

# Research Methods

## Qualitative Research I

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### Is it an Elephant?

- ▶ Yes it is.
- ▶ No it isn't
- ▶ I do not know what an elephant is
- ▶ It has four legs – it's an animal
- ▶ Wow, it's big
- ▶ Ted has taken my pencil
- ▶ I want to go home ....

## Quantitative and qualitative research methods differ primarily in:

- Purpose
- Research Questions
- Types of data collection instruments
- Analytical objectives

Also differ in:

- the forms of data they produce
- the degree of flexibility built into study design
- the types of questions they pose

### COMPARISON OF QUANTITATIVE AND QUALITATIVE RESEARCH APPROACHES

#### PURPOSE

Quantitative

- ▶ Seek to confirm hypotheses about phenomena
- ▶ predict & control, probability & outcomes based

Example...

Qualitative

- ▶ Seek to explore phenomena
- ▶ understand the lived experience of people

Example...



## COMPARISON OF QUANTITATIVE AND QUALITATIVE RESEARCH APPROACHES **RESEARCH QUESTIONS**

### Quantitative

- ▶ Specific, detailed research questions  
In the interest of the researcher

- Example...

### Qualitative

- ▶ Open, general, flexible questions,  
aiming to capture the participants'  
“worldview”

- Example...



## COMPARISON OF QUANTITATIVE AND QUALITATIVE RESEARCH APPROACHES **DATA COLLECTION METHODS**

### Quantitative

- ▶ Use highly structured methods  
such as questionnaires, surveys, and  
structured observation

- Example...

### Qualitative

- ▶ Use semi-structured methods such  
as in-depth interviews, focus groups,  
participant observation, analysis of  
documents, case studies

- Example...



COMPARISON OF QUANTITATIVE AND QUALITATIVE  
RESEARCH APPROACHES  
**ANALYTICAL OBJECTIVES**

Quantitative

- ▶ To quantify variation
- ▶ To predict causal relationships
- ▶ To describe characteristics of a population

- Example...

Qualitative

- ▶ To describe variation
- ▶ To describe individual experiences
- ▶ To describe group norms

- Example...



- ▶ The purpose of this ..... (narrative...ethnographic, case, phenomenological) study is to (understand...describe etc)...the (central phenomenon of the study)....for (the participants)....

COMPARISON OF QUANTITATIVE AND QUALITATIVE  
RESEARCH APPROACHES  
**QUESTION FORMAT**

- Quantitative  
▶ Closed-ended

- Qualitative  
▶ Open-ended

• Example...

• Example...



COMPARISON OF QUANTITATIVE AND QUALITATIVE  
RESEARCH APPROACHES  
**DATA FORMAT**

- Quantitative  
▶ Numerical (obtained by assigning numerical values to responses)

- Qualitative  
▶ Textual (obtained from audiotapes, videotapes, and field notes)

• Example...

• Example...



## COMPARISON OF QUANTITATIVE AND QUALITATIVE RESEARCH APPROACHES

### **FLEXIBILITY IN STUDY DESIGN**

#### Quantitative

- ▶ Study design is stable from beginning to end
- ▶ Participant responses do not influence or determine how and which questions researchers ask next
- ▶ Study design is subject to statistical assumptions and conditions

#### Qualitative

- ▶ Some aspects of the study are flexible (for example, the addition, exclusion, or wording of particular interview questions)
- ▶ Participant responses affect how and which questions researchers ask next
- ▶ Study design is iterative, that is, data collection and research questions are adjusted according to what is learned

• Example...

• Example...

## When is qualitative research used?

- ▶ **Description: What is happening here?**
  1. Detailed accounts of events, experiences, activities
  2. Fresh perspectives on familiar phenomena
  3. Participants' views of processes, groups, settings
  4. Subjective accounts of phenomena
- ▶ **Analysis: What does this mean?**
  1. Connections and relationships
  2. Context and its influences
  3. Differing perspectives toward phenomena
- ▶ **Theory: How can this be understood or explained?**
  1. Philosophical perspectives
  2. Socio-cultural, psychological, economic and political constraints
  3. Ideological interpretations such as critical or feminist theories

# Paradigms

- ▶ Guba & Lincoln (1989): "Paradigms are basic belief systems that represent the most fundamental positions we are willing to take and we cannot be proven or disproven."
- ▶ "A paradigm is essentially a worldview, a whole framework of beliefs, values and methods within which research takes place. It is this world view within which researchers work."
- ▶ Qualitative study paradigm:
  - ▶ "... is an inquiry process of understanding a social or human problem, based on building a complex, holistic picture, formed with words, reporting detailed views of informants, and conducted in a natural setting."
- ▶ Quantitative study paradigm:
  - ▶ "... is an inquiry into a social or human problem, based on testing a theory composed of variables, measured with numbers, and analyzed with statistical procedures, in order to determine whether the predictive generalizations of the theory hold true"

The paradigm framework is made up of:

**P Philosophy**  
**O Ontology**  
**E Epistemology**  
**M Methodology**



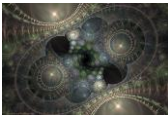
Cresswell (1994)

## Assumptions underlying the positivist & Interpretive Paradigms

Assumptions	Paradigm	
	Positivist	Interpretive
Ontology	External - Realist	Internal – Idealist, Relativist
Epistemology	Objectivist, Dualist	Subjectivist, Interactive
Methodology	Nomothetic, Experimental, Manipulative	Ideographic, Hermeneutical, Dialectical
Interests	Prediction & Control (Technical)	Understanding & Interpretation (Practical)

# ontology

- ▶ **What is Ontology?**
- ▶ A formal identification of concepts and relationships between them within a specific domain of knowledge. An ontology defines a formal vocabulary for identifying such concepts and relationships. In theory an ontology allows shared understanding of the domain and thus improves communication.



## External - Realist

Positivism ontology postulates:

- ▶ The social world external to individual cognition is a real world made up of hard, tangible and relatively immutable facts that can be observed, measured and known for what they really are.
- ▶ A “one way mirror”





## Internal – Idealist, Relativist

- ▶ Internal vs. External
- ▶ Interpretive Idealist:
  - ▶ “reality” is not wholly external to and independent of how we conceptualize the world
  - ▶ “reality” is purely subjective
- ▶ “Ontological relativism is the view that what exists, whether it be ordinary objects, facts, the entities postulated in science, etc., exists only relative to some relativizer, whether that be a person, a theory or whatever” (Nola, 1988, p. 11).



## Epistemology

- ▶ **What is Epistemology?**
- ▶ Epistemology is the study of knowledge – what it is and how it differs from opinion. Studies the basis for knowledge and how any given body of knowledge is supported by facts and assumptions. Requires that knowledge have a basis that can be justified. Attempts to identify what is truly knowledge and accurately reflects reality.



## Objectivist, Dualist

- ▶ ...an objective and knowable reality exists indisputably 'outside' us and independently of our means of apprehending it
- ▶ ...there are well-defined objects in the world which have inherent properties and fixed relations to each other at any instant.
- ▶ ...truth (in the form of facts) can be generated by testing beliefs or theories against external reality
- ▶ ...assumption that the accurate description of reality is possible
- ▶ **Dualism:** Pairs of mutually-exclusive signifiers in a paradigm set representing categories which are logically opposed , e.g. alive/not-alive. In such oppositions each term necessarily implies its opposite and there is no middle term



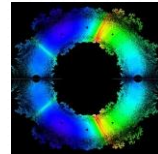
## Subjectivist, Interactive

- ▶ ...“reality” is not wholly external to and independent of how we conceptualize the world: our sign systems (language and other media) play a major part in 'the social construction of reality'; realities cannot be separated from the sign systems in which they are experienced.
- ▶ “Two way mirror” – “Multiple eyes of different realities”



## Nomothetic, Experimental, Manipulative

- ▶ Questions and/or hypotheses are stated in propositional form and subjected to empirical test to verify them
- ▶ Possible confounding conditions must be carefully controlled (manipulated) to prevent outcomes from being improperly influenced.



## Ideographic, Hermeneutical, Dialectical

- ▶ The nature of inquiry requires a dialogue between the investigator and the subjects
- ▶ Must be dialectical in nature to transform ignorance and misapprehensions into more informed consciousness
- ▶ Interpretation through hermeneutical techniques (interpretation of texts)
- ▶ Different interpretations from different people
- ▶ Richer and broader view
- ▶ Multiple realities – multiple truths



- ▶ Focus in technical knowledge about measurement, design, and quantitative methods



## Understanding & Interpretation (Practical)

- ▶ Focus on understanding the social, political, cultural, economic, ethnic, and gender history and structure
- ▶ To incorporate the values of altruism and empowerment in their work

