The Nature of Qualitative Research

- Useful for describing and answering questions about participants and contexts
- Three general purposes
  - Examine participant’s perspectives toward events, beliefs, or practices
  - Explore complex research areas and understand groups or phenomena
  - Viable, alternative approach to questions that are not quantitative in nature

Range of Qualitative Approaches

- Four major designs used in education
  - Ethnography
  - Historical
  - Grounded theory
  - Action research

Ethnography

- Seeks to describe and analyze all or part of the culture of a community by identifying a describing participant’s practices and beliefs
Range of Qualitative Approaches

Ethnography (continued)
- Characteristics
  - Natural setting
  - Personal researcher-participant interaction
  - Describes participant's perspectives
  - Inductive, interactive, recursive data collection and analysis
  - Multiple data sources
  - Frames all behavior within a socio-political and historical context
  - Uses the concept of culture as a lens through which results are interpreted

Ethnographic Article Abstract
This paper reports the results of a longitudinal, ethnographic study of the psychosocial adaptation of parents of children with autism. The results indicate that most parents have experienced improvements in terms of their own psychological well-being, the social experiences of their immediate family members and their relations with members of their extended family. They also reported changes to the stressful situations they experience and their strategies for coping with them. Stigmatizing reactions of non-family members have also declined. The results were less favorable in the cases of families with aggressive and/or violent children. The parents in these families experienced high levels of stress and had few resources in terms of treatment or residential placement to deal with their situation.

Range of Qualitative Approaches
- Historical
  - Systematic collection and evaluation of data related to past occurrences for the purpose of describing causes, effects, or trends of those events
  - Characteristics
    - No manipulation or control of any variables
    - Uses pertinent documents, relics, and other data sources
    - Description and analysis of data
    - Interpretive in nature
A review of historical documents from the early 1900's in Los Angeles indicated that although mental testing played an important diagnostic role, it did not determine special class placement or establishment of special classes. Teacher referral was equally important in placement decisions.

Grounded theory

- Systematic collection and evaluation of data that aims at generating theory to explain at a conceptual level a process, action, or concept
- Characteristics
  - Begins with a unique situation to be explained
  - Use of constant comparison analysis of data
  - Inductive reasoning to develop theoretical propositions
  - Emergent design

Investigated how certified athletic trainers initially learned and continued to learn their professional responsibilities in the high school setting. Interview data highlighted two thematic categories: an informal induction process (aspects of organizational learning) and creating networks for learning. Results indicated that informal learning was critical to respondents' professional socialization process.
Range of Qualitative Approaches

- Action research
  - Systematic inquiry done by teachers or other educational personnel to collect data and study it to help understand and improve practice
  - Characteristics
    - Reflective
    - Relevant to researcher’s situation
    - Application of initial results to determine if practice or understanding has improved

Action Research Abstract

Presents an action research project that investigated reciprocal teaching’s effect on reading comprehension in the content areas. Considers reciprocal teaching’s benefits for students, instructional strategies, its effect on literature circles, and its use in content areas.

Range of Qualitative Approaches

- Five common features of all qualitative approaches
  - Sources of data are real world situations
  - Data are descriptive in nature
  - Emphasis on a holistic approach
  - Inductive analysis of data
  - Participant’s perspectives are of paramount importance
Range of Qualitative Approaches

Characteristics of good qualitative research

- Researchers take a holistic stance by looking at the whole phenomena to guide their understanding
- Researchers avoid early decisions or assumptions about the study
- Researchers focus on personal, person-to-person interactions
- Researchers spend a long time in the research setting with the participants

Characteristics of good qualitative research (cont.)

- Researchers gather data face-to-face from the participants
- Researchers remain open to alternative explanations
- Researchers describe their roles, biases, and preferences
- Methods provide clear, detailed descriptive information reflecting participant’s voices

Characteristics of good qualitative research (cont.)

- Methods focus on discovery and understanding
- Designs are flexible
- Participants agree to participate through informed consent
Range of Qualitative Approaches

Sample Research Questions (action research)
From: Learn from our journey: Reciprocal teaching action research.
- When can students best benefit from and handle reciprocal teaching?
- What instructional strategies lead students to use reciprocal teaching effectively and independently?
- Is reciprocal teaching an important strategy for students to learn before they engage in literature circles and Socratic seminars?
- Can reciprocal teaching be used both with literature and content area text?

Reviewing the Literature

- A different process than in quantitative research
- Characteristics
  - Emergent nature of the topic suggests an on-going literature review
  - Importance of the literature review varies across topics, contexts, participants, etc.

Mixed Methods Designs

- Combining the characteristics of quantitative and qualitative approaches in the same study
  - Quantitative – Qualitative
  - Qualitative – Quantitative
Selecting Participants

Ethical responsibilities

- Informed consent
  - Knowledge of the nature and purpose of the study as well as expected roles and activities
- Protection from harm
  - Anonymity — no ability to trace data to the person providing it
  - Confidentiality — identification of the participant is kept in confidence by the researcher so it is unknown to anyone else

Ethical responsibilities (continued)

- Questions to help assure ethical behavior
  - Have participants knowingly consented to participate?
  - Do participants understand what consent involves?
  - Are participants' rights and consents maintained during and after the study?
  - Were participants given a description of the study and its purpose?
  - How were the participants described?

- Were participants told what will happen to them if they agree to participate?
- Were participants told how the researcher would protect their identity?
- Were participants given information to contact the researcher or the individuals responsible for the research?
Selecting Participants

- Sample size
  - Typically small samples to enhance "depth" of understanding
- Guidelines
  - Sample relative to the extent to which participants represent the range of potential participants in the setting
  - Sample until the data collected is redundant to that which was already collected (i.e., data saturation)

Collecting Data

- Characteristics
  - The researcher is the primary source of data
  - Two major types of data collection methods
    - Observation
    - Interview
  - Multiple methods can be employed

Observation

- Types
  - Participant observation
    - Observer is actively engaged in activities at the research site
    - Advantage – easier to gain insight into the participant’s views and develop relationships with them
    - Disadvantage – potential for the researcher to lose objectivity
Observation

Types
- Non-participant observation
  - Observer watches but does not take part in activities at the research site
  - Advantage – good strategy if the researcher cannot be a participant for some reason (e.g., age, race, gender, knowledge, etc.)
  - Disadvantage – the lack of a relationship with participants can lead to misunderstandings

Observation

Other observational strategies
- Naturalistic observation - holistic inquiry about the participant’s understanding in the natural setting or environment
- Simulation observation – the researcher creates a situation to be observed and tells the participants what activities to engage in

Observation

Steps for conducting observations
- Define the observable variable
- Assess observer reliability
  - Inter-rater reliability – two observers reach agreement on what has taken place
  - Training observers
  - Monitoring observers
Observation
- Steps for conducting observations (continued)
  - Recording observations
    - Use of protocols
    - Use of timed observations
    - Observe one behavior at a time
    - Record behavior as it occurs
    - Use coding systems

Interviews
- Interviewing is a learned skill
- Complexities related to using interviews
  - Gender, cultural, or social differences between the interviewer and interviewee
  - The nature of control of the situation
  - Accuracy of responses
  - Different semantic meanings for what is said
  - Ability of the interviewer to probe effectively

Interviews
- Flexibility of format
  - Number of participants
  - Length of interview
  - Structure
Interviews

Structure – five levels
- Unstructured – exploratory and therefore focused on the interests developed during the process
- Partially structured – area is chosen and questions are formulated but ordering is flexible
- Semi-structured – questions and order are determined and followed
- Structured – questions and order are structured and interviewee’s responses are coded
- Totally structured – questions and order are structured and the interviewee chooses from among structured responses

Recording data
- Three common methods
  - Notes and video taping during the interview
  - Writing notes after the interview
  - Tape record the interview
    - Most effective due to fewer distractions during the interview
- Transcribing tapes
  - Time and effort required
  - Transcriptions become field notes

Threats to the Quality of Data

Two sources of threats
- Observer bias – invalid information resulting from the perspective of the researcher
  - Influence of an researcher’s background, personal experiences, preferences, attitudes, etc.
- Observer effect – the impact of the observer’s participation on the setting or the participants
**Threats to the Quality of Data**

- Enhancing validity and reducing bias
  - **Validity** – the extent to which the data accurately reflect the participant’s true perspectives and beliefs

**Strategies**
- Spend an extended time in the field
- Include additional participants to broaden representativeness of the study
- Obtain participant trust
- Recognize one’s own biases and preferences
- Work with another researcher and independently collect and compare data from subgroups

**Strategies (continued)**
- Allow participants to review and critique field notes and tape recordings
- Use verbatim accounts of observations and interviews
- Record one’s own reflections in a separate journal
- Examine unusual or contradictory results
- Triangulate using different data sources
Data Analysis After Data Collection

- Inductive nature of data analysis
  - Large amount of data to analyze
  - Progressively narrowing data into small groups of key data
  - Multi-staged process of organizing, categorizing, synthesizing, interpreting, and writing
  - General guidelines and strategies but few specific rules

Data Analysis After Data Collection

- Iterative process focused on
  - Becoming familiar with the data and identifying potential themes
  - Examining the data in-depth to provide detailed descriptions of the setting, participants and activities
  - Coding and categorizing data into themes
  - Interpreting and synthesizing data into general written conclusions

Classifying and Interpreting Data

- Three analytic strategies
  - Negative case
  - Analytic induction
  - Constant comparison
Classifying and Interpreting Data

- Negative case – the process of examining data that contradicts an emerging category
  - Provides a different perspective
  - Provides an important check to balance the tendency to stay with first impressions
- Analytic induction – the process of examining data to develop or test a theory
  - Four stages
    - Start with a preliminary focus or explanation of a phenomena
    - Develop a hypothesis that explains data
    - Collect data to test the hypothesis
    - Accept or reformulate the hypothesis
  - Data are continuously gathered until no contradictory data is found

Classifying and Interpreting Data

- Constant comparison
  - Constantly comparing identified ideas and concepts to determine their distinctive characteristics so they can be placed in different appropriate categories
  - Iterative in nature
  - Ongoing throughout the entire research process

Evaluating the Quality of Data

- Data quality
  - Six questions
    - Are the data based on one’s own observations, or is it hearsay?
    - Is there corroboration by others of one’s observation?
    - In what circumstances was an observation made or reported?
    - How reliable are those providing the data?
    - What motivations might have influenced a participant’s report?
    - What biases might have influenced how an observation was made or reported?
Evaluating the Quality of Data

- Credibility
  - The extent to which the concepts used to describe the study are congruent with the data selected to gather information about the concepts
- Strategies
  - Prolonged engagement
  - Peer examination of meanings
  - Triangulation – cross validation that seeks regularities in the data by comparing different participants, settings, and methods to identify recurring results

Evaluating the Quality of Data

- Transferability – generalizing the results to other contexts
- Including in the report a methods section that describes in-depth the processes and methods used by the researcher

The Research Report

- Sections
  - Introduction – purpose and focus, literature, background
  - Main body – descriptions of data, collection methods, descriptions of participants and context, development of categories and patterns, data analysis
  - Conclusions – major interpretations and findings