



# Sociological Research Methods and Techniques

# Sociological Research Topics

## Sociologists:

- Study the influence that society has on people's attitudes and behavior
- Seek to understand ways in which people interact and shape society

# Sociology and Common Sense

Sociologists do not accept something as fact because “everyone knows it”

Findings are tested by researchers, analyzed in relation to other data, and evaluated with sociological theory

# What Good Is Sociological Theory?

- **Theory:** set of statements that seeks to explain problems, actions, or behavior
  - Effective theories have explanatory and predictive power
  - Durkheim's work on suicide provides a classic case of sociological theory at work

# Sociological Research Method and Ethics

- The scientific method includes selecting a researchable problem, reviewing the literature, formulating a hypothesis, creating an operational definition, choosing a research design, collecting the data, analyzing the data, and stating conclusions.
- **It is important that sociologists observe the ethics of their discipline in carrying out research. They have an obligation to protect their research subjects from risk and harm and to protect these subjects' rights and dignity.**

# Sociology and Science

- Sociology is a type of **science**, a logical system that bases knowledge on direct, systematic observation.
  - **Scientific sociology** is the study of society based on systematic observation of social behavior.
  - Scientific knowledge is based on **empirical evidence**, information we can verify with our data, not common sense.
- **Scientific evidence sometimes contradicts common sense explanations of social behavior.**
  - **It is not what we do not know that get us into trouble, it is what we know that is not true.**

# Research, Values, and Biases

- Sociologists strive for **objectivity**, a state of personal neutrality in conducting research, whenever possible following Max Weber's model of value-free research.
  - One way to limit distortion caused by personal values is through **replication**, repetition of research by others in order to assess its accuracy.
  - More about this later.
- Limitations of scientific sociology.
  - Human behavior is too complex to allow sociologists to predict precisely any individual's actions.
  - Because humans respond to their surroundings, the mere presence of a researcher may affect the behavior being studied.
- Social patterns change; what is true in one time or place may not hold true in another.

# Value Free Research and Research with Values

- Because sociologists are part of the social world they study, being value-free when conducting social research is difficult.
- An alternative to Value Free is **Interpretive sociology**.
  - Not biased, just the opposite
  - Max Weber, argued that the focus of sociology is interpretation.
    - **Interpretive sociology is the study of society that focuses on the meanings people attach to their social world.**
    - **The interpretive sociologist's job is not just to observe what people do but to share in their world of meaning and come to appreciate why they act as they**
- Another alternative is Critical sociology.
  - Karl Marx, who founded critical sociology, rejected the idea that society exists as a “natural” system with a fixed order. Critical sociology is the study of society that focuses on the need for social change.
  - The point is not merely to study the world as it is but to change it.



# Value Free Research and Research with Values

- Research is effected by the characteristics of the researcher. We have to strive to overcome this.
- Characteristics that can effect the design, conduct, and results of research
  - Gender
  - Race
  - Ethnicity
  - Religion
  - Social Status
- The American Sociological Association has established formal guidelines for conducting research. Most professional associations do the same thing.

# Value Free Research and Research with Values – The case of Gender

- Research is affected by gender, the characteristics that members of a society attach to being female and male, in five ways:
  - Androcentricity, or approaching an issue from the male perspective.
  - Overgeneralizing, or using data drawn from studying only one sex to support conclusions about human behavior in general.
  - Gender blindness, or not considering the variable of gender at all.
  - Double standards.
  - Interference because a subject reacts to the sex of the researcher
- Similar effects from the researcher's race and/or ethnicity and/or religion

# Methods of collecting data

- Sociologists use the following methods
  - Surveys
  - Experiments
  - Participant observations
  - Secondary Analysis

# Survey Research

- A **survey** is a research method in which subjects respond to a series of statements or questions in a questionnaire or an interview..
  - Surveys are directed at **populations**, the people who are the focus of research.
  - Usually we study a **sample**, a part of a population that represents the whole. Random sampling is commonly used to be sure that the sample is actually representative of the entire population.
  - Surveys may involve **questionnaires**, a series of written questions a researcher presents to subjects.
  - Questionnaires may be closed-ended or open-ended.
  - Surveys may also take the form of **interviews**, a series of questions administered in person by a researcher to respondents.
- This technique uses statistical methods to analyze data

# Understanding and using statistical data

- Reading Tables: An Important Skill. A table provides a lot of information in a small amount of space, so learning to read tables can increase your reading efficiency
- Three simple, critical, and useful statistical measures of the average
  1. The mode is the value that occurs most often in a series of numbers.
  2. The mean refers to the arithmetic average of a series of numbers.
  3. The median is the value that occurs midway in a series of number arranged from lowest to highest.

# Experiments

- An **experiment** is a research method for investigating cause and effect under highly controlled conditions.
  - Experimental research is explanatory, meaning that it asks not just what happens but why. Typically, researchers conduct experiments to test **hypotheses**, unverified statements of a relationship between variables. Most experiments are conducted in laboratories and employ experimental and control groups.
    - The Hawthorne effect is a change in a subject's behavior caused by the awareness of being studied.**
  - The Stanford County Prison study was an experiment conducted by Philip Zimbardo that supported the notion that the character of prison itself, and not the personalities of prisoners and guards, causes prison violence.
- Statistics can, but do not have to be used in this method of doing research.

# Participant Observation

**Participant observation** is a method by which researchers systematically observe people while joining in their routine activities. Participant observation research is descriptive and often exploratory. It is normally qualitative research, inquiry based on subjective impressions.

- William Whyte utilized this approach to study social life in a poor neighborhood in Boston. His research, published in the book *Street Corner Society*, illustrates the value of using a key informant in field research.
- Elliot Liebow studied unemployed Black men in Washington and published his results as *Talley's Corner*

# Steps in the conduct of Scientific Sociological Research

1. Select a topic guided by sociological perspective and curiosity.
  - Frequently guided by the source of funding for the research.
2. Define the problem in considerable detail, specifying exactly what you want to learn.
3. Review the literature to use what is already known about the topic. As a guide, and to generate ideas as to what questions to ask.
4. Formulate your hypothesis, describing how you expect your variables to be related.
  - **Your variables need to be operationalized.**
5. Choose a research method, which we will discuss in a few minutes.
6. Collect your data paying attention to the validity.
7. Analyze your data.
8. Disseminate by publishing or speaking at professional meetings, your findings.



# Steps in the Research Process

## ► Formulating the Hypothesis

- **Hypothesis:** testable statement about relationship between two or more variables
- **Variable:** measurable trait or characteristic subject to change under different conditions
  - **Independent variable:** variable hypothesized to cause or influence another
  - **Dependent variable:** variable subject to the influence of another variable

# Steps in the Research Process

## ► Formulating the Hypothesis

- **Causal logic:** relationship between a condition or variable and a particular consequence, with one event leading to the other
- **Correlation:** exists when a change in one variable coincides with a change in another

# Collecting and Analyzing Data

## ▶ Ensuring Validity and Reliability

- **Validity:** degree to which a measure or scale truly reflects the phenomenon under study
- **Reliability:** extent to which a measure produces consistent results

# Collecting and Analyzing Data

## Selecting the Sample

- **Sample:** selection from a larger population that is statistically representative of that population
- **Random sample:** when every member of an entire population has the same chance of being selected

# The Basic Concepts of the Social Scientific Method

Concepts, variables, and measurement.

1. Concepts are mental constructs that represent some part of the world, inevitably in a simplified form.
2. Variables are concepts whose value changes from case to case, Constants do not change value.
3. Measurement is the process of determining the value of a variable in a specific case.
4. Statistical measures are frequently used to describe populations as a whole.
  - a) This requires that researchers operationalize variables, which mean specifying exactly what one is to measure in assigning a value to a variable

# Developing the Conclusion

- Supporting Hypotheses

- Sociological studies do not always generate data that support the original hypothesis

- Controlling for Other Factors

- **Control variable:** factor that is held constant to test the relative impact of an independent variable

# Finally....

- The interplay of theory and method.
  - **Inductive logical thought** is reasoning that builds specific observations into general theory.
  - **Deductive logical thought** is reasoning that transforms general ideas into specific hypotheses suitable for scientific testing.
  - Most sociological research uses both types of logical thought.
- People Lie with Statistics? The best way not to fall prey to statistical manipulation is to understand how people can mislead with statistics:
  - **People select their data.**
  - **People interpret their data.**
- People use graphs to “spin” the truth
- If you don’t understand this you **WILL** be fooled!

# Research Ethics

*Code of Ethics*: first published by ASA in 1971

1. Maintain objectivity and integrity in research
2. Respect subject's right to privacy and dignity
3. Protect subjects from personal harm
4. Preserve confidentiality
5. Seek informed consent
6. Acknowledge research collaboration and assistance
7. Disclose all sources of financial support



# Research Ethics

## ■ Confidentiality

- Supreme Court has failed to clarify rights of scholars

## • Research Funding

- Funding source should not taint objectivity of research

## • Value Neutrality

- Researchers should not allow personal feelings to influence interpretation of data