

Chapter 1: What Is Sociology?

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Section 4 at a Glance

Conducting Sociological Research

- Sociologists employ a seven-step process when they conduct research.
- Research approaches available to sociologists include survey, analysis of existing documents, observation, and experiment.

Conducting Sociological Research

Main Idea

Sociologists use several approaches to conducting research. Regardless of the approaches they use, all sociologists follow a seven-step research process.

Reading Focus

- What are the seven steps in the research process?
- How do sociologists uncover causation and correlation?
- What basic research methods do sociologists employ?
- How do ethical issues affect sociological research?

How do sociologists conduct research?

A Place at

Slim's
Table

Mitchell Duneier (standing)
talks to Slim (to the left of
Duneier) and his friends.



The Research Process

Sociologists use the **scientific method** to conduct their research.

Scientific Method

The scientific method is an objective, logical, and systematic way of collecting and analyzing data.

A **hypothesis** is a statement that predicts what the outcome of an experiment will be.

THE RESEARCH PROCESS



Sociologists follow a seven-step process when conducting empirical research.

Step 1 Define the Problem

The researcher selects a topic for study and develops operational definitions of key concepts.

Step 2 Review the Literature

The researcher reviews existing literature on the topic.

Step 3 Form a Hypothesis

The researcher develops a testable hypothesis on the research topic.

Step 4 Choose a Research Design

The researcher develops a plan for collecting, analyzing, and evaluating data.

Step 5 Collect the Data

The researcher gathers and carefully records data.

Step 6 Analyze the Data

The researcher objectively analyzes the data to determine whether it supports the research hypotheses.

Step 7 Present Conclusions

The researcher presents the research findings to other sociologists.

Reading Check

Sequence

What are the seven steps
in the research process?

Answer: *define the problem, review the literature, form a hypothesis, choose a research design, collect the data, analyze the data, present conclusions*

Causation and Correlation

Causation

- Every event has at least one cause.
- **Variables**, or traits, of a social group help determine why an event occurs the way it does.
- Causal relationships exist when a change in one variable causes change in another variable.
- Independent variables cause changes in dependent variables.



Correlation

- **Correlation** is the first step in proving causation.
- A correlation exists when a change in one variable is regularly associated with a change in another variable.
- Correlations can have a causal relationship or not.



Evidence of a correlation is not evidence of a causation.

Spurious Correlation



“A spurious correlation exists where variables appear to be related but actually are being affected by a third variable.”

Suppose that studies show that students who get good grades are also members of the school band. Does this mean that involvement in the school band causes students to get good grades? Not necessarily. There might be a third variable—such as a general desire to do well in school—that encourages both good grades and involvement in extracurricular activities such as the band. *Why is spurious correlation an important concept for researchers?*

Reading Check

Contrast

How do positive correlations and negative correlations differ?

Answer: *positive—both variables change at the same time; negative—variables change in opposite directions*

Basic Research Methods


Survey

- **Survey** method is used for large numbers of people
- Researchers use questionnaires and interviews
- The data available in a short amount of time
- The answers may not be accurate
- Researchers use **samples**, or small groups

Analysis of Existing Sources

- **Historical method** uses information from the past
- **Content analysis** counts uses of words or symbols

Observational Studies

- Researchers watch people in detached observation.
 - Researchers become part of the group being studied in **participant observation**.
 - A **case study** uses information gathered during observation.
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Experiments

- In an **experiment**, the data is gathered under controlled conditions.
- Researchers use a control group and an experimental group.
- Information gathered is somewhat limited because of the controlled conditions.

Statistical Analysis

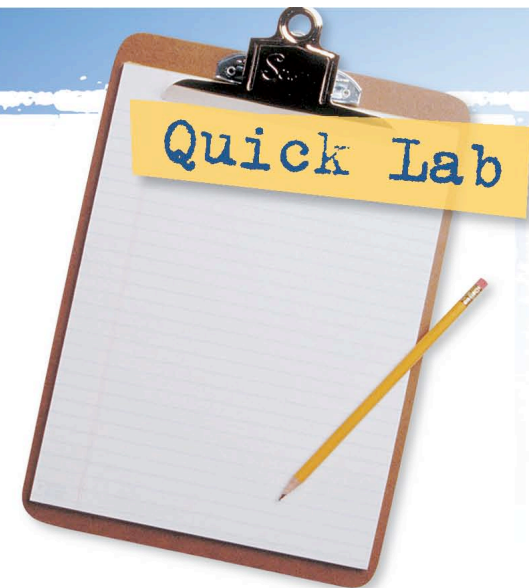
- Researchers use mathematical data.
- **Statistical analysis** is the analyzing of collected data to determine the kind of relationship between two or more variables.
- The *mode* is the most common number in the data.
- The *mean* is the average of the numbers in the data.
- The *median* is the number that divides the data into two equal parts.

Conducting Interviews

Your school probably uses some form of Internet filtering system to block student access to various Web sites. What do your classmates think of this school policy? Find out by interviewing them.

PROCEDURE

- 1 Conduct background reading to discover why schools and other institutions such as public libraries use Internet filters.
- 2 Based on your reading, develop a hypothesis on students' attitudes to the use of Internet filters.
- 3 Write three to five questions for your interview. Remember that you are looking for attitudes and opinions, so do not write questions that can be answered with "Yes" or "No."
- 4 Select four or five classmates to interview. Try to get a cross-section of the class population in your interview sample.
- 5 Conduct your interviews, spending one or two minutes for each question. Note respondents' answers.



ANALYSIS

1. Review the results of the interviews. Did any respondents express strong opinions for or against Internet filtering? What reasons did they give for those opinions?
2. How well do the results support your hypothesis? Do you need to adjust your hypothesis? If so, how?

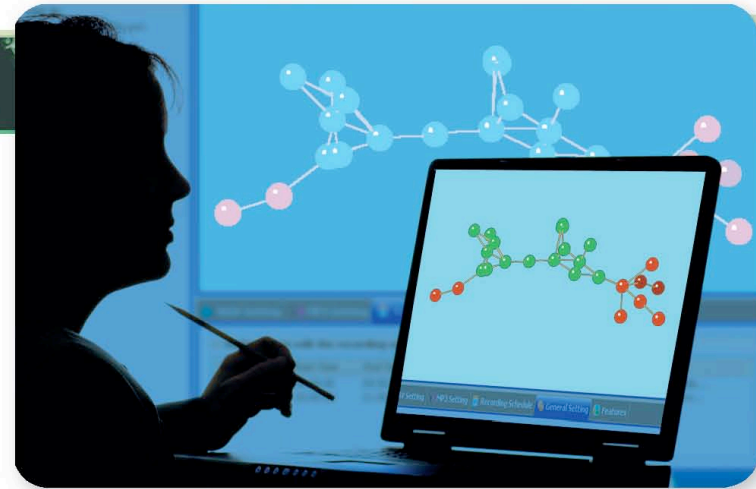
TECHNOLOGY FOCUS

Mapping Social Networks

The social network, the web of relationships formed by the sum total of a person's interactions with others, is a topic of great interest in sociology. To explain social networks to others, sociologists often use graphics. These map-like images use points to show social actors and lines to show interaction among those actors.

Initially, network maps were hand-drawn and very simple. Over time, innovations added sophistication. The introduction of computing in the 1950s allowed researchers to use various forms of mathematical analyses on their data. This made mapping far more accurate. By the 1970s, computer programs had been developed that not only analyzed the data, but also produced printable images of the dots and lines. A further programming development in the 1980s enabled researchers to produce images on screen.

Perhaps the greatest revolution in network imaging came with the advent of the Web, because this added



This social network map shows friendship ties among a group of teenagers in Dublin, Ireland.

the viewer of the images to the mix. After accessing images on the Internet, the viewer can manipulate them—enlarging, shrinking, or rotating them, isolating particular aspects of the network, and so on. These capabilities make the analysis of the complicated concept of social interaction much easier.

Thinking Critically

Draw Conclusions Why are graphics so important to the analysis and understanding of social networks?

Reading Check

Summarize

What research approaches
might a case study employ?

Answer: *surveys, observation, analysis of existing sources, and experiments employing statistical analysis*

Ethical Issues in Research

- Specific rules set by the American Sociological Association
- Rules focus on:
 - Confidentiality
 - Deception
 - Informed consent
- Must protect the rights of subjects

Reading Check

Find the Main Idea

What ethical issues do sociological researchers face?

Answer: *confidentiality, the possible use of deception, and informed consent*

Lab: Applying What You've Learned

Who's at Your Table

How different does your life appear when you view it through the eyes of a sociologist?

1. Introduction

- In this lab, you will undertake observational research of social interactions at your lunch table.
- Carefully observe the people at the table in an objective way.

2. Conducting Your Observation

- Observe the people at your table in the school cafeteria.
- Study the dynamics of the situation.
- Write a brief essay describing the social interactions you observed.

Lab (*cont.*)

3. Discussion and Evaluation

- Hold a group discussion in which you describe your experience as an observer. Was it difficult to observe and not participate?
- What kind of observations did you and your classmates make?
- Were your observations similar or different than those of your classmates?
- What other groups would be interesting to observe?



Derek—the leader, when he speaks, everyone listens.



Alecia & Patti—have an opinion on everything, but only when they're asked.

