone there wants to convince you they’ve got the best deal.”*
- *“Gutenberg Press”*
- *“Educational program that allows you to travel the world without leaving home.”*

Analogy Study - Coding Scheme

1. Structure/Connectivity

Computer

Natural kinds

Other

2. Source or Repository of Information

Electronic

Non-electronic

Natural kinds

Library

Other

Analogy Study - Coding Scheme

3. Means of Communication

Telephone

Social gathering

Other

4. Means of Transportation

5. Means of Recreation/Entertainment

6. Means of Access

Services, Global, General

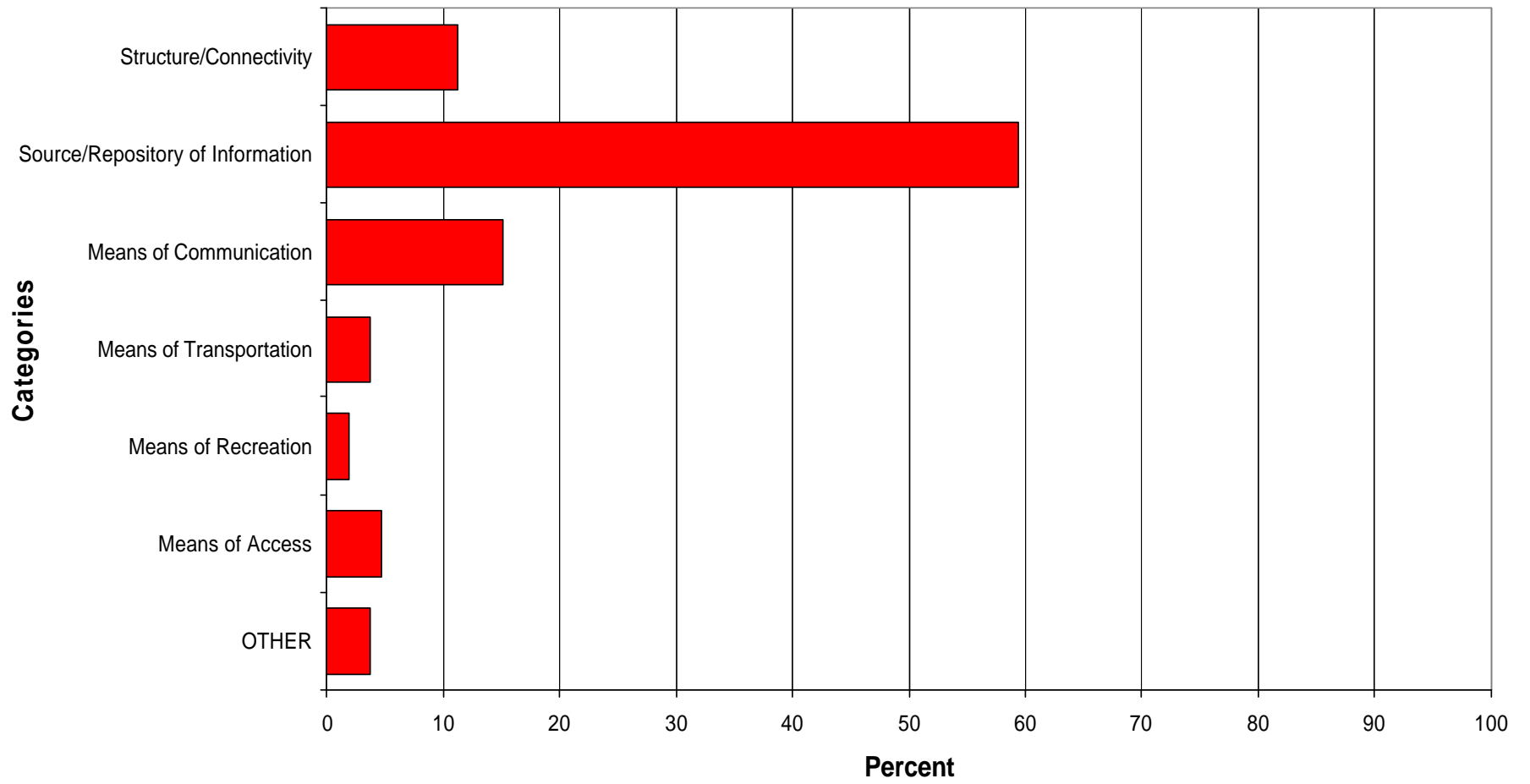
7. Other

Analogy Study: Coding

- Segment and Code into Top-level categories
 - Most people's responses fell under the top-level category of source of information

Analogy Study: Coding

- Further analysis based on subcategories of “expertise”:
 - Subcategories
 - Users vs. designers
 - Users vs. nonusers
 - Dominant idea coding
 - Not all coding ideas are fruitful



...How Users Described the Web
 User model Categories

Sample Responses

1. Structure/Connectivity	
a) Computer	<i>A way of connecting people's computers together</i>
b) Natural kinds	<i>Like a spider web</i>
c) Artifacts	<i>City of buildings</i>
2. Source or repository of information	
a) Electronic media	<i>Television</i>
b) Non-electronic media	<i>Set of encyclopedias</i>
c) Natural kinds	<i>Like a river, information is always flowing through it</i>
d) Library	
e) General source	<i>A huge source of information</i>
3. Means of communication	
a) Telephone	<i>Like a telephone</i>
b) Social gathering	<i>Like a picnic</i>
c) General communication	<i>A way to communicate</i>
4. Means of transportation	<i>Like a transit system</i>
5. Means of recreation/entertainment	<i>Like a video game</i>
6. Means of access	
a) Services	<i>Stores</i>
b) Global/general	<i>A doorway to the world</i>
7. Other	<i>Universe</i>

Writing Qualitative Research

- Writing not really different but some issues more prevalent
 - Assessment criteria to justify procedure and interpretation of results
 - Determining and documenting degree of generalization of the results
 - Presentation of procedures and analyses concisely but allowing for replication from reading written report

Summary of this Section

- Explored characteristics of qualitative research
- Examined various approaches used to carry out qualitative research
- Issues in interpreting qualitative data
- Writing report of qualitative research
- A “primer” not an exhaustive review