

## **CHAPTER 2**

### **THE RESEARCH PROCESS**

#### **LEARNING OBJECTIVES**

- To identify the principals of the scientific method used by sociologists, including the meaning of objectivity, problem formulation, and hypothesis testing.
- To learn the basic methods of data collection: use of questionnaires, interviews, observation and documentary resources.
- To be able to identify the four basic research designs: experiments, surveys, secondary research, and field research.
- To be able to identify and explain the essential structure of the experiment and how it helps to establish causality.
- To be able to identify the advantages and disadvantages of the survey design.
- To learn the types of secondary data analysis using archives, documents, government statistics and public opinion polls.
- To become aware of the ethical problems associated with doing sociological research.

#### **CHAPTER OUTLINE**

- I. Research and the Science of Sociology
- II. Steps in the Research Process
  - A. Formulating the Problem
  - B. Measurement
  - C. Collecting Data
  - D. Analyzing and Interpreting Data
- III. Research Designs
  - A. Experimental Designs
  - B. Surveys
  - C. Secondary Research
  - D. Field Research
- IV. Life Connections: Gender and the Wage Gap

- V. Society Connections: The Ethics of Research
  - A. Research Subjects at Risk
  - B. Informed Consent and the Need to Know

### **SUMMARY**

1. Sociologists use the scientific method to test, modify and develop their theories. As much as possible, they attempt to keep their observations and conclusions objective and value-free.
2. The first step in the scientific research process is to find a problem to investigate. After reviewing work that has already been done on a topic, the researcher poses an as-yet-unanswered question and formulates a potential answer, called a hypothesis.
3. A hypothesis is a prediction about the relationship between two variables, one of which—the independent variable—may be manipulated to reveal changes in the other, dependent variable. Both variables must be defined in such a way that they can be measured.
4. Sociologists collect data on research variables using questionnaires, interviews, observations, and documentary resources such as census records. Although personal interviews are a rich and reliable source of information, they are quite costly and time-consuming compared with questionnaires and telephone interviews.
5. Besides summarizing the results of their research and drawing conclusions, sociologists must question the validity (accuracy) of their data and also decide whether their results might legitimately be applied to a broader population.
6. There are four major types of sociological research: experiments, surveys, secondary research, and field research. Each is guided by a specific research design, or plan for collecting data.
7. The research design for an experiment typically has four steps: (1) establish two separate groups, an experimental group and a control group; (2) assign subjects to the two groups randomly; (3) measure the dependent variable both before and after the experiments; and (4) compare the two sets of measurements.
8. To establish a causal relationship between two variables, experimenters must satisfy four conditions: (1) the cause must occur *before* the effect; (2) the two variables must be correlated, or linked systematically; (3) the relationship between the two variables must not be explainable by some third variable; and (4) there must be a logical explanation for the presumed causal relationship.

9. Sociological experiments are often performed in the field—that is, in the natural settings where people live and work. Because experimental conditions cannot be controlled in this type of setting, field experiments cannot determine causality.
10. Surveys are a type of research well suited to studying the attitudes of large groups of people. Though surveys cannot establish a causal relationship between variables, they can quantify the relationship, and the results can often be applied to a broader population.
11. Secondary research involves the analysis of data drawn from work of others—archives, newspapers, diaries, government statistics, or public opinion polls, for instance. This type of research is used heavily in cross-cultural studies and studies of social change.
12. Field research usually involves the long-term, in-depth study of a group of people in their natural environment by sociologists who may choose to participate in the group. This method of research produces qualitative, or nonnumerical, data, which are generally used to develop a hypothesis about the subject under study.
13. In the past most sociological research was done on white, middle-class males. Guided by feminist research strategies, sociologists now study more diverse samples of people, especially women and racial minorities.
14. Sociologists must take care to follow ethical guidelines in their research, to protect the rights and dignity of those they study. Confidentiality and informed consent—the requirement that sociologists first explain a study to participants and obtain their permission to be subjects—are imperative.

### **CRITICAL THINKING QUESTIONS**

1. Demonstrate how theory and research are linked in a cycle and why this linkage is necessary for the objectives of science.
2. Discuss the pros and cons of each type of sociological research (experiments, surveys, secondary research, and field research).
3. Explain why identifying the causes for human social behavior is the most difficult task sociologists face in doing research. How can they design research to overcome this difficulty?
4. You have been assigned to do field research on the aged. Because you are much younger than the group you are to study and do not feel comfortable joining them in their activities, you decide to remain an outsider. Is your choice an ethical one?

How might it affect the result of your study? What might be a better solution to your problem?

5. Why is informed consent necessary to conduct research but also compromising for the goals of research?

### **DIVERSITY DATA**

Figure 2.3 (p. 39) People from high-income families are more likely to report having excellent health than people from low-income families.

1. Give as many reasons as you can for why health improves with income.
2. What would the figure look like if it showed the percentage of people reporting poor health?

Figure 2.4 (p. 46) People from high-income families are more likely to say they find life exciting than are people from low-income families.

1. How is the pattern in this graph similar, and how different, from the pattern in Figure 2.3?
2. Do you think there is any connection between finding life exciting and having good health?

### **FILM AND VIDEO SUGGESTIONS**

#### **GENERATING RESEARCH**

(2000, 34 minutes, Insight Media)

**Summary:** This video discusses hierarchy, power, control, causal effects, manipulation, distance, and the concepts of objectivity and neutrality.

#### **SOCIOLOGICAL INQUIRY**

(2002, 30 minutes, Insight Media)

**Summary:** This video discusses the importance of empirical research, demonstrates the process of quantitative research, and looks at the mixed method approach to sociological inquiry.

## HOW NUMBERS LIE: MEDIA TRUTH OR FICTION

(1996, 23 minutes, Insight Media)

**Summary:** This program warns viewers of the persuasive power of numbers. It teaches how to think critically and analyze statistics disguised as facts.

## SOCIOLOGICAL THINKING AND RESEARCH

(1991, 30 minutes, Dallas Telecourse distributed by RMI Media Productions)

**Summary:** The scientific method is contrasted with common sense and conventional wisdom. Steps in the research process are outlined. Some uses of research findings are discussed. It is argued that seeing can be deceiving, things are seldom what they seem on the surface.

## AGAINST ALL ODDS: INSIDE STATISTICS

(1989, two segments 29 minutes each, The Annenberg CPB Collection distributed by Intellimation)

**Summary:** The first program is titled, "What Is Statistics?" It provides a clear understanding of statistical applications--market research, demographic profiles, and test marketing of products. It talks about samples, experiments, probability, placebos, public opinion polls, and confidence levels. Program 2 is titled, "Picturing Distributions." It shows the power of graphics to display data. It provides an easy-to-follow discussion of the shape, center, and spread of distributions, histograms, and skewed distributions. The material is not sociological, but it does a good job of making some difficult ideas more accessible to students.

## MONOPOLY, CULTURE AND ACADEMIC FREEDOM

(1986, 72 minutes, People's Video)

**Summary:** This is a lecture at the University of Vermont by Michael Parenti which offers an articulate class analysis of the control of the university and of other cultural and social institutions. Parenti cites examples of those who have "sucked up to power" and talks about the political firings of those who speak "truth to power."

## RESEARCH METHODS FOR THE SOCIAL SCIENCES

(1995, 33 minutes, Insight Media.)

**Summary:** An introduction to research methods for the social sciences, this video explains how to gather and interpret data. It examines types of experimental design, considers when each is most appropriate, and discusses the use of control and experimental groups.

MEASURING UP: AN INTRODUCTION TO RESEARCH METHODS  
(1995, 12 minutes. Insight Media.)

**Summary:** This presentation shows how to gather, organize, summarize, and analyze data, focusing on standardized testing, surveys, samples, populations, sample statistics and population parameters, qualitative and quantitative data, and variables.

## **MULTIPLE CHOICE QUESTIONS**

1. Reports show that:
  - a. the gap between the richest Americans and everyone else is narrowing.
  - b. suicide among young people has declined since 1950.
  - c. a large percentage of people of color have no health insurance.
  - d. all of the above

(C – Page 29) [K]
  
2. Social scientists who gauge economic and social progress may rely on \_\_\_\_\_ research, accessing available data such as stock market prices, unemployment rates, and statistics on health and welfare.
  - a. survey
  - b. secondary
  - c. armchair
  - d. experimental

(B – Page 29) [K]
  
3. The method in which the researcher collects data in a natural setting is termed:
  - a. field research.
  - b. an experiment.
  - c. survey research.
  - d. laboratory research.

(A – Page 29) [D]
  
4. \_\_\_\_\_ is a systematic procedure for acquiring knowledge that relies on empirical evidence.
  - a. The scientific method
  - b. Qualitative inquiry
  - c. Theory building
  - d. Armchair research

(A – Page 30) [D]
  
5. Recognizing that sociology would be in peril if values or personal opinions biased research, Max Weber called for sociologists to be \_\_\_\_\_ in their work.
  - a. passionless
  - b. empirical
  - c. value-free
  - d. hypothetical

(C – Page 31) [K]
  
6. An unverified statement of a relationship between variables, or an expectation or prediction derived from a theory, is called a:
  - a. theoretical paradigm.
  - b. correlation.
  - c. hypothesis.
  - d. concept.

(C – Page 31) [D]
  
7. The last task in the problem formulation step in the research process is:
  - a. finding the problem.
  - b. specifying a research question.
  - c. reviewing the literature.
  - d. developing a hypothesis.

(D – Page 31) [K]

8. The concepts in a hypothesis are stated as \_\_\_\_\_ – characteristics or traits that can be measured.
- a. variables
  - b. theories
  - c. correlations
  - d. research questions
- (A – Page 32) [D]
9. Men are likely to express romantic love sooner in a couple’s relationship than are women. In this example, “expression of romantic love” is:
- a. the independent variable.
  - b. a spurious variable.
  - c. a random variable.
  - d. the dependent variable.
- (D – Page 33) [C]
10. To clarify the influence of the independent variable on the dependent one, other variables should be held constant. These other variables are referred to as:
- a. control variables.
  - b. interdependent variables.
  - c. random variables.
  - d. hypothetical variables.
- (A – Page 33) [D]
11. The speculation that ice cream consumption increases juvenile delinquency is a:
- a. theory.
  - b. hypothesis.
  - c. concept.
  - d. correlation
- (B – Page 31) [C]
12. \_\_\_\_\_ is the process of assigning values to variables.
- a. Operational definition
  - b. Control
  - c. Measurement
  - d. Hypothesizing
- (C – Page 33) [D]
13. When a researcher specifies how concepts and variables will be empirically measured, he is forming a/an:
- a. conceptual definition.
  - b. measurement.
  - c. composite variable.
  - d. operational definition.
- (D – Page 33) [D]
14. You have achieved the quality of consistency in measurement for your study. Your study now has:
- a. reliability.
  - b. validity.
  - c. repeatability.
  - d. measurement congruence.
- (A – Page 34) [C]



15. A sociologist runs repeated tests on his or her measure of social status to check for consistency in measurement. His/her goal is to ensure that the status measure is:
- a. valid.
  - b. reliable.
  - c. internally valid.
  - d. congruent.
- (B – Page 34) [C]
16. What is the term for the quality of measuring precisely what one intends to measure?
- a. measurement congruence
  - b. repeatability
  - c. reliability
  - d. validity
- (D – Page 33) [D]
17. The question, “Would you get the same results if you repeated the measurement,” is related to:
- a. reliability.
  - b. triangulation.
  - c. validity.
  - d. repeatability.
- (A – Page 34) [C]
18. The key concern about reliability is the \_\_\_\_\_ of the measurement.
- a. validity
  - b. sampling
  - c. consistency
  - d. repeatability
- (C – Page 34) [K]
19. \_\_\_\_\_ refers to the entire group of people who are the focus of the research and to whom the research results will be generalized.
- a. Sampling
  - b. Population
  - c. Reliability
  - d. Validity
- (B – Page 34) [D]
20. A/an \_\_\_\_\_ is a subset or part of the larger population that is being studied.
- a. interpretation
  - b. paradigm
  - c. datum
  - d. sample
- (D – Page 34; 36) [D]
21. What people say about how they think they *should* act may be different from what they actually *do*. This is why more valid data are obtained when questionnaires are supplemented by interviews. This use of multiple data collection is referred to as:
- a. triple insurance.
  - b. the Ann Landers Method.
  - c. triangulation.
  - d. advanced validity.
- (C – Page 36) [C]
22. \_\_\_\_\_ means transforming the raw data into numbers to make it suitable for analysis.
- a. Triangulation
  - b. Coding
  - c. Advanced validity
  - d. Interpretation
- (B – Page 36) [D]

23. The last stage of the research process is:
- a. evaluation.
  - b. theory building.
  - c. the hypothesis.
  - d. interpretation.
- (A – Page 37) [K]
24. Which type of research design is the foundation for science in general, regardless of discipline?
- a. the experiment
  - b. research
  - c. survey research
  - d. content analysis
- (A – Page 38) [K]
25. Which of the following is among the conditions that must be met before a researcher can say that an independent variable or variables *caused* the change in the dependent variable?
- a. time order
  - b. correlation
  - c. elimination of spuriousness
  - d. all of the above
- (D – Page 38) [K]
26. A researcher wishes to examine the effects of telling jokes during an exam on the test performance of sociology students. An experiment is conducted in which one class is told jokes and another is not. The class told the jokes is:
- a. found to score higher.
  - b. the experimental group.
  - c. the control group.
  - d. most important in the experiment.
- (B – Page 38) [C]
27. An apparent, although false, association between two or more variables caused by some other variable is termed a:
- a. spurious relationship.
  - b. specious association.
  - c. scientific control.
  - d. negative correlation.
- (A – Page 38) [D]

28. You have conducted your research, and wish to state that your findings show that the independent variable caused the change in the dependent variable. Which of the following conditions would prevent you from being able to do so?
- The independent and dependent variables are linked in a patterned way so that the change in the dependent variable corresponds to a change in the independent variable.
  - Variables other than the independent and dependent ones have been controlled for; that is, they cannot explain the correlation.
  - There is not a clear and logical link between the independent and dependent variables, but the correlation is obvious; therefore, you have demonstrated cause and effect.
  - The cause (independent variable) did precede the effect (dependent variable) in time.

(C – Page 38-39) [K]

29. A researcher theorizes that the dramatic increase in the popularity of the personal computer was caused by the increased use of e-mail. Which of the conditions required to establish cause and effect has the researcher violated?
- There must be a systematic statistical link between the variables.
  - The possibility of a spurious relationship must be eliminated.
  - There must be a logical link between the variables that explains why the two are related.
  - The independent variable must precede the dependent variable in time.

(D – Page 38-39) [C]

30. Which of the following is a basic lesson to be remembered when conducting field research?
- Social patterns are primarily unchanging; therefore, research findings from 50 years ago are usually still valid.
  - Objectivity is usually easily attained for most social scientists.
  - Human behaviors are very much alike the world over, making prediction easier for social scientists than it is for astronomer.
  - Being observed affects how people behave, because humans respond to their surroundings.

(D – Page 40) [K]

31. You are conducting an experiment on male and female interactions when you discover that each person you watch changes his/her ways of interacting. You have just observed:
- validity problems.
  - the Hawthorne effect.
  - the drawbacks of field research.
  - experimental bias.

(B – Page 40) [C]

32. Well suited to studying large numbers of people, \_\_\_\_\_ use(s) questionnaires and interviews for data collection.
- |                    |                   |
|--------------------|-------------------|
| a. survey research | c. experiments    |
| b. interviews      | d. field research |
- (A – Page 41) [D]
33. A part of a population that represents the whole is called a/an:
- |                        |                    |
|------------------------|--------------------|
| a. sample.             | c. target group.   |
| b. experimental group. | d. sampling frame. |
- (A – Page 41) [D]
34. When researchers draw a sample from the population in such a way that every member has an equal chance of being selected, he is ensuring that he has a/an:
- |                   |                               |
|-------------------|-------------------------------|
| a. random sample. | c. representative population. |
| b. target group.  | d. large enough sample.       |
- (A – Page 41) [D]
35. What was the problem with the 1936 Literary Digest poll that predicted that Alfred E. Landon would defeat Franklin D. Roosevelt?
- |   |
|---|
| a. The Literary Digest's sample was too small.                            |
| b. The pollsters asked vague questions.                                   |
| c. The magazine's sample was not representative of the voting population. |
| d. The Literary Digest used only telephone surveys.                       |
- (C – Page 41) [K]
36. As research subjects, college and university students fall into the category of \_\_\_\_\_ samples.
- |                |               |
|----------------|---------------|
| a. random      | c. snowball   |
| b. convenience | d. stratified |
- (B – Page 41) [C]
37. \_\_\_\_\_ are data-collection devices that are filled out by the respondent and returned directly by mail.
- |                   |                   |
|-------------------|-------------------|
| a. Experiments    | c. Interviews     |
| b. Mailed surveys | d. Questionnaires |
- (D – Page 42) [D]
38. In a questionnaire, the question, "What is your age in years," represents which of the following?
- |                          |                         |
|--------------------------|-------------------------|
| a. a closed-ended format | c. an open-ended format |
| b. an interview format   | d. triangulation        |
- (A – Page 42-43) [C]

39. In a questionnaire, the question, "Please express your feelings about nuclear power," is an example of which of the following?
- a. a closed-ended format
  - b. an interview format
  - c. an open-ended format
  - d. triangulation
- (C – Page 44) [C]
40. You are conducting a research project to learn more about marital satisfaction. You are using questions such as, "What do you believe is the major strength of your marriage?" This is an example of a/an:
- a. closed-ended question.
  - b. triangulated question.
  - c. trick question.
  - d. open-ended question.
- (D – Page 44) [C]
41. In survey research, which of the following is the *best* way to get answers to complex questions?
- a. face-to-face interviews
  - b. written questionnaires with closed-ended questions
  - c. written questionnaires with open-ended questions
  - d. telephone interviews
- (A – Page 44) [K]
42. Which of the following is/are (a) disadvantage(s) of the face-to-face interview?
- a. Face-to-face interviews require fast and continuous writing, which can lead to recorded inaccuracies.
  - b. Interviewer bias may creep in when a respondent needs to have a question clarified.
  - c. Face-to-face interviews are more costly than written questionnaires.
  - d. all of the above
- (D – Page 44-45) [K]
43. Which of the following is/are (an) advantage(s) of telephone interviews?
- a. They are more efficient, in terms of both time and cost.
  - b. They are comparable to personal interviews in reliability and validity.
  - c. They are convenient for both the interviewer and the respondent.
  - d. all of the above
- (D – Page 45) [K]
44. Which research method is being used when sociologists reanalyze data that were originally gathered for other purposes?
- a. convenience research
  - b. secondary analysis
  - c. survey research
  - d. primary analysis
- (B – Page 45) [D]

45. What is the best known illustration of the long and prestigious heritage of secondary research using documentary resources?
- a. Marx's *Das Kapital*
  - b. Weber's *Protestantism & The Rise of Capitalism*
  - c. Comte's *Sociology*
  - d. Durkheim's *Suicide*

(D – Page 45) [K]

46. A researcher interested in political campaigns has looked through newspapers and recorded the amount of coverage given to different aspects of political candidates, from their personal backgrounds to their views on education or the economy. Which research method has he used?
- a. participant observation
  - b. ethnography
  - c. document sampling
  - d. content analysis

(D – Page 46) [K]

47. If you would like to determine public and media reaction to the Enron scandal, which research method would you use?
- a. unobtrusive measures
  - b. ethnography
  - c. document sampling
  - d. content analysis

(D – Page 46) [K]

48. Sociologists view graffiti as something more than a mere eyesore because:
- a. It may be analyzed as representing the new wave in local art.
  - b. It represents the position of juvenile delinquency in society.
  - c. It can be analyzed for clues to social issues and social concerns.
  - d. Sociologists can appreciate it as lower class art.

(C – Page 48) [K]

49. Studying graffiti for clues to social issues and concerns is an example of:
- a. using unobtrusive measures.
  - b. conducting documentary research.
  - c. using content analysis.
  - d. conducting participant observation.

(A – Page 48) [K]

50. \_\_\_\_\_ is a research design aimed directly, in natural settings, collecting data on what people say and do.
- a. The survey
  - b. Field research
  - c. The experiment
  - d. Participant observation

(B – Page 48) [D]

51. The hallmark of field research is:
- a. creativity.
  - b. quantitative analysis.
  - c. unobtrusive measures.
  - d. the experiment.
- (A – Page 48) [K]
52. \_\_\_\_\_ analysis involves the summary of data in nonnumerical ways in order to discover underlying meanings and to build theory.
- a. Quantitative
  - b. Methodological
  - c. Qualitative
  - d. Hypothetical
- (C – Page 48) [D]
53. What is the term for a description of customs, beliefs, and values of a particular culture?
- a. ethnography
  - b. exploratory study
  - c. case study
  - d. experiment
- (A – Page 49) [D]
54. If you resided with a tribe of Aborigines for a year and then published a description of their customs, beliefs, and values, what type of research would this be?
- a. ethnography
  - b. exploratory study
  - c. case study
  - d. experiment
- (A – Page 49) [C]
55. In \_\_\_\_\_, the researcher witnesses, experiences, and engages firsthand in the activities of the group being studied.
- a. ethnography
  - b. participant observation
  - c. case studies
  - d. surveys
- (B – Page 49) [D]
56. In the role of \_\_\_\_\_, the researcher becomes a member of the group being studied, interacting with subjects as naturally as possible, but does not inform them of the research being done.
- a. participant-as-observer
  - b. interviewer
  - c. complete participant
  - d. ethnographer
- (C – Page 49) [D]
57. In the role of \_\_\_\_\_, the researcher informs subjects of the study being done and tries to participate in the group as much as possible.
- a. complete participant
  - b. interviewer
  - c. ethnographer
  - d. participant-as-observer
- (D – Page 49) [D]

58. William Foote Whyte's study, *Street Corner Society*, showed that:
- the slum area had a rather simplistic value system.
  - the area was a chaotic slum.
  - the slum area was a highly organized community.
  - a Harvard sociologist could not cope in a slum environment.
- (C – Page 49) [K]
59. William Foote Whyte's study, *Street Corner Society*, used which type of sociological method?
- experiment
  - participant observation
  - survey
  - secondary analysis
- (B – Page 50) [K]
60. The value of qualitative research is revealed in the findings of the studies conducted by Whyte (*Street Corner Society*), by Gans in his study of another Boston Italian-American community, and by Liebow (*Tally's Corner*). What was the common finding of these studies?
- In seemingly chaotic environments, underlying social patterns were discovered.
  - Slums are indeed the chaotic places that outsiders imagine.
  - Slum areas appeared to have rather simplistic value systems.
  - Urban change causes social disorganization and an almost complete destruction of previous social patterns.
- (A – Page 49) [K]
61. When Julius Roth found himself confined to a hospital as a long-term tuberculosis patient, he conducted research about the social structure of the hospital. Roth's research illustrates which role?
- participant-as-observer
  - participant-observer as group member
  - complete participant
  - face-to-face interviewer
- (B – Page 50) [K]
62. Leon Festinger's study of a doomsday cult led to the development of a major social psychological theory known as:
- anomie.
  - differential identification.
  - cognitive dissonance.
  - cultural transmission.
- (C – Page 51) [K]
63. You have been accused of androcentricity in your research. You may be guilty of:
- overgeneralization.
  - approaching your research from a male perspective.
  - following a feminist approach too closely.
  - adopting a subjectivist viewpoint.
- (B – Page 52) [C]



64. Drawing conclusions about all of humanity, based on information drawn only from males is called:
- androcentricity.
  - gender blindness.
  - overgeneralization.
  - employing a double standard.
- (A – Page 52) [D]
65. In explaining the gender and wage gap, \_\_\_\_\_ theorists suggest that men make the rules that will maintain their economic advantage over women.
- functionalist
  - symbolic interactionist
  - conflict
  - developmental
- (C – Page 54) [K]
66. The \_\_\_\_\_ Experiment used African American men from Macon County Alabama as subjects in an investigation of the long-term effects of untreated syphilis on black males.
- Milgram
  - Tuskegee
  - Zimbardo
  - Whyte
- (B – Page 54) [K]
67. What do the research of Stanley Milgram (obedience to authority), Philip Zimbardo (prison environmental impact on self-identity), and Laud Humphreys (tearooms) have in common?
- They are all examples of survey research.
  - They are all examples of research investigations that raises serious ethical concerns.
  - They are all examples of participant observation.
  - They are all examples of how to avoid violating ethical standards in research.
- (B– Page 55) [K]
68. One of the ethical principles required of sociologists is \_\_\_\_\_, which means that at potential research subjects have enough knowledge about the research to make a reasonable decision about participation.
- informed consent
  - value-free exploration
  - the absence of research bias
  - open discussion
- (A – Page 57) [D]

### **TRUE/FALSE QUESTIONS**

1. In sociology, theory and research are not always intertwined.

(F – Page 30)

2. While sociologists attempt to conduct scientific research, most find it impossible to carry out this research in a neutral, unbiased manner, and thus seldom try to do so.  
(F – Page 30-31)
3. The problem formulation stage is usually the easiest stage of a research project.  
(F – Page 31)
4. A review of the literature enables the researcher to build a conceptual framework that summarizes information about the research and integrates important concepts.  
(T – Page 32)
5. In research, change in the independent variable is presumed to cause change in the dependent variable.  
(T – Page 32)
6. Changes in the dependent variable at least partially *depend* on changes in the independent variable.  
(T – Page 32)
7. In order to test a hypothesis, concepts must be translated into variables that can be measured.  
(T – Page 33)
8. Measurement is the process of assigning values, such as numbers, to variables.  
(T – Page 33)
9. An operational definition specifies how concepts and variables are empirically measured.  
(T – Page 33)
10. The term *validity* refers to the consistency of the measurement.  
(F – Page 33)
11. The term *reliability* refers to whether you are measuring what you say you are measuring (or something else).  
(F – Page 34)
12. Science is self-correcting because the research on which it is based is continually improved upon.  
(T – Page 34)
13. The four major types of research design are experiments, surveys, secondary research, and field research.  
(T – Page 34)

14. Populations can usually be investigated without sampling procedures.  
(F – Page 34)
15. The sample is supposed to represent the larger population.  
(T – Page 35-36)
16. Research is not influenced by culture; therefore, in cross-cultural research, problems are lessened.  
(F – Page 35)
17. Triangulation involves the use of a single data collection method.  
(F – Page 36)
18. Experiments rely on the essential condition that the researcher can manipulate, and thus control, the independent variable in certain ways.  
(T – Page 38)
19. Flipping a coin is an example of random assignment.  
(T – Page 38)
20. Determining causes is the most important goal in doing research, and is fortunately one of the easier goals to accomplish.  
(F – Page 38)
21. When a correlation between two variables exists, there is always a clear indication of which variable comes first.  
(F – Page 38-39)
22. Eliminating spuriousness is fairly easy to do, if one is paying attention.  
(F – Page 39)
23. In conducting field research, one must remember that too much naturalness hurts control, and too much control hurts naturalness.  
(T – Page 41)
24. In sociology, survey research is conducted far less often than field and experimental research.  
(F – Page 41)
25. Like experiments, surveys can be used to test hypotheses, but correlations rather than causes are drawn from the data.  
(T – Page 41)

26. Three of the four conditions of causality can usually be met through survey research, but it is almost impossible to eliminate spuriousness.  
(T – Page 41)
27. Closed-ended questions make it easy for a researcher to learn all that respondents think about a subject.  
(F – Page 43)
28. Using open-ended questions enhances validity, but decreases reliability.  
(T – Page 44)
29. The most difficult obstacle to resolve in personal interviews is that of anonymity.  
(T – Page 44)
30. Telephone research lacks efficiency.  
(F – Page 45)
31. Secondary analysis is not very popular because it is probably the most expensive way to collect data.  
(F – Page 45)
32. Despite a massive amount of social change over the century since Durkheim's study of suicide, essentially the same correlation between suicide and social integration still exists today.  
(T – Page 45)
33. Content analysis has revealed differences in the media portrayal of male and female candidates.  
(T – Page 46)
34. A *physical trace* is a type of unobtrusive measure.  
(T – Page 48)
35. Creativity is less important in field research.  
(F – Page 48)
36. Rather than *developing* hypotheses, qualitative analysis is commonly used to *test* hypotheses.  
(F – Page 48-49)
37. The participant-as-observer role provides opportunities for ethically acceptable research on people and places otherwise inaccessible.  
(T – Page 50)

38. Medical research is one of the few areas where there has not been an androcentric bias.  
(F – Page 52)
39. The gender wage gap has widened in recent years.  
(F – Page 53)
40. Milgram, Zimbardo, and Humphreys' research illustrate important ethical issues.  
(T – Page 55-56)
41. Informed consent is a basic tenet of all scientific research and is found in the code of ethics of every professional association that uses human subjects.  
(T – Page 57)

### **SHORT ANSWER QUESTIONS**

1. In terms of accuracy in research, what did Max Weber believe to be a crucial element that would ensure the accuracy, integrity and endurance of sociology as a science?
- A: The researcher must be objective – his research must be carried out in a neutral, unbiased way. He recognized that sociology would be in peril if values or personal opinions colored research.  
(Page 30-31)
2. List the steps in the research process.
1. formulating the problem
  2. measurement
  3. choosing a research design
  4. collecting data
  5. analyzing and interpreting data
  6. evaluating the results
- (Page 31)
3. List the four conditions that must be met before a researcher can say that an independent variable or variables *caused* the change in the dependent variable.
- A:
- (1) Time Order – the cause must come before the effect
  - (2) Correlation – the independent and dependent variables are linked in a patterned way so that a change in one corresponds to a change in the other
  - (3) Elimination of spuriousness – the correlation cannot be explained by a third variable (all intervening variables must be controlled for)

(4) Theory – there must be a logical link between the variables that explains why they are related

(Pages 38-39)

4. What is the drawback in using the open-ended format on questionnaires?

A: This allows respondents to respond freely with various types of opinions, but then the researcher is likely to have difficulty in coding and summarizing the data. Validity is enhanced, but this advantage leads to a disadvantage in terms of reliability.

(Page 43-44)

5. Why are unobtrusive measures important in sociological research?

A: The researcher who uses them is removed from what is being studied and so can have no influence on the data.

(Page 48)

### **ESSAY QUESTIONS**

1. Discuss sociology as a science, beginning with your definition of “science.” In what respects is sociology a science? If you feel that certain aspects of sociology are not scientific, note these and explain why.
2. Discuss how theory and research are linked in a cycle and why this linkage is necessary for the objectives of science.
3. You have a theory based on the hypothesis that the breakdown of social control in the home/family causes juvenile delinquency. How would you go about testing this hypothesis? (Would you use an experimental design?) Explain how you would test the hypothesis using surveys, participant observation, and secondary analysis. Finish your essay with an explanation of what you would do if the results from all these tests were not the same.
4. Discuss the primary ethnical considerations involved with sociological research.
5. Discuss the wage gap between males and females in the U.S. What does the research show in terms of the variables measured? Explain the wage gap using each of the three major theoretical perspectives. Then, considering the fact that the best explanations account for most of the data and for changes in the data over time, explain which theory you think provides the best explanation and why.