Upcoming seminars

Three “job talks”
Tue 2/16, Thu 2/18, Tue 2/23 at 3:30pm
@ UD Visitor’s Center ~210 S. College Ave.

Sociology colloquium
Thu 3/3 at 3:30pm
@ Spencer Lab Room 114

Guidelines for writing report

5 extra credits by attending public presentations and turning in to the TA (on paper) a one-page (single-spaced, normal font and margins) report within a week of the presentation that describes:

1. who gave the talk, where they gave it, and when they gave it;
2. what the basic question or thesis of the research was;
3. what the basic conclusion or finding was;
4. how the presenter used statistical reasoning to draw their conclusions; and naming one variable used in the research and identify its type.
5. what questions or concerns students had about the research or its findings.

In-class exercise last week

anchoring effect:
the estimate of an unknown quality is influenced by a previously supplied starting point.

here, the value of X should not affect the outcome (your estimate), yet it does!

replace X with your background:
nationality, gender, socioeconomic status…
Research Process

Topic vs. Research Question

topic: subject or theme

research question: questions about some aspects of a topic

Topic vs. Research Question

topic: abstract subject or theme

research question: questions about some concrete aspects of a topic

<table>
<thead>
<tr>
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<tr>
<td>Binge drinking</td>
<td>Effects of binge drinking on academic performance</td>
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<tr>
<td>Poverty</td>
<td>How does poverty affect overall health</td>
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<td>Mortality</td>
<td>Differences in infant mortality b/w married and unmarried moms</td>
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Identifying a Research Question

consider the example of domestic violence

personal experience

theory
Identifying a Research Question

knowing a friend/relative who was abused
seeing "CSI"
reading a gang member’s autobiography

Identifying a Research Question

deterrence theory: punishment will reduce repeated offending.

"Arrest for spouse abuse reduces the risk of repeat offenses."

Data

empirical information or evidence vs. idea or theory

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Methods

systematic ways of collecting and analyzing data
Data Source

- asking questions
- making observations
- publicly-available data, examples:
  - the General Social Survey
  - the Current Population Survey, the National Health Interview Survey

Methods

systematic ways of collecting and analyzing data

Why you should care?

- informed decision
- critical consumer of information

Objective

Data collection: how to collect valid data

Part I: variable and validity

Part II: sampling and reliability
Data Collection I: Variable and Validity

variable: a set of attributes/characteristics of an object that can vary
example: height, crime rates, SAT scores, veteran status

key steps: (a) identify variables for the terms in the research question
(b) construct measurement of those variables

Types of Variables

- **continuous variable**: categorize observation of their numeric value
  examples: IQ, salary in dollars, weight

- **discrete/categorical variable**: categorize observations in terms of qualitative, non-numeric attributes
  nominal: no order between categories
  examples: favorite color, state of birth
  ordinal: categories can be put in order
  examples: level of agreement, level of conflict

Examples

- binge drinking and academic performance
  variables for binge drinking? academic performance?
  types of these variables?

- poverty and mental health
  variables for poverty? mental health?
  types of these variables?

- infant mortality and mother’s marital status
  variables for infant mortality? mother’s marital status?
**Data Collection I: Variable and Validity**

**measurement:** empirical information or evidence about these variables

- binge drinking: frequency of heavy episodic drinking
- poverty: household income
- mental health: whether experiencing depression

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**Validity**

Did we measure what we intended to measure?

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**Validity**

Is it a valid measurement for the following variable? A better one?

- frequency of binge drinking: "How much do you drink in the past 12 months?"
- poverty level: "Are you poor?"
- mental health status: "How do you rate your mental health, very good, good, poor, very poor?"
Ideal Data

accurate, valid, exhaustive information about the variables

ideal data about:

- binge drinking: frequency of heavy episodic drinking
- poverty: household income
- mental health: whether experiencing depression

In Reality...

inaccurate, invalid, limited information about the variables

limited information about:

- binge drinking: frequency of heavy episodic drinking
- poverty: household income
- mental health: whether experiencing depression

In Reality...

the research process is not static: constant conversations between research question and method

Refine your research question and method based on...

- feasibility: limited time and resources
- social importance: important to other people?
- scientific relevance: informed by the literature

Research Process

research question
scientific method to analyze
scientific method to collect
data
Next Week’s Group Project: Design Your Survey

form a group of two or more students
all students decide the topic, research question, and methods.

Worksheet

Are the following variables continuous or discrete? If discrete, are they nominal or ordinal?

1. Height
2. Eye color
3. Number of family members living in the same house/apartment
4. Social class
5. Day of the week
6. Ever been arrested