Qualitative Research and Its Practical Applications

INTRODUCTION

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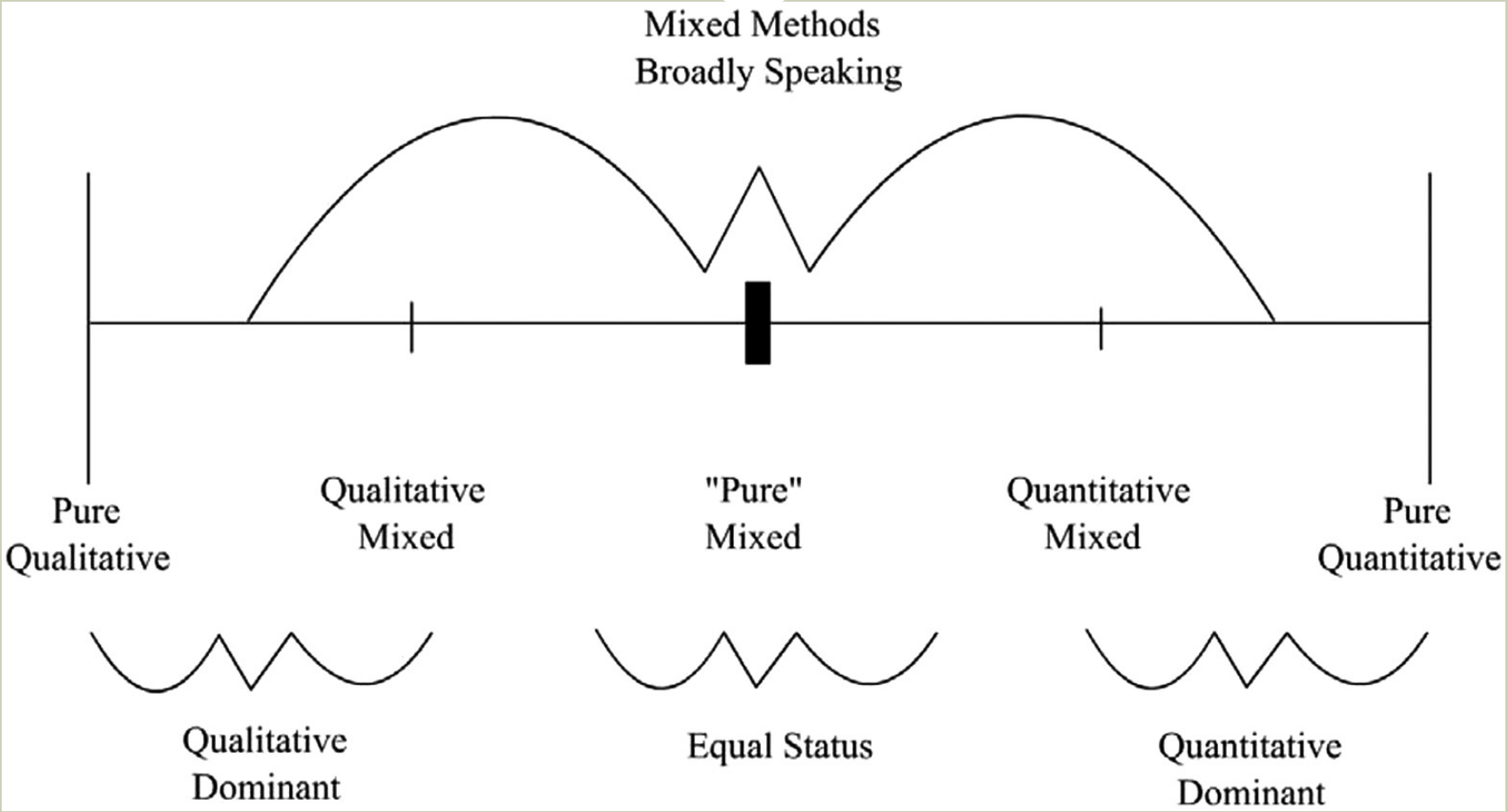

Source: Johnson, Onwuegbuzie, & Turner (2007), Towards a definition of mixed methods research, Journal of Mixed Methods Research, 1, (2), April, 112-133

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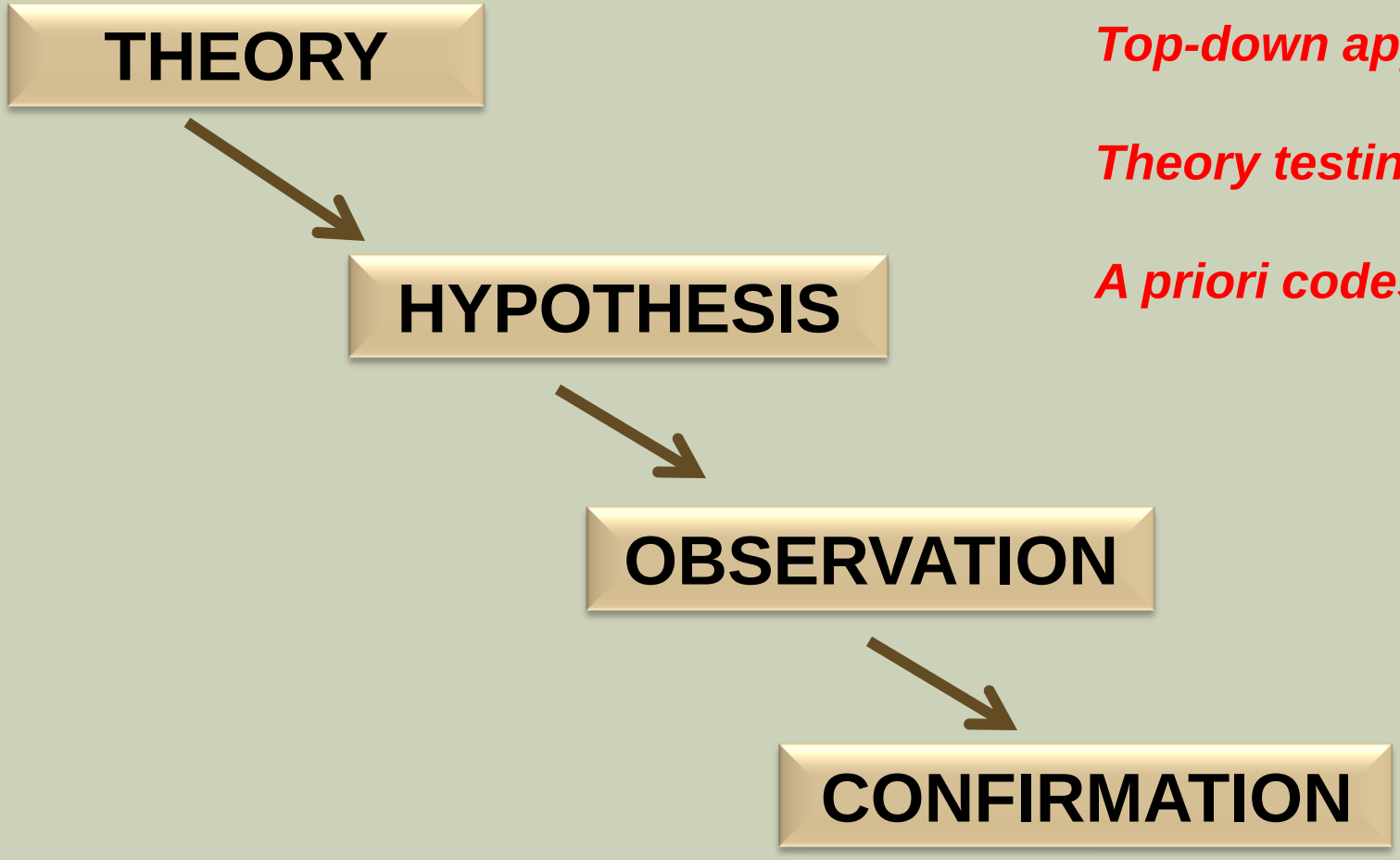

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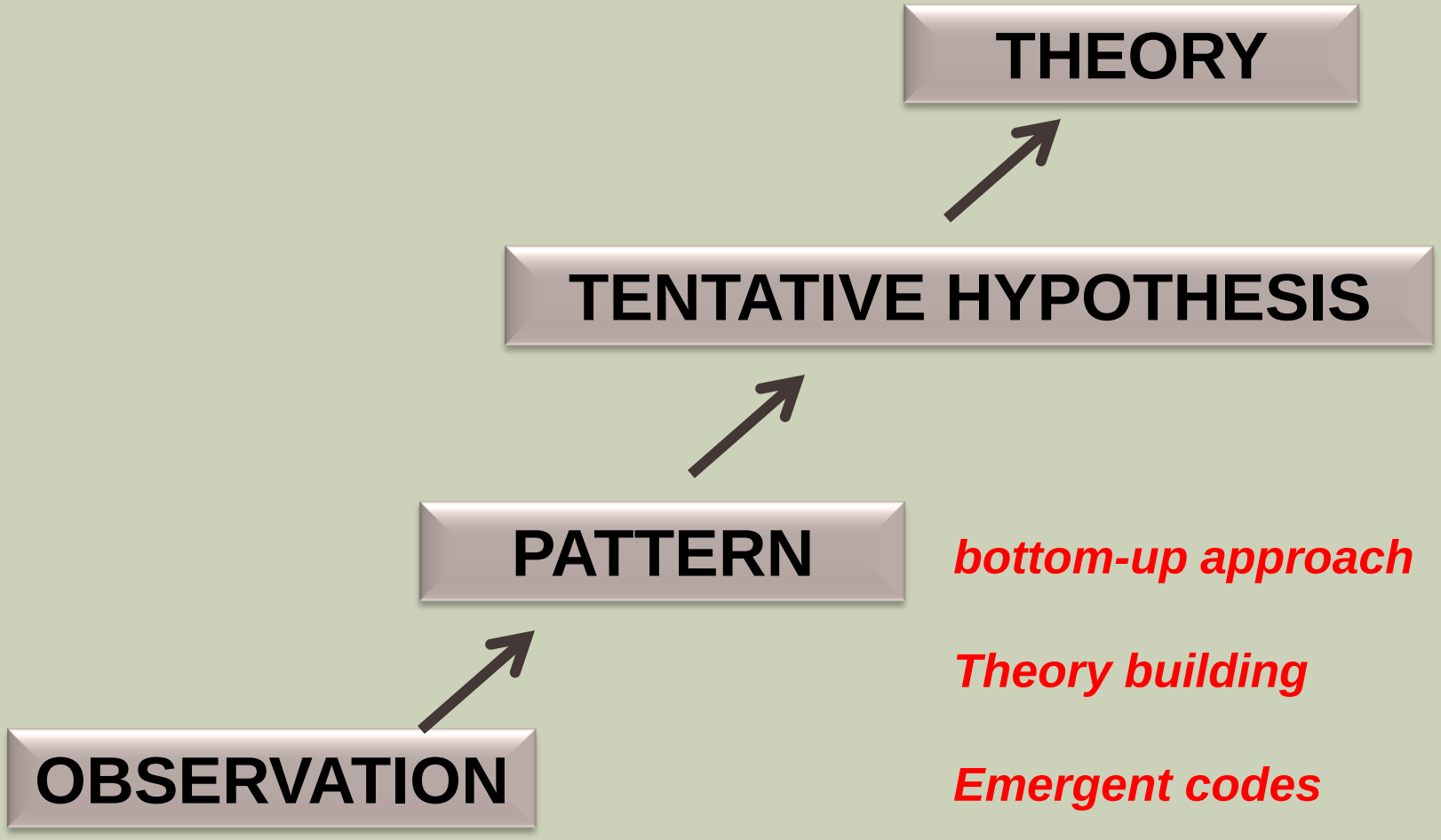
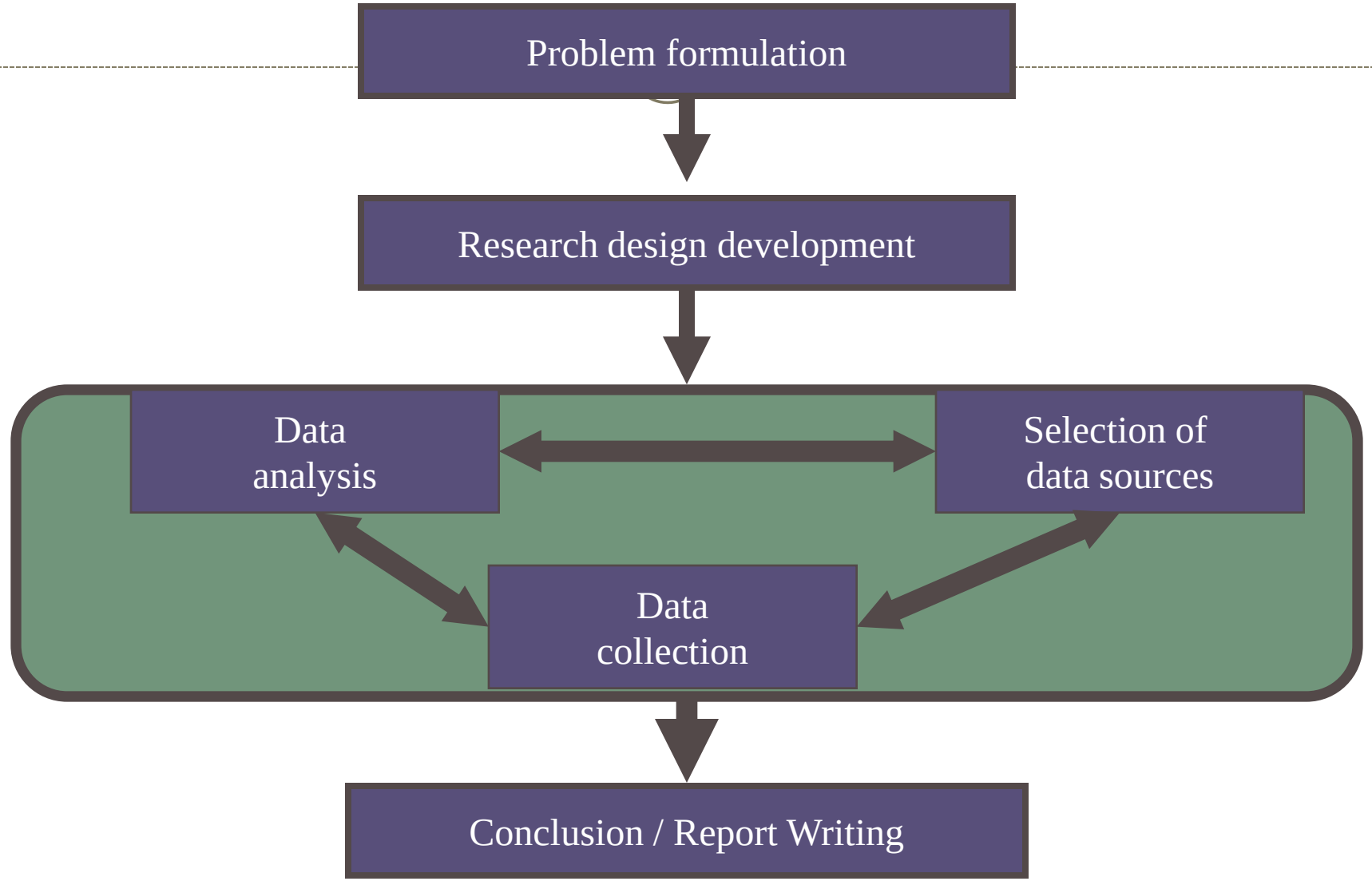


Major Steps in Conducting Research



Qualitative Research

What is Qualitative Research?

- **A. Key Terms**
  - 1. **Research:** Inquiring into, or investigating something in a systematic manner
  - 2. Two types of research:
    - ***Basic research:*** Motivated by intellectual interest in a phenomenon; has as its goal the extension of knowledge
    - ***Applied research:*** Undertaken to improve the quality of practice of a particular discipline; to improve the way things are done

What is Qualitative Research?

- 3. Basic research seeks to confirm or build theory
- 4. **Theories** are an arranged set of concepts to define & explain some phenomenon
  - - contain plausible relationships
  - - provide a footing for considering the world
  - --basis for considering how the unknown may be organized

What is Qualitative Research?

- **Three general types of research methodologies or approaches**
  - 1. Quantitative—uses numbers to explore and/or explain phenomenon
  - 2. Qualitative—uses words
    - No common definition
    - Interpretative
  - 3. Critical—uses criteria
    - Subjective judgments
    - Understand text meanings

What is Quantitative Research?

- Quantitative research involves the systematic empirical investigation of the relationships of quantitative phenomena
  - 1. Develops & employs mathematical models, theories, and/or hypothesis for the topic being examined
  - 2. The measurement process is crucial, involving the fundamental connection between empirical observation & a mathematical expression of numerical relationships

What is Qualitative Research?

Definition

‘Qualitative data refers to all non-numeric data or data that have not been quantified and can be a product of all research strategies’

Saunders *et al*. (2009)

What is Qualitative Research?

- "Qualitative Research, with its focus on the experiences of people, stresses the uniqueness of individuals…qualitative researchers collect data from their respondents, often in their natural environments, taking into account how cultural, social and other factors influence their experiences and behaviour" (Parahoo 1997)

QDA is usually based on an interpretative philosophy. The idea is to examine the meaningful and symbolic content of qualitative data. By analysing interview data, the researcher may be attempting to identify any or all of:

- Someone's interpretation of the world,
- Why they have that point of view,
- How they came to that view,
- What they have been doing,
- How they conveyed their view of their situation,
- How they identify or classify themselves and others in what they say,

Definitions

- “Qualitative research is a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that make the world visible. These practices transform the world. They turn the world into a series of representations, including field notes, interviews, conversations, photographs, memos and recordings to the self”
- (Denzin and Lincoln, 2005, p.3)

Definitions

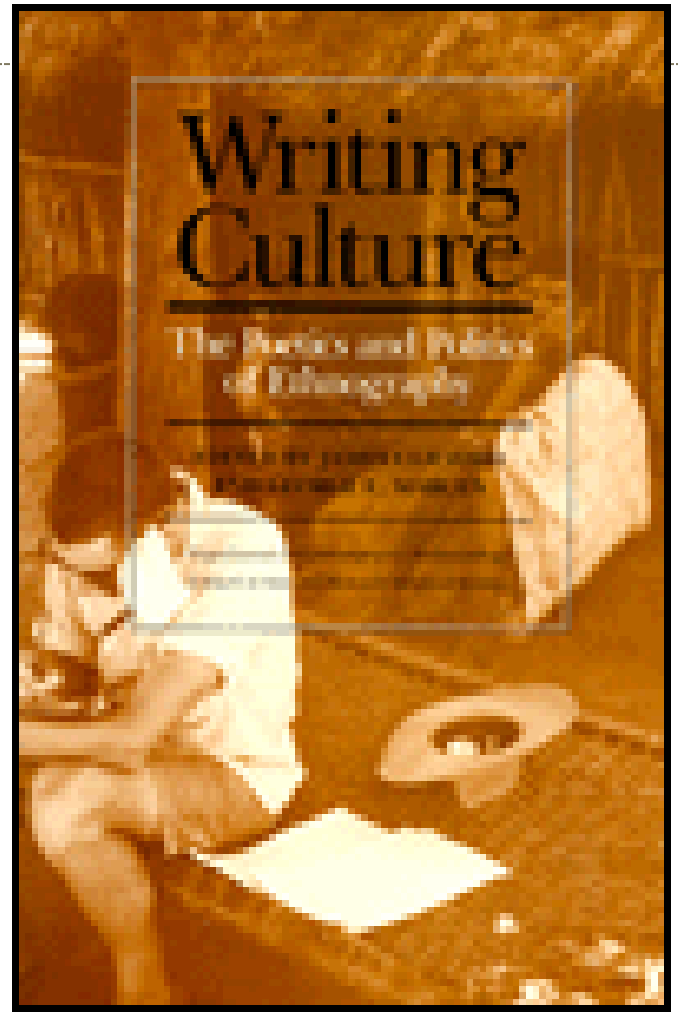
"Qualitative research begins with assumptions, a worldview, the possible use of a theoretical lens, and the study of research problems inquiring into the meaning individuals or groups ascribe to a social or human problem. To study this problem, qualitative researchers use an emerging qualitative approach to inquiry, the collection of data in a natural setting, sensitive to the people and places under study, and data analysis that is inductive and establishes patterns or themes. The final report or presentation includes the voices of the participants, the reflexivity of the researcher and a complex description and interpretation of the problem, and it extends the literature or signals a call for action" Creswell, p. 36, 2007.

WHAT IS QUALITATIVE RESEARCH?

- The term, qualitative, includes a philosophical approach to research, a type of research methodology, & specific research techniques
  - 1. Qualitative research aims to understand how people in everyday settings create meanings & interpret the events of their world
  - 2. Qualitative inquiry often naturalistic--focuses on how people behave when absorbed in real life experiences in natural settings

Qualitative Research

- The basis of qualitative research: “the observer went to a foreign setting to study the customs and habits of another society and culture….”born out of concern to understand the other”.
- Research is firmly grounded in Western traditions (the investigative mentality)



Qualitative Research Strategies:

Observations
Interviews
Cases studies

Step 1

These often involve face-to-face interactions beteen researcher and participant

The researchers need to be flexible and sensitive to the needs of the social context within which the data is obtained.

Step 2

The data is then analysed and interpreted. To look for themes is more common than trying to confirm a hypothesis.

Qualitative – words and anlysis
Quantitative – numbers- easy to summarize and use in statistics. Meant for generalization beyond the sample from which the data is drawn.

Gathered through direct interaction with participants. Open-ended and flexible ”rich data”

‘Qualitative Data Analysis (QDA) is the range of processes and procedures whereby we move from the qualitative data that have been collected, into some form of explanation, understanding or interpretation of the people and situations we are investigating’.

What is Qualitative Research?

- For Lindlof & Taylor (2011), qualitative research is caught up in the performances & practices of everyday communication: “Through them, we enact the meanings of our relationships in various contexts” (p. 4)
- Qualitative Research can be seen as “an attempt to understand how people make sense of their world” (Van Maanen, 1979, p. 520)
- This leads to the ability to study nearly any communicative act

What is qualitative research?

Qualitative research is a type of scientific research that:

- seeks answers to a question
- systematically uses a set of procedures to answer the question
- collects evidence
- produces findings that were not determined in advance
- produces findings that are applicable beyond the immediate boundaries of the study

What is Qualitative Research?

What are you curious about?

What questions do you have about your area of study?

How might you go about answering your questions?

Qualitative Research

- Qualitative research questions tend not to ask whether or how much but rather;
  - What
  - Why
  - How
- Qualitative research offers insight into social, emotional, and experiential phenomena.
- Qualitative reports do not typically generate answers but rather generate narrative accounts, explanations, conceptual frameworks.

Qualitative questions

- Qualitative research is concerned with developing explanations of social phenomena. That is to say, it aims to help us to understand the world in which we live and why things are the way they are. It is concerned with the social aspects of our world and seeks to answer questions about:
  - Why people behave the way they do
  - How opinions and attitudes are formed
  - How people are affected by the events that go on around them
  - How and why cultures have developed in the way they have
  - The differences between social groups
- Qualitative research is concerned with finding the answers to questions which begin with: why? how? in what way? Quantitative research, on the other hand, is more concerned with questions about: how much? how many? how often? to what extent?

Qualitative research

- seeks to understand a given research problem or topic **from the perspectives of the local population** it involves
- is especially effective in obtaining culturally specific information about the **values, opinions, behavior, and social contexts of a particular population**

Qualitative Research

- Seeks to explore phenomena
- Instruments use flexible, iterative style of eliciting and categorizing responses to questions
- Use semi-structured methods such as in-depth interviews, focus groups, and participant observation
  - To describe variation
  - To describe and explain relationships
  - To describe individual experiences
  - To describe group norms
- Open-ended Questions
- Textual (obtained from audiotapes, videotapes, and field notes)
- Flexibility (the addition, exclusion or wording of interview questions)
- Participant responses affect how and which questions researchers ask next
- Study design is iterative - data collection and research questions are adjusted according to what is learned

Advantages of Qualitative Methods for Exploratory Research

1. Open-ended questions and probing give participants the opportunity to respond in their own words, rather than forcing them to choose from fixed responses
2. Open-ended questions evoke responses that are:
   - meaningful and culturally salient to the participant
   - unanticipated
   - rich and explanatory
3. The researcher has the flexibility to probe initial participant responses – to ask why or how. The researcher engages with the participant according to their individual personalities and styles, and use "probes" to encourage them to elaborate on their answers.

What can we learn from qualitative research?

- complex textual descriptions of how people experience a given research issue
- the "human" side of an issue – the often contradictory behaviours, beliefs, opinions, emotions, and relationships of individuals
- intangible factors, such as social norms, socioeconomic status, gender roles, ethnicity, and religion, whose role in the research issue may not be readily apparent.

Qualitative Research

- Qualitative research is inquiry-guided, inductive, and descriptive.
- Similar to an anthropologic or sociologic descriptive study.

QUALITATIVE RESEARCH

- Research techniques that allow a researcher to obtain elaborate interpretations of market phenomena without depending on numerical measurements.

Characteristics

1. Uses small versus large samples
2. Emphasizes unstructured (broad range of) versus structured questioning methods
3. Involves subjective interpretation rather than "objective" statistical inference; is researcher-dependent
4. Has an exploratory purpose rather than descriptive and conclusive

Characteristics of Qualitative Research

- 1. Purpose: Understanding - Seeks to understand people's interpretations
- 2. Reality: Dynamic - Reality changes with changes in people's perceptions
- 3. Viewpoint: Insider - Reality is what people perceive it to be
- 4. Values**:** Value bound – Values have an impact & should be taken into account when conducting & reporting research

Characteristics of Qualitative Research

- 5. Focus: Holistic - A total or complete picture is sought
- 6. Orientation: Discovery – Theories & hypotheses evolve from data as collected
- 7. Data: Subjective - Data are perceptions of the people in the environment
- 8. Instrumentation: Human – The person is the primary collection instrument

Characteristics of Qualitative Research

- 9. Conditions: Naturalistic - Investigations are conducted under natural conditions
- 10. Results: Valid - focus is on procedures to gain "real," "rich," & "deep" data
- 11. Qualitative research is all about exploring issues, understanding phenomena, & answering questions

Competencies for Qualitative Researcher

- 1. A questioning stance with regard to your work & life
- 2. Curiosity about why are things the way they are
- 3. High tolerance for ambiguity & flexibility
- 4. Being a careful observer

Competencies for Qualitative Researcher

- 5. Asking good questions
- 6. Ability to draw out people & facilitate communication
- 7. Thinking inductively—ability to move from raw data to categories & concepts
- 8. Strong writing capabilities

Advantages of Qualitative Research

- 1. Produces more in-depth, comprehensive information
- 2. Uses subjective information & observation to describe the context of the variables under consideration, as well as the interactions of the different variables in context
- 3. Seeks a wide understanding of the entire situation
- 4. Provides rich, detailed data about a situation

Disadvantages of Qualitative Research

- 1. Subjectivity of the inquiry creates difficulties in establishing reliability & validity of procedures & data
- 2. Difficult to prevent or detect researcher-induced bias
- 3. Scope is limited due to the required in-depth, comprehensive data gathering approaches
- 4. Unable to generalize results

What can it be used for?

QUALITATIVE RESEARCH IS USED TO ASCERTAIN PEOPLE'S

- FEELINGS
- OPINIONS
- BEHAVIOURS – REASONS FOR
- ATTITUDES/ BELIEFS
- PROBLEMS
- AREAS OF NEED/ GAPS IN SERVICES

THE DISTINCTION BETWEEN QUALITATIVE AND QUANTITATIVE RESEARCH

COMPARING QUALITATIVE TO QUANTITATIVE RESEARCH

- Bernard & Ryan (2010) have a different comparative grid, with four quadrants:

	Qualitative Data	Quantitative Data
Qualitative Analysis	A. Interpretive textual studies	B. Search for meaning expressed via numbers
Quantitative Analysis	C. Word analysis with numbers	D. Statistical analysis of numeric data

Qualitative vs. Quantitative Research

- Qualitative research **takes place in the real world**, as opposed to the laboratory, and deals with **how people give meaning to their own experience**
- Then it is followed by an attempt to **interpret** the behaviour and the meanings that people have given to their experience
- The objective of qualitative research is to describe and possibly explain events and experiences

Qualitative vs. Quantitative Research

- Qualitative research is research *primarily* involving the collection and analysis of non-numerical data
- On the other hand, quantitative research is research *primarily* involving the collection and analysis of numerical data

Qualitative vs. Quantitative Research

- Both follow the same major steps in carrying out a research study
- However, due to the nature of the data collected, important differences in how these steps are executed

COMPARING QUALITATIVE TO QUANTITATIVE RESEARCH

- Wimmer & Dominick note differences in science (quantitative) & interpretive (qualitative) research:
- A. The role of the researcher:
  - 1. Science strives for objectivity, with researcher separated from the data.
  - 2. Interpretive researchers are integral to the data (to varying degrees of participation).
- B. The research design:
  - 1. Predetermined in scientific research.
  - 2. In interpretive research, can be modified or changed as the study progresses.

COMPARING QUALITATIVE TO QUANTITATIVE RESEARCH

- C. The research setting:
  - 1. Science seeks to control the setting as much as possible, even in field research
  - 2. Science limits confounding variables that might influence generalizability and/or validity of the results
  - 3. Interpretative research influenced by the belief that phenomenon should be studied in its natural context

COMPARING QUALITATIVE TO QUANTITATIVE RESEARCH

- D. The use of measurement instruments:
  - 1. In science, instruments are separate from researcher
    - a. Usually quantifiable
    - b. Aim for replicability
  - 2. In interpretative research, the researcher is the instrument
    - a. Non-quantifiable
    - b. Exact replication is not possible (nor is it desired)

COMPARING QUALITATIVE TO QUANTITATIVE RESEARCH

- E. Building theory:
  - 1. Science research tests, supports, or rejects theory.
  - 2. For interpretive research, theory is "data driven"--emerges as the data is collected.
    - a. Not seeking causal explanations
    - b. Discover or infer patterns in the data
    - c. Thus primarily descriptive (in contrast to critical work, which is more prescriptive)

COMPARING QUALITATIVE TO QUANTITATIVE RESEARCH

- F. Reliability & validity in data analysis:
  - 1. Different connotations in interpretive research vs. science
    - a. Confidence in process of inquiry
    - b. Decide whether or not to believe the research conclusions
  - 2. Behavior & perceptions change over time, thus the types of reliability & validity used in science are inappropriate

COMPARING QUANTITATIVE & QUALITATIVE APPROACHES

- Philosophical Differences

	QUANT	QUAL
Reality	Objective	Subjective
Ways of "Knowing"	Deductive	Inductive
Value Base	Researcher Detached	Researcher Engaged
Application	Generalization	In-depth understanding

Perceptions of Reality

- Quantitative
  - People share common experiences that can be described objectively
- Qualitative
  - People have unique experiences that can only be described subjectively by individuals

Ways of "Knowing"

- Quantitative
  - Knowledge is gained by closely examining specific parts of the experiences of many cases
- Qualitative
  - Knowledge is gained by closely examining whole experiences of just a few cases

Value Bases

- Quantitative
  - Researcher "suspends" all values and offers no personal meaning to the research participants or the data collected; Researcher and "subject" are separate
- Qualitative
  - The researcher attends to his or her personal values and their influence on the research process; Researcher and "research participant" are interconnected

Applications

- Quantitative
  - Research results are generalized to representative populations; “average” experiences for large groups of people are reported
- Qualitative
  - Research results give in-depth understanding of a few; detailed description is presented

Similar Features

- Quantitative and qualitative research approaches also have features in common:
  - Both use diligent research processes
  - Both are tools for studying social problems

Two basic types of research:
Descriptive and Measurement-based

Qualitative research:	Quantitative research:
1. concerned with understanding human behavior from the researcher's frame of reference;	1. concerned with facts or causes of behavior without regard to the subjective state of the individual;
2. naturalistic and uncontrolled observation;	2. obtrusive and controlled measurement;
3. subjective;	3. objective;
4. close to the data;	4. removed from the data;
5. discovery-oriented, exploratory, descriptive;	5. verification-oriented, reductionist, inferential, hypothetical;
6. inductive;	6. deductive;
7. process oriented	7. outcome oriented
8. valid: "real", "rich", "deep" data;	8. reliable: "hard", replicable data;
9. Un-generalizable case studies;	9. generalizable multiple case studies;
10. dynamic reality.	10. stable reality.

Qualitative vs. Quantitative Research

	Qualitative Research	Quantitative Research
Purpose	Discover ideas	Test hypotheses or specific research questions
Approach	Observe and interpret	Measure and test
Data Collection Methods	Unstructured; free-forms	Structured; response categories provided
Researcher Independence	Researcher is intimately involved; results are subjective	Researcher is uninvolved; results are objective
Sample	Small samples – often natural setting	Large samples to allow generalization
Most often used in:	Exploratory research designs	Descriptive and causal research designs

Qualitative vs. Quantitative Research

	Qualitative Research	Quantitative Research
Objective	To gain a qualitative understanding of the underlying reasons and motivations	To quantify the data and generalize the results from the sample to the population of interest
Sample	Small number of non-representative cases	Large number of representative cases
Data Collection	Unstructured	Structured
Data Analysis	Non-statistical	Statistical
Outcome	Develop an initial understanding	Recommend a final course of action

PHASES OF THE QUALITATIVE RESEARCH APPROACH

PHASES OF THE QUALITATIVE RESEARCH APPROACH

- Phase 1: Problem Identification
- Phase 2: Question Formulation
- Phase 3: Designing the Research Study
- Phase 4: Collecting the Data
- Phase 5: Analyzing Data
- Phase 6: Interpreting Data
- Phase 7: Presentation of Findings
- Phase 8: Dissemination of Findings

Phase (1) Problem Identification & (2) Question Formulation

- Inductive process
- Key concepts are arranged into questions to set flexible boundaries for the researcher as he/she studies the problem
- "Working hypotheses" are used by the researcher to refine ideas or concepts throughout the research process
- Research questions evolved throughout the research process (i.e., the phases)

Phase 3: Designing the Research Study

- Sample: made up of carefully selected cases (nonprobability)
- Case study design
  - A case may be defined as an individual, group, community, organization, or event
  - Study the social problem (or phenomenon) in the natural context of the case

Phase 3: Designing the Research Study

- Ethnography – a branch of interpretive (qualitative) research that emphasizes the study of a culture from the perspective of the people who live the culture
- Phenomenology – another branch that emphasizes a focus on people's subjective experiences and interpretations of the world. It accounts for the subjective experiences of both the researcher and research participant(s)

Phase 4: Collecting the Data

- The researcher is an “instrument” of data collection
- Data collection is an interactive process between researcher and research participant
- Researcher bias is recognized as part of the process

Phase 5 and 6: Analyzing and Interpreting the Data

- Qualitative data are typically in text form.
- In the analysis, you aim to:
  - Reveal the true expressions of research participants
  - Explanations should be in accordance with the beliefs and experiences of the research participants
  - “walk the walk” and “talk the talk” of the research participants

Phases 7 and 8: Presentation and Dissemination of Findings

- Qualitative research reports are typically lengthy
- Data are typically presented in the form of quotes or summary notes

USING BOTH APPROACHES IN A SINGLE STUDY

- Qualitative and quantitative research approaches can be combined in a single study
- The approach you select (qualitative, quantitative, or combined) is guided by the purpose of your study (Steps 1 and 2 of the quantitative research approach and Phases 1 and 2 of the qualitative research approach)

Qualitative research is complementary to quantitative research. Both processes produce different kinds of knowledge that are valued by the profession and both are needed to promote excellence in practice

SUMMARY

- Qualitative research is a respected approach to knowledge building.
- Qualitative and quantitative research are complementary but are based on divergent principles.

SUMMARY

- In summary—“Whereas quantitative research attempts to gather data by objective methods, to provide information about relations, comparisons, & predictions, and attempts to remove the investigator from the investigation, the researcher is an integral part of qualitative research.” (Smith, 1983)

Qualitative Research Methodologies

Qualitative Methodologies

These include:

- **Grounded Theory**
- **Thematic analysis**
- **Content Analysis**
- **Discourse Analysis**
- **Case Studies**

…and more

Qualitative Methodologies Cont.

Grounded theory- A research method in which the theory is developed from the data, rather than the other way around. That makes this an inductive approach, meaning that it moves from the specific to the more general.

- The method of study is essentially based on three elements: concepts, categories and propositions, or what was originally called “hypotheses”. However, concepts are the key elements of analysis since the theory is developed from the conceptualization of data, rather than the actual data.

Grounded Theory

- Inductive investigation process in which the researcher uses empirical evidence to develop a theory for explaining a given phenomenon
- Researcher repeatedly poses questions about the observed evidence and uses the responses to develop a deeper explanation (theory)
- Particularly applicable in dynamic situations involving significant change – where new insights are needed to explain phenomena that have not been previously encountered

Grounded Theory

- Focuses on development of theory based on data systematically collected and analyzed
- Constant comparative analysis used in deriving theory based on cases
- Aim is to develop generalizable theory through multiple comparisons across situations

Qualitative Methodologies Cont.

- **Thematic analysis-** Focuses on identifiable themes and patterns of living and/or behaviour. From the conversations that take place in a therapy session or those that are encouraged for the sake of researching a process, ideas emerge that can be better understood under the control of a thematic analysis.

Qualitative Methodologies Cont.

- **Content Analysis-** Is doing the word-frequency count. The assumption made is that the words that are mentioned most often are the words that reflect the greatest concerns.
- **Discourse Analysis-**. Discourse analysis focuses on talk and texts as social practices, and on the resources that are drawn on to enable those practices. For example, discourse analytic studies of racism have been concerned with the way descriptions are marshalled in particular contexts to legitimate the blaming of a minority group (Potter and Wetherell, 1988),

Case Studies

- Documented history of a particular person, group, organization, or event.
- This intense examination of one or a few situations typically:
  - Involves in-depth investigation and careful study
  - Requires cooperation from the investigated subjects (cases)
- Case analyses are used to develop themes that can help explain a phenomenon
- Used extensively in business research and teaching

The Case Study

- Focuses on individual cases and what can be learned from an in-depth analysis of these
- The definition of a 'case' can vary significantly – this can be, for example:
  - A single teacher
  - A school of teachers
  - A school district
- In a typical single case study, only one example is studied to investigate a phenomenon of interest
- In a collective case study, several examples are studied to investigate a phenomenon (allows cross-case comparisons)

Ethnography (Participant Observation/Naturalistic Inquiry)

- Complete observer
  - Behind one-way mirror, invisible role
- Observer as participant
  - Known, overt observer
- Participant as observer
  - Pseudo-member, research role known
- Complete participant
  - Full membership, research role not known (eg Bryn Roberts PhD)

Action Research

- Generally grounded in professional practice
- Primary goal is to improve practice, develop effective interventions, and promote and evaluate change processes
- Is done in a cyclical manner – alternating phases of action and reflection: both doing and inquiring

Qualitative Research Designs

Research design development:

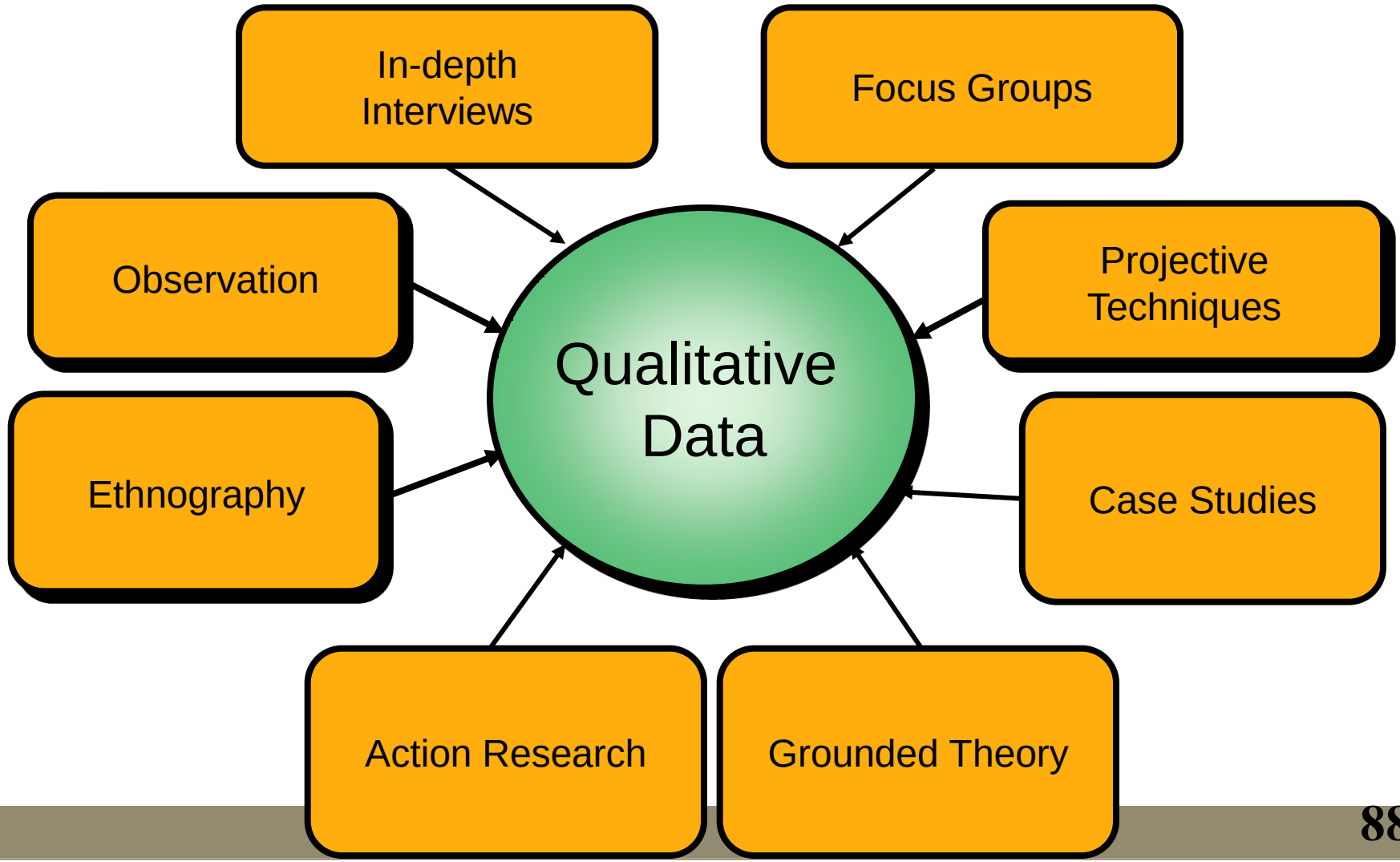
Qualitative Research	Quantitative Research
• Participant observation • Focus group research • Case studies • In-depth interviews • Typically no comparison groups • Research design modified as it is implemented	• Survey • Numerical databases • Comparison groups • Research design predetermined

Type of Research Design

Quantitative, Qualitative and Mixed Methods

Quantitative research Methods	Qualitative research Methods	Mixed Methods Research Methods
• Experimental designs •Non-Experimental designs, such as survey	• Narratives •Phenomenologies •Ethnographies •Grounded theory •Case Studies	• Sequential •Concurrent •Transformative

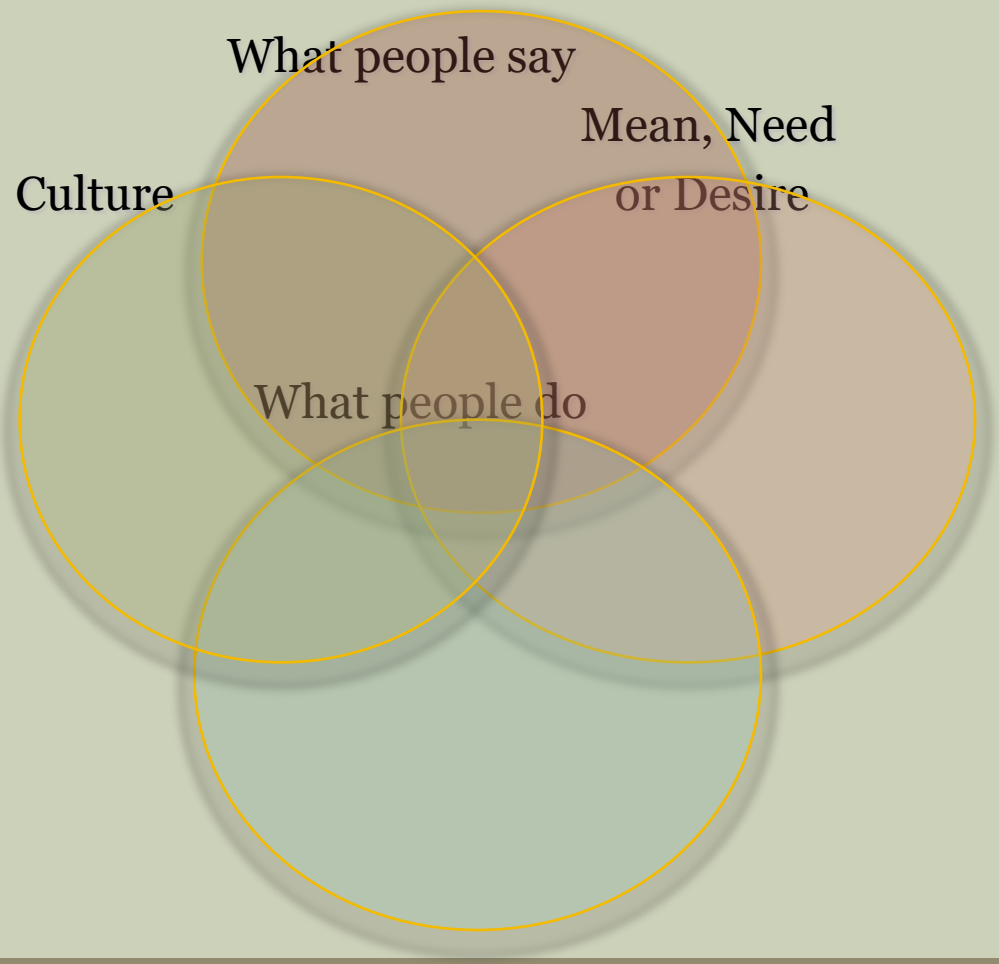
Qualitative Research Designs



Role of Researcher

- Is the primary data collection tool
- Enters the world for an extended period of time, asking questions, observing, participating, & collecting whatever data are available
- Observe behavior but go beyond it to inquire about the meaning of it
- researcher's role is to make inferences from their observations & then to test these inferences over time with their population until they are confident they have an adequate description of the culture
- Must set aside biases & explicate beliefs

Multiple Foci for Qualitative Research:



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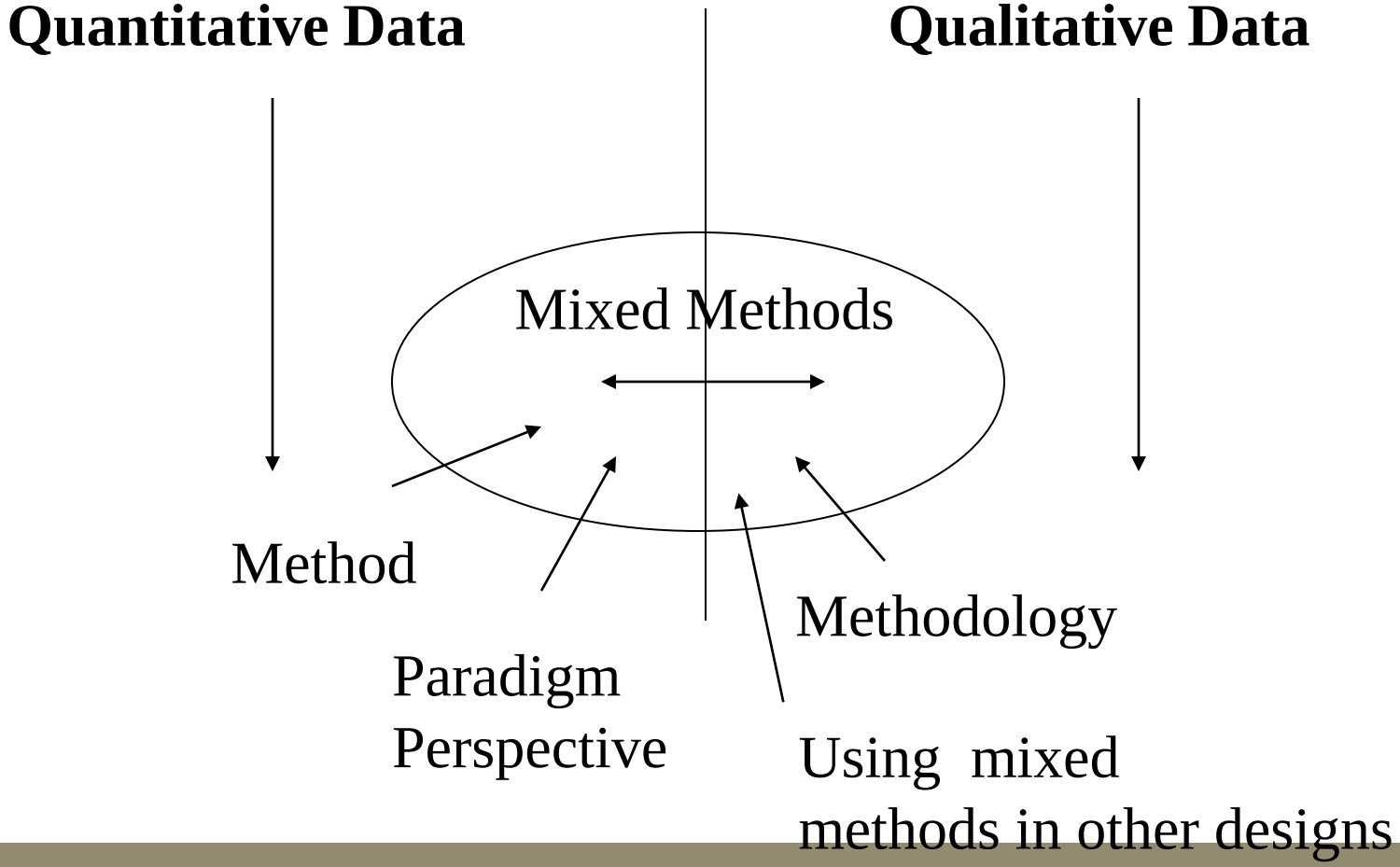


Six core characteristics of mixed methods research

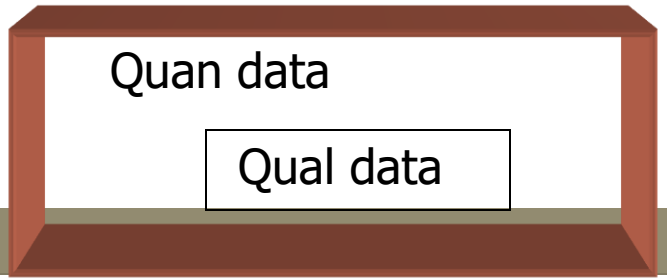
- The collection of both qualitative and quantitative data (open- and closed-ended) in response to research questions
- The analysis of both qualitative and quantitative data
- Persuasive and rigorous procedures for the qualitative and quantitative methods
- The integration of these two data sources (merging, connecting, embedding)
- The use of a specific mixed methods design that involves a concurrent or sequential integration (and equal or unequal emphases)
- An approach to research that has a philosophical foundation

"Mixing" the two types of data… timing, implementation, priority

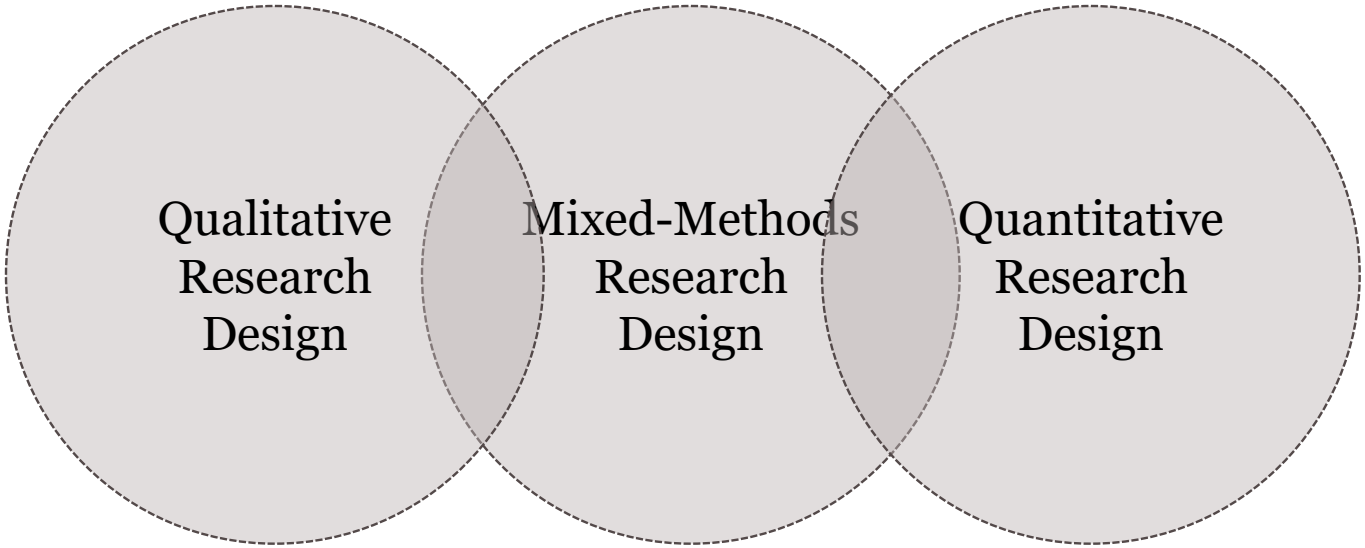
Converge data:

Connect data:

Embed the data:



Challenge: Mixed-Methods Research Designs



Typical Scenarios:

- Surveys and focus groups data are merged and compared.
- Survey is first completed and then focus groups used as a follow-up to explain the quantitative results.
- Focus groups are first conducted. Information learned is then used to construct an instrument for a follow-up with a random sample.
- An experiment is conducted and qualitative data are collected before the experiment begins and after the experiment has concluded.
- A longitudinal study is underway with multiple studies organized to address a single overarching research objective. The studies are both quantitative and qualitative .

Thanks