

## Introduction to Research Methods in LIS

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## LIS Sub-fields of Study

- Organization and Representation of Information
  - Cataloging, Classification, Indexing, Abstracting
- Information Storage and Retrieval
  - Files, Databases, Search Engines, IR, Text processing
- Information Behavior
  - User Studies
- Scholarly Communication
- Can also divide field by type of organization (library, archive, museum), by function (reference, collection development, etc.)

## Types of Research

- Quantitative
  - Emphasis on numerical, statistical counts and data
- Qualitative
  - Emphasis on other types of data
- Old-fashioned typology
- Better to ask: *what type of explanation is sought and what is approach to inquiry*

## Components of Research

- Theory
  - What assumptions are being made?
- Methodology & Methods
  - How we find out
  - What are the methods to find out?
  - We need methods to overcome human weaknesses (Case, p. 161)

## Methods

- Methods include:
  - Techniques for observation and measurement
    - This process is called data collection
  - Techniques for analysis
    - This process is called data analysis

Case, p. 163, Table 8.1

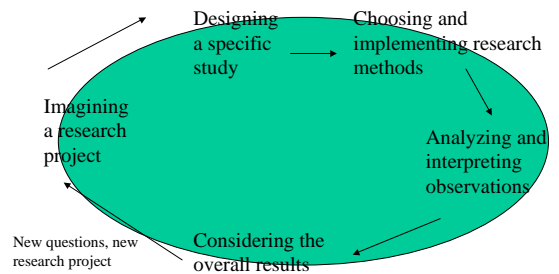
## Techniques of Measurement

- Observation
  - Experimental
  - Participant observation
- Surveys
- Interviews
- Diaries
- Collection of other behavioral artifacts (documents)

## Techniques of Analysis

- Statistical
- Theory testing
- Model building
- Case study
- Content Analysis
- Historical Analysis
- Meta-Analysis

## Research Process



## Induction & Deduction

- Inductive approach
  - Research will examine particular instances and reason toward generalization
  - Grounded theory and most qualitative research is inductive in nature
- Deductive approach
  - Research will reason from the general to the particular

## Validity and Reliability

- Validity
  - Extent to which the measurement procedures accurately reflect the concept studied
- Reliability
  - When measures are repeated under the same conditions and yield highly similar measurements each time

## Purpose, Units, Time

- Purpose of study – what?
  - Exploratory, Descriptive, Explanatory
- Unit of analysis – what will be observed or studied
  - People - individual user, Group of people, Objects, Events
- Time – will study measure one point in time or over multiple points in time
  - Cross-sectional, Longitudinal

## Research Ethics

- Principles
  - Do no harm
  - Get informed consent
  - Ensure privacy and confidentiality of data
- Governed by the Institutional Research/Review Board
  - Human Subjects certification