Fundamentals of Qualitative Research

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AIHEC NARCH Meeting
Stone Child College
May 24, 2016
Mixed Methods Design

- Good research uses both qualitative and quantitative approaches
  - Quantitative: Surveys, demographic analysis, scores on behavioral health measures, etc.
  - Qualitative: Interviews, focus groups, observation, photos, presentations
- Indigenous research is based on mixed methods, looking at multiple ways of knowing
  - Knowing how to observe, measure, analyze
  - Knowing how to listen, interpret, imagine
What is Qualitative Research

- Many scholars use the phrase qualitative inquiry as a blanket designation for all forms of social inquiry that rely primarily on qualitative data (data in the form of words but can include video, photos, artwork).

Purposes of Qualitative Research

- to understand the meanings people have constructed about their world and their experience – how do people make sense of their experience?

- purpose is understanding – this is the end in itself, it does not attempt to predict, but to understand the nature in a particular setting.
Characteristics of Qualitative Research

- The primary instrument for data collection is the researcher.
- The researcher can be immediately responsive and adaptive.
- Follows an inductive process – interpretation is drawn from the data, not by deductively testing a hypothesis (can develop hypotheses in process of doing research)
- Is richly descriptive (essential for tell our story)

(Merriam, S.B. 2002, pg. 5)
<table>
<thead>
<tr>
<th>Concept</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Natural Setting</td>
<td>Participants are free from any control &amp; data are collected in their natural environment</td>
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<tr>
<td>Holism</td>
<td>The whole is more than the sum, take magnitude of contextual factors in to account</td>
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<tr>
<td>Human as a research</td>
<td>Researcher is involved in every step being responsive, flexible, adaptive and good listener</td>
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<tr>
<td>Instrument</td>
<td></td>
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<tr>
<td>Emergent Design</td>
<td>Study design emerges as further insights are gained through data collection and analysis</td>
</tr>
<tr>
<td>Study design</td>
<td>Description</td>
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<tr>
<td>---------------------------</td>
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<tr>
<td>Ethnography</td>
<td>Portrait of people- study of the story and culture of a group usually to develop cultural awareness &amp; sensitivity</td>
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<tr>
<td>Phenomenology</td>
<td>Study of individual’s lived experiences of events-e.g. the experience of AIDS care</td>
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<tr>
<td>Grounded Theory</td>
<td>Going beyond adding to the existing body of knowledge-developing a new theory about a phenomenon-theory grounded on data</td>
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<tr>
<td>Participatory action research</td>
<td>Individuals &amp; groups researching their own personal beings, socio-cultural settings and experiences</td>
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<tr>
<td>Case study</td>
<td>In-depth investigation of a single or small number of units at a point (over a period) in time. E.g. Evaluation of a service</td>
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# Method of Data Collection

<table>
<thead>
<tr>
<th>Methods</th>
<th>Brief explanation</th>
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<tbody>
<tr>
<td><strong>Observation (field notes)</strong></td>
<td>The researcher gets close enough to study subjects to observe (with/without participation) usually to understand whether people do what they say they do, and to access tacit knowledge of subjects</td>
</tr>
<tr>
<td><strong>Interview (notes recorded and transcribed)</strong></td>
<td>This involves asking questions, listening to and recording answers from an individual or group on a structured, semi-structured or unstructured format in an in-depth manner</td>
</tr>
<tr>
<td><strong>Focus Group (notes recorded and transcribed or video)</strong></td>
<td>Focused (guided by a set of questions) and interactive session with a group small enough for everyone to have chance to talk and large enough to provide diversity of opinions</td>
</tr>
<tr>
<td><strong>Other methods</strong></td>
<td>Free listing, Pile sort, ranking, life history (biography), Photo Voice, Videos, etc.</td>
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# Types of Interview Questions

<table>
<thead>
<tr>
<th>Type</th>
<th>Question</th>
</tr>
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<tbody>
<tr>
<td>Hypothetical</td>
<td>If you get the chance to be an HIV scientist, do you think you can discover a vaccine for HIV</td>
</tr>
<tr>
<td>Provocative</td>
<td>I have heard people saying most evaluations are subjective—what do you think?</td>
</tr>
<tr>
<td>Ideal</td>
<td>In your opinion, what would be the best solution for eliminating gender-based violence?</td>
</tr>
<tr>
<td>Interpretative</td>
<td>What do you mean by good?</td>
</tr>
<tr>
<td>Provocative</td>
<td>I have heard people saying most evaluations are subjective—what do you think?</td>
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</tbody>
</table>
Field Notes

- Field notes are transcribed notes or the written account derived from data collected during observations.

- All field notes generally consist of two parts:
  - Descriptive in which the observer attempts to capture a word-picture of the setting, actions and conversations;
  - Reflective in which the observer records thoughts, ideas, questions and concerns based on the observations and interviews.

- Field notes should be written as soon as possible after the observation and/or interviews.

See handout
Qualitative Data

- Mostly in narrative form – words
- Transcription or noted from interviews, observations
- Can include photos, art work, videos
- Can include documents, articles, book sections
Qualitative Data Analysis

- Organizes the collection of data
- Involves a coding process
- Reduces the data into substantive findings
- Interprets data
Data Reduction

- Qualitative studies produce a wealth of data but not all of it is meaningful. Identify and focus in on what is meaningful.

- Organize data via coding: Comb through the raw data to determine what is significant (code word) and transform the data into a simplified format that can be understood in the context of the research questions.

- When trying to discern what is meaningful data always refer back to the research questions and use them as a framework.

- Rely on your intuition as the researcher/evaluator and the expertise of other individuals with a thorough understanding of the program.

- This process helps you hone in on specific patterns and themes of interest while not focusing on other aspects of the data.
General Steps in data reduction

- Read text, select sections, assign a code (can pre-assign codes)
- One selection could receive more than one code
- Organize the coded material into categories
- Combine categories if needed
- What story emerges (grounded theory)
- How does the data fit into your pre-conceived categories (your research interest – questions)
- Interpretation is in the researcher’s hands
Questions to ask during the data analysis process

What patterns/common themes emerge around specific items in the data?
   How do these patterns (or lack thereof) help to shed light on the broader study question(s)?

Are there any deviations from these patterns?
   If, yes, what factors could explain these atypical responses?

What interesting stories emerge from the data?
   How can these stories help to shed light on the broader study question?

Do any of the patterns/emergent themes suggest that additional data needs to be collected?
   Do any of they study questions need to be revised?

Do the patterns that emerge support the findings of other corresponding qualitative analyses that have been conducted?

This figure was adapted from the National Science Foundations' (1997) Analyzing Qualitative Data. Chapter 4 in User Friendly Handbook for Mixed Methods Evaluations.
Strategies for analyzing observations

- Chronology: describe what was observed chronologically over time, to tell the story from the beginning to the end.
- Key events: describing critical incidents or major events, not necessarily in order of occurrence but in order of importance.
- Various settings: describe various places, sites, settings, or locations in which events/behaviors of interest happen.
- People: describing individuals or groups involved in the events.
- Process: describing important processes (e.g. Control, recruitment, decision-making, socialization, communication).
- Issues: Illuminating key issues – how did participants change.
Qualitative Data Analysis Software

- Software is used for coding, creating categories, organizing the information
- Helps identify quotations that illustrate a category
- However:
  - Can be costly (although student versions exist, educational institutional pricing)
  - Takes time to learn (have tutorials)
- See the handout on popular software products
No Software

- If data is limited to interview transcriptions, use the questions as categories and place all responses under the question (note source of responses).
- Copy transcriptions, cut out sections, place on 3x5 index cards (post-it card), place cards in categories (use bulletin boards to see the array).
- Really time consuming (and takes a lot of space) so explore free software or 30 day trial downloads.
Identifying Meaningful Patterns and Themes

- In order for qualitative data to be analyzable it must first be grouped into the meaningful patterns and/or themes.
- This process is the core of qualitative data analysis.
- This process is generally conducted in two primary ways:
  - Content analysis
  - Thematic analysis
- The type of analysis is highly dependent on the nature of the research questions and the type(s) of data you collected. Sometimes a study will use one type of analysis and other times, a study may use both types.
Content Analysis

- Coding the data for certain words or content
- Identifying their patterns
- Interpreting their meanings.
- This type of coding is done by going through all of the text and labeling words, phrases, and sections of text (either using words or symbols) that relate to your research questions of interest).
- After the data is coded you can sort and examine the data by code to look for patterns.
Thematic Analysis

- Grouping the data into themes that will help answer the research question(s). These themes may be:
  - Directly evolved from the research questions and were pre-set before data collection even began, or
  - Naturally emerged from the data as the study was conducted.

- Once your themes have been identified it is useful to group the data into thematic groups so that you can analyze the meaning of the themes and connect them back to the research question(s).
Interpretation

- Interpretation is the act of identifying and explaining the core meaning of the data.
- Organizing and connecting emerging themes, sub-themes and contradictions to get the bigger picture—what it all means.
- Think how best to integrate data from multiple sources and methods.
- Make generalization—providing answers to questions of social and theoretical significance.
- Ensure credible or trustworthy interpretations.
Reporting Qualitative Research

- Describe your research questions
- Explain data gathering methods
- Describe your findings (themes, categories, etc).
- Typically use quotes from data
  - Descriptive
  - Direct link with data
  - Credibility
- Ways to use quotes
  - Illustrative
  - Range of issues
  - Opposing views
- Conclusions – suggestions for further research
Internal Validity of Qualitative Research

- **Triangulation**
  - Multiple sources (respondents, documents, observation)
  - Multiple methods (interview, survey)
  - Multiple researchers (CBR)

- **Member checks** – participants comment on your interpretation

- **Peer Review**
Application

- Stone Child Project – Piloting a three course curriculum
- Biskanewin Ishkode (Fire that is beginning to stand)
- How to find evidence that the course of study influences student understanding of Historical Trauma and behaviors related to its effects
- Research question: How do students experience the course of study?
  - Content knowledge
  - Personal change
Lots of Data

- Student ACE survey
- Student-NA pre/post survey
- Student journals
- Videos of student presentations
- Student interviews
- Student demographic information
- Course syllabus
- Instructor notes
- Instructor demographic

Where to start!!!
Create Framework – Start with research question – Student understanding & change

- Build a coding framework – it is similar to an outline
- Used Historical Trauma as one aspect of coding framework
  - Confront
  - Understand
  - Release
  - Transformation
- Course elements
  - Courses
  - Instructional methods
Demographics

- Students
  - Identifiers
  - Gender
  - Tribal status
  - Course grades

- Instructor
  - Identifiers
  - Courses taught
Use software or table of some sort to organize narrative segments into codes

- Handout with list of software – all software will explain how to code and build linkages to demographics (Dedoose used in example)
- For small projects can use tables in Word – read narrative and highlight area for coding, then assign a number to the code, select the highlighted area and put in first column on table. In columns following the first, enter the code number. You can sort the table according to your code numbers, so that all the sections you coded as “1” will be together, and do the same sort for code 2, code 3, etc. (see next slide)
- Can also do this in Excel if you have a lot of codes
- Bit time consuming, but works if only a few items to code
### Interview (identifier first name, ID number) name of interviewer, date, etc.

<table>
<thead>
<tr>
<th>Code1</th>
<th>Code2</th>
<th>Code3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
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### Narrative (transcription/notes)

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