

Making Empirical Observations

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PS #585

Research Methods

Today's Blueprint

Last Class

- Measurement
 - Conceptualization & Operationalization
 - Levels of Measurement
 - Validity & Reliability

Today's Class

- Observation
 - What will you observe?
 - How will you observe it?
 - From what kind of population are you sampling?
 - How will you record your observations?

What Will You Observe?

Think: Problem selection

What Will You Observe?

Ways of gaining knowledge:

- Knowledge as Belief
 - Example: Religious faith
- Knowledge as Authority
 - Given to you from your “superiors”
- A Priori Knowledge
 - Does not depend on experience
- Empirical Knowledge
 - Gained through human senses/experience

What Will You Observe?

- What is observation?
 - Gaining knowledge about the social world through human senses
 - Observation = Empirical knowledge
- What purpose does it serve?
 - Observation = Necessary for measurement

What Will You Observe?

- Remember:
 - That which can be observed empirically can be measured scientifically

Social science is rooted in observation... In a sense, all social science begins and ends with empirical observations.—Nachmias and Nachmias 1996, 206.

What Will You Observe?

- You cannot observe everything
- What you observe is determined by what you are looking for
 - Previous research findings
 - Research question(s)
 - Hypotheses
- What you observe = Unit of Analysis

How Will You Observe It?
Think: Data Collection

How Will You Observe It?

Ways of Observing

- Direct Observation
 - Actually observing the behavior, attitudes, etc.
- Indirect Observation
 - Observing only traces of the behavior, attitudes, etc.

How Will You Observe It?

Direct Observation Approaches

- Participant Observation
- 4 “Perspectives” (by level of intrusiveness)
 - Complete Observer (Secret Outsider)
 - Participant as Observer (Recognized Outsider)
 - Observer as Participant (Marginal Participant)
 - Complete Participant (Full Participant)

How Will You Observe It?

Complete Observer (Secret Outsider)

- Distant observer unknown to participants in natural setting

Advantages ☺	Disadvantages ☹
<ul style="list-style-type: none"> • Non-intrusive • First-hand observations 	<ul style="list-style-type: none"> • Removed from the situation

How Will You Observe It?

Participant as Observer (Recognized Outsider)

- Firsthand observer made known to participants

Advantages ☺	Disadvantages ☹
<ul style="list-style-type: none"> • Closer to situation, yet still apart from it 	<ul style="list-style-type: none"> • Hawthorne Effect • Observer perceived as being “different”

How Will You Observe It?

Observer as Participant (Marginal Participant)

- Adopt position of commonly accepted and unimportant participant

Advantages ☺	Disadvantages ☹
<ul style="list-style-type: none"> • Minimizes Hawthorne effect • Observer takes passive role in group 	<ul style="list-style-type: none"> • Group membership might bias data collection

How Will You Observe It?

Complete Participant (Full Participant)

- Adopt position of central importance in situation

Advantages ☺	Disadvantages ☹
<ul style="list-style-type: none"> • Total immersion 	<ul style="list-style-type: none"> • Going “native” • Ability to unintentionally change others’ behavior

How Will You Observe It?

Indirect Observation Approaches

- Case Studies
- Interviews and Surveys
- Document Analysis
- Meta Studies
- Physical Artifacts (erosion and accretion)

How Will You Observe It?

- Case Studies:
 - Intense study of a single individual, institution, or situation

Advantages 😊	Disadvantages ☹️
<ul style="list-style-type: none">• Rich details• Directions for future research	<ul style="list-style-type: none">• Time-consuming• Little generalizability• No causal inference• Motivated forgetting

How Will You Observe It?

Surveys:

- Obtaining a limited amount of information from a large number of people, usually through random sampling

Advantages 😊	Disadvantages ☹️
<ul style="list-style-type: none">• Generalizability• Statistical power• Easier to code	<ul style="list-style-type: none">• Response bias (i.e. social desirability)

How Will You Observe It?

Interviews:

- Obtaining large amounts of information from limited numbers of people, usually through non-random sampling

Advantages 😊	Disadvantages ☹️
<ul style="list-style-type: none">• Detailed responses• Less response bias	<ul style="list-style-type: none">• Less statistical power• Harder to code

How Will You Observe It?

Document Analysis

- Combing through pre-existing documents to understand social phenomena

Advantages 😊	Disadvantages ☹️
<ul style="list-style-type: none">• Completely non-intrusive• Researcher does not have to collect original data	<ul style="list-style-type: none">• Secondary, rather than primary, evidence• Must gain access to documents

How Will You Observe It?

Physical Artifacts

- Erosion Measures: The indirect observation of selective “wear and tear” of some material
- Accretion Measures: The indirect observation of the accumulation of materials

Advantages 😊	Disadvantages ☹️
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Innovative and creative	Open to many (miss) interpretations
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From What Kind of Population Are You Sampling?

Think: Sample Selection

What Kind of Sample?

- Sampling techniques:
 - Random samples
 - Non-random samples

What Kind of Sample?

[Simple] Random Sample

- Each item in the target population has an equal chance of appearing in the sample
- Samples are representative of population

Advantages ☺	Disadvantages ☹
<ul style="list-style-type: none"> • Can generalize beyond the sample 	<ul style="list-style-type: none"> • Difficult to obtain • Expensive to collect

What Kind of Sample?

Non-Random Sample

- Each item in the target population *does not have* an equal chance of being selected
- Samples created using selection procedures

Advantages ☺	Disadvantages ☹
<ul style="list-style-type: none"> • Easier to obtain • Less expensive to collect 	<ul style="list-style-type: none"> • Cannot generalize beyond the sample

How Will You Record Your Observations?

Think: Coding and data entry

Recording Observations

- Types of records
 - Visual
 - Photographs, video tapes, etc.
 - Audio
 - Taped conversations, speeches, etc.
 - Written
 - Transcripts, summaries, etc.
 - Digital
 - Computer disks, Internet, etc.

Recording Observations

- How you record observations depends on:
 - Topic of interest
 - Ethical considerations
 - Access to resources

References

- FYI:
 - Frankfort-Nachmias, Chava and David Nachmias. 1996. Research Methods in the Social Sciences, 5th Edition. New York, NY: St. Martin Press.