

Chapter 2 – Understanding the Research Process

Brief Outline

Social Science as a Way of Knowing

Doing Research

Types of Research

Thinking Critically: How to Assess Research

A Changing World: Technology and Social Research

Learning Objectives

1. Differentiate social science research from everyday reasoning.
2. Describe the four key elements of sociological research.
3. Describe the role of theory in social science research.
4. Describe the features, strengths, and weaknesses of the major data collection methods.
5. Apply ethical standards to the challenges researchers encounter in conducting research.
6. Compare and contrast the three approaches to social science research.
7. Describe tactics for evaluating a scientific study.
8. Describe the impact of new technologies on social science research.

Lecture Outline

A. Social Science as a Way of Knowing

1. The Limits of Everyday Thinking

- Unquestioned trust in authorities
- Unquestioned acceptance of “common sense”
- Unquestioned acceptance of traditional beliefs
- Generalizations based on personal experience
- Reliance on selective observation
- Biased observation and interpretation

2. The Elements of Social Science Research

a. Patterns in Social Life

- Identifiable, repeating patterns in human thought and action
- Social scientists use a variety of techniques to describe and measure these patterns.

- b. Empirical Evidence
 - Evidence that can be observed or documented using the human senses
 - Quantitative data; independent and dependent variables; operationalizing terms; correlation; hypothesis
 - Qualitative data
- c. Transparency of Methods
 - Transparency: the requirement that researchers explain how they collected and analyzed their evidence and how they reached their conclusions
 - Allows others to critically assess the research and its findings
- d. Provisional Knowledge
 - Idea that all truth claims are tentative and open to revision given new evidence
- 3. The Special Challenges of Social Science
 - Social researchers are unlikely to be able to control conditions.
 - Social life cannot be predicted with the certainty of natural laws.
 - Human beings are conscious of being studied, which may change their behavior.
- B. Doing Research
 - 1. The Roles of Theory
 - Van Gennep's theory that the function of some rituals was to mark a change of social status (rites of passage)
 - a. Highlighting Key Questions
 - Example: What are the significant rites of passage today? How do these rituals mark changes in social status?
 - b. Explaining Collected Data
 - Example: Vigil's "street baptism" of Chicano street gangs as symbolic ritual
 - c. Seeing Connections
 - Example: finding common features of graduations, funerals, and "street baptism" through the theory of rituals as rites of passage
 - d. A Hypothetical Example
 - Theory suggests areas of possible research and helps explain the data collected; data is in turn used to assess the accuracy (or inaccuracy) of theory
- 2. Research Methods
 - a. Survey Research
 - A versatile data collection technique that involves asking someone a series of questions
 - Problems that can arise in writing survey questions:
 - Lack of clarity
 - Validity
 - Lack of reliability
 - Loaded language
 - Double-barreled questions
 - Sample; random sample, convenience sample, quota sample; generalizations
 - b. Intensive Interviews and Focus Groups
 - Data gathering that uses open-ended questions in somewhat lengthy face-to-face sessions

- Focus groups, using a moderator, enable researchers to expand the number of people interviewed.
- c. Field Research
 - In some cases, the researcher tries to remain separate from the activities being studied; in others, the researcher engages in participant observation: both observing and actively taking part in the setting or community under study.
- d. Existing Sources
 - Secondary data analysis; content analysis
- e. Experiments
 - Data gathering in which the researcher manipulates an independent variable under controlled conditions to determine if change in an independent variable produces change in a dependent variable, thereby establishing a cause and effect relationship
- 3. Research Ethics
 - ASA “Code of Ethics”: primary goal of ethical guidelines is “the welfare and protection of the individuals and groups with whom sociologists work”
 - Anonymity; confidentiality; informed consent
- 4. The Research Process: A Student Example
 - Basic research process:
 - Choose and explore a general topic.
 - Identify a specific research question.
 - Design the research study and specify the data to be collected.
 - Consider ethical dimensions and obtain necessary permissions/approval.
 - Collect, analyze, and interpret the data.
 - Report the results.
- C. Types of Research
 1. Positivist Social Science
 - Assumes the social world, like the natural world, is characterized by laws that can be identified through research and used to predict and control human affairs
 - The concept of value-neutrality
 2. Interpretive Social Science
 - Focuses on an understanding of the *meaning* people ascribe to their social world; tends to deal directly with people’s values, beliefs, and opinions
 3. Critical Social Science
 - Aims explicitly to create knowledge that can be used to bring about social change; especially, to better understand and reveal the dynamics of power in society
- D. Thinking Critically: How to Assess Research
 - The peer-review process
 - Ask at least these questions:
 - What is the research question?
 - What is the theory informing the research?
 - How are variables operationalized?
 - What is the sample?

- What are the data?
- Are the conclusions justifiable?
- E. A Changing World: Technology and Social Research
 - Technology has transformed social research by enabling researchers to expand the scale of their work, keep costs down, and manage time efficiently.
- F. Through a Sociological Lens: Correlation, Causation, and Spuriousness
- G. Sociology Works: Sydney Hessel and User Experience Research
- H. Sociology in Action: The U.S. Census Bureau

Lecture Summary

1. Social science takes an empirical approach to the collection and dissemination of information about society. Social research relies on evidence that can be documented, transparency of data collection methods, and an openness to revising conclusions as new evidence becomes available. As such, social research can be contrasted with everyday thinking, which too often relies on unquestioned “common sense” and uncritical acceptance of claims made by authorities.
2. Theory and data are key components of social research. Theory is used to develop key questions for research, to explain existing data, and to establish connections among phenomena that may not be readily apparent. Sociologists rely on several techniques to obtain data for developing and testing theory, including survey research, in-depth interviews, field research, experiments, and examining existing information. In conducting social research, it is important for investigators to adhere to ethical standards for the protection of human subjects.
3. Sociological approaches to research can be categorized into three major types: positivist research, interpretive investigations, and critical scholarship. Positivist social science attempts to disconnect personal views or agendas from the research process, and seeks to identify general principles to explain and predict behavior. An interpretive approach strives to understand the meanings that people ascribe to their social world, and assumes that researchers must try to empathize with their subjects in order to interpret the world from their perspective. Critical scholars reject the notion that social research can (or should) be value-neutral, and they conduct research with an explicit goal of generating knowledge that can precipitate social change.
4. Social science employs a process of peer review to ensure the quality of research. The peer-review process enlists scholars to anonymously review research studies prior to publication. During peer review, scholars review how an investigation was performed, and whether the study’s conclusions are justifiable. Understanding the social research process can also allow readers to carry out their own assessments of the quality of research they encounter in scholarly or popular publications.

Additional Lecture Ideas

1. Have students review the website of your college's Institutional Review Board (IRB). Discuss why these protocols are necessary and what issues need to be considered when doing research. Discuss your own IRB process for a research project on which you worked. What issues did you have to overcome?
2. Use the documentary, *The Stanford Prison Experiment*, which shows audio clips and pictures from Philip Zimbardo's famous experiment. What questions was Zimbardo trying to answer? How did he go about answering them? Today, what issues would the IRB have with this experiment? Would he be able to run this experiment today? Why or why not? This film can also be reintroduced with Chapter 7 when discussing groupthink, and with Chapter 8 when talking about deviance.
3. Use the documentary, *The Milgram Experiment*, which is footage from Stanley Milgram's experiment about power and control. What questions was Milgram trying to answer? How did he go about answering them? How did Milgram avoid the Hawthorne effect? Why would an experiment be the best way to gather this data? Could you create another type of research that could gather the same information? This film can also be reintroduced with Chapter 5 when discussing the use of power, and with Chapter 7 when talking about conforming behavior.
4. Have students read about the Tuskegee syphilis experiment. How did this experiment influence our modern IRB? How did the Tuskegee experiment make research in the social sciences more difficult?

Classroom Discussion Topics

Designing a Research Project

1. Break students into groups of no more than four and have them choose a research question. Then have them decide how they would go about answering that question. Who would they talk to? What questions would they ask? Have the students then share their proposed research project with the class. What other suggestions can the class come up with in order to answer the research question? Having students do this project in class can be good practice if you want them to conduct an actual research project amongst their peers later.

Survey Research Questions

2. Create a list of survey research questions that break all of the rules. Have the students rewrite the questions and discuss why it is necessary to use these rules.

Statistics

3. Break students into groups of no more than four and give them a newspaper article that includes a graph or a chart. Have the students label the different parts of the statistics (dependent and independent variables, etc.). Have the students discuss the use of the graph or chart. Does the statistical data correspond and accurately address the issues presented in the article (or is it mainly used to draw the audience in)? Discuss the qualitative versus quantitative aspects of the research presented. If the article relies only on quantitative data, have the students discuss how they could address the issues with qualitative research.

Popular vs. Academic Presentation of Research

4. Find a piece of research that was reported in both the popular press and in an academic journal. Have the students compare the articles and find the research question in both articles. How is the presentation of the research changed from the academic article to the popular press article? How does knowing the larger research project (from the academic journal) influence students' perspective of the information presented in the popular press?

Observation

5. Have students sit in a coffee shop for 20 minutes and take notes on what they see. Who patronizes this coffee shop? What can you tell by their clothing? What can you tell by the way they speak? What kind of interactions do the customers have with the employees? Do they seem to know each other? How do the students' notes compare? Did students notice different things? Do some people seem to be better at taking notes than others?

2: Understanding the Research Process

Experience Sociology, 3rd edition

Chapter Outline

- Social Science as a Way of Knowing
- Doing Research
- Types of Research
- Thinking Critically: How to Assess Research
- A Changing World: Technology and Social Research

Chapter Outline ⁽²⁾

- Box features:
 - Through a Sociological Lens: Correlation, Causation, and Spuriousness
 - Sociology Works: Sydney Hessel and User Experience Research
 - Sociology in Action: The U.S. Census Bureau

Social Science as a Way of Knowing

- **Sociology**
 - **Basic research:** research that has as its primary goal to describe some aspect of society and advance our understanding of it
 - **Applied research:** research that has as its primary goal to directly address some problem or need
 - **Public sociology:** efforts to reach beyond an academic audience to make the results of sociological research, both basic and applied, known to the broader public

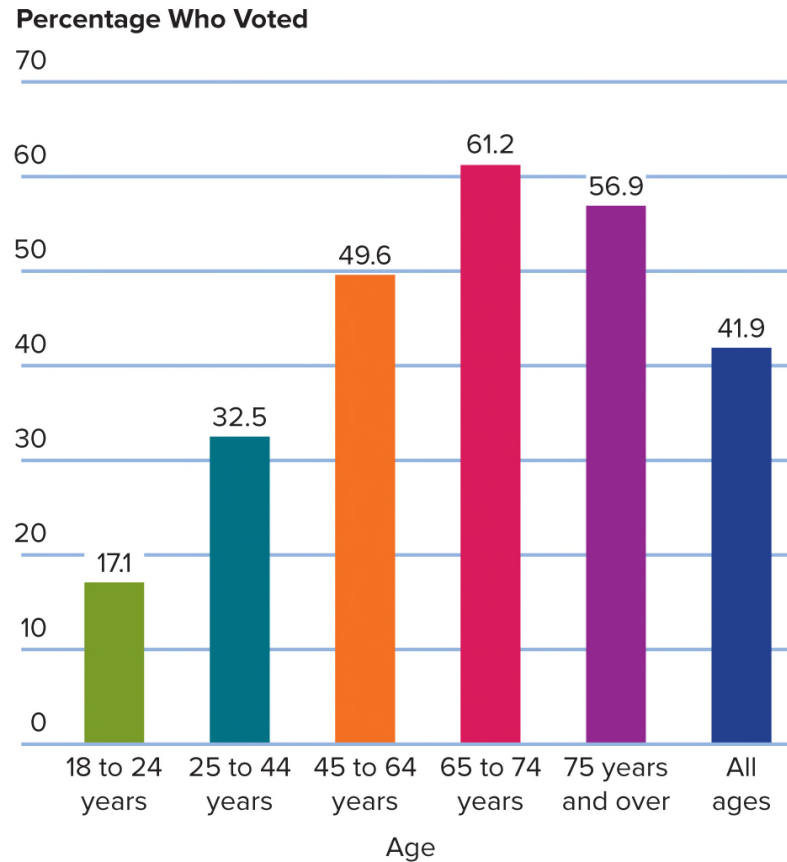
Social Science as a Way of Knowing ⁽²⁾

- The Limits of Everyday Thinking
 - Unquestioned trust in authorities
 - Unquestioned acceptance of “common sense”
 - Unquestioned acceptance of traditional beliefs
 - Generalizations based on personal experience
 - Reliance on selective observation
 - Biased observation and interpretation

Social Science as a Way of Knowing ⁽³⁾

- The Elements of Social Science Research
 - Patterns in Social Life
 - *Example:* Social science research can tell us the probability that certain categories of people will or will not vote

FIGURE 2.1 VOTING IN THE 2014 ELECTION, BY AGE



Social Science as a Way of Knowing ⁽⁴⁾

- The Elements of Social Science Research
 - Empirical Evidence
 - **Empirical evidence:** data that can be observed or documented using the human senses
 - **Quantitative data:** evidence that can be summarized numerically
 - **Variables:** measures that can change (or vary) and thus have different values
 - **Operationalize:** to define clearly the variables to be studied so that they can be measured

Social Science as a Way of Knowing ⁽⁵⁾

- The Elements of Social Science Research
 - Empirical Evidence *(Continued)*
 - **Independent variable:** the entity that is associated with and/or causes change in the value of the dependent variable
 - **Dependent variable:** the entity that changes in response to the independent variable

Social Science as a Way of Knowing ⁽⁶⁾

- The Elements of Social Science Research
 - Empirical Evidence *(Continued)*
 - **Correlation**: a relationship in which change in one variable is connected to change in another variable
 - **Hypothesis**: a statement about the relationship between variables that is to be investigated
 - **Qualitative data**: any kind of evidence that is not numerical in nature, including evidence gathered from interviews, direct observation, and written or visual documents

Social Science as a Way of Knowing ⁽⁷⁾

- The Elements of Social Science Research
 - Transparency of Methods
 - **Transparency:** the requirement that researchers explain how they collected and analyzed their evidence and how they reached their conclusions
 - Provisional Knowledge

**TABLE 2.1 THE ELEMENTS OF
SOCIAL SCIENCE RESEARCH**

<i>Element</i>	<i>Application</i>
Identifying and understanding patterns in social life	Scientists seek to identify recurrent patterns in human thought and action.
Gathering empirical evidence	Patterns are identified based on evidence that can be observed or documented using human senses.
Using transparent methods	Researchers need to disclose how they collect and analyze their evidence.
Viewing knowledge as provisional	Social science is based on the idea that truth claims are tentative and open to revision if new evidence is discovered.

Social Science as a Way of Knowing ⁽⁸⁾

- The Special Challenges of Social Science
 - Social researchers are unlikely to be able to control conditions
 - Social life cannot be predicted with the certainty of natural laws
 - **Hawthorne effect**: the tendency of humans to react differently than they otherwise would when they know they are in a study

Doing Research

- The Theory–Research Dynamic
 - Highlighting Key Questions
 - Explaining Collected Data
 - Seeing Connections
 - A Hypothetical Example
 - What makes a sports team successful?

Doing Research ⁽²⁾

- Research Methods
 - **Research methods:** the procedures used by a researcher to collect and analyze data

TABLE 2.2 MAJOR RESEARCH METHODS

Method	Features	Strengths	Weaknesses
Surveys	A series of questions is administered in writing (on paper, via Internet) or verbally (by telephone or in person).	Cost-effective way to get information on a wide range of issues. Results, especially from large random samples, can be generalized.	Closed-response options can be limiting. Data are broad but often not particularly deep.
Interviews and focus groups	Open-ended questions and improvised follow-up questions are asked in relatively lengthy face-to-face interviews that are typically recorded for later analysis.	Allows subjects the freedom to develop detailed responses in their own words; researchers can immediately ask follow-up questions.	Time and labor intensive. Data are rich and deep, but small, nonrandom sample limits generalizability.
Field research	Researchers work in natural settings observing social interactions an ongoing nature of social life.	Less intrusive than direct questioning, resulting in more natural data. Goes beyond what people say to observing what they do.	Very time and labor intensive. Data are rich and deep, but small, nonrandom sample limits generalizability. Researcher presence can affect results.

TABLE 2.2 MAJOR RESEARCH METHODS

(Continued)

Method	Features	Strengths	Weaknesses
Existing sources	Quantitative data are reanalyzed or existing materials, such as media content or historical records, are used.	Convenient and cost-effective. Existing content not affected by researcher's presence.	Data specific to the researcher's question may not be available.
Experiments	Researchers use controlled manipulation of social conditions to test hypothesis.	Can isolate specific variable to study and establish causality.	Typically limited to micro-level questions. Ethical considerations restrict their applicability.

Doing Research ⁽³⁾

- Research Methods
 - Survey Research
 - **Survey:** a data collection technique that involves asking someone a series of questions
 - **Generalize:** describe patterns of behavior of a larger population based on findings from a sample
 - **Sample:** part of the population that represents the whole
 - **Random sample:** a sample in which every element of the population has an equal chance of being chosen

Doing Research ⁽⁴⁾

- Research Methods
 - Problems with surveys:
 - Lack of clarity
 - Issues of validity
 - Lack of reliability
 - Loaded language
 - Double-barreled questions

TABLE 2.3 THREE TYPES OF SAMPLES

Sample Type	Key Feature	Strengths	Weaknesses
Convenience	Data are not representative, in a statistical sense, of a broader target population.	Simple and often inexpensive.	Not generalizable to a broader population.
Quota	Specific groups in the broader target population are included in representative proportions.	Balances generalizability with practicality.	More difficult to achieve than a convenience sample.
Random	Every element of the population has a known and equal chance of being chosen.	Generalizable to a broader population.	Often not practical; most difficult and expensive to achieve.

Doing Research ⁽⁵⁾

- Research Methods
 - Intensive Interviews and Focus Groups
 - **Intensive interview:** a data gathering technique that uses open-ended questions during somewhat lengthy face-to-face sessions
 - Field Research
 - **Field research:** a data collection technique in which the researcher systematically observes some aspect of social life in its natural setting

Doing Research ⁽⁶⁾

- Research Methods
 - Existing Sources
 - **Secondary data analysis:** a type of research using data previously collected by other researchers
 - **Content analysis:** a variety of techniques that enable researchers to systematically summarize and analyze the content of various forms of communication—written, spoken, or pictorial

Doing Research ⁽⁷⁾

- Research Methods
 - Experiments
 - **Experiment:** a data gathering technique in which the researcher manipulates an independent variable under controlled conditions to determine if change in an independent variable produces change in a dependent variable, thereby establishing a cause-and-effect relationship

Doing Research ⁽⁸⁾

- Research Ethics
 - **Informed consent:** the principle that subjects in any study must know about the nature of the research project, any potential benefits or risks they may face, and that they have the right to stop participating at any time, for any reason
- The Research Process: A Student Example

FIGURE 2.2 THE RESEARCH PROCESS



The research process can be thought of as a cycle because existing research is part of the scholarly literature that researchers consult when they develop and design a new study. When findings from a new study are published, they become part of the research literature that future scholars will review as they develop their own research projects.

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Types of Research

- **Positivist Social Science**
 - **Positivist social science:** an approach that assumes that the social world, like the natural world, is characterized by laws that can be identified through research and used to predict and control human affairs
 - **Value-neutrality:** removing any personal views from the research process

Types of Research ⁽²⁾

- Interpretive Social Science
 - **Interpretive social science:** an approach that focuses on understanding the meaning that people ascribe to their social world
- Critical Social Science
 - **Critical social science:** research carried out explicitly to create knowledge that can be used to bring about social change

TABLE 2.4 THREE APPROACHES TO SOCIAL SCIENCE RESEARCH

All three approaches are based on the search for patterns in social life, require empirical evidence to support claims, demand transparency in the methods used to gather and analyze data, and consider knowledge produced by research to be provisional.

Approach	Positivist	Interpretive	Critical
Nature of the social world	Composed of discrete elements that interact in recurring patterns, producing usually stable social systems	Composed of evolving definitions of reality formed in the context of human interaction	Structured by power imbalances that produce conflict and result in social change
Goal of the research	Identify laws in social life to enable prediction and control	Better understand the meaning that the social world holds for others	Better understand how society works to promote social change
The role of values in research	Scientific research should be value-free; researchers should pursue objectivity by maintaining a detached distance from those being studied.	Scientific research should present an accurate portrait of the people being studied, including their values; researchers can gain insight by building relationships with those being studied.	Scientific research inevitably involves a value position that researchers should make explicit; researchers should help promote positive social change.

Thinking Critically: How to Assess Research

- Quality
 - **Peer-review process:** the process in which scholars evaluate research manuscripts before they are published in order to ensure their quality
- Ask at least these questions:
 - What is the research question?
 - What is the theory informing the research?
 - How are variables operationalized?
 - What is the sample?
 - What are the data?
 - Are the conclusions justifiable?

A Changing World: Technology and Social Research

- The Internet and related technologies have transformed many aspects of social research

Through a Sociological Lens: Correlation, Causation, and Spuriousness

1. As children's shoe size increases, so does their level of academic knowledge. What third variable likely explains this correlation?
2. The overall mortality rate in the United States does vary by season, with the highest rate of deaths occurring in the winter and the lowest in the summer. Why do you think this might be the case? How might you go about investigating the correlation between season and mortality?

Sociology Works: Sydney Hessel and User Experience Research

1. Have you ever responded to a UX (User Experience) survey? If yes, how would you evaluate the survey or surveys you completed?
2. If it were your job to design a study of students' experience with *Experience Sociology*, what would you want to know? Write two specific questions that you would include in a survey to send out to student users of the text.

Sociology in Action: The U.S. Census Bureau

1. Have you ever filled out a census form? Did you know what the data would be used for?
2. Why do you think Congress might oppose using sampling techniques as part of the census?

Review

- How do social science researchers know what they claim to know?
- What special challenges might confront you as a social science researcher?
- How can you become a more informed consumer of social science research?

Long image descriptions.

APPENDIX A



FIGURE 2.2 THE RESEARCH PROCESS APPENDIX

1. Choose and explore a general topic.
2. Identify a specific research question.
3. Design the research study.
4. Consider ethical dimension of the research.
5. Collect and analyze data.
6. Report the results.

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