Social Research Methods: An Instructor's Manual

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To the Instructor:

As you may have noticed, Social Research Methods contains many of the pedagogical elements that one expects to find in an instructor's manual. For example, there are key concepts and a summary of the main ideas at the end of the chapters in addition to exercises and an annotated list of suggested further readings.

The exercises provide hands-on practice, but they can also be used as the basis for discussions. The summary of the main topics gives students a kind of road map—when they get through each chapter, they should recognize each of the topics and be able to assess whether they need more review on particular topics. Encourage students to form small groups to discuss each of the key concepts and to bring questions to class.

The summary of the main topics can also be used to develop essay questions, so this manual does not contain essay questions. This manual provides some multiple-choice and some true-false questions for exams, along with some topics for further discussion in each chapter.

Please contact us if you or your students find that some questions may have more than one correct answer, or if you'd like to suggest a re-wording of a question or answer.

We are preparing a CD-ROM and an Internet site to accompany the textbook. The disk will contain this instructor's manual and will grow as colleagues contribute exam questions and exercises. Of course, all contributions of materials will be attributed. Please contact us if you or your students would like to contribute to what we hope will be a continually growing resource.

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Chapter 1: About Social Science

1. The core social and behavioral sciences include:
   1. psychology, sociology, anthropology, political science, and economics
   2. sociology, anthropology, political science, geography, and economics
   3. psychology, anthropology, geology, political science, and economics
   4. psychology, sociology, psychiatry, political science, and economics
   5. psychology, sociology, anthropology, political science, and nursing

2. The study of how we know things is called:
   1. science
   2. epistemology
   3. methods
   4. techniques
   5. empiricism

3. Social science encompasses both the positivist empirical epistemology and:
   1. a formalist one
   2. an irrationalist one
   3. an interpretive humanist one
   4. a negative subjectivist one
   5. a physical reductist one

4. René Descartes’s crucial epistemological distinction, which underpins all of science, is the realization that there is a difference between the mind and:
   1. external reality
   2. matter
   3. unconscious
   4. imagination
   5. self

5. A central insight of the Enlightenment was that:
   1. other parts of the world existed in which people practiced different religions
   2. information and knowledge could be acquired, stored, and accumulated
   3. scientifically acquired knowledge could be put to work in service to the improvement of humanity
   4. ancient knowledge that had been lost could be recaptured
   5. certain individuals had the capacity for high degrees of intellectual achievement

6. One of Voltaire’s objectives for science was to:
   1. prolong the human life span
   2. prove the existence of God
   3. prove the supremacy of European civilization
   4. increase the standard of living for the rich
   5. enlighten government in the management of human affairs
7. Comte's notion of positivism included the idea that:
   1. metaphysics is the road to truth
   2. truth can only be found via reason and not by empiricism
   3. a science of social phenomena is ultimately not possible
   4. the scientific method is the surest way to produce effective knowledge
   5. scientists should become priests

8. The belief that humans acquire knowledge through their ability to reason is called:
   1. empiricism
   2. rationalism
   3. humanism
   4. positivism
   5. interpretivism

9. Empiricism is the epistemological position that:
   1. a priori truths are discovered by rigorously applying human reason to phenomena
   2. we are born tabula rasa and, through reason, we fill our head with self-evident truths
   3. both Plato and Leibnitz advocated as the way to acquiring undisputed knowledge
   4. our brains structure what we see in life and therefore all knowledge is relative
   5. all knowledge is acquired from sensory experiences

10. The following were key figures in the reaction against positivism in social science:
    1. Wilhelm Dilthey and Edmund Husserl
    2. Auguste Comte and Adolphe Quételet
    3. John Stuart Mill and Jean Jacques Rousseau
    4. David Hume and John Locke
    5. Claude-Henri de Saint-Simon and William F. Ogburn

11. A principal tenet of humanism is that:
    1. science is useless
    2. the scientific method is not appropriate for studying human beings
    3. positivistic science does not need to rely on quantitative methods
    4. to understand humans is to understand the web of meanings in which their lives are entangled
    5. 2 and 4

12. The ancient author of famous dictum that "man is the measure of all things" was:
    1. Socrates
    2. Plato
    3. Protagoras
    4. Pythagoras
    5. Aristotle
13. What epistemological position holds that free-flowing texts (such as the Bible, political speeches, and doctor-patient interactions) contain truths and that these truths can be discovered by a close and careful study of their internal meanings?
   1. symbolism
   2. interpretivism
   3. humanism
   4. phenomenology
   5. hermeneutics

14. The Vienna Circle of logical positivists held that:
   1. the role of science is to generate ideas, not to test them
   2. ideas about the relative value of artistic products are testable with the scientific method
   3. knowledge is based on experience
   4. metaphysical explanations of phenomena are compatible with science
   5. art (e.g., painting, music, poetry, literature) is incompatible with science

15. Instrumental positivism differs from Comte’s positivism and the positivism of the Vienna Circle in that it advocates making the social sciences more scientific by:
   1. making them value free
   2. making them unethical
   3. making them qualitative
   4. making them boring
   5. making them metaphysical

16. Phenomenology emphasizes:
   1. direct observation of social phenomena
   2. understanding social reality through the other person’s eyes
   3. the common experiences of all human beings and our ability to relate to others
   4. describing human reality with words rather than with numbers
   5. all of the above

17. Francis Bacon advocated the use of direct observation to confirm ideas and suggested the linking together of observable facts to form theories of how natural phenomena work. This process was called:
   1. the experimental model
   2. deduction
   3. the hypothetico-deductive model
   4. induction
   5. empiricism

18. Isaac Newton combined induction and deduction into a single method called:
   1. the experimental model
   2. the hypothetical model
   3. the hypothetico-deductive model
   4. the interpretivist model
   5. the clinical model
19. Qualitative data are used in which of the following epistemological traditions of social science?
   1. positivist
   2. hermeneutic
   3. phenomenological
   4. interpretivist
   5. all the above

20. John Locke argued that:
   1. the scientific method could be applied equally to the study of planets and to the study of human behavior
   2. predictions about human behavior could not be made with sufficient accuracy to be useful for government
   3. measurement of social phenomena was flawed and therefore only reason should be used in trying to understand those phenomena
   4. if we understand a priori truths, it's because of the way our brains are structured
   5. all science, including social science, should be value neutral and not value free

21. Who developed the idea of the experiment—making something happen so the results could be measured?
   1. Galileo
   2. Hume
   3. Locke
   4. Bacon
   5. Newton

22. Which of the following are practical results of social science?
   1. life insurance rates
   2. cigarette advertising
   3. the age at which social security kicks in
   4. the treatment of phobias
   5. all the above

23. Which of the following inventions was most important in the development of modern science?
   1. the sextant
   2. the telephone
   3. the printing press
   4. the telescope
   5. calculus

24. The works of Jane Addams and Florence Nightingale are examples of:
   1. the social activism that was characteristic of early positivism
   2. value-free social science
   3. the benevolence of 19th-century governments in Europe
   4. research conducted by members of the Vienna Circle
   5. attempts by religious leaders to co-opt science
25. The distinction between the *geisteswissenschaften* and the *naturwissenschaften*—that is, the human sciences and the natural sciences—is most associated with:
   1. Galileo Galilei
   2. Isaac Newton
   3. John Stuart Mill
   4. Wilhelm Dilthey
   5. John Locke

26. Ethics is:
   1. a philosophy of investigation and is part of the humanistic tradition
   2. an important part of methods in all social science investigation
   3. the religious orientation of social science
   4. of concern only if investigators might harm their research subjects
   5. far more important in medicine than the social sciences

27. T F As the social sciences have become more and more specialized, the research methods used by practitioners in the different fields have become more and more distinct.
   True
   False

28. T F All social science disciplines deal with human behavior and thought at both the individual and group levels.
   True
   False

29. T F Scientists typically believe that truly objective inquiry is possible.
   True
   False

30. T F The Enlightenment philosophers, from Bacon to Rousseau, believed strongly that science could lead humanity toward perfection.
   True
   False

31. T F Commitment to one epistemological position or another is independent of any commitment to the use of qualitative or quantitative data.
   True
   False
**Topics and Questions for Discussion**

Go over the difference between science and technology. Does social science produce useful technologies? Why do you suppose the public remains skeptical about the importance of social science in everyday life?

Discuss the eclecticism of methods in the social sciences. Ask students to go to the library and find examples of experiments by sociologists, of participant observation by psychologists, and of questionnaire surveys by anthropologists.

Go over the norms of science. Ask students to go to the library and find five definitions of science in various textbooks. Compare those definitions in class.

Remind students that an important impetus for the development of science, from the 16th century on, was that the scientific method is effective in the development of technologies for making war and money. How does this affect our conduct today in the social sciences?

The reaction against positivism has long been an important part of the social science scene. How does this play out today? Has positivism gone away or is it practiced under other names?

Have students collect all the definitions they can find of the word *humanism* in five dictionaries and three encyclopedias and discuss the differences in those definitions.

In discussing ethics in social science, tell students about the role of IRBs (institutional review boards). In discussing fraud in social science, see David J. Miller and Michel Hersen's 1992 edited volume, *Research Fraud in the Behavioral and Biomedical Sciences*, published by Wiley (New York).
Chapter 2: The Foundations of Social Research

1. Which of the items below is not a variable?
   1. people
   2. number of years of formal education
   3. agreeing or not agreeing that abortion is legal
   4. the religion to which a person claims to belong
   5. town of residence

2. Definitions we see in dictionaries are likely to be:
   1. operational definitions
   2. conceptual definitions
   3. hermeneutic definitions
   4. ratio-level definitions
   5. social definitions

3. Something that can take on more than one value and whose values can be words or numbers is a(n):
   1. multidimensional concept
   2. operational definition
   3. unidimensional abstraction
   4. complex construct
   5. variable

4. Which of the following variables is unidimensional?
   1. religious faith
   2. number of siblings
   3. depression
   4. severity of illness
   5. intelligence

5. Dichotomous variables:
   1. have two or more values
   2. have two values only
   3. should be used to measure complex variables such as race and gender
   4. are rarely used in social science
   5. are not appropriate measurements for social science concepts

6. Independent variables are those that researchers:
   1. assume are logically prior to dependent variables
   2. know are related to the dependent variable
   3. assume are independent of other variables
   4. assume are caused by dependent variables
   5. see as the primary focus of their studies
7. In a study of child health care in Mexico, researchers wanted to know whether mothers' age and education, mothers' perceptions of the illness severity, or location and wealth of the household predicted whether mothers brought their sick children to the emergency ward. What was the dependent variable in this study?
   1. mothers' age and education
   2. emergency ward utilization
   3. perceptions of illness severity
   4. location of household
   5. family wealth

8. Which is an example of systematic bias in a measurement instrument?
   1. In measuring people's height, researchers do not notice that the first inch of the tape measure is missing.
   2. Researchers want to measure mood among office workers in a large corporation. They ask people to fill out a survey. Some workers get the survey on Monday, others on Wednesday, and others on Friday.
   3. A researcher mails out a survey on altruism in early December. Some of the surveys are returned before the holiday season. Others are filled out and returned in early February.
   4. A researcher wants to know what mothers did the last time their children were ill. Some mothers describe illnesses that happened within the last week. Others describe illnesses that occurred over six months ago.
   5. None of the above

9. Investigators who base their work on the educational model of change:
   1. assume that beliefs and behaviors are independent variables
   2. proceed from the assumption that people's behaviors are the dependent variables and are predicted by people's beliefs
   3. proceed from the assumption that well-paying jobs encourage people to change their beliefs
   4. assume there are no truly independent or truly dependent variables
   5. assume that changes in beliefs are driven by changes in a society's structural and infrastructural components

10. Which statement below is not true?
    1. variables are measured by indicators
    2. indicators are measured by variables
    3. a variable has more than one value
    4. indicators are defined by their values
    5. values can be words or numbers

11. Measurement is about:
    1. assigning a number to something
    2. deciding what constructs are important
    3. reducing errors
    4. deciding what value to record for a variable
    5. reducing multidimensional variables to unidimensional constructs
12. To measure an abstract construct like love, researchers:
   1. must find at least one observable and concrete indicator
   2. are likely to spend a lot of time to identify the best single question to ask people about love
   3. are likely to ask people a series of indicator questions
   4. will have to use questions that elicit nonnumerical responses since love cannot be quantified
   5. should give up as it is an impossible concept to measure

13. Which is not true of the concept socioeconomic status (SES)?
   1. SES is typically used as an independent variable to predict something else.
   2. SES usually includes some indicators of wealth and education.
   3. SES is a unidimensional concept.
   4. SES might include occupation, father's occupation, and time living in a community.
   5. 2 and 3

14. The trick to making complex variables useful is to:
   1. define them in terms of a series of simpler variables
   2. pick observable phenomena to study
   3. identify the key question to ask people
   4. rely on qualitative (textual) responses from people
   5. none of the above

15. To be useful, investigators must develop concepts that:
   1. are simple
   2. are complex and abstract
   3. have clear intersubjective definitions
   4. are easily measured
   5. are observable

16. Intelligence is:
   1. the ability to think in abstractions and to generalize from cases
   2. the ability to remember long strings of unconnected facts
   3. the ability to do well on culture-free standardized tests
   4. what investigators operationalize the concept to be
   5. All answers are correct.

17. Scientists use operational definitions because operational definitions:
   1. allow scientists to make comparisons
   2. allow scientists to replicate each other's research
   3. allow scientists to establish what is true from what is not
   4. are ethically neutral
   5. are more accurate than conceptual definitions
18. Which is not an operational definition of people's perceptions of illness severity?
   1. People's perceptions about the degree to which an illness interrupts daily routine or potentially threatens life.
   2. Ask a person whether he or she thinks the illness in question is life threatening or not. If the person answers yes, code the illness serious for that person.
   3. Ask people whether they think the illness is life threatening or not. If they say yes, then give them a score of 1, otherwise give them a score of 0. Ask whether they think the illness has interrupted their daily routine. If they say yes, then give them a score of 1, otherwise give them a score of 0. Add the results together. If the total is 0, then consider the illness benign. If the total equals 1, consider the illness moderate. If the total equals 2, consider the illness severe.
   4. Ask people to rate an illness on a scale of 1 to 10 where 1 is mild and 10 is deadly. Consider scores less than 6 to be nonserious and scores of 6 or more to be serious.
   5. Take the temperature of patients. Consider the illness to be serious if a patient has a temperature greater than 100 degrees Fahrenheit; otherwise consider the illness to be nonserious.

19. Which is not a level of measurement?
   1. ratio
   2. interval
   3. ordinal
   4. qualitative
   5. nominal

20. A list of words or phrases with no logical order to them is what kind of measurement?
   1. ratio
   2. ordinal
   3. nonordinal
   4. nominal
   5. quantitative

21. Measuring the concept of gender as male/female is an example of:
   1. measuring a potentially interval or ordinal variable as a nominal variable
   2. measuring a nominal variable as an interval variable
   3. giving priority to psychological over social variables
   4. the ecological fallacy
   5. giving priority to conceptual over operational variables

22. Nominal measures are:
   1. exhaustive
   2. mutually exclusive
   3. mutually exclusive and exhaustive
   4. typically used in 1-5 opinion scales
   5. typically used in the study of quantitative variables like age and income
23. If you wanted to know whether person A was twice as intelligent as person B, you would need to develop what kind of intelligence measurement?
   1. nominal
   2. ratio
   3. interval
   4. ordinal
   5. quantitative

24. The fundamental rule of measurement is:
   1. always use the simplest, least noncontroversial measures
   2. only use measures already well established in your field
   3. always measure things at the highest level of measurement possible
   4. don't measure things at the ratio level if you can measure them at the ordinal level
   5. don't measure things quantitatively when an appropriate qualitative measure is available

25. A researcher wants to categorize people as being underweight, at the ideal weight, or overweight. She has each person stand on a scale. How should she record their weight?
   1. to the nearest pound
   2. to the nearest 10 pounds
   3. to the nearest 25 pounds
   4. whether they weigh more or less than their ideal weight
   5. as underweight or overweight

26. An investigator collects data on the number and ages of all the children in 125 households. He finds that there are 612 children, including 321 girls and 291 boys. He wants to describe the number of boys and girls per household. How many units of analysis does he have?
   1. 291
   2. 321
   3. 612
   4. 125
   5. none of the above

27. The fundamental rule about units of analysis is to:
   1. collect as many as possible
   2. analyze data at the highest level of analysis
   3. collect data at the highest level of analysis
   4. collect data at the lowest unit of analysis
   5. analyze data at the lowest level of analysis
28. You are doing a study of nurses in six hospitals. Nurses in each hospital work in different wards and work on different shifts. What are the units of analysis on which you should be collecting data?
   1. hospitals
   2. wards
   3. shifts
   4. nurses
   5. none of the above

29. Which of the descriptions below is an example of the ecological fallacy?
   1. You talk to 100 people from a community about their attitudes toward homosexuality and generalize to the community.
   2. You collect data on the gender and race of individuals and on their beliefs about abortion and then you make comparisons between men and women.
   3. You collect data on the populations of cities and make statements about the wealth of cities.
   4. You collect data on individuals and make statements about the kinds of households in which they live.
   5. You collect data on households and make conclusions related to the individuals that live in them.

30. Answers to the question, "Do you rent or own your own place of residence?" are recorded at what level of measurement?
   1. quantitative
   2. ordinal
   3. ratio
   4. interval
   5. dichotomous

31. An instrument is valid when it measures what you want it to measure. Which of the following instruments is valid?
   1. To measure religious faith, you ask people if there is a place of worship in town.
   2. To measure age of weaning, you ask people when they were switched from milk to solid foods.
   3. To measure the number of dollars people spend on snack foods, you ask them to tell you what snacks they ate last week and the total cost of those snacks.
   4. To measure someone's happiness at a given moment, you score their facial expression on a scale of 1-5, from sad to happy.
   5. To get a rough idea of what people eat for snack foods, you ask people to list all the snacks they ate in the last 24 hours.

32. If an instrument is reliable, then it:
   1. gives the same value when you measure something more than once
   2. is precise
   3. is valid
   4. is accurate
   5. is both accurate and valid
33. Which is more precise?
   1. measuring a person's height to the nearest foot
   2. measuring a person's height to the nearest inch
   3. measuring a person's height to the nearest two inches
   4. measuring a person's height to the nearest half inch
   5. measuring a person's height to the nearest eighth of an inch

34. Whether you measure a person's height to the nearest half inch or the nearest foot depends on:
   1. whether you like precise measurements or not
   2. the needs you have for these data
   3. the size of the ruler
   4. how big people are
   5. whether you think you can get people to stand still so you can measure them with a finely calibrated ruler

35. Which is not a test of instrument reliability?
   1. creating two parallel forms of a survey and seeing how well the answers match when applied to the same person
   2. administering the same survey to a respondent at two different times and seeing how well the results match
   3. using a split-half test
   4. making two different forms of a survey and administering them to two respondents to see the degree to which the two respondents agree with each other
   5. looking to see if multiple coders agree with each other

36. A team of researchers plans to measure quality of care among participants in two health management organizations (HMOs). They plan to ask participants in both HMOs to fill out a lengthy survey about their perceptions of quality of care. At this point in their research, they are only concerned with seeing whether there is a significant difference in perceived quality of care among the participants of the two HMOs. The research team needs to be particularly concerned with what kind of validity?
   1. content validity
   2. construct validity
   3. face validity
   4. parallel validity
   5. predictive validity

37. John is trying to develop a new measure of happiness to apply to depressed patients. He tests his new measure against other measures of happiness that his research colleagues agree are valid. John is trying to achieve what kind of validity?
   1. construct validity
   2. face validity
   3. criterion validity
   4. concept validity
   5. known group comparison technique
38. Parsimony (or Ockham's razor) is the idea in science that:
   1. more complex, detailed studies are better than simple, little studies
   2. simpler explanations and measures are preferred over complicated ones
   3. simple studies are better than complex, detailed studies
   4. all things can be made simple
   5. only simple measurements are valid

39. A researcher develops a set of questions to measure people's knowledge about communications technology. She wants to make sure that the questions help her identify those who know a lot about this type of technology and those who know very little. To test the validity of her instrument, she might want to administer the set of questions to:
   1. a group of men and a group of women
   2. people with different ethnic backgrounds
   3. a group of people who have attended more than four years of college and a group of people who only have a high school diploma
   4. a group from the east coast of the United States and a group from the west coast
   5. a group who live in suburban areas and a group who live in urban environments

40. When an instrument is highly correlated with one of the dependent variables in a study, we say the instrument has high:
   1. face validity
   2. content validity
   3. construct validity
   4. criterion validity
   5. predictive validity

41. In order for an investigator to make the claim of causality, what conditions must be met?
   1. As one variable increases the other must increase. The relationship between the two variables cannot be spurious. Furthermore, one variable must occur before the other in time and there must be a plausible mechanism to explain how the independent variable causes the dependent variable.
   2. The variables must co-vary and not be spurious. One variable must occur before the other in time and there must be a plausible mechanism to explain how the independent variable causes the dependent variable.
   3. The variables must co-vary and one variable must occur before the other in time. Also, there must be a plausible mechanism to explain how the independent variable causes the dependent variable.
   4. The variables must co-vary and not be spurious. One variable must occur before the other in time and both the dependent and independent variable must be valid.
   5. None of the above
42. Middle-aged men who drink at least six cups of coffee a day are more likely to have a heart attack than are men who don't drink coffee. This suggests that coffee in excess causes heart disease. Men who drink a lot of coffee, however, are more likely than noncoffee drinkers to smoke, not to exercise, and to consume more alcohol, more saturated fats, and more cholesterol than men who don't drink coffee. The relationship between coffee consumption and the probability of a heart attack may be:
1. a spurious correlation
2. a causal explanation
3. an example of the ecological fallacy
4. the result of unreliable measurements
5. a direct relationship

43. In a study of marriage among American men, investigators tried to predict how old men were when they got married. They asked respondents four questions: 1) How old were you when you got married?; 2) What was your income at age 20?; 3) What was your parents' income when you were a teenager?; and 4) What color eyes do you have? Investigators found that all men in their sample waited until they were at least 21 before marrying. Not surprisingly, they discovered that eye color was unrelated to when men were married. However, men's reported income at age 20 and the income of men's parents when the men were teenagers were associated directly with age of first marriage. In other words, wealthier men married later. Which of the statements below is true?
1. Eye color is antecedent to respondents' income at age 20, which is an intervening variable antecedent to age of first marriage.
2. Parents' income when respondents were teenagers is antecedent to respondents' income at age 20, which is an intervening variable antecedent to age of respondents' first marriage.
3. Parents' income (when respondents were teenagers) is antecedent to respondents' eye color.
4. Parents' income (when respondents were teenagers) is an intervening variable between eye color and age of first marriage.
5. None of the above

44. Which of the statements below is true?
1. Theories are good ideas of how things work and are composed of one or more primitive axioms.
2. Theories postdict how the world is.
3. Theories are universal statements about the world and never deal directly with local phenomena.
4. Theories are directly testable.
5. Theories tell researchers what phenomena to investigate.

45. T F Some kind of measurement must be used to make any kind of comparison.
True
False

46. T F Variables are inherently quantitative.
True
False
47. T F Since there is so much controversy among investigators about how to measure intelligence, it is a useless concept.
   True
   False

48. T F A nominal measurement is a qualitative measurement.
   True
   False

49. T F Nominal measurements can be rank ordered.
   True
   False

50. T F Measuring the concept of a person's sociability at the ratio level is likely to be controversial.
   True
   False

51. T F Units of analysis refer to the number of people in a study.
   True
   False

52. T F Data are valid only if the instruments that were used to collect the data are valid.
   True
   False

53. T F Suppose you measure wealth by asking people to list their assets. The instrument is reliable (it produces the same result when you apply it a second time to a sample of people) and it has high construct validity. You can conclude that this instrument is accurate.
   True
   False

54. T F Face validity is based on whether an instrument is a true indicator of the construct that it attempts to measure.
   True
   False

55. T F Strong association is a necessary and sufficient condition for establishing a causal link between two variables.
   True
   False

56. T F Even if the variable contributes only a little to predicting the outcome or dependent variable, it still may be a causal variable.
   True
   False
57. T F The development of theory (theory construction) is a qualitative act.
    True
    False
Topics and Questions for Discussion

Raise the issue in class of social science research being about variables—and about how variables co-vary—rather than about people. This leads back to a discussion of the difference between a humanistic and a scientific approach to the study of human problems.

Discuss how the concept of dimensionality works in complex constructs. When people talk about liberals and conservatives, they have a whole package in mind. Political ideology, however, is not unidimensional. There is an economic component, a foreign policy component, a personal behavior component, and so on. Someone can be very conservative in one of these dimensions and very liberal in others.

Discuss the educational model of social change. When does it work? When does simply imparting information to people effect changes in behavior? Why does advertising (a form of education) work in getting people to buy products they've never even thought about trying (like hair coloring for men) but has little impact in getting people to car-pool to work?

What is the difference between conceptual and operational definitions? Practice developing conceptual and operational definitions in class.

Some operational definitions will seem silly. For example, the item on the Attitudes Towards Women scale that reads: "Women should worry less about their rights and more about becoming good wives and mothers" is hopelessly dated. Why is it still used? What can be done to bring the scale up to date without destroying its usefulness in comparisons across time and place?

Discuss the fact that reliability is a necessary condition for validity but that validity is not necessary for reliability. Point out how measurements can be reliable and valid without being accurate.

How is the concept of force in physics similar to and different from the concept of, say, intelligence in psychology? How about the concept of worker alienation? Does it share any properties with the concept of force?
Chapter 3: Preparing for Research

1. Mary is looking for a topic for her Master's research. Which of the following topics is least likely to result in good research?
   1. Mary is keenly interested in how women achieve professional success in business. To explore the factors related to success, she plans to conduct in-depth interviews with women in large corporate hierarchies.
   2. Mary has access to a large database of national health interviews. Though she is not particularly interested in public health, and the research sounds quite boring, she could do the work easily from home.
   3. Mary has the opportunity to work on a national project that examines women's attitudes toward their work place. Mary will conduct qualitative and quantitative interviews with women in both large and small companies around the country. Mary is extremely excited about this opportunity and hopes to make it the first step in a long research career.
   4. Mary is committed to helping solve some of the social problems in her city. She is particularly interested in making sure that homeless people have adequate access to local shelters. She proposes to study how homeless people decide where to sleep at night. She hopes this information will be useful in the design of more appropriate social programs.
   5. None of the above

2. Which of the research questions below is answerable by the scientific method?
   1. Is the U.S. legal system more efficient than the legal system in France?
   2. When is abortion ethically wrong?
   3. What proportion of people in Minnesota support a woman's right to an abortion?
   4. Which is the more complex game, baseball or soccer?
   5. What was the most important historical event in the 19th century?

3. Joe is trying to design a research project for his senior seminar. He wants to compare student and faculty attitudes toward drinking. He plans to conduct face-to-face interviews with 20 students (mostly his friends) and 20 faculty members. He anticipates that these interviews will last about 45 minutes each. To save time in the interviews, Joe plans to tape-record the interviews and transcribe them later. (Transcribing taped interviews usually takes six hours for every hour of taped conversation). Joe plans to do this research in his final semester while taking three other courses. Why is this not a good idea?
   1. Joe does not have the time to collect, transcribe, and analyze his data in a single semester.
   2. Joe has forgotten to consider the problems associated with trying to schedule long interviews with 20 busy faculty members.
   3. Joe probably does not have the resources to pay his informants.
   4. 1 and 2
   5. 1, 2, and 3
4. Which of the statements is (are) true?
   1. Research that hurts people is legitimate if you are doing something noble for humanity.
   2. Any social science research is legitimate if the potential benefits outweigh the potential human costs.
   3. Codes of ethics, such as those written by the American Psychological Association, the American Sociological Association, and the American Anthropological Associations are good starts to learn about what other social scientists consider ethical research.
   4. all of the above statements
   5. none of the above statements

5. Which of the statements below is (are) true?
   1. Theory is about explaining and predicting things.
   2. Theory and methodology are separate issues for researchers.
   3. Theory explains what causes a phenomenon or what the phenomenon causes.
   4. 1 and 3
   5. 1, 2, and 3

6. Paradigms:
   1. are different perspectives of what counts as a good explanation of a phenomenon
   2. stress internal states as the basis for human behavior
   3. stress the biological basis of human behavior
   4. stress the primacy of structural and infrastructural forces on human behavior
   5. is just another word for theories

7. Which theoretical paradigm is associated with theories that emphasize cultural differences as the primary explanation for differences in behavior?
   1. biocultural
   2. ideational
   3. materialistic
   4. sociobiological
   5. environmental

8. Researchers have long been interested in how people perceive human beauty. In one set of studies, researchers asked men to examine a series of cutout forms of women and pick the form they found the most attractive. Researchers found that men tended to gravitate toward a particular curvaceous body shape. The investigators argued that such a curvaceous form was an indicator of a woman's ability to successfully bear and raise children. The theory suggests that men's perceptions of beauty are driven more by men's desire to pass on their genes to the next generation. This theory fits in which social science paradigm?
   1. cultural
   2. ideational
   3. materialistic
   4. sociobiological
   5. environmental
9. Why do some cultures in the Middle East prohibit the eating of pork? One explanation is that swine are not a good investment in an arid landscape. Since pigs have no sweat glands, they need a damp (muddy) environment to cool themselves. Farmers thousands of years ago would have had to dedicate scarce water resources to raise pigs. Over time, people avoided the raising of pork, as it was just too economically expensive. This explanation conforms to which general social science paradigm?
   1. biocultural
   2. ideational
   3. materialistic
   4. sociobiological
   5. evolutionary

10. A theory that accounts for many cases is said to be:
   1. idiographic
   2. nomothetic
   3. a paradigm
   4. a micro theory
   5. materialistic

11. A theory that accounts for why some married couples in the United States have many children and why some have few or none is an example of what kind of theory?
   1. idiographic
   2. nomothetic
   3. a paradigm
   4. a macro theory
   5. biocultural

12. Researchers who use Murdock and White's Standard Cross-Cultural Sample of 186 societies are likely to be testing which kind of theories?
   1. biocultural
   2. nomothetic
   3. idiographic
   4. behavioral
   5. ethnographic

13. Which is not a nomethetic theory?
   1. modernization theory
   2. dependency theory
   3. world systems theory
   5. cognitive dissonance theory
14. The educational model of social change is based on the:
   1. materialistic paradigm that suggests that educated people get better jobs
   2. ideational paradigm that suggests that beliefs and attitudes are what drive people's behaviors
   3. sociobiological paradigm that suggests that genetics influences human behavior
   4. idea that most social change comes from changes in the infrastructural and structural conditions of a society
   5. idea that social change is relative

15. The educational model of social change is likely to be most successful getting people to:
   1. switch from encouraging their children to go right to work after high school to encouraging their children to go on to college.
   2. switch from using a computer to using a typewriter
   3. switch from having big families to having small families
   4. switch from buying Pepsi to buying Coke
   5. switch from gasoline-powered cars to cars powered by hydrogen-fuel cells

16. There are several big problem areas of research in the social sciences. Which one encompasses the study of attitudes and beliefs that affect people's behaviors?
   1. the nature-nurture problem
   2. the internal-external problem
   3. the evolution problem
   4. the social facts or emergent properties problem
   5. none of the above

17. There are several big problem areas of research in the social sciences. Which one encompasses the study of how the size and wealth of households affects the amount and kind of reciprocity that exists between households?
   1. the nature-nurture problem
   2. the internal-external problem
   3. the evolution problem
   4. the social facts or emergent properties problem
   5. none of the above

18. There are five fundamental kinds of variables. They are related to internal states, external states, behaviors, artifacts, and the environment. A study of how age affects political preferences is an example of the relationship between which kinds of variables?
   1. external and behaviors
   2. external and environment
   3. external and internal
   4. external and behaviors
   5. internal and artifacts
19. A study of how the organization of a society's justice system is related to the size of the society's population is an example of the relationship between which kinds of variables?
   1. environmental and environmental
   2. environmental and behavioral
   3. environmental and internal
   4. external and environmental
   5. behavioral and external

20. Which of the variables below is not an external variable?
   1. wealth
   2. gender
   3. health status
   4. age
   5. knowledge

21. The covariation among age, education, and income is called:
   1. bivariate correlation
   2. multiple regression
   3. univariate correlation
   4. multivariate correlation
   5. multiple causation

22. You are interested in the role that sexual orientation plays in the work place. You find an interesting study on the topic done by Adam Fuller that was published five years ago. You want to know whether anyone else has built on Fuller's work in the last five years. The most effective way to follow up on this lead is to:
   1. do a bibliographic search to see if Fuller has published any new articles in the last five years
   2. look up the article in the Social Sciences Citation Index and see what other articles have cited Fuller's work in the last five years
   3. call Fuller and see if he knows if any of his colleagues have published on his work
   4. do a bibliographic search on sexual orientation and work place
   5. find the most recent review article on sexual orientation and see if Fuller's work is cited in it

23. If you want to find any report submitted to the U.S. Congress, you should search for it in:
   1. ERIC
   2. NTIS
   3. Medline
   4. Lexis-Nexis
   5. the CIS Statistical Masterfile
24. If you looking for tables of basic data published in technical reports from federally funded projects, you should consult:
   1. ERIC
   2. NTIS
   3. Medline
   4. Lexis-Nexis
   5. the CIS Statistical Masterfile

25. ERIC is a federally funded project that indexes literature related to:
   1. medicine
   2. criminology
   3. sociology
   4. social work
   5. education

26. Lauren decided she wanted to examine the effects of education on age of marriage. She used ERIC to identify all the studies where these two variables had been measured quantitatively. She then conducted a quantitative analysis to examine the size of education's effect on age of marriage. What kind of analysis was Lauren conducting?
   1. bivariate analysis
   2. multiple regression
   3. meta-analysis
   4. literature review
   5. qualitative analysis

27. T F Research is a messy process and rarely is as neat as it appears in investigators' written reports.
   True
   False

28. T F Cultural relativism suggests that any society is best understood through the values of its own culture. This means that you can get people to engage in any study as long as what you are asking them to do is considered ethical in their society.
   True
   False

29. T F Theory is about explaining and predicting things.
   True
   False

30. T F Taking a cultural materialist approach means you cannot use a sociobiological or ideational approach.
   True
   False
31. T F An idiographic theory tells a lot about a few cases, while a nomethetic theory tells us a little about a lot of cases.
   True
   False

32. T F Unlike other sources of bibliographic information, citation indices allow you to search for references forward in time.
   True
   False
Topics and Questions for Discussion

Students are interested in the profession of social science—what it actually means to work as a sociologist, or criminologist, or political scientist, etcetera—as much as they are in methods and theories of their discipline. Talk to students in detail about how you got involved in one of your own research projects—how you got the idea or how you were recruited into it by someone else, how you got funding, and so on.

Continue the discussion by going over the decisions you made in constructing measurements for a research project. Ask a colleague to come in and discuss these details about another research project.

Even if students aren't actually going to do any research for the class, ask them to talk about ideas they have for doing research. Ask them to name the dependent variable they want most to understand and what independent variables they think might be important to study. Talk about the time and money it would take to do each project well. Get students thinking about the kinds of research questions that can be answered in term projects, in M.A. theses, in doctoral dissertations, and in professional-level projects.

Ethics should be a topic of discussion for every unit in the course, but it's particularly important in discussions about choosing a research topic. The cases in the book are a start. Another important case is Piliavin et al.'s good-samaritan experiment (Good Samaritanism: An underground phenomenon? *Journal of Personality & Social Psychology* 1969, 13:289-99). Ask students to compile a list (from library research) of other cases for discussion. If your library has it, the journal *Institutional Review Boards: A Review of Human Subjects Research* is a good source of material, especially for information about projects in medicine (including projects that involve experiments on animals). A good article for discussion is Riordan et al.'s report of a survey in which psychologists were asked to discuss unethical behaviors (Accounts offered for unethical research practices: Effects on the evaluations of acts and actors. *Journal of Social Psychology* 1988, 128:495-505).

Ask students to go through recent issues of major research journals and compile a list of theories that are current in various fields of social science. Does the word *theory* mean the same thing in the phrases network theory, feminist theory, curriculum theory, and personality theory? Discuss the content of Wallerstein's world systems theory, Giddens' structuration theory, and Cummins' linguistic interdependence theory.

Discuss the difference between paradigm and theory. For a discussion of the difference between nomothetic and idiographic theory, see Ernest Nagel's *The Structure of Science: Problems in the Logic of Scientific Explanation* (New York: Harcourt, Brace & World, 1961). The terms nomothetic and idiographic were probably first used by Wilhelm Windelband in the late 19th century in his lectures on the difference between history and science. An early use of the terms in psychology was Gordon Allport's *Personality: A Psychological Interpretation* (New York: Holt, 1937).

Assign each student one of the articles listed on pp. 84-6. These articles represent the 20 kinds of research topics listed in Table 3.1.
Ask your school librarian to arrange for a demonstration of the on-line documentation resources that are available at your institution.
Chapter 4: Research Design-Experiments and Experimental Thinking

1. What is the difference between true experiments and quasi-experiments?
   1. True experiments are tests of psychological theory, while quasi-experiments are those done by sociologists and anthropologists in the field.
   2. In true experiments, subjects are selected because they already belong to either a treatment group or a control group.
   3. In true experiments, subjects are assigned randomly to either a treatment group or control group.
   4. True experiments are done in the lab, while quasi-experiments are done in the field.
   5. True experiments require independent and dependent variables, while quasi-experiments require only dependent variables.

2. There are a number of ordered steps in a classic experiment. Which step must an investigator take before assigning participants to control or treatment groups?
   1. debrief participants
   2. perform the treatment or intervention
   3. measure the dependent variables
   4. formulate hypotheses
   5. collect data on participants

3. Andy wants to see whether a class on hygiene gets mothers in rural areas of Cameroon to change their food preparation and storage practices. He identifies all the mothers in a single village and randomly invites some of the mothers to the hygiene class. What is the group of mothers that is not exposed to the class called?
   1. intervention group
   2. stimulus group
   3. treatment group
   4. control group
   5. experimental group

4. Researchers should select intervention and control groups based on random assignment because it:
   1. divides the groups evenly
   2. ensures that differences between the groups are not the consequence of systematic bias
   3. ensures that the groups are exactly the same
   4. ensures that the groups are completely unbiased
   5. is easier than using more complicated selection criteria
5. What are the dependent variables in an experiment?
   1. beliefs, attitudes, or physical characteristics (e.g., height, weight, health status) of participants
   2. anything the researcher cares to measure
   3. whatever the investigators think might change as a result of the experimental intervention
   4. the variables that investigators measure before the experiment
   5. none of the above

6. Why is a good experiment narrowly defined?
   1. Controlling for confounds makes it possible to tell if the intervention really caused differences in the dependent variable.
   2. Experiments are too costly to run on complex problems.
   3. Narrow experiments increase the number of confounds and tell us more about how the intervention works.
   4. Narrowly defined experiments are easier to design.
   5. It is easier to find respondents for narrowly defined experiments.

7. Pam is running an experiment in the laboratory. She wants to know if women in her introductory psychiatry class change their attitudes toward gun control after being exposed to National Rifle Association brochures. She measures the women's attitudes in a pretest and gives them the literature to take home and read. Before she has a chance to measure their attitudes again, the local newspaper runs a front-page story of about a student's child who is killed while playing with a gun. What kind of confound is this likely to cause?
   1. testing confound
   2. maturation confound
   3. history confound
   4. instrument confound
   5. selection bias

8. Dave plans to follow children in experimental math classes and children in regular math classes. He wants to test the children four times during the school year but is worried that asking children the same questions multiple times will bias his results. What kind of confound is Dave worried about?
   1. testing confound
   2. maturation confound
   3. historical confound
   4. instrument confound
   5. regression to the mean
9. Stephanie wonders if patients' perceptions of *quality of care* go up or down when HMOs increase doctor-patient interactions by 10 minutes. Halfway through the study, Stephanie realizes the survey she is using to measure *quality of care* is not capturing all the key dimensions of care. She debates whether to modify the survey. What kind of confound does Stephanie have to worry about if she changes the *quality of care* measurement in midstream?

1. testing confound
2. maturation confound
3. historical confound
4. instrument confound
5. regression to the mean

10. You have designed a new fitness workout that you think will help college sprinters decrease their times. You decide to test the new program on the fastest and slowest runners on several track teams. You expect that the new workout regime will decrease the times for all runners. After three months of training, you are surprised to find that the slowest sprinters have decreased their times significantly, but that the faster sprinters increased their times. What is the simplest explanation for this result?

1. Your training program was a complete failure.
2. The faster runners didn't like to train as much and therefore did not improve as much.
3. This is probably an example of regression toward the mean.
4. You have a serious instrument confound problem.
5. Some of your athletes have aged faster than others, creating a maturation confound.

11. Mark is conducting a longitudinal study of children in a small village in Dominica. He has been taking measurements on the same children for the last five years. Though none of the children have died, quite a few have moved from the village to the nearest city. Mark is worried that the loss of participants may create what kind of confound?

1. testing confound
2. maturation confound
3. historical confound
4. instrument confound
5. mortality confound
12. In a World Health Organization project conducted in Mexico, health personnel wanted to increase mothers' awareness and knowledge of germs found in unclean water. They randomly assigned different villages to either the treatment or control group. Then they carefully designed a set of radio messages that could be broadcast on local stations in the region. They ran the messages every day for three weeks. They assumed that the local radio stations had a limited range and would be heard only by those mothers in the treatment villages. They forgot, however, that most women traveled to the larger towns (where all the radio stations were located) to do their weekly shopping and sell their produce. Why was the experiment a failure?
   1. Participants in both the control and treatment groups ultimately were exposed the radio messages.
   2. The investigators probably did not broadcast long enough to see an effect.
   3. Only those mothers who heard the broadcasts were affected.
   4. Some women heard the broadcasts each day and some heard the broadcasts only when they went to the market.
   5. Not all people had radios.

13. The Solomon four-group experimental design is a modification of the classic experimental design. By using four groups rather than two groups, researchers can avoid what kind of bias?
   1. historical biases
   2. testing biases
   3. maturation biases
   4. regression toward the mean
   5. mortality biases

14. The main problem with quasi-experiments is that:
   1. Pretesting is difficult and controversial.
   2. Interventions are difficult to conduct.
   3. They are not scientific.
   4. There may be systematic biases in which participants receive the intervention and which participants do not receive it.
   5. Pretesting may create biases in the response to the intervention.

15. Saskia designed a course to train graduate student teaching assistants to be more sensitive to cultural differences among students. She wants to test whether her course had an effect on the graduate students. She has thought about conducting a classic experimental design but is worried that asking graduate students questions about other cultures will make them more aware of cultural differences. What kind of research design should Saskia use?
   1. two-group pretest-posttest design
   2. Solomon four-group design
   3. one-shot case study
   4. two-group pretest-post without random assignment
   5. Campbell and Stanley posttest-only design
16. Joe wanted to study the effects of disasters on land ownership. After the hurricane of 1998 hit Trujillo on Honduras's Caribbean coastline, he flew in as soon as airlines resumed service to the area. He spent the next four years looking at the town's land ownership records and found that land holdings were getting steadily smaller. He concluded that hurricanes somehow cause the size of land holdings to diminish and that more research would have to be done to find out exactly how this happened. This is an example of what kind of design?
1. classic experimental design
2. a one-group pretest-posttest design
3. a one-shot case study
4. a post-test only design with random assignment
5. a Campbell and Stanley posttest-only design

17. An archeologist wanted to see whether his lecture increased students' knowledge about traditional food production among the highland Maya in 1000 A.D. During the first 10 minutes of class, he administered a multiple-choice quiz on the subject. After his lecture he re-administered the quiz. What kind of research design was the archeologist using?
1. a two-group posttest-only design without random assignment
2. a one-group posttest-only design without random assignment
3. a one-group pretest-posttest design
4. a one-shot case study design
5. a classic experimental design

18. Jack was interested in whether winning a conference title in college football would affect the number of students who would apply to his university in the following year. Over the last three decades, the university football team had been terrible, rarely ever winning more than half of its games. In 1983, however, the team went undefeated and won the conference championship. Jack looked at the number of applicants in the 10 years before 1983 and the 10 years immediately afterward. He found that the number of applicants had almost doubled in 1984 but quickly dropped back to near normal levels two years later. What kind of research design did Jack use?
1. an interrupted time-series design
2. a one-group pretest-posttest with random assignment
3. a two-group posttest without random assignment
4. a one-shot case study
5. a factorial design

19. Variables outside of the experiment that may affect the results are called:
1. field variables
2. insignificant variables
3. endogenous variables
4. experimental variables
5. exogenous variables
20. In natural experiments, pretest data are often referred to as:
1. natural data
2. baseline data
3. quantitative data
4. experimental data
5. qualitative data

21. Sandra wanted to see whether hair color affected the way people reacted to women with automobile problems. After parking her car on the side of the road and raising the hood, she stood at the rear of the car and counted the number and genders of people who stopped to offer assistance. The first 10 times she conducted her research, she wore a blond wig. The next 10 times, she wore a red wig. This is an example of what kind of research?
1. classic experimental design
2. a one-group pretest-posttest design
3. a Campbell and Stanley posttest-only design
4. a naturalistic experiment
5. two-group pretest-posttest without random assignment

22. The key ethical issue in social research is:
1. how and when research subjects are debriefed
2. whether subjects are properly compensated for the risks they are willing to take in participating in the experiment
3. whether subjects of the research are placed at risk by those doing the research
4. whether there is any danger of physical harm to research subjects
5. making sure that research subjects know all the risks the experiment might involve

23. People who buy new cars are typically inundated with brochures about their car after they make their purchase. Terrence wants to know how this literature affects consumers' satisfaction with their new car. Terrence decides to use a factorial design to determine what effect the size and color of brochures has on ratings of satisfaction. The factorial design tells us that Terrence plans to:
1. use brochures of two different sizes and two different colors in his experiment
2. lay out all the combinations of the usual colors and sizes that are used in these brochures and randomly assign people to one of the combinations
3. conduct a classic experiment
4. collect baseline data
5. look only at the main effects and not at the interaction effects

24. The effect of each independent variable on each dependent variable is called the:
1. main effect
2. interaction effect
3. experimental effect
4. exogenous effect
5. endogenous effect
25. T F Researchers who want to do exploratory research must conduct field experiments.
   True
   False

26. T F In an experiment, the independent variable is the intervention.
   True
   False

27. T F Regression to the mean occurs at the aggregate level and should not be interpreted as
    something that happens to individual people.
   True
   False

28. T F Random assignment of participants completely eliminates the possibility of selection bias.
   True
   False

29. T F In natural experiments, investigators cannot randomly assign individuals to groups.
    Therefore, selection biases are always a threat to the internal validity of a natural experiment.
   True
   False

30. T F You should use pretest data whenever they are available.
    True
    False

31. T F The main problem with the two-group posttest-only design without random assignment is
    that you don't know if the two groups were the same immediately before the intervention.
    True
    False

32. T F Thought experiments refer to researchers who examine people's beliefs.
    True
    False

33. T F True experiments only occur in laboratories.
    True
    False

34. T F Experiments that involve some type of deception typically include a debriefing session.
    True
    False
Topics and Questions for Discussion

Ask students to go to the library and find examples in the journals of randomized experiments in the lab and in the field, quasi-experiments, natural experiments, and naturalistic experiments. Discuss in class the advantages and disadvantages of each type of experiment.

Ask students to find examples in the literature of all the experimental designs in Figure 4.1: the classical two-group pretest-posttest design with random assignment; the Solomon four-group design; the classical design without randomization; etcetera. Each student should go through one or more articles from the journals and identify, in writing: 1) the various confounds outlined by Campbell and Stanley, and 2) how the investigators did or did not deal with those confounds.

Is withholding treatment ever ethical? Some investigators take a hard line on this and on deception, saying that it is never ethical to withhold treatment or to deceive people in the interests of science. Others say that there are conditions under which these are ethical practices. These issues deserve a lot of discussion in class.
Chapter 5: Sampling

1. What kind of sampling do researchers use to estimate population parameters on individual data?
   1. population sampling
   2. nonprobability sampling
   3. ad hoc sampling
   4. cultural sampling
   5. probability sampling

2. Joe wants to understand how fishermen decide what kind of bait to use under different weather conditions. What kind of data does Joe want to collect?
   1. individual data
   2. cultural data
   3. random data
   4. probability data
   5. qualitative data

3. Sophia wants to examine workers' attitudes toward management in a small packaging plant. There are 225 workers covering three shifts. Sophia plans to use a 10-minute survey with each worker. Sophia should:
   1. reduce her interview to five minutes and interview all the workers
   2. interview a random sample of workers from each shift
   3. interview all the workers on one shift and ignore the rest
   4. interview all the workers even though this will probably take four months
   5. hire lots of interviewers to interview all the workers

4. What kind of validity do probability samples increase?
   1. external
   2. internal
   3. criterion
   4. instrument
   5. construct

5. Which kind of samples are not representative of larger populations?
   1. cluster samples
   2. stratified random samples
   3. systematic random samples
   4. quota samples
   5. simple random samples
6. You should use nonprobability sampling when:
   1. you are unsure of how long the interview will take
   2. you do not need to stratify your sample
   3. you are working with small populations
   4. probability sampling is too expensive
   5. you are collecting cultural data or when it is unfeasible to do probability sampling

7. The list from which you take a sample is called a:
   1. sampling frame
   2. population
   3. quota sample
   4. representative sample
   5. random sample

8. A researcher selects a random sample of households to interview in a medium-size town. No one is home at the first house she visits. She should:
   1. find a similar looking house and interview the people there instead
   2. drop the house from the sample
   3. note the house on her list and come back later. If no one is home after three or four tries, she should interview the people in the house next door instead.
   4. go next door and see if anyone is home. If they are, interview them instead.
   5. note the house on her list and come back later. If no one is home after three or four tries, substitute the house with another randomly selected household.

9. Sara wants to take a systematic random sample of 100 subscribers to the local weekly paper. Currently, 872 people subscribe. How big should her sampling interval be, given that everyone one should have a chance of being chosen?
   1. She should sample every 4th person.
   2. She should sample every 8th person.
   3. She should sample every 6th person.
   4. She should sample at least every 9th person.
   5. You can't tell as it depends on where she starts.

10. Jeff wants to examine the use of a local park from June through August. Since he doesn't want to sit at the park every day during the summer and count people, he decides to pick 20 days during the three-month period. Why should Jeff consider using a simple random sample of days rather than a systematic random sample?
    1. to avoid the problems associated with small sample sizes
    2. to avoid the problems associated with periodicity
    3. because simple random sampling is easier than systematic random sampling
    4. because systematic random sampling is better for large samples
    5. because systematic random samples are expensive
11. Kevin thinks that gender and place of residence influence perceptions about gun control legislation. He obtains a list of voters in the state of Vermont and divides the list into subpopulations of men who live in small towns, men who live in large towns, women who live in small towns, and women who live in large towns. He then randomly selects 200 people from each subpopulation. What kind of sampling procedure is Kevin using?
1. nonrandom sampling
2. systematic random sampling
3. cluster sampling
4. stratified random sampling
5. disproportionate stratified random sampling

12. Stratified random sampling:
1. maximizes the within-group variance and minimizes the between-group variance
2. minimizes the within-group variance and maximizes the between-group variance
3. minimizes the effects of groups on the sample
4. produces unbiased samples for small populations but not for large ones
5. eliminates all sampling error

13. Martha knows that people's expectations regarding ideal relationships vary substantially across gender and age. If Martha wants her results to generalize to the whole population, she should consider taking what kind of sample?
1. disproportionate stratified random sample
2. systematic random sample
3. systematic random sample
4. stratified random sample
5. proportionate stratified random sample

14. Martina is studying the factors that affect success in graduate school. She suspects that foreign students, particularly European students, will do better than American students. Martina knows, however, that foreign students represent only a small proportion of all students in graduate school. What kind of sample should Martina consider taking?
1. a systematic random sample
2. a disproportionate stratified random sample
3. a proportionate stratified random sample
4. a nonprobability sample
5. a cluster sample

15. What do researchers mean when they say "Maximize between-group variance"?
1. Sample as many people outside a group as possible.
2. Never interview more than one person in a household
3. Sample more heavily at higher levels of a multistage sample and more lightly at lower stages.
4. Maximize the number of people in a sample.
5. Purposefully select differ kinds of households.
16. Carolina wants to know how much mothers in small rural towns in the state of Hidalgo, Mexico, know about birth control. Carolina defines small rural towns to include those with populations between 1,000 and 10,000. There are no lists of mothers from which to select a random sample. What should Carolina do?
   1. She should identify a few rural towns and take a convenience sample of mothers.
   2. She should identify all the towns with populations between 1,000 and 10,000. From this list she should take a random sample of towns. Within each town she should divide the town into blocks of houses and select a random sample of blocks. Within each block, she should interview every mother.
   3. She should interview one mother in all towns that with populations between 1,000 and 10,000.
   4. She should use nonprobability sampling techniques.
   5. The task is impossible. She should simply not worry about external validity.

17. In a street-intercept survey:
   1. a random set of streets is chosen and interviews are conducted on corners wherever these streets intercept
   2. you simply grab people who pass by on the street
   3. interviewing is done in malls
   4. locations are selected at random from a sampling frame of geographic coordinates and then a random selection of people who pass by are selected for interviews
   5. interviewing is done on street corners

18. Terrence needs to ask a sample of students at his university about their drinking behaviors. What factors must he consider to determine the size of sample he needs?
   1. the number of subgroups he plans to examine
   2. the size of each subgroup in the analysis
   3. how much heterogeneity there is in the population
   4. how precise he wants to be
   5. all of the above

19. Pertti surveyed men about whether they liked the taste of a new diet cola. He found that men in their 30s and men in their 60s like the flavor but that others didn't. What kind of distribution is this?
   1. uniform
   2. bimodal
   3. skewed
   4. normal
   5. leptokurtic

20. What defines a normal distribution?
   1. It has a mean of 0 and a standard deviation of 1.
   2. It has a mean of 1 and a standard deviation of 0.
   3. It is symmetrical.
   4. In this case, normal is a synonym for typical.
   5. A uniform probability distribution is normal.
21. Which statement is not true about a normal distribution?
   1. Roughly 68% of all scores are within 1 standard deviation of the mean.
   2. Roughly 95% of all scores are within 1.96 standard deviations of the mean.
   3. Roughly 99% of all scores are within 2.58 standard deviations of the mean.
   4. The probability of a score being greater than 2.58 standard deviations from the mean is quite small.
   5. All of the statements are true.

22. The standard deviation is:
   1. a measure of spread in a normal distribution
   2. a measure of how much the scores in a distribution vary from the mean score
   3. 68% of the area above and below the mean of the distribution
   4. the standard error divided by sample size
   5. the area within 10% of the mean of a distribution

23. The planning committee of Little Place, USA, surveyed a random sample of 100 households in town. They found that the average household earned $37,500 per year, with a standard deviation of $2,000. What is the standard error?
   1. $20
   2. $100
   3. $200
   4. $400
   5. $1,000

24. The planning committee of Rich Place, USA, surveyed a random sample of 100 households in town. They found that the average household earned $45,000 per year with a standard error of $500. Approximately what would a 95% confidence interval look like?
   1. $40,000—$50,000
   2. $44,500—$45,500
   3. $42,500—$47,500
   4. $44,020—$45,980
   5. none of the above

25. What do you have to do to reduce the sampling error of a point estimate by half?
   1. double the sample size
   2. quadruple the sample size
   3. take the square of the sample size
   4. take the square root of the sample size
   5. none of the above
26. Tom did a statewide telephone survey of a random sample of 100 respondents. He asked them whether they approved of the governor's stand on abortion. Exactly 50% of the sample approved. What is the 95% confidence interval for this finding? (Hint: \( P = P \pm z\sqrt{PQ/n} \))
   1. 50% ± 5%
   2. 50% ± 2.5%
   3. 50% ± 1.25%
   4. 50% ± 10%
   5. none of the above

27. Russ wanted to know how knowledge of baseball statistics varied by gender and age. He looked at four groups of people: younger men (<35), older men (35 and older), younger women (<35), and older women (35 and older). He interviewed 20 respondents in each group. What kind of sampling strategy did Russ use?
   1. haphazard sampling
   2. stratified probability sampling
   3. quota sampling
   4. purposive sampling
   5. snowball sampling

28. Sandra wanted to do a pilot study on how recent immigrants use government health services. She intentionally sought out families in the Los Angeles area who had recently moved there from either Latin America or Asia. Within this group she found families with and without children. What kind of sampling did Sandra use?
   1. haphazard sampling
   2. snowball sampling
   3. cluster sampling
   4. quota sampling
   5. purposive sampling

29. Jeff was interested in how people's perceptions of food varied by the people with whom they associated. What kind of sampling strategy would be most amenable for studying social networks?
   1. stratified random sampling
   2. random probability sampling
   3. snowball sampling
   4. convenience sampling
   5. quota sampling

30. Tim sends questionnaires to a stratified sample of 100 men and 100 women. He gets responses from 50 men and 75 women. What does Tim need to do if he wants to compare the answers of men and women?
   1. He should weight each man's answer by 75/50 = 1.5.
   2. He should weight each man's answer by 50/75 = .667.
   3. He doesn't need to do anything as his sample was 100 men and 100 women.
   4. He should collect data from 25 more women.
   5. He should drop 25 of the women from the sample.
31. T F Cultural data are about attributes of individuals in a population.
   True
   False

32. T F Studies based on random samples can actually be better than those based on the whole population.
   True
   False

33. T F The United States census is based on probability sampling.
   True
   False

34. T F Once you have picked a random sample from a sampling frame, you should stick to it.
   True
   False

35. T F Telephone books make great sampling frames.
   True
   False

36. T F After conducting a random survey, the planning commission of Little Place, USA, says that the 95% confidence limits for the mean household income are $37,108—$37,892. This means that there is a 95% chance that the true mean income in Little Place lies somewhere within this range.
   True
   False

37. T F For samples sizes under 30, use the $t$ statistic to determine the confidence limits around the mean of an estimate.
   True
   False

38. T F When estimating the sample size you need for a relatively small population (where the sample size turns out to be 5% or more the entire population), you should use the finite population correction. This will further reduce the size the sample you need to take.
   True
   False

39. T F Convenience samples are rarely if ever useful.
   True
   False
Topics and Questions for Discussion

Many students are curious about the idea that sampling would produce a more accurate estimate of the population of the U.S. than the decennial census does. This is a good entry to a number of topics, including the concepts of internal and external validity and of precision and accuracy. It's also a good way to open the discussion of probability theory.

The idea that cultural data require experts rather than randomly selected respondents can be introduced in a discussion of nonrandom sampling.

Discuss the difference between cluster sampling and stratified sampling. Many students have heard about stratified sampling but are surprised that it is not always better than simple or systematic random sampling. Ask students to design a sample of their own university or college for a study of some dependent variable (GPA, opinion on some local issue, level of involvement in extra-curricular activities, etc.). The problem of stratification emerges naturally in these discussions, and there will be many suggestions for criteria on which to stratify. Ask students to justify each criterion. Demonstrate how the size of samples escalates geometrically with each new stratification variable.

The concepts of between-group variance and of within-group variance crop up in sampling and in the design of experiments. They are also part of ANOVA, which students will encounter when they learn data analysis. It's useful to discuss these concepts often.

Among the most unintuitive concepts in a course on social research is the fact that the size of a sample is nearly independent of the size population from which it is drawn. This topic is a good entry to a discussion of several important issues in probability theory.

Discuss the central limit theorem by giving students a small data set from which to draw sample in class. This can be done on a computer, of course, but there is still something to be said-in terms of effective learning-in going through this exercise by hand on very small data sets.

Go over Box 5.3 in class and discuss the problem of how to interpret confidence limits. Go over the tables for the z distribution and for the t distribution and point out the differences, particularly at the 95% and 99% levels.

Ask students to compile a bibliography of at least 100 recent studies (say, in the last five years) that rely entirely on nonprobability samples. List the names of the journals in which those studies appeared. This is a good way to open a discussion of some of the professional and disciplinary divisions in social science. The distinction between professional and disciplinary divisions is also interesting to explore, especially for students who are considering careers in social science.
Chapter 6: Interviewing—Unstructured and Semistructured

1. Which type of interviewing imposes the least amount of control over respondents' responses?
   1. informal interviewing
   2. semistructured interviewing
   3. unstructured interviewing
   4. structured interviewing
   5. ethnographic interviewing

2. During the first phase of a year-long ethnographic study, Terry conducts a series of casual interviews with informants. For each interview, Terry has a clear plan of what kinds of things she wants to ask about, but she lets her informants control the speed and direction of the conversation. What kind of interview is Terry doing?
   1. informal interviewing
   2. semistructured interviewing
   3. unstructured interviewing
   4. structured interviewing
   5. ethnic interviewing

3. Joe is conducting research on long-distance truck drivers. Since he will have only one chance to interview any single truck driver, Joe would be best advised to use what kind of interview?
   1. unstructured interviewing
   2. structured interviewing
   3. informal interviewing
   4. semistructured interviewing
   5. ethnic interviewing

4. Why are written interview guides so important in semistructured interviews?
   1. If followed, the guide produces reliable, comparable data.
   2. It shows you are a competent and prepared interviewer.
   3. You need a written guide if you plan on using more than one interviewer to collect data.
   4. 1 and 3
   5. 1, 2, and 3

5. Sara decides she needs comparable data from two groups of informants. She asks each informant to respond to nearly identical sets of questions. What kind of interviewing is Sara doing?
   1. unstructured interviewing
   2. structured interviewing
   3. informal interviewing
   4. semistructured interviewing
   5. casual interviewing
6. How are informants different from respondents?
   1. Respondents describe their culture, while informants describe their ethnic identity.
   2. Respondents describe their culture, while informants describe other cultures.
   3. Respondents describe others, while informants describe their own characteristics.
   4. Respondents describe themselves, while informants describe their ethnic identity.
   5. Respondents describe their own characteristics, while informants describe their culture.

7. Sally plans to have five interviewers administer face-to-face questionnaires to a large sample of respondents. To assure that every respondent is administered exactly the same questionnaire, she designs an explicit set of instructions for the interviewers. What are these instructions called?
   1. interview forms
   2. interview guide
   3. interview schedule
   4. informal guide
   5. semiformal guide

8. When would you use unstructured interviewing?
   1. when you have informants who refuse to be formally interviewed
   2. after completing more formal interviews
   3. when you need comparable data
   4. when you are first trying to build rapport with informants
   5. 1 and 4

9. Bob asks several informants to rank order a set of food items in terms of how nutritious they are. What kind of interview is Bob conducting?
   1. unstructured interviewing
   2. structured interviewing
   3. informal interviewing
   4. semistructured interviewing
   5. casual interviewing

10. What are some of the things you need to do before beginning an interview?
    1. Ask permission to record the interview and to take notes.
    2. Tell people that you are trying to learn from them.
    3. Assure people of anonymity and confidentiality.
    4. Tell people exactly what kinds of responses you expect to hear from them.
    5. 1, 2, and 3
11. Good interviewers know how to get a respondent to provide more information without leading the respondent in any particular direction. What are these interviewing techniques called?
   1. queries
   2. probes
   3. rapport
   4. confidence
   5. none of the above

12. Josh has been interviewing for a long time and has grown accustomed to lulls in an interview. He often uses this to his advantage and simply nods and waits to see if informants have more to add to the topic at hand. What is this technique called?
   1. baiting
   2. uh-huh probe
   3. tell-me-more probe
   4. echo probe
   5. silent probe

13. Jim keeps informants talking just by using affirmative comments, such as "I see." What kind of probing is he using?
   1. baiting
   2. uh-huh probe
   3. tell-me-more probe
   4. echo probe
   5. silent probe

14. What kind of probing are interviewers using when they act like they know something to get people to open up?
   1. baiting
   2. uh-huh probe
   3. tell-me-more probe
   4. echo probe
   5. silent probe

15. When should you tape record an interview?
   1. in all interviews
   2. in interviews where you think you might leave out something important
   3. in informal (hanging-out) interviews
   4. in all structured and semistructured interviews except when people ask you not to
   5. it depends on how good a note taker you are

16. How long does it typically take to transcribe an hour of taped interview?
   1. 2-4 hours
   2. 4-6 hours
   3. 6-8 hours
   4. 8-10 hours
   5. 10-12 hours
17. When should a researcher consider collecting data from a focus group?
1. when there is no sampling frame
2. at the beginning of the research when designing questionnaires
3. when surveys are too expensive to conduct
4. at the end of the research to help interpret the results of surveys
5. 2 and 4

18. When should focus groups be used?
1. when investigators want to pretest the wording of a questionnaire
2. when money isn't available to do a well-designed survey
3. when investigators want assistance in interpreting the results of data from surveys
4. 1 and 3
5. 1, 2, and 3

19. Pam decides to use focus groups to study people's perceptions of obesity. She was interested in how perceptions about weight varied by age (young and old) and gender (male and female). She used a factorial design and created four types of focus groups (young men, old men, young women, and old women). She ran each of the four types of focus groups in 10 cities. Each focus group was composed of six participants. How many units of analysis does Pam have?
1. 2
2. 4
3. 10
4. 40
5. 240

20. Kathryn wants to estimate the proportion of people in the country who feel strongly about conserving endangered species. What kind of data collection should she use?
1. focus groups of men and women in rural towns
2. a series of focus groups composed of men and women from all over the country
3. a nationally representative survey
4. semistructured interviews from different parts of the country
5. unstructured interviews from men and women around the country

21. Which are good suggestions for selecting the composition of a focus group?
1. Try to have more than 6 and fewer than 12 people.
2. Use smaller groups for more sensitive topics.
3. Try to keep the groups as homogeneous as possible.
4. Whenever possible, participants should not know each other.
5. all of the above

22. In focus groups, a moderator's job is to:
1. make sure that the discussion stays supportive and nonjudgmental
2. keep the discussion on topic
3. get people to open up and talk about the topic of interest
4. lead people to particular answers
5. 1, 2, and 3 only
23. Tom Weisner asked parents to fill out a written survey about their children. When asked to describe the characteristics of one of their children, mothers were more likely to write down more things than fathers. This is an example of what kind of effect?
   1. social desirability effect
   2. acquiescence effect
   3. response effect
   4. deference effect
   5. expectancy effect

24. Jane and Yuko were surveying students at a major university about Asian American involvement in campus politics. Jane was White and Yuko was Asian American. Which scenario below is an example of a deference effect?
   1. White students were more likely to say to both Jane and Yuko that Asian Americans had too little influence.
   2. Asian American students were more likely to tell both Jane and Yuko that White students had too much influence.
   3. White students were more likely to tell Jane that White students had too much influence and Asian American students were more likely to tell Yuko that Asian American students had too much influence.
   4. When asked by Yuko, White students were more likely to say that Asian Americans had too little influence; when asked by Jane, White students were more likely to say that Asian Americans had too much influence.
   5. None of the scenarios above is an example of the deference effect.

25. About how much of what informants report about their behavior is inaccurate?
   1. 1%—5%
   2. 10%—20%
   3. 25%—50%
   4. 50%—75%
   5. More than 75%

26. What are some of the techniques you can use to improve informant accuracy of self-reported data?
   1. Ask people to consult records.
   2. Give people a list of options and ask them to pick among the options.
   3. Ask people to recall behaviors relative to personal landmark events.
   4. Shorten the period of recall.
   5. all of the above

27. T F Informal interviewing is the easiest type of interviewing to do.
   True
   False

28. T F Focus groups are complements to surveys rather than replacements.
   True
   False
29. **T F** The expectancy effect and the distortion effect are exactly the same thing.
   True
   False

30. **T F** The big advantage of tape recording is that you do not have to take notes.
    True
    False

31. **T F** Focus groups are cheaper substitutes for surveys.
    True
    False

32. **T F** How you word questions about behavior can have a dramatic effect on respondent accuracy.
    True
    False
Topics and Questions for Discussion

It's hard to discuss the problems associated with various interviewing methods unless students have some personal experience. Interviews outside class should not be just for practice, but students need to get started with practice interviews and in-class exercises are often very useful. Ask for volunteers and have one student interview another in front of the class about a topic like, "What's your budget for going to school?" Some students are supported entirely by their parents, of course, while others are entirely self-supporting, and the range of possibilities in between is very complex. There will be many questions of interest for discussion. Some information about expenses may be sensitive, and this raises questions about how you deal with this situation. The discussion will also turn to methods of probing and of two equally important problems: pushing respondents too hard or failing to follow through when that's called for.

Have students practice interviewing one another on several topics and using several methods, either in class or as an assignment. If you use the school budget topic, for example, ask several pairs of students to sit and just chat about the topic during class. Use the informal interviews to develop a protocol that students can use in semistructured interviews. Contact your local IRB about approval for interviewing beyond practice sessions in class.

Once students have some experience actually conducting interviews, discuss in class the problem of presentation of self and of various methods of probing.

Run a focus group in class. Use from five to seven participants and ask the rest of the class to take notes on the whole process. Professionals—especially in market research—use specially designed rooms for focus groups, sometimes even with one-way mirrors. Try calling around in your local area to see if these kinds of facilities exist and if you might borrow them to train your students. (This may even lead to internships for some students.)

Ask students to keep diaries for a week of what they eat. When the week is up, ask them in class to write down: 1) what they ate for breakfast that morning and 2) what they ate yesterday (the whole day). Then ask them to write down what they eat on a typical day for breakfast. Ask students to inspect their diaries and list any discrepancies between what they said they'd eaten for breakfast that morning and what they wrote in their diaries about that meal. This opens the discussion of how you measure discrepancies and whether some discrepancies are more important than others.
Chapter 7: Structured Interviewing

1. What are the three methods for collecting survey data?
   1. general interviews, unstructured interviews, telephone surveys
   2. self-administered questionnaires, telephone surveys, face-to-face interviews
   3. indirect interviews, telephone surveys, face-to-face interviews
   4. participant observation, telephone surveys, face-to-face interviews
   5. participant observation, self-administered questionnaires, face-to-face interviews

2. Margo wants to conduct structured interviews with elderly residents of a nursing home. Which method would be most appropriate?
   1. fill-in-the-blank surveys
   2. informal interviews
   3. face-to-face interviews
   4. written, self-administered interviews
   5. telephone interviews

3. Which is not an advantage of face-to-face interviews?
   1. If a respondent doesn't understand a question, you can fill in.
   2. You know who answers the questions.
   3. Respondents do not lose patience as easily in face-to-face interviews.
   4. Face-to-face interviews are unintrusive.
   5. You can use different types of data collection instruments in the same interview.

4. Tom has already done a lot of unstructured interviewing with people regarding their beliefs about gender and race. He now wants to conduct structured interviews with a representative sample of 500 people in his state. Why should he not use face-to-face interviews?
   1. Face-to-face interviews are best done with sample sizes under 200.
   2. Face-to-face interviews are more likely to be susceptible to interviewer bias (especially around questions related to race and gender).
   3. Face-to-face interviews are extremely costly in terms of time and money.
   4. Face-to-face interviews conducted over long periods of time are susceptible to historical biases.
   5. all of the above

5. Samantha wants to ask respondents a long list of questions about beliefs related to the environment. Many of these questions sound quite similar. Which kind of interview should Samantha use?
   1. face-to-face interviews
   2. self-administered questionnaire
   3. informal interviews
   4. semistructured interviews
   5. telephone interviews
6. Tammy wants to use a self-administered questionnaire in a small rural village in Ghana. Only half the population has telephones, and mail service is known to be unreliable in some zones. What should Tammy do?
   1. Give up. She cannot use self-administered questionnaires under such circumstances.
   2. Do telephone interviews with half the population.
   3. Use the mail and assume that problems of good mail service are randomly distributed in the community.
   4. Collect as many responses as she can through the mail and via telephones.
   5. Try the telephone and mail first. For those respondents she is unable to reach, she should drop off the questionnaire and return later to pick it up.

7. I built a Web page to collect data from students in my Introduction to Anthropology class. Students logged on to the Web page and typed in answers to a long list of questions. Some of these questions were open ended and some close ended. How would you classify this kind of data collection?
   1. face-to-face interview
   2. participant observation
   3. informal interview
   4. self-administered questionnaire
   5. telephone interview

8. Bob wants to understand what people think about a new digital camera. First, he wants to collect people's overall impressions and evaluations of the camera. Then, he wants to ask a series of probing questions about specific aspects of the camera. Bob does not want to influence people's overall evaluations by giving them the probing questions first. What kind of survey format should Bob avoid at all costs?
   1. self-administered pen-and-paper questionnaire
   2. telephone survey
   3. face-to-face interview
   4. face-to-face, semistructured interview
   5. computer-generated questionnaire

9. Martha is studying condom-use behavior among adolescents. Martha knows that this is a sensitive subject for most adolescents, so she wants an impersonal quality in the interviews. However, Martha also wants to be able to probe and clarify ambiguous responses. What kind of interview should she consider?
   1. face-to-face interview
   2. participant observation
   3. informal interview
   4. self-administered questionnaire
   5. telephone interview
10. Why would a researcher use random digit dialing?
   1. to generate an unbiased sample of people in a calling area
   2. to generate a representative sample of people in the calling area
   3. to generate a representative sample of people who have phones
   4. 1 and 2
   5. 1, 2, and 3

11. Typically, you should expect to keep telephone interviews to under how many minutes?
   1. 5
   2. 10
   3. 20
   4. 40
   5. 60

12. Carmen plans to ask women who have recently divorced about how their marriages ended. She wants to collect similar information from each respondent and is particularly concerned that each respondent answer all the questions. What should Carmen use?
   1. telephone interviews
   2. computer-assisted telephone interviewing (CATI)
   3. self-administered mailed interviews
   4. self-administered mailed interviews using Dillman's method
   5. face-to-face interviews

13. Becky plans to ask people about some sensitive topics related to masturbation. She has decided to use a telephone survey, but now has to decide whether to ask the questions about masturbation in an open- or close-ended format. What would you recommend?
   1. Design close-ended questions that are not threatening.
   2. Use an open-ended format for intimidating questions and a close-ended format for everything else.
   3. Use only open-ended questions and tape record the entire interviews.
   4. Use close-ended questions and make sure that people understand that the interview is anonymous.
   5. Use a mixed approach and ask both open-ended and close-ended questions for every topic, even if this means the survey is extremely repetitive and long.

14. You are interested in people's eating habits. What is wrong with the open-ended question "What did you have for dinner last Sunday?"
   1. There is no clear purpose for this question.
   2. The question is not using a set of clearly defined scales.
   3. The term dinner is ambiguous. Does dinner refer to the big meal you had with your family at 2:00 p.m. or the smaller meal you had at 7:30 p.m.?
   4. The responses are not exhaustive and mutually exclusive.
   5. This is a loaded question.
15. Tara has been studying spirituality in the United States and has developed a set of structured questionnaires that she finds particularly useful to her research. Tara decides she also wants to apply her questionnaires to Spanish-speakers in Mexico. What should Tara do to ensure that the English and Spanish versions of the questionnaire are equivalent?
   1. Have a native speaker of English who also speaks Spanish translate the questionnaires.
   2. Have a native speaker of Spanish who also speaks English translate the questionnaires.
   3. Get a group of experts on spirituality to translate the questionnaires.
   4. Use either a back translation or the Delphi Technique to translate the questionnaires.
   5. Do the translation herself, since she is the only one who knows what the questionnaires are really supposed to capture.

16. Anne conducted a statewide random mailed survey on childhood health. She had a 62% response rate. Should Anne be worried? Why or why not?
   1. Anne should not be worried. She sent out questionnaires to a random sample of households in the state. Sixty-two percent is as representative of the state population as 99%.
   2. Anne should be worried. With only 62% of the surveys back, she doesn't have a large enough sample to make important statements about childhood health.
   3. Anne should be worried. People who fill out surveys are more likely to have higher incomes and more education than those that do not. Any variables that are related to income or education are likely to be seriously distorted.
   4. Anne should be worried. A significant portion of her sample did not respond, and she has no idea how this group of nonrespondents have biased her sample.
   5. both 3 and 4

17. According to Dillman's method of total survey design, which of the following practices is likely to increase response rates to mailed questionnaires?
   1. using bright red paper
   2. making surveys appear shorter by using the front and back pages
   3. keeping mailed surveys under 10 pages and no more than 125 questions
   4. failing to mention in the cover letter who is conducting the research
   5. putting general socioeconomic and demographics at the beginning of the survey

18. According to Dillman's method of total survey design, which of the following practices is likely to decrease response rates to mailed questionnaires?
   1. sending a postcard reminder to all potential respondents a week after mailing the questionnaire
   2. sending surveys by third-class mail (bulk mail) since it costs less
   3. addressing the cover letter directly to the respondent and signing it with a ballpoint pen
   4. mentioning that the research has university sponsorship
   5. assuring that the survey layout looks professional, with ample space for questions and answers
19. In cross-sectional surveys, variables are:
   1. dichotomous
   2. measured at the interval or ratio level
   3. measured on a single sample
   4. measured at a single time
   5. measured multiple times

20. Fred is running a panel study. What do we know about Fred's study?
   1. Fred is collecting data from the exact same people over time.
   2. Fred is collecting the exact same data from different samples of a population over time.
   3. Fred is running a focus group.
   4. Fred is running focus groups with the same people over time.
   5. Fred is running focus groups with different samples of people over time.

21. What design is good for measuring subtle differences in opinion and combines the validity of randomized experiments with the reliability of surveys?
   1. semistructured interviews
   2. telephone interviews
   3. factorial surveys
   4. pile sorts
   5. randomized responses

22. Why would a researcher consider using the randomized response technique?
   1. to select a representative sample of respondents from a given population
   2. to estimate the amount of some socially negative behavior in a population
   3. to estimate the population parameters of common events
   4. to identify accurately people who engage in socially negative behaviors
   5. to improve informant accuracy

23. Bryan wants to know how Spanish-speaking mothers relate 15 different illness terms with 25 different physical signs and symptoms their children might display when they are ill. What kind of data collection technique would be best for collecting this type of relational data?
   1. free listing
   2. pile sorts
   3. triads tests
   4. sentence frame techniques
   5. rank orderings

24. In his study of phobias, Tim asked informants to order a list of 25 different fears from the most scary to the least scary. What kind of data did Tim collect?
   1. paired comparisons
   2. rank orderings
   3. ratings
   4. free lists
   5. pile sorts
25. Pamela is studying adolescents' perceptions about 12 types of contraceptive methods. She has not done much research on the topic yet, so she isn't really sure what criteria adolescents use to distinguish between one method and another. Pamela wants to know which methods adolescents consider to be most similar to each other. What data collection technique would you suggest?
   1. free listing
   2. pile sorts
   3. triads tests
   4. sentence frame techniques
   5. rank ordering

26. T F More reporting of behavior means more accurate reporting.
   True
   False

27. T F Random digit dialing is a means to generate a completely unbiased samples of people with phones.
   True
   False

28. T F All types of response bias are eliminated in telephone interviews because respondents cannot see the interviewer.
   True
   False

29. T F Research in the United States has shown that questions asked over the phone are as valid as those asked in person.
   True
   False

30. T F If you've spent a lot of time thinking about and designing your questionnaire, you can sometimes skip pretesting it.
   True
   False

31. T F Never use any of the respondents in a pretest for the main survey.
   True
   False

32. T F Panel studies may suffer from the respondent mortality problem.
   True
   False
Topics and Questions for Discussion

The survey questionnaire is the most widely used method for collecting social research data. The questionnaire, in fact, whether administered in person or over the phone, or by computer or on the Internet, has become a common artifact of modern industrial society. By the time they get to college, in fact, most people have had some experience with one or more of these techniques for gathering data. Ask students to discuss their own experiences with questionnaires, including personality inventories that they may have taken in school. Do they have any sense of ennui with these instruments? Do they think that others may experience those feelings?

Ask students to develop a bibliography of articles on response effects. The journal, *Public Opinion Quarterly*, publishes articles on this topic in practically every issue.

Go over the list of 15 rules for wording questions. Encourage students to think of exceptions to these rules.

If you have a bilingual student in your class—Spanish-English, for example—or if you can hire a bilingual student, try back translating a commonly used scale, like Bem's androgyny scale. If you have more than one bilingual person in your class, you can get two separate back translations. There are bound to be some discrepancies in the final products. This is a good opening for a discussion of how much difference small differences in wording make in questionnaires.

There is a lot of distilled wisdom about doing surveys in Priscilla Salant and Don Dillman's book, *How to Conduct Your Own Survey* (New York: Wiley, 1994). Ask students to find examples of studies that are based on Dillman's total design method, or some subset of the method, and discuss some of the details of the method. Is it still true that people are more likely to return mailed questionnaires that have cover letters signed in ball-point pen than questionnaires that have computer-generated signatures? Or are people today too savvy for this sort of thing?

Ask students to keep their own time budgets for three days. Some students will be more assiduous than others in this assignment, even for a three-day assignment. The differences across the diaries provides a good opening for a discussion of informant accuracy and the validity of time-budget data. It's also a good opening for a discussion of why we don't give up on social research just because the data are not perfect.

Cultural domain analysis is a lot of fun, especially if you have the software to handle the data. Free listing and pile sorts, in particular, are fun to do and provide a lot of information very quickly. A useful set of programs for processing these data is Stephen Borgatti's ANTHROPA. It is still a DOS program, but it runs in a DOS window on any Windows-based machine. It is available at [www.analytictech.com](http://www.analytictech.com)
Chapter 8: Scales and Scaling

1. What is a scale?
   1. a cumulative set of indicators for measuring a complex construct
   2. a device for assigning units of analysis to categories of a variable
   3. a set of items that form a single dimension
   4. a questionnaire that asks people about a single construct
   5. multiple indicators that when added up tell us about a single construct

2. Which question below produces data with ratio properties?
   1. How many months have you been married?
   2. Rate the amount of stress you have felt today on a scale of 1 to 10, where 1 is little stress and 10 is a lot of stress.
   3. Rank order the days of the week according to which one you like most to which one you like least.
   4. How satisfied are you with your job? (1 = unsatisfied, 2 = neutral, 3 = satisfied)
   5. What is your favorite color?

3. Which question below produces data with nominal properties?
   1. How many months have you been married?
   2. Rate the amount of stress you have felt today on a scale of 1 to 10, where 1 is little stress and 10 is a lot of stress.
   3. Rank order the days of the week according to which one you like most to which one you like least.
   4. How satisfied are you with your job? (1 = unsatisfied, 2 = neutral, 3 = satisfied)
   5. What is your favorite color?

4. Lillian wanted to measured people's concern about environmental matters. She asked respondents whether they were concerned or not about a long list of environmental issues. She counted each type answer as the same and summed across all the questions to form a scale. What kind of measure of environmental concern did she create?
   1. a single indicator
   2. a cumulative index
   3. a Guttman scale
   4. a Likert-like scale
   5. a nominal scale

5. How many respondents should you ask to pretest your pool of questions in developing a Likert scale?
   1. 1 or 2
   2. 5—10
   3. 10—25
   4. 50—100
   5. 100—200
6. Cindy takes a national standardized test to get into graduate school. She is notified that she scored in the top quartile (25%) of those who took the test. What does this indicate about the scale?
   1. that it is criterion referenced
   2. that it is robust
   3. that it is norm referenced
   4. that it is cumulative
   5. that it is Likert-like

7. Allen Johnson examined Matsigenka men's manufacturing skills. He found that men's skills formed a unidimensional scale. Men who knew how to make three-string slingshots also knew how to make net bags and a trap. Men who could make net bags were likely to know how to make a trap. What kind of scale did Johnson's data on men's manufacturing skills form?
   1. a nominal scale
   2. a cumulative index
   3. a Likert-like scale
   4. a Guttman scale
   5. a ratio-level scale

8. What is the very first step in building a Likert scale?
   1. Write a long list of indicator questions or statements.
   2. Pretest your item pool of questions on some respondents.
   3. Check whether the items form a unidimensional scale of the concept you are trying to measure.
   4. Identify and label the variable you want to study.
   5. Pick the number of response categories you will use in your questions.

9. What does the interitem correlation tell you about a set of items in a scale?
   1. the degree to which any pair of items is measuring the same thing
   2. how well the items in a scale measure the criterion variable
   3. which items to throw away and which items to keep
   4. how well a set of items distinguishes between respondents who score high on the scale and respondents who score low
   5. whether the items are valid and reliable

10. What does Cronbach's alpha tell us about items and scales?
    1. the degree to which any pair of items is measuring the same thing
    2. how well the items in a scale are correlated with one another
    3. which items to throw away and which items to keep
    4. how well a set of items distinguishes between respondents who score high on the scale and respondents who score low
    5. whether the items are valid and reliable
11. What is the minimum Cronbach's alpha ($\alpha$) you should expect if a short list of items forms a unidimensional scale?
   1. $\alpha > .20$
   2. $\alpha > .40$
   3. $\alpha > .60$
   4. $\alpha > .80$
   5. $\alpha > .95$

12. What does the item-total correlation tell us about a set of scale items?
   1. the degree to which any pair of items is measuring the same thing
   2. a statistical test as to how well the items in a scale are correlated with one another
   3. which items to throw away and which items to keep
   4. how well a set of items distinguishes between respondents who score high on the scale and respondents who score low.
   5. whether the items are valid and reliable

13. Kevin asks 250 men questions about 50 items related to how much they appreciate art. A factor analysis identifies two major factors. Ten items have high factor loadings on factor 1, and 15 items have high factor loadings on factor 2. What does this tell us about Kevin's artistic appreciation scale?
   1. The items form a unidimensional scale.
   2. The items form a multidimensional scale with two principal dimensions.
   3. Kevin could probably reduce his 50-item scale by half.
   4. Kevin needs to redesign his concept of artistic appreciation as he clearly does not have a unidimensional scale.
   5. 1 and 3

14. Which of the following statements are generally true of carefully designed scales?
   1. As scales get used more, they tend to shrink in size.
   2. As scales get used more, our confidence in their reliability increases.
   3. Successful scales get validated on many different populations over time.
   4. As scales are applied to different kinds of respondents under different circumstances, they are often modified.
   5. all of the above

15. Richard decides to use the ladder of life scale to assess how engineers at different stages of their career feel about working in a large corporate culture. Since the ladder of life is a self-anchoring scale, what does Richard have to do?
   1. Tell respondents what the rungs at the top and bottom of the ladder mean.
   2. Tell respondents his vision of the best and worst possible life.
   3. Tell respondents that the bottom rung refers to entry-level positions and the top rung refers to the top management positions in the company.
   4. Ask respondents to describe their idea of entry-level positions and top management positions.
   5. Ask respondents to explain, in their own terms, what the top and bottom rungs of the ladder mean to them.
16. Instead of asking respondents a series of questions about gun control, Bert asked respondents to rate their feelings toward gun control on a series of paired adjectives. What kind of scale was Bert trying to create?
1. Guttman scale
2. Likert-like scale
3. semantic differential scale
4. magnitude scale
5. unidimensional scale

17. Terry wants to measure people's emotional reactions to different kinds of Buddhist poetry. She is particularly worried that whatever wording she chooses will have a big effect on people's evaluations. Furthermore, she plans to interview both English- and Tibetan-speaking respondents and wants to avoid the problem of translating scale categories between the two languages. What kind of scale would you suggest she consider?
1. a semantic differential scale
2. the faces scale
3. the ladder of life
4. a Likert-like scale
5. a direct magnitude scale

18. The faculty in the department of social science at Unknown U. were looking for a way to calculate merit raises. The problem was to determine how to value, in dollar terms, things like writing a book, co-authoring a journal article, developing a new course, and so on. One faculty member suggested they treat this as any other research project. Each faculty member listed all the things they thought were worthy of merit raises, then they generated a master list of merit-worthy items. Then, for each item, each faculty member wrote down how much of a raise (in dollars) he or she thought each item was worth. There were no limits on the amount people could suggest. What kind of scale were they trying to create?
1. a semantic differential scale
2. a faces scale
3. a ladder of life
4. a Likert-like scale
5. a direct magnitude scale

19. T F You should use composite measures (complex scales) when single indicators do not adequately measure the construct of interest.
   True
   False

20. T F Once you find a unidimensional scale for one population, you can usually expect it to replicate across other populations.
   True
   False
21. T F All Likert-like scales are unidimensional.
   True
   False

22. T F It is usually easier to build and validate your own scale than to spend the time looking for an appropriate scale that has already been created and tested.
   True
   False
Topics and Questions for Discussion

Discuss in class the difference between single-indicator scales and multiple-indicator scales. This relates to the earlier discussion, in Chapter 2, on unidimensional and multidimensional constructs.

Discuss the difference between indexes and scales. Everyone knows about the Dow-Jones Industrial Index. It is based on 30 stocks that are chosen by the Dow-Jones Company to represent the major components of the U.S. economy. The index of industrial stocks began with 12 stocks in 1896 and has expanded over the years. Every so often, companies leave the list and companies are added, to reflect what the developers of the DJIA believe represents the industrial output of the U.S. Can 30 stocks represent the industrial output of the U.S.? Since the DJIA is a true index, a 1-point drop in a $200 stock has the same impact on the average as a 1-point drop in a $75 stock. Is this appropriate?

The most commonly used format for scaling is the one widely called Likert scales. Discuss in class why we should more properly talk about Likert-like scales in many cases, reserving the term Likert scale for scales that have been tested for dimensionality, reliability, and validity.

Ask students to find recent studies in which various kinds of scales are used—the faces scale, the semantic differential scale, the direct magnitude scale, and so on. Ask students to discuss in class how researchers actually used these scaling devices and whether alternative devices might have been used in the various studies.
Chapter 9: Participant Observation

1. Which of the statements below is not true about participant observation?
   1. Participant observation is a qualitative exercise.
   2. Participant observation puts you in direct contact with informants.
   3. Participant observation lets you collect lots of different kinds of data.
   4. Participant observation is driven by direct observation.
   5. Both 1 and 4 are not true.

2. Which statement about participant observation below is true?
   1. People who use participant observation for more than six months typically go native.
   2. Researchers only do participant observation in cultures outside of their own.
   3. Participant observation is used by both positivists and interpretivists.
   4. Participant observation takes at least a year's worth of research.
   5. You must speak a foreign language to do participant observation.

3. What do people do when they do participant observation?
   1. hang out
   2. spend lots of time learning the culture
   3. do everyday things that everyone else does
   4. watch carefully what people do and say
   5. all of the above

4. Sally wants to study whether nurses on an intensive care unit treat men and women differently. A nurse herself, Sally obtains a position on an intensive care ward. She doesn't tell anyone she is doing research and just does the jobs assigned to her. What kind of research role is Sally taking in her fieldwork?
   1. participant observer
   2. complete participant
   3. complete observer
   4. field worker
   5. none of the above

5. Which is a good reason for conducting participant observation?
   1. You can collect many different kinds of data.
   2. Spending long periods of time with people reduces their reactivity to being studied.
   3. Over time, you learn to ask the right questions in the local language.
   4. You can speak with confidence about what the data mean.
   5. All the above are good reasons for doing participant observation.
6. Terry obtains a small contract from the state of Vermont to examine the problems that people living in very small rural towns experience. He wants to do some participant observation, but does not have the time to spend a year living in a small town and building rapport. What should he do?
   1. He should forget about doing participant observation and administer a close-ended survey.
   2. He should find a sample of rural people and ask them one question: "What are the problems you experience around here?" This will give him enough information to understand the kinds of problems people experience.
   3. He should use rapid assessment procedures. He should go into the field with a list of questions that he wants to answer and a checklist of data he needs. With the help of a few key informants, he should engage groups of people in discussions about the town's history and problems.
   4. He should spend most of his time just observing what people do in these small communities.
   5. None of the above is feasible.

7. Which of the suggestions below is good advice to begin your fieldwork?
   1. Spend time getting to know the physical and social layout of your field site.
   2. Spend time and resources at the beginning of your project to get into difficult field sites. Places that are difficult to work in inevitably produce the most interesting data.
   3. In order not to take sides in a community, it is best to enter without using previously established contacts.
   4. The less people know about who you are and what you are doing, the better. This way, they are less likely to change their behavior when you are around.
   5. 1 and 2 are correct

8. Why is knowing the language so important in participant observation?
   1. You are able to participate more fully in daily activities and discussions.
   2. You are less of a freak in the community.
   3. People are more likely to report data on more sensitive issues.
   4. You are less likely to be duped.
   5. all of the above

9. Which of the suggestions below is (are) helpful for remembering details in participant observation?
   1. Write down details of your day with the most salient first, the least salient last.
   2. Don't talk to anyone until you get your thoughts and impressions down on paper.
   3. Draw a map of the physical space where you were observing and talking to people.
   4. 2 and 3
   5. 1, 2, and 3
10. Why is knowing how to hang out such an important skill in participant observation?
   1. There is often nothing else to do in the field but to hang out.
   2. Hanging out results in ordinary conversation and ordinary behaviors with informants. In other words, your presence is less likely to cause people to behave or speak differently than they would normally.
   3. Hanging out builds rapport and trust with informants and allows you to ask them more direct and sensitive questions.
   4. Hanging out exposes you to a lot of opportunistic behaviors and events that you might not otherwise observe.
   5. all the above

11. What is the objective of objectivity?
   1. to act like robots without opinions or memories
   2. to achieve accurate knowledge by transcending our biases
   3. to achieve value neutrality
   4. to eliminate our interpretations of events
   5. to find the truth

12. What are signs of culture shock?
   1. the feeling that nothing seems right
   2. the fear that you won't get all your research done
   3. the feeling that people really do not want you around
   4. loneliness and the desire just to talk to people in your own language
   5. 1, 3, and 4

13. What are emic explanations?
   1. the researcher's explanations for how things work
   2. qualitative explanations
   3. informants' or insiders' own explanations of how things work
   4. idiosyncratic understandings of what is going on
   5. interpretivist explanations

14. Which characteristic would you not expect to find in a key informant?
   1. someone who is easy to talk to
   2. someone who is cynical about their own culture
   3. someone who freely provides information
   4. someone who is self-absorbed
   5. someone who is observant, reflective, and articulate

15. Which advice about field notes should not be followed?
   1. Set aside a block of time every day to write-up your field notes.
   2. If you have a lot of notes after a long day, get some rest and write them up in the morning.
   3. Create lots of small notes rather than one long note.
   4. Don't rely exclusively on tape recordings. Write it down, as well.
   5. Write down not only your observations and what people tell you, but what your feelings and reactions are as well.
16. Sara wants to identify some key informants for her study of social workers in a small city. How should she go about the process?
   1. She should quickly identify those social workers with the largest cases loads and use them as key informants.
   2. After speaking with a fairly large number of social workers, she should select those who talk the most.
   3. She should take her time, get a feel for the kinds of information she needs, identify a few potential prospects, and check out their roles and statuses in the social work community.
   4. She should conduct a survey of all social workers in the city. She should then pick two or three social workers who are closest in several sociodemographic characteristics to the average of those characteristics among all the social workers.
   5. She should select those social workers who have the most experience.

17. Why is the cultural consensus model such a powerful tool for researchers?
   1. It tests informants' cultural competence without having a cultural answer key.
   2. It allows researchers to identify highly competent informants who can talk about well-defined areas of cultural knowledge.
   3. It tells researchers the degree to which members of a group agree with each about a specific domain.
   4. It provides a handy shortcut to figuring out just how many informants one needs to make reliable statements about a particular cultural domain.
   5. all of the above

18. Josh studies how stock brokers make decisions about what to recommend to their clients. When Josh is in the field (at brokerage firms), he is always pulling out a little note pad and scribbling down observations, quotes, and reminders to himself. What is Josh doing?
   1. He is taking his jottings or scratch notes.
   2. He is writing up his field notes.
   3. He is maintaining his daily log.
   4. He is writing up his diary.
   5. none of the above

19. What should you write down in your log book?
   1. what you did during the day
   2. what you plan to do, what you did, and how much you spent during the day
   3. who you talked to
   4. how you felt
   5. little notes to yourself as you go through your day
20. Bill had just started his fieldwork on social structure and the use of technology in an accounting firm. For the first three days he wore a coat and tie—as did all the employees at the firm. On the fourth day, he inadvertently left the house without his tie. To his surprise, his interviews that day were more relaxed and informative. While writing up his field notes that evening, he wondered whether his more casual attire had played a role in changing the kinds of data he was collecting. What kind of note did Bill make?
1. methodological note
2. descriptive note
3. analytic note
4. daily note
5. personal note

21. Where do most descriptive notes in participant observation come from?
1. listening
2. reading
3. watching
4. 1 and 3
5. 1, 2, and 3

22. Eleanor was examining how college admissions committees decide who to admit and who to reject. After several weeks of participant observation, she finally thought she knew how the system worked. She wrote four pages of notes that night trying to put her ideas down on paper. What kind of field note did Eleanor write?
1. methodological note
2. descriptive note
3. analytic note
4. daily note
5. personal note

23. When is participant observation most powerful?
1. as a stand-alone method
2. when quantitative methods will not work
3. when you don't know what is going on
4. when combined with other qualitative and quantitative data collection techniques
5. it is not a powerful technique

24. T F All fieldwork is participant observation.
   True
   False

25. T F Participant observation inherently involves deception and impression management.
   True
   False
26. T F Collecting both qualitative and quantitative data is a better research approach than just collecting one or the other.
   True
   False

27. T F Understanding how a social institution or organization works is best achieved through pure observation.
   True
   False

28. T F Whenever you are doing participant observation, you should mimic the pronunciation and words of your informants.
   True
   False

29. T F Knowing when to be naive is an important skill in participant observation.
   True
   False

30. T F Knowing what questions to ask is obviously important, but knowing when to ask and when not to ask is equally crucial in participant observation.
   True
   False

31. T F Though personal characteristics make a difference in fieldwork, you can always eliminate their effects through careful impression management.
   True
   False

32. T F It is generally a good idea to take a break after three or four months in the field. You should get out of your field site, visit friends, or just take a short vacation.
   True
   False

33. T F Like all social science research, ethnographic fieldwork stands and falls on talking to a lot of people.
   True
   False

34. T F You should never pay informants when conducting participant observation.
   True
   False
Topics and Questions for Discussion

Discuss the distinction between strategic methods (like participant observation, direct observation, survey questionnaires, etc.) and techniques that are used in each of these major methods.

Many ethnographers discuss ethical problems they’ve encountered during fieldwork. Ask students to comb through ethnographies and develop a casebook of ethical problems in studies that are based on participant observation. (Students may be surprised to know that there are potential ethical problems associated with participant observation.)

Across the social sciences these days, there is a great divide between scholars who advocate quantitative methods, like questionnaire surveys, and those who advocate qualitative methods, like participant observation. Ask students to find examples in the recent literature of researchers from both sides of the divide who disparage the other side and discuss this issue in class. Point out the advantages and disadvantages of running a questionnaire survey versus doing ethnographic research. To estimate a parameter in a population—something like the average age, or the average level of support for a politician—survey research is simply a better method than ethnography; ethnographic research, by contrast, is best for finding out how things work and for understanding the meanings that people attach to things and events in their lives.

Ask students to work on some of the ethnographic skills discussed in this chapter—skills like explicit awareness and the ability to remember (and record) details about events. Discuss the experience together in class.

It is entirely possible to experience culture shock just by moving from one city to another in the same society, or even from one neighborhood to another in the same city. Ask students in the class if any of them have ever experienced culture shock.

Ask students to attend a religious service and to talk to participants about the meaning of various components of the event. Students should write up field notes on their observations and informal interviews and discuss in class the problems they faced in deciding what to record and how much detail to include.
Chapter 10: Direct and Indirect Observation

1. What are the two general strategies for direct observation?
   1. reactive and nonreactive
   2. direct and indirect
   3. continuous and sporadic
   4. time allocation and indirect observation
   5. continuous monitoring and unobtrusive studies

2. Tammy examines how politicians interact with crowds. She and her research team record several politicians' behavior from the time the politicians enter a crowd until they reach the podium or the safety of their vehicle. What kind of observation are Tammy and her team doing?
   1. time allocation
   2. continuous monitoring
   3. indirect observation
   4. spot sampling
   5. experience sampling

3. John is interested in the frequency with which boys and girls interact in playground settings. He is considering collecting his data by asking children to describe their own playground interactions. Why is this not a good idea?
   1. Most children play in large groups so their lists would be longer.
   2. Girls remember better than boys.
   3. Boys play only with boys, so the sample of interactions would be biased.
   4. John would have to take children out of class to interview them.
   5. Personal interviews do not tell you what people actually do.

4. What is an ethogram?
   1. a kind of indirect observation
   2. a kind of participant observation
   3. a closed-ended version of an ethnography
   4. an ordered list of behaviors that a person or organism performs during an event or over a fixed time period
   5. a respondent's description of his or her behavior

5. Researchers who use continuous monitoring can record their data by writing or using a tape recorder. What is an advantage of using a written checklist?
   1. You can record more details about the behavior itself.
   2. You can focus better on what is actually occurring in front of you.
   3. You can record more details about the context in which the behavior occurs.
   4. You are producing coded qualitative data that are immediately useful.
   5. There is no real advantage for using a written checklist. Always use a tape recorder.
6. Why do you need to develop a coding scheme to analyze continuous monitoring data?
   1. Coding schemes allow researchers to segment continuous streams of behaviors into specific categories of behavior that can be more readily analyzed.
   2. Coding schemes are like free lists. They represent the complete set of behaviors observed during the monitoring process.
   3. Coding schemes are just convenient ways for researchers to talk about their data.
   4. Researchers use coding schemes only when they want to make comparisons across research projects.
   5. Coding schemes are not necessary for analyzing continuous monitoring data.

7. What kind of behaviors were observed in the *Six Culture Study*?
   1. shopping behavior
   2. child behavior
   3. adult behavior in large corporations
   4. child aggression
   5. family interactions within the household

8. What kind of recording medium provides the most information during continuous monitoring?
   1. tape-recorded observations by researcher
   2. tape-recorded conversations of subjects
   3. written notes by researcher
   4. checklists filled out by researcher
   5. videotaped observations of subjects

9. Stephanie is studying the activity patterns of people in her collage dorm. She makes a list of all her dorm mates and, at randomly selected points in the day, she checks whether a person is in the dorm and what he or she is doing. What kind of observational technique is Stephanie using?
   1. indirect observation
   2. experience sampling
   3. participant observation
   4. time allocation
   5. continuous monitoring

10. Spot sampling and time allocation are based on what fundamental assumption?
    1. The more times a person performs a particular activity, the more often you will observe him or her engaged in this activity in public.
    2. People are not very good at telling you what they do.
    3. If you sample a large number of representative acts, you can use the number of times people are observed doing things as a proxy for the percentage of time they spend in those activities.
    4. People's activity patterns are best measured by continuous monitoring.
    5. Time allocation is a nonreactive type of behavioral measure.
11. Which should you ask when doing time allocation research?
   1. Whom do I watch?
   2. Where do I watch them?
   3. When do I watch them?
   4. 1 and 3
   5. 1, 2, and 3

12. Joe wants to know how much time people in his dorm spend watching television. He does 40 random spot observations on a random sample of 30 of his dorm mates. To make it manageable, he decides to do the spot observations between 7 a.m. and 10 p.m. Why is this not a good idea?
   1. He has no idea what people are doing when they are not in the dorm.
   2. Television watching probably occurs quite frequently between 10 p.m. and 7 a.m. This time period is not covered in Joe's sample strategy.
   3. He does not control for what programs people are watching.
   4. He does not know whether on some days dorm mates watch more television than on others.
   5. He needs to do spot observations on everyone, not just a sample.

13. Jan is using spot observation to find out how office workers spend their time. On her first day, she notices that people are often multitasking. For example, they might be talking on the phone and surfing the Web at the same time. What should she do?
   1. Code the first behavior she notices.
   2. Decide what the primary behavior is and write it down.
   3. Record all behaviors she observes in the order of their primacy based on her best judgment at the time.
   4. Check off all the behaviors she observes.
   5. Pick one of the observed behaviors at random and write it down.

14. Ryan and Weisner studied what children did while they were at home. They gave eight children beepers and randomly beeped them throughout the day. When the beeper went off, the child called the field worker and reported not only what he or she was doing at the time of the beep, but who was also present in the house and how he or she felt. What kind of study was Ryan and Weisner conducting?
   1. experience sampling
   2. indirect observation
   3. continuous monitoring
   4. spot observation
   5. nonreactive observation

15. What kind of things do investigators studying proxemics observe?
   1. people's perceptions of space
   2. the spacial orientations of actors
   3. children's interactions
   4. deviant behaviors
   5. telephone conversations
16. John wants to understand what people do when they work on an assembly line. He applies for a job at a large plant and is hired. He doesn't tell anyone that he a social scientist or that he plans to study the behavior of workers. What kind of research is John doing?
   1. trace studies
   2. disguised field observations
   3. indirect observation
   4. proxemics
   5. unethical observations

17. When should you use deception in research?
   1. Some researchers advocate never using deception.
   2. You can use deception when you think the data are important enough to warrant the risks to your informants.
   3. The decision to use deception is up to you, provided that the risks of detection are your own and that there are no risks to those you are observing or to others.
   4. There are no problems with deception. You can use it whenever you want.
   5. 1 and 3 are correct.

18. What is meant by passive deception?
   1. the collecting of unobtrusive data without making people believe one thing to get them to do another
   2. a kind of indirect observation
   3. any kind of unethical deceptive practices
   4. manipulating the physical or social environment in such a way to get people to change their behavior.
   5. any type of direct observation

19. What is another name for trace studies?
   1. direct behavioral observations
   2. studies of material objects
   3. reactive direct observations
   4. garbage studies
   5. behavioral archeology

20. In the Garbage Project, how did people who knew they were being studied change their behavior compared to people who did not know they were being studied?
   1. People who knew they were being studied were no different than those who didn't know they were being studied.
   2. People who knew they were being studied threw away fewer bottles of alcoholic drinks than did those who didn't know they were being studied.
   3. People who knew they were being studied threw away a lot less garbage than did those who didn't know they were being studied.
   4. People who knew they were being studied threw away less uneaten food than did those who didn't know they were being studied.
   5. People who knew they were being studied threw away more yard clippings than did those who didn't know they were being studied.
21. What kinds of things might bias the kinds of data collected in a trace study of garbage?
   1. families that have fireplaces and burn their newspapers
   2. families that take toxic wastes to special recycling centers
   3. families that use garbage disposals
   4. 1 and 3
   5. 1, 2, and 3

22. T F Direct observation is used only on children.
    True
    False

23. T F Data collected from continuous monitoring usually produce the same results as data gathered from 24-hour recall.
    True
    False

24. T F If you need to know how often people engage in a particular behavior, then you should collect quantitative data.
    True
    False

25. T F Unlike continuous monitoring techniques, there are no reactivity problems associated with time allocation research.
    True
    False

26. T F There are no ethical problems associated with doing trace studies because you are not observing people directly.
    True
    False
Topics and Questions for Discussion

Continuous monitoring of natural behavior is a really tough job—there is just so much going on, so many different little things happening all at once. Discuss in class the problem of deciding which behaviors actually to monitor.

Another big problem is that, with so much going on, it's tough to know how to record behaviors of interest. Discuss the problem of developing coding schemes and of ensuring reliable coding. Raise the issue again of the difference between reliability and validity.

Discuss the problem of reactivity in direct observation. Do people get accustomed to having someone around recording their behavior? Are children better focal points for direct observation than adults?

Time allocation studies offer a good opportunity to discuss sampling theory again. Discuss in class the principle that, given a sufficiently large random sampling of the time stream, the percentage of times a behavior occurs is a proxy, with known error bounds, for the percentage of time that behavior occurs.

Discuss in class the ethical problems associated with direct observation, with unobtrusive observation, and with disguised observation. Pseudoclients are sent out by agencies of government to make sure, for example, that home loans are extended equally to members of all ethnic groups. Ask whether this absolves social scientists from responsibilities associated with disguised observation.

The principle of grades of deception offers an opportunity for in-depth discussions of ethical responsibilities in research. Ask students to intellectualize the deceptions that they use in everyday life (the so-called little white lies) and to compare those deceptions with the sorts of things that social scientists sometimes do.
Chapter 11: Introduction to Qualitative and Quantitative Analysis

1. Keith asked 120 men and women to describe what they considered to be ideal art. To examine gender differences in art appreciation, Keith plans to identify the 100 most commonly mentioned nouns, verbs, and adjectives in the texts. Next, he will test whether men and women differ in the frequency with which they use these common words. What kind of analysis does Keith propose to do?
   1. qualitative analysis of qualitative data
   2. qualitative analysis of quantitative data
   3. quantitative analysis of qualitative data
   4. quantitative analysis of quantitative data
   5. analysis of observational data

2. Paul has analyzed a closed-ended survey of people's preferences for wine. He used a statistical package to plot the level of respondents' preference for red wine by their reported income. Paul now needs to interpret this graph. What kind of analysis will this be?
   1. qualitative analysis of qualitative data
   2. qualitative analysis of quantitative data
   3. quantitative analysis of qualitative data
   4. quantitative analysis of quantitative data
   5. analysis of observational data

3. What is analysis?
   1. labeling patterns in data
   2. finding the right answer to a research question
   3. interpreting data
   4. the search for patterns in data and for explanations of why these patterns exist
   5. testing hypotheses

4. Mary is studying the effects of welfare reform on the activities of single mothers on welfare. A key informant explains that the new welfare rules force young mothers to spend more time in jobs outside the home, giving them less time to spend with their children. After the interview, Mary believes she has essentially finished her analysis. Is this a wise idea?
   1. Yes. As a participant in welfare reform, her informant knows a lot more than Mary does.
   2. Yes. Her informant is very articulate and obviously knows how the system works.
   3. Yes. For humanistic reasons, Mary should put her faith in her informant's emic understanding of the situation.
   4. No. Mary needs to look more critically at her key informant's statement and see whether other people believe the same thing.
   5. 1, 2, and 3
5. One way to check the validity of different explanations is to move back and forth between the emic and etic perspectives. How can one do this systematically in the field?
   1. When you find an unusual case, ask yourself if it is really just a strange case or if it comes from normal intracultural variation or from your lack of understanding of the problem.
   2. Whenever possible, check respondents' reports about events against more objective evidence.
   3. Look for consistencies and inconsistencies within and across informants.
   4. Actively seek alternative explanations from informants and from colleagues.
   5. all of the above

6. Susan conducts a telephone survey with 65 people. She asks them 25 questions each. She puts the data into a spreadsheet where the rows represent the respondents and the columns represent the questions. What kind of data matrix does she have?
   1. a 65-by-25 profile matrix
   2. a 65-by-65 similarity matrix
   3. a 25-by-65 similarity matrix
   4. a 25-by-25 profile matrix
   5. none of the above

7. Amanda studies the interactions of 19 children when they have free time in class. She videotapes the 10-minute period and then goes over the tape and counts the number times that children talk to each other. For example, in one session she notes that Sally talks to Pam six times and to Fred twice. Meanwhile, Pam talks to Fred once. What kind of data matrix is Amanda likely to use to store her data?
   1. a 10-by-19 profile matrix
   2. a 19-by-19 dissimilarity matrix
   3. a 19-by-10 similarity matrix
   4. a 19-by-19 similarity matrix
   5. none of the above

8. Deb is an archeologist. She has excavated pottery from 15 different sites in the Southwest. She wants to know whether pottery characteristics at different sites are related to the distance between the sites. Deb uses a map to measure the distance between each of the 15 sites. She stores these data in a 15-by-15 matrix. What kind of data matrix Deb did create?
   1. a similarity matrix
   2. a dissimilarity matrix
   3. a profile matrix
   4. a correlation matrix
   5. none of the above
9. Stanley asked groups of mothers in Zaire to list the kinds of diarrhea their children experienced. For each local diarrheal illness mothers mentioned, Stanley asked three further questions: 1) What signs and symptoms are associated with this illness?; 2) What causes this illness?; and 3) How do you treat this illness? At the end of the interviews, Stanley identified six different kinds of diarrheal illnesses. How could Stanley display the similarity and differences among the six kinds of illnesses while still maintaining the richness of the words that mothers used?
   1. He could describe each illness in detail and let the reader figure out how they are similar and different.
   2. He could build a table where the both the rows and columns would represent each of the six illnesses. In the cells, Stanley could write in whether he thinks the two illnesses are really similar to each other.
   3. He could build a table. The rows in the table would represent the six illnesses. The three columns in the table would represent signs and symptoms, causes, and treatments. In each cell of the table, he would write in the most common words that mothers mentioned.
   4. He could build a table where the columns represented the six illnesses and the rows represented the most common signs and symptoms mentioned by mothers. He could put a 1 in each cell if the sign was associated with the illness and a 0 otherwise.
   5. He could convert the text to numbers and use statistics to identify degrees of similarity.

10. What are causal maps?
   1. a special kind of environmental cartography
   2. a visual display of database management procedures
   3. visual representations of maps of informal conversations
   4. another term for profile matrices
   5. visual representations of how things work (i.e., what causes what)

11. What is not a logical expression for doing searches in a database?
   1. not
   2. and
   3. maybe
   4. or
   5. and/or

12. Matrices, spreadsheets, and databases use similar concepts but with different names. What do rows in a matrix or spreadsheet or records in a database typically represent?
   1. characteristics of rows
   2. units of analysis
   3. fields
   4. characteristics of units
   5. summary features
13. Bryan wants to know how researcher characteristics influence the kinds of grants that are submitted at a major university. To manage the data, he creates several linked files. In one file, he puts each researcher’s ID code and characteristics such as age, degree, academic department, and academic rank. In another file, he puts all the information about each grant that is submitted, including title, granting agency, total budget, and which researchers submitted the proposal. In a third file, he keeps track of all the granting agencies and their characteristics. What kind of database management system is Bryan setting up?

1. unrelated database
2. flat file database
3. similarity database
4. relational database
5. none of the above
Topics and Questions for Discussion

This is another place in the curriculum to emphasize that the distinction between qualitative and quantitative should not be confused with the distinction between the sciences and humanities. Ask students to find examples of studies in the scholarly journals that might fit into the cells of Table 11.1. Many studies will fall into more than one of the cells, and this is a good point for discussion.

Ask students to collect examples of political analysis from newspapers and magazines. Then ask them to identify similarities and differences between the analyses of political commentators and the analyses of researchers whose works appear in major journals like *American Sociological Review*, *Administrative Science Quarterly*, *Journal of Personality and Social Psychology*, or any list of journals that you want students to learn about.

Discuss in class a list of socioeconomic variables (age, gender, income, marital status, number of siblings, whether parents were divorced, etc.). Ask students to construct a profile matrix of their own characteristics and that of three or four friends and acquaintances. This will involve using a data editor (any spreadsheet will do, as will the data editors that are built into all the popular statistical analysis packages). Ask students to concatenate the profile matrix that they create with one or more created by others in the class. If students are not given a precise ordering for the variables in the matrices they build, this will require learning how to move variables around. These exercises build essential skill in data management and are a good basis for discussing the concepts of data management, data processing, and data analysis.
Chapter 12: Qualitative Data Analysis I—Text Analysis

1. Which of the following are kinds of texts or can be treated analytically as texts?
   1. political speeches, laws, personal correspondence
   2. cocktail parties, college football games, family reunions
   3. radio ads, films, photos taken during vacations
   4. clothing, buildings, computer programs
   5. all of the above

2. The interpretation of a state constitution is what kind of analysis?
   1. discourse analysis
   2. performance analysis
   3. hermeneutic analysis
   4. content analysis
   5. narrative analysis

3. What is a hermeneutic analysis?
   1. the act of discovering regularities in how people tell stories or give speeches
   2. the search for meanings and their interconnection in the expression of culture
   3. the act of identifying emic categories and figuring out how these are linked together
   4. the close study of naturally occurring behavioral interactions
   5. the use of direct quotes to represent different ideas held by informants

4. Margo collects life histories from 25 men and 25 women who are living in a nursing home. What kind of analysis does she need to do to see whether men and women use different literary devices in telling their stories?
   1. discourse analysis
   2. performance analysis
   3. hermeneutic analysis
   4. content analysis
   5. narrative analysis

5. John is hired by a computer company to better understand how customers interact with its technical support staff over the phone. John tape records 200 conversations between customers and technicians. He is particularly interested in how patient technicians are when listening to consumers' descriptions of the problem. John notes the number of times that technicians interrupt customers to ask other questions and the number of times that technicians ignore customers' own diagnosis of the problem. What kind of analysis is John doing?
   1. discourse analysis
   2. narrative analysis
   3. hermeneutic analysis
   4. content analysis
   5. performance analysis
6. Amanda interviewed 40 brother-sister pairs about their sibling relationships while growing up. Amanda wants to use a grounded theory approach to analyze these tape-recorded interviews. What does she need to do first?
1. pull all the text together that corresponds to potential themes
2. identify exemplary quotes in order to illuminate the themes
3. identify potential themes in the text
4. produce transcripts of interviews and read through a sample of them
5. build theoretical models by constantly checking for negative cases

7. Saskia has been studying dating practices for some time. Now she wants to test some hypotheses about how these practices vary across ethnic groups. After collecting and transcribing people's stories about past dating experiences, Saskia needs to code the data. What kind of coding is she likely to use?
1. grounded theory coding
2. in vivo coding
3. deductive coding
4. open coding
5. inductive coding

8. What is in vivo coding?
1. codes that are derived a priori from the literature
2. notes to yourself about practical matters you encounter while doing research
3. the exploratory part of coding
4. the type of coding you use to test hypotheses
5. using the words of real people to name potential themes

9. Where do themes come from?
1. from texts themselves
2. from reviews of the relevant literature
3. by pawing and shuffling through the text and thinking hard about themes
4. from studying the words that are used in the text
5. all of the above

10. Shari is trying to understand the role that clinicians might play in reducing youth violence in urban environments. She interviewed 20 clinicians, community leaders, and parents. From the literature, Shari knew she was interested in two major themes: What could clinicians potentially do? What did they actually do? Within each of these major themes, she identifies subthemes. What is another name for these subthemes?
1. codes
2. second-order categories
3. first-order categories
4. in vivo coding
5. open coding
11. What are dummy variables?
   1. variables whose list of values is broken into a series of yes/no or present/absent variables
   2. variables that have more than three values
   3. variables that are measured at the interval level
   4. variables that you do not think will work
   5. none of the above

12. Kendall and Leslie have conducted a lot of interviews with children. As Kendall and Leslie review the interview transcripts, they are constantly scribbling notes about their thoughts in margin. What are Kendall and Leslie doing?
   1. theorizing
   2. memoing
   3. open-coding
   4. inductive coding
   5. building a codebook

13. What does it mean to build a model?
   1. to identify quotes that are representative of themes
   2. to identify themes
   3. to identify how themes are linked together
   4. to build a codebook
   5. to test specific hypotheses

14. After a careful analysis of a set of interview transcripts, Nancy and her colleagues have a tentative model of how women with cancer decide what kind of information to share and with whom to share it. Before publishing their results, however, they search for examples that do not fit their tentative model. They hope that these cases will provide further insights into new connections that need to be made in the model. What are Nancy and her colleagues doing?
   1. model saturation
   2. exploratory coding
   3. deductive coding
   4. open-coding
   5. negative case analysis

15. When does theoretical saturation occur in the analysis of texts?
   1. when investigators determine that their codebook is complete
   2. when the investigators' model is complex and interlinked
   3. after investigators have conducted an exhaustive literature review
   4. when investigators are no longer discovering new themes or relationships among themes
   5. after investigators test their codes for intercoder reliability
16. What is the fundamental difference between a grounded theory approach and content analysis?
   1. Grounded theory is primarily concerned with the discovery of hypotheses from texts, while content analysis is concerned with using text to test hypotheses.
   2. Content analysis is fundamentally inductive, and grounded theory is fundamentally deductive.
   3. Content analysis is primarily interested with the discovery of hypotheses from texts, while grounded theory is concerned with using text to test hypotheses.
   4. Content analysis is a quantitative technique for discovering themes, and grounded theory is a qualitative technique for discovering themes.
   5. There is no real difference between the two approaches.

17. Tanya will test the hypothesis that men are more likely to commit serious child abuse than are women. Her database comprises articles from the *New York Times* related to child abuse. What sampling problems will Tanya need to resolve?
   1. Tanya needs to decide how she is going to sample articles related to child abuse from among all the articles on child abuse found in the *New York Times*.
   2. Tanya needs to decide how she is going to measure the severity of child abuse.
   3. Tanya needs to decide what unit of analysis she is going to code for each article.
   4. 1 and 3 only
   5. 1, 2, and 3

18. Eric wants to examine how men's and women's casual conversations may differ. He thinks that women are more likely to engage in conversations about personal relationships than are men. Eric collects a sample of conversations between men and men, men and women, and women and women. He then reads through the transcripts and divides each conversation into units based on the theme that is being discussed. Sometimes these units are several paragraphs long. Other times they are short exchanges. What is Eric doing?
   1. unitizing the text
   2. open coding
   3. inductive coding
   4. segmenting the text
   5. 1 and 4

19. What does it mean to say that coding categories are exhaustive and mutually exclusive?
   1. all items can be classified
   2. all items can be classified into only one category
   3. all items can be classified into only one category and no items are left unclassified
   4. no items are left unclassified
   5. none of the above
20. Why do investigators use multiple coders in content analysis?
   1. It makes content analysis seem more scientific than grounded theory.
   2. Agreement among multiple coders says that coders are acting as reliable measurement instruments—that is they consistently apply the same constructs to the same units of text.
   3. Agreement among multiple coders says that the concept being measured is actually shared rather than just in the principal investigator's head.
   4. 2 and 3 only
   5. 1, 2, and 3

21. Matt has two coders look at 100 texts and code them for the presence or absence of five themes. For each code, Matt calculates the percentage of times that Coder 1 agreed with Coder 2. Why is this not a good way of calculating intercoder reliability?
   1. Coder 1 might be much better than Coder 2 at assigning values to the text.
   2. Percentage agreement does not take into account the degree to which Coder 1 and Coder 2 would have agreed just by chance.
   3. Some of the themes might be easier to code than others.
   4. Coder 1 might code for one of the themes more often than Coder 2.
   5. Percentage agreement is a perfectly good way to calculate intercoder reliability.

22. What does Cohen's kappa do?
   1. It calculates how much better than chance the agreement is between a pair of coders who mark the presence or absence of binary themes in texts.
   2. It calculates the probability that two coders agree just on chance.
   3. It calculates the degree to which two texts are marked by the same two themes.
   4. It calculates the probability two coders will use all the same themes when marking one text.
   5. none of the above

23. What is the Human Relations Area Files (HRAF)?
   1. cross-cultural content analysis
   2. a codebook that contains 79 categories related to all forms of human behaviors
   3. an archive of ethnographic materials that are sampled from 186 representative cultures around the world
   4. an archive of over 1 million pages of ethnographic materials from 350 groups around the world
   5. none of the above

24. Which statement is true?
   1. If you use a grounded theory approach, there is no reason to use content analysis.
   2. Inductive approaches are better than deductive methods.
   3. Qualitative methods are better than quantitative methods.
   4. Open-ended questions are better than close-ended questions.
   5. None of the statements are true.
25. Mel wants to test whether types of warfare are related to the social organization of households. First he clearly states his hypotheses, then he selects an appropriate sample of cultures from all those in the HRAF database. What should Mel do next?
1. run the appropriate statistical tests on his data set
2. code the ethnographic texts according to the conceptual scheme laid out in his hypotheses
3. find the appropriate outline of material culture codes that are related to warfare and social organization
4. read all the texts related to the cultures he has chosen
5. read all the texts related to social organization and warfare in all 350 cultures in the HRAF

26. T F Hermeneutic analysis requires a thorough understanding of the language and culture in which the text is written
True
False

27. T F The act of coding data is a type of analysis.
True
False

28. T F In any large corpus of texts there are a limited number of potential themes. The job of a researcher is to find them all.
True
False

29. T F One of the best ways to start an inductive analysis of texts is to shuffle though the texts and think hard about them.
True
False

30. T F When building codebooks, the goal is to identify and code as many types of themes and subthemes as possible.
True
False

31. T F Models built using grounded theory do not need to be confirmed.
True
False

32. T F All the material in HRAF has been coded with the categories in the Outline of Cultural Materials. These codes are reliable enough so an investigator could use them to test any cross-cultural hypothesis he or she might have.
True
False

33. T F Inductive and deductive approaches are complementary rather than competitive.
True
False
34. T F To do text analysis, you need a computer program.
   True
   False

35. T F A more complex explanation of a phenomenon indicates that a researcher has thought a problem through and it is therefore better than a simpler explanation.
   True
   False
Topics and Questions for Discussion

Ask students to complete Exercise 1 for this chapter and discuss the results in class. Once students have some experience in actually recording renditions of a text, discuss in class the difference between narrative/performance analysis and hermeneutic analysis. Discuss the fact that each rendition of a so-called standard tale is in some ways unique and in some ways like every other rendition.

Discuss the idea that sampling and measurement are just as important in the analysis of text as in the analysis of numbers. Whether texts are analyzed whole or are reduced to a set of coded themes, sampling is a key issue. The choice of exemplars, for example, is both a sampling problem and a measurement problem for researchers.

Coding, of course, is the heart of text analysis. In discussing the problems associated with finding and coding themes, remind students about the differences between reliability and validity.

Ask students to find one example in the library of a study based on a grounded-theory approach and another based on a content-analysis approach. In class, go over one or more pairs of these studies and ask students to discuss the differences and the similarities in the two approaches.
Chapter 13: Qualitative Data Analysis II—Models and Matrices

1. What is the goal of building ethnographic decision models?
   1. to understand how one person thinks about making a past decision
   2. to predict what kinds of choices people make under specific conditions
   3. to model how people actually think about choices
   4. to model how people think about hypothetical choices
   5. 2 and possibly 3

2. How are ethnographic decision models typically displayed?
   1. as tree diagrams
   2. as decision tables
   3. as If-Then rules
   4. 1 and 2
   5. 1, 2, and 3

3. Jim wants to build an ethnographic decision model on how people decide whether to visit a local car dealership when looking to purchase a car. After getting permission from the dealership, Jim sets up a table in the display room and interviews people who come to the dealership. He plans to use these data to build his model. Why is this not a good idea?
   1. Jim needs more time to interview these people and should probably do phone interviews.
   2. To build a ethnographic decision model, Jim needs a sample of people who decide to come to the dealership and a sample of people who do not come to a dealership.
   3. If Jim wants to build an ethnographic decision tree, he should be asking people hypothetical questions about their car purchasing behaviors rather than asking them about why they decided to come to the dealership.
   4. Given the public setting, Jim should only ask close-ended questions.
   5. Actually, this is a perfectly reasonable data collection strategy for building ethnographic decision trees.

4. The first phase of ethnographic decision modeling is to interview people about how they made recent decisions. How do you know when you have interviewed enough informants to go on to the next step?
   1. You can stop after interviewing 15 people.
   2. You can stop after interviewing 20 people.
   3. You can stop after interviewing 10 people who did the behavior and 10 people who did not do the behavior.
   4. You can stop when respondents stop giving you new decision criteria, reasons, or constraints
   5. It is impossible to tell when to stop.
5. Betty has interviewed 30 women about why they decided either to press charges or not to press charges after experiencing domestic violence. She has built an ethnographic decision model that accounts for 85% of these initial cases. What should Betty do next?
   1. Betty should stop and report that the model is 85% accurate.
   2. Betty should continue to interview women until she has 40 informants, then recalculate her accuracy rate.
   3. Betty should return to each of the 30 women and ask them more questions. When she collects these data, she should recalculate her accuracy measures.
   4. Betty needs to test her model. She can do this by looking closely at the cases that her model did not account for. She should modify her model until she can account for at least 90% of the cases.
   5. Betty needs to test her model on an independent sample of informants. She should collect data from another group of women and see how well her model predicts these women's behaviors. She should report the predictive accuracy rate of this second sample.

6. In ethnographic decision models, what is the difference between postdictive and predictive accuracy rates?
   1. Postdictive accuracy rates are calculated from the same sample that was used to build a model. Predictive accuracy rates are calculated from testing the model on an independent sample of data.
   2. You calculate predictive accuracy rates before you build the model. You calculate postdictive accuracy rates after you build the model.
   3. You calculate postdictive accuracy rates before you build the model. You calculate predictive accuracy rates after you build the model.
   4. Postdictive accuracy rates tell you about causality. Predictive accuracy rates only describe how well the model describes the data on which it was built.
   5. 2 and 4

7. Jack wants to analyze how people organize their knowledge of international vacation spots. What kind of research is this?
   1. a componential analysis
   2. a folk taxonomy
   3. an ethnographic decision model
   4. a study of themes
   5. a study of superordinate categories

8. How can you tell if a group of items in folk taxonomy is a named category?
   1. all groups of items in a folk taxonomy are named categories
   2. if the category can be describe by words
   3. if at least one informant uses the word to describe the category
   4. if the investigator can define it
   5. if a label for a category doesn't sound silly to native speakers of the language, then the category has a name
9. Pamela studied how factory workers classified things that people do on weekends. She found a set of things that included hang gliding, kayaking, and skiing, but when she asked people to define the group, everyone had a hard time. What kind of category is this?
   1. covert category
   2. overt category
   3. named category
   4. taxonomy
   5. none of the above

10. Which request is not likely to elicit a cultural domain?
   1. Please list all the fruits you can think of.
   2. Please list all the kinds of boats.
   3. Please list all the kinds of sport fish.
   4. Please list your favorite friends.
   5. Please list unhealthy foods.

11. Folk taxonomies combine what two types of structured interviews?
   1. paired comparisons and triad tests
   2. free listing and frame elicitation
   3. free listing and informal interviewing
   4. frame elicitation and triad tests
   5. semistructured interviews and frame elicitation

12. Which statement(s) are not true about folk taxonomies?
   1. If a set of items is a true cultural domain, then everyone in a cultural group will agree about how it is organized.
   2. All folk taxonomies are composed of named categories that display multiple levels of contrast.
   3. Covert categories only occur when people disagree about which items should be in which categories.
   4. 1 and 3 are the only untrue statements.
   5. 1, 2, and 3 are all untrue.

13. What is (are) the objective(s) of componential analysis?
   1. to understand how native speakers decide which of several possible terms to apply to a particular thing
   2. to build up causal models by a close examination of cases
   3. to understand and identify the items in a cultural domain
   4. to specify the conditions under which a native speaker will call something by a particular term
   5. 1 and 4
14. Componential analysis is based on the principle of:
   1. semantic differential
   2. Boolean algebra
   3. difference
   4. distinctive features
   5. none of the above

15. John plans to use componential analysis to distinguish among 8 types of nuts. What is the minimum number of features he will need?
   1. 1
   2. 2
   3. 3
   4. 4
   5. 5

16. Clyde reports that he used analytic induction to build his model of which adolescents from disadvantaged families went into crime and which did not. What do we know about how Clyde built his model?
   1. Clyde talked to disadvantaged youths and used their quotes to build an informal model of recruitment into crime.
   2. Clyde built a causal explanation from a close examination of cases.
   3. Clyde built his model by looking at first one case and then another. Whenever a case did not fit the model, he either changed the model to accommodate the new case or redefined the phenomenon to exclude the nuisance case.
   4. Clyde conducted a survey and then ran a statistical analysis to figure out what factors were most correlated with crime.
   5. 2 and 3

17. What is the objective of analytic induction?
   1. to build complex models of associations among concepts found in texts
   2. to find the minimal set of logical relations among a set of concepts that accounts for a single dependent variable
   3. to find the hierarchical relationships among a set of categories
   4. to understand how people assign a term to a new object
   5. none of the above

18. T F In building ethnographic decision trees, you should use people's reports of their actual, most recent behavior.
   True
   False

19. T F A parsimonious model accounts for as many outcomes using as few rules as possible.
   True
   False
20. T F The first step is to build a model. The next step is to test the model. If you haven't tested the model, then you have done only half your job.
   True
   False

21. T F Ethnographic decision modeling, componential analysis, and analytic induction are all formal qualitative techniques for generating and testing models about social phenomena.
   True
   False

22. T F Boolean analysis uses dichotomous variables.
   True
   False


**Topics and Questions for Discussion**

In class, build an ethnographic decision model for some common behavior. Try using the example in the book (did you attend your 8 o'clock class?) if many students have early morning classes. Or use Bernard et al.'s example, in which they asked people: "Think about the last can or bottle of something to drink you had in your hand. It might have been soda, or juice, or water, or beer, or whatever. Now, what did you do with it when you were finished?" The idea is to build a model for recycling or not recycling cans and bottles. Some other examples that are instructive include: Did you buy a car in the last year? Did you brush your teeth this morning? Did you drink alcohol in the last 24 hours? Did you take big doses of vitamin C the last time you had a cold? Once you have a model built in class, ask students to test it on peers outside class. Then ask them to test it on men an women over, say, 60.

Another useful class exercise is to build a folk taxonomy for cars, or types of music, or types of sports, or foods you find in a supermarket. There are, inevitably, problems in building a taxonomy because of overlap between components (the fact that some types of beer are simultaneously foreign and expensive, but that not all expensive beers are foreign, for example). This is a good way to demonstrate the complexity of ordinary cultural categories.
Chapter 14: Univariate Analysis

1. What is the difference between descriptive and inferential analysis?
   1. Inferential analysis is qualitative and descriptive analysis is qualitative.
   2. Descriptive analysis involves making statements about data you have collected. Inferential analysis involves making statements about the world beyond the data you have collected.
   3. Inferential analysis involves making statements about data you have collected. Descriptive analysis involves describing the world beyond the data you have collected.
   4. Descriptive analysis refers to texts. Inferential analysis is about statistics.
   5. none of the above

2. Mike is teaching a large, popular sociology class that enrolls freshmen, sophomores, juniors, and seniors. Mike wants to know how well students' ages, education levels, and parents' income predict students' final grades. What kind of analysis does Mike need to do?
   1. univariate
   2. bivariate
   3. multivariate
   4. nonvariate
   5. qualitative

3. Tommy asked 100 respondents if they liked different political campaign slogans. After saying each slogan, Tommy wrote down a 1 if respondents said that they liked the slogan and 0 if they said they didn't like it. What kind of variable does this create?
   1. nominal
   2. ordinal
   3. ratio
   4. neutral
   5. qualitative

4. Jane conducted a national mail survey of 300 people. One of the pieces of data she recorded was the zip code from which the survey was mailed. What kind of variables is ZIPCODE?
   1. nominal
   2. ordinal
   3. ratio
   4. neutral
   5. qualitative

5. What does it mean to collapse a variable?
   1. to eliminate it from further analysis
   2. to take an interval or interval variable and reduce the number of values
   3. to remove the outliers
   4. to calculate the central tendency
   5. none of the above
6. Gary identified 88 households from a single village in Cameroon. He recorded characteristics of each household, including the number of adults and children who lived there and whether the house had a grass or tin roof. How important was it for Gary to record the name of the village from which each household came?
   1. It is very important since the information may be important later in the analysis.
   2. It is very important because you can't identify a household unless you know where it is.
   3. It is somewhat important as Gary does not know whether the village characteristic is linked to his dependent variable.
   4. It is not important at all since there is no variance among households with regard to the village. They all come from the same village.
   5. It is not important because village characteristics are not related to Gary's dependent variable of interested.

7. What are measures of central tendency good for?
   1. to measure the degree of heterogeneity of a variable
   2. to measure the degree of homogeneity of a variable
   3. to measure the range of a variable
   4. to measure the minimum and maximum value of a variable
   5. to measure the typical value of a variable

8. In a study of younger New Hampshire voters, the *Keene Daily News* reports that more young voters profess to be Independents rather than members of any political party. What kind of statistic is the *Keene Daily News* reporting?
   1. mean
   2. mode
   3. median
   4. standard deviation
   5. variance

9. Tom reports that 50% of test scores in his class on Introductory Family Studies were above 79 and 50% were below this point. What kind of statistic is Tom reporting?
   1. mean
   2. mode
   3. median
   4. standard deviation
   5. variance

10. Lisa records the age of death from gravestones in a local cemetery. In 1912, she records 8 deaths with ages: 1, 3, 5, 26, 54, 57, 59, 75. What is the median?
    1. 26
    2. 35
    3. 40
    4. 53
    5. none of the above
11. The median represents what percentile?
   1. the first quartile
   2. the third quartile
   3. the interquartile range
   4. the 50th percentile
   5. it depends on the data

12. How do you calculate the mean of a set of numbers?
   1. Sum the individual scores in a distribution and divide by the number of scores.
   2. Take the smallest number and add the biggest number and divide by two.
   3. Subtract the average of the distribution from each number and sum up the differences.
   4. Subtract the average of the distribution from each number and square the result. Add up all these squared differences and divided by the number of items in the set minus 1.
   5. none of the above

13. In a demographic survey of 20 households, Tom finds that there are 4 households with 4 children, 4 households with 3 children, 4 households with 2 children, 4 households with 1 child, and 4 households with no children. What is the mean number of children per household?
   1. 1.5
   2. 2
   3. 2.5
   4. 3
   5. 4

14. Alex ran a telephone survey during the late morning on a Tuesday. He interviewed people with the following ages: 15, 55, 57, 58, 58, 60, 63, 70. Which age(s) is (are) the outlier(s)?
   1. 15
   2. 15 and 70
   3. 58
   4. 58 and 58
   5. none of the above

15. Patsy records the number of telephone calls that seven faculty members make during a single week. She finds that they make 11, 13, 15, 36, 64, 67, and 69 calls. What kind of distribution is this?
   1. skewed to the right
   2. skewed to the left
   3. normal
   4. bimodal
   5. none of the above
16. Martha wants to display the religious affiliations of her sample of respondents. What kind of display(s) should she consider using?
   1. bar graphs
   2. pie charts
   3. stem-and-leaf plots
   4. box plots
   5. 1 and 2

17. In a bar graph, to what does the $x$-axis refer?
   1. vertical axis
   2. horizontal axis
   3. abscissa
   4. ordinate
   5. 2 and 3

18. What do the lower and upper hinges mark in a stem-and-leaf plot?
   1. 25th and 75th percentiles
   2. 50th percentiles
   3. the boundaries of the interquartile range
   4. 1 and 3
   5. 1, 2, and 3

19. In a distribution that is skewed to the right, you should expect that:
   1. there are two modal responses
   2. the median equals the mean
   3. the median is smaller than the mean
   4. the median is bigger than the mean
   5. the mode is bigger than the mean

20. On examining the distribution of one of his interval-level variables, Robert discovers that the distribution around the mean and median are quite symmetrical. What should he use as an estimator of the central tendency?
   1. mean
   2. median
   3. mode
   4. range
   5. standard deviation

21. Kelly records, in inches, the leaping ability of eight children. These children jump 24, 25, 27, 28, 31, 34, 35 and 39 inches. What is the range?
   1. 24 inches
   2. 15 inches
   3. 29.5 inches
   4. 30 inches
   5. 39 inches
22. What is the standard deviation?
   1. It is a formal measure of skewedness.
   2. It results from subtracting the mean from each observation, squaring, and summing the differences, and dividing by the sample size minus 1.
   3. It is the average squared deviation from the mean.
   4. It is a measure of how much, on average, the scores in a distribution deviate from the mean.
   5. none of the above

23. John asks 100 people to report their average income. The mean income for the sample is $37,500, and the variance is $2,500. What is the standard deviation for John's sample?
   1. $25
   2. $50
   3. $500
   4. $2,500
   5. You cannot tell from the available information.

24. Tim wants to test whether the average age of his sample of 200 respondents is the average age of the population from which his sample was drawn. What is Tim's null hypothesis?
   1. There is no difference between the sample mean and the population mean except that produced by chance.
   2. There is a difference, not due to chance, between the sample mean and the population mean.
   3. The sample mean is bigger than the population mean.
   4. The sample mean is smaller than the population mean.
   5. none of the above

25. Jenny reports that she set the alpha level at .01. What does this mean?
   1. It means that if the sample is 1% bigger than the mean of the population, she cannot reject her null hypothesis.
   2. It means that if the sample is 1% bigger than the mean from the population, she can reject her null hypothesis.
   3. It means that if a mean or a proportion from a sample is likely to occur more than 1% of the time, then she cannot reject her null hypothesis.
   4. It means that if a mean or a proportion from a sample is likely to occur more than 1% of the time, then she can reject her null hypothesis.
   5. It is just an arbitrary cutoff Jenny picked to report results.

26. Adam studied perceptions of back pain in men and women recovering from sports injuries. His null hypothesis was that there would be no difference between men's and women's perceptions of pain. After analyzing his data, Adam rejected his null hypothesis. Later Adam learned that he had made a mistake and that he had rejected his null hypothesis when it really was true. What kind of error has Adam committed?
   1. a Type I error
   2. a Type II error
   3. a Type III error
   4. a sampling error
   5. a standard error
27. What should an investigator do to avoid a Type I error?
   1. set the alpha level of significance at a big number (e.g., 0.1)
   2. set the alpha level of significance at a very small number (e.g., 0.001)
   3. reduce the sample size
   4. increase the sample size
   5. none of the above

28. What is a standard error?
   1. the amount of error distributed around the mean of a sample
   2. the standard deviation divided by the square root of the sample size
   3. the amount of error in poor measurements
   4. the amount of error we make in estimating a population parameter from a sample statistic
   5. 2 and 4 are both correct

29. Homero is studying mothers' perceptions of child malnutrition in a rural town in Mexico. Homero weighs all the children in town and also asks the mother of each child whether she thinks her child is malnourished or not. Homero identifies a very small sample (N = 10) of children whose mothers think they are malnourished. Now he wants to know if the average weight of this small sample of malnourished children is significantly different from the average weight of similar-aged children in the town. Since Homero knows the average weight of the town's children and the average weight of the sample of children, what statistic should he use to test if there are differences?
   1. 95% confidence intervals
   2. Student's t
   3. standard deviations
   4. univariate chi-square
   5. none of the above

30. What does a $z$-score tell you?
   1. the sum of the standard deviations
   2. the same thing as a $t$-statistic, except for larger samples
   3. the degree to which a population is heterogeneous, using standardized units
   4. how much standard error there is in any distribution
   5. how far, in standard deviations, a real score is from the mean of the distribution

31. What does a univariate chi-square test do?
   1. It tests whether the means of two distributions are significantly different from one another by chance alone.
   2. It tests whether the distribution of a series of counts is likely to occur by chance alone.
   3. It tests whether the mean of a sample is likely to include the mean of the population from which the sample was taken.
   4. It tests interval level associations.
   5. none of the above

32. T F It is impossible to calculate the median with interval-level data.
   True
   False
33. T F When data are normally distributed, the mean is the best indicator of central tendency.
   True
   False

34. T F When data are highly skewed, the mode is often the best indicator of the central tendency.
   True
   False

35. T F Whenever possible, investigators should avoid collecting grouped data when they can collect interval-level data.
   True
   False

36. T F Histograms and frequency polygons give you more information than do box plots and stem-and-leaf plots.
   True
   False

37. T F In samples with a normal distribution, the mean, median, and mode are the same.
   True
   False

38. T F Most real data in the social sciences are normally distributed.
   True
   False

39. T F If a population is homogeneous with regard to some variable, then the standard deviation of the mean of that variable should be small.
   True
   False

40. T F Use a two-tailed test when you are interested only in whether the magnitude of some statistic is significant.
   True
   False
Topics and Questions for Discussion

Introduce the concepts of bivariate and multivariate analysis at the beginning of this chapter on univariate analysis. Ask students to find journal articles or book chapters in which all three levels of analysis appear.

Discuss the concept of ratios as a way of expressing percentages. This will come in handy when you introduce the concept of odds ratios in the discussion of bivariate analysis.

Discuss the problem of outliers. Point out that it’s tempting to throw out pesky outliers when they crop up, but that there are also drawbacks. How do you know when to stop throwing data away? How do you tell if an outlier is really just part of a normal distribution? Point out that these are questions that researchers confront all the time.

Go over the logic of hypothesis testing in class. If students have difficulty with concepts like a one-tailed vs. a two-tailed test, or critical region, or statistical significance, or confidence limits, or standard score, ask them to go back over Chapter 5, on sampling.

Ask students to find examples of studies in which box plots are used to show the distribution of variables. Stress the importance of using exploratory methods like box plots to visualize data and to get a feel for the shape of distributions.
Chapter 15: Bivariate Analysis—Testing Relations

1. What is the difference between a one-sample t-test and a two sample t-test?
   1. A one-sample t-test evaluates whether the means of two independent groups differ on some variable. A two-sample t-test evaluates whether the sample mean reflects the population mean.
   2. A one-sample t-test evaluates whether the sample mean reflects the population mean. A two-sample t-test evaluates whether the means of two independent groups differ on some variable.
   3. A two-sample t-test makes comparisons, while a one-sample t-test does not.
   4. A one-sample t-test compares one mean with a population mean, while a two-sample t-test compares two means against the population mean.
   5. There are no differences between one-sample and two-sample t-tests.

2. You are asked to calculate the t-statistic to determine whether the mean ages of two groups of respondents are significantly different. You are given the mean and standard deviation for each group. What other piece of information do you need?
   1. an estimate of the skewedness of each mean
   2. the standard deviation for the entire population
   3. the separate sample sizes for groups 1 and 2
   4. the total sample size of groups 1 and 2 summed together
   5. None, you have enough information to calculate t.

3. Sandra wants to examine the difference in SAT scores between 25 high schoolers from Vermont and 36 from New York. She knows she has to do a two-sample t-test. How many degrees of freedom does she have?
   1. 25
   2. 36
   3. 59
   4. 60
   5. 61

4. Roberto wants to test for the possibility that the mean from Group A is significantly higher than the mean from Group B. He calculates t and finds that it is significant at the 0.6 level for a two-tailed test. What can he conclude about the mean from Group A being higher than the mean from Group B?
   1. He can conclude that Group A is not significantly higher than Group B.
   2. He can conclude that the mean for Group B is significantly higher than that of Group A.
   3. He can conclude that the one-tailed test is significant at the 1.2 level.
   4. He can conclude that the one-tailed test is significant at the 0.03 level.
   5. He can't conclude anything because he needs to do a one-tailed test.
5. Barbara collects data on how much time lower-, middle-, and upper-class women spend performing household chores on the weekend. What kind of analysis does Barbara need to do to determine whether there are any significant differences between the amounts of time these three groups of women spend on household chores?
   1. chi-square
   2. t-test
   3. ANOVA
   4. MANOVA
   5. gamma

6. What is the F ratio?
   1. the ratio of the mean between-group variance and the mean within-group variance
   2. the ratio of the mean within-group variance and the mean between-group variance
   3. the same as a t-test
   4. a kind of odds ratio
   5. none of the above

7. Joe wants to look at whether two categorical independent variables affect the means of a single interval-level dependent variable. What statistic should Joe use?
   1. ANOVA
   2. MANOVA
   3. ANCOVA
   4. multiple-way or factorial ANOVA
   5. none of the above

8. Isabelle observes that as sugar consumption rises among grade-school children, so does the number of classroom disruptions. Which statement(s) is (are) true?
   1. the covariation is positive
   2. the covariation is positive and linear
   3. the covariation is positive and nonlinear
   4. the covariation is negative
   5. 1 and 2

9. David is studying men's and women's knowledge of a special herbal remedy in Dominica. To better understand the relationships between gender and knowing or not knowing the remedy, David builds a 2-by-2 table. He puts the independent variable (gender) in the columns and the dependent variable (knowledge) in the rows. He collects data from 20 men and 20 women. Ten men and 15 women report knowing about the herbal remedy. What are the row marginals?
   1. 20 and 20
   2. 5 and 15
   3. 10 and 15
   4. 15 and 25
   5. 5 and 35
10. Stacey is interested in adolescent depression. She initially tests her hypothesis that high levels of daily stress cause bouts of depression. During a preliminary analysis of her data, Stacy finds that having a family history of depression is predictive of high levels of daily stress, which in turn predicts depression. What kind of variable is family history?
   1. a dependent variable
   2. an antecedent variable
   3. an intervening variable
   4. an interval-level variable
   5. none of the above

11. What is a PRE statistic?
   1. A PRE measure of association tells us how much better we could guess the values of a dependent variable if we knew the distribution of an independent variable.
   2. A PRE measure of association tells us how much error would be reduced if we had more accurately collected our data.
   3. A PRE measure of association tells us the probability of finding such an association by chance.
   4. Chi-square is an example of a PRE measure of association.
   5. 1 and 4

12. What statistic would you use to test the null hypothesis that differences in a 2-by-3 table exist solely by chance?
   1. odds ratio
   2. chi-square
   3. lambda
   4. Fisher's exact test
   5. none of the above work

13. John wants to see whether the relationships in a 2-by-2 table exist solely by chance. Due to small sample size, John expects some of the cells to be less than 5. What statistic should John use?
   1. odds ratio
   2. chi-square
   3. lambda
   4. Fisher's exact test
   5. none of the above work

14. Which of the following is a measure of association between two ordinal variables?
   1. gamma
   2. Kendall's tau-b
   3. odds ratio
   4. chi-square
   5. 1 and 2
15. The values of gamma range from what to what?
   1. 0 to 1
   2. 0 to ∞
   3. ∞ to +∞
   4. −1 to +1
   5. none of the above

16. What is the difference between gamma and Kendall's tau-b?
   1. Gamma ignores ties in rank-order data.
   2. Kendall's tau-b ignores ties in rank-order data.
   3. Gamma relies on nominal data; Kendall's tau-b relies on ordinal data.
   4. Kendall's tau-b treats ordinal data as nominal-level data.
   5. none of the above

17. Joseph wants to look at the effects of age and managerial power. He divides age into young (1) and old (2). He divides managerial power into middle managers (1) and upper managers (2). What measure of association should Joseph use to measure the association between these ordinal variables?
   1. chi-square
   2. gamma
   3. Yule's Q
   4. eta-squared
   5. Pearson's product-moment correlation

18. Josephine asked 30 men and 30 women to rank order the names of 25 McDonald's food items according to the amount of fat they thought each item had. Now Josephine wants to compare the mean rank order of each item for men with the mean rank order of each item for women. What kind of correlation should she calculate?
   1. Pearson's product-moment correlation
   2. eta-squared
   3. gamma
   4. r^2
   5. Spearman's r

19. Tammy wants to know whether state income levels covary with state population levels. She represents all 50 states as dots on an income-by-population graph. Then she draws a line through the dots that minimizes the distances from each state's position in the plot to the line. What is this line called?
   1. the least squares line
   2. the regression line
   3. the best-fitting line
   4. 2 and 3
   5. 1, 2, and 3
20. The formula for the regression line is \( y = a + bx \). What statement(s) is (are) true about the variable \( a \)?
   1. \( a \) is a constant
   2. \( a \) is the dependent variable
   3. \( a \) represents the point where the regression line crosses the y axis
   4. \( a \) is the independent variable
   5. 1 and 3

21. Saskia correlated respondents' ages with their incomes and got a Pearson's \( r \) of .30. What percentage of the variance did she explain in her data?
   1. 6%
   2. 9%
   3. 15%
   4. 30%
   5. 60%

22. What is the PRE measure that tells you how much better you could do if you predicted the separate means for chunks of your data than if you predicted the mean for all your data?
   1. eta
   2. eta-squared
   3. Pearson's \( r \)
   4. \( r^2 \)
   5. gamma

23. Under what conditions is it acceptable to treat ordinal-level variables as if they were interval?
   1. when there are large sample sizes
   2. when there are fewer than 5 ordinal categories
   3. when there are at least 11 ordinal categories
   4. when there are 5 or more ordinal categories
   5. whenever you want

24. What is another word for extreme values?
   1. weights
   2. outliers
   3. \( \text{gemeinschaft} \)
   4. \( \text{gesellschaft} \)
   5. Bonferroni correction

25. What is the best thing to do with outliers?
   1. eliminate them
   2. keep them in
   3. report the results of your analysis with and without them
   4. divide them by the sample size
   5. throw out the highest and lowest scores
26. What does the Bonferroni correction do?
   1. It corrects for the probability of getting a correlation significant at some known level by chance alone.
   2. It increases the size of the $p$ value you can accept to reject your null hypothesis.
   3. It tells you how big a sample you need.
   4. It tells you how many times to repeat an experiment.
   5. none of the above

27. What do you need to calculate statistical power?
   1. the minimum size of the difference between two outcomes that you will accept as a real difference
   2. the sample size
   3. the variance
   4. 1 and 2
   5. 1, 2, and 3

28. John is doing some exploratory research. After collecting data on 20 different variables, he creates a correlation matrix and looks for relationships that are statistically significant. What is John doing?
   1. conducting an outlier analysis
   2. shotgunning
   3. conducting a confirmatory analysis
   4. conducting a power analysis
   5. calculating the Bonferroni correction

29. T F To test for the possibility that one mean is higher than another, you need to do a one-tailed $t$-test.
   True
   False

30. T F Analysis of variance requires that the $Ns$ from each group must be equal.
   True
   False

31. T F Systematic patterns in data are always linear.
   True
   False

32. T F A lambda of zero means that there is clearly no association between two variables.
   True
   False
33. T F Sample size affects the value of chi-square.
   True
   False

34. T F Cramér's $V$ and phi are measures of association among two nominal variables and are based on chi-square.
   True
   False

35. T F Unlike chi-square, the odds ratio is a direct measure of the strength of the relationship between two nominal variables.
   True
   False

36. T F Values for gamma range from 0 to 1.
   True
   False

37. T F Pearson's $r$ is a direct PRE measure of association.
   True
   False

38. T F It is possible to test whether a value of a Pearson's $r$ is the result of sampling error or reflects a real covariation in the larger population.
   True
   False
Topics and Questions for Discussion

Moving from simple $t$-tests to ANOVA, and the use of within-group and between-group variance, may require a lot of discussion about the concept of variance itself. The concept of variance was introduced in Chapter 14, but it's useful to continue the discussion about the concept—how variance is measured and why it's central to statistical analysis—at this point in the curriculum.

Ask students to go to the library and find examples of: a linear, negative relation; a linear, positive relation; and a nonlinear relation between two variables.

Ask students to go through the letters to the editor of their local newspaper and to look for examples in which simple correlation is taken to imply causation. This opens up many possibilities for discussing the concepts of antecedent and intervening variables.

One concept that always seems to require a lot of discussion is that chi-square does not imply strength of relation between two variables. Some researchers now report the odds ratio in addition to, or instead of, chi-square for testing the relation between nominal variables. Ask students to find examples of the odds ratio in research reports that can be discussed in class.

Ask students to look for examples of research where investigators report correlations $>.05$. This will be a challenge, of course, and is a good way to open the discussion of problems with significance testing and of the importance of distinguishing between statistical significance and practical significance.
Chapter 16: Multivariate Analysis

1. Why would you want to use multivariate analysis?
   1. to describe the central tendency and distribution of multiple variables
   2. to describe how an interval-level variable covaries with another interval-level variable
   3. to test whether the relationship between an interval-level variable and a categorical variable is significant
   4. to find out how multiple variables are related and to develop a causal theory for these relationships
   5. none of the above

2. What is the elaboration method?
   1. complicated phenomena require elaborate explanations; hence the name *elaboration method*
   2. elaboration involves teasing out the complexities of a bivariate relationship by controlling for the effects of an antecedent or an intervening variable
   3. putting multiple variables into a single equation that simultaneously takes into account the interactions among all the variables
   4. testing specific theories about how the independent variables in a multiple regression influence each other
   5. none of the above

3. Tom finds that there is a moderately strong relationship between age and knowledge of cooking. He looks at the relationship across men and women and finds that, in the sample of women, the relationship is very strong while in the sample of men the relationship disappears. What kind of analysis is Tom doing?
   1. partial correlation
   2. multiple regression
   3. elaboration
   4. multidimensional scaling
   5. bivariate analysis

4. Holly is studying the relationship between age and levels of depression. She is looking for a direct way to control for the effects of three other variables in this relationship. What kind of analysis should she consider?
   1. partial correlation
   2. the elaboration method
   3. zero-order correlation
   4. ANOVA
   5. none of the above
5. What does $r_{123}$ mean?
   1. the explained variance of variables 1, 2, and 3
   2. the multiple $R$ of a three-way intersect
   3. the partial correlation of $r$ with variable 3, controlling for variables 1 and 2
   4. the correlation between variable 1 and variable 2, controlling for variable 3
   5. none of the above

6. Sue wants to examine the relationship between variables 1 and 2 while simultaneously controlling for variables 3 and 4. What kind of correlation is Sue trying to calculate?
   1. a zero-order correlation
   2. a first-order correlation
   3. a second-order correlation
   4. a bivariate association
   5. none of the above

7. Which statistic represents the amount of variance in the dependent variable accounted for by two or more independent variables simultaneously?
   1. multiple $R$
   2. multiple $R^2$
   3. Pearson's $r^2$
   4. partial correlations
   5. elaboration method

8. What is the general regression equation for two independent variables?
   1. $y = a + b$
   2. $y = a + bx$
   3. $y = a + b_1x_1$
   4. $y = a + b_1x_1 + b_2x_2$
   5. $y = a + b_1x_1 + b_2x_2 + b_3x_3$

9. Steve wants to know how age and income affect blood pressure. He knows from the zero-order correlations that age accounts for 13% of the variance in blood pressure and income accounts for 26% of the variance in blood pressure. What can Steve predict about the multiple $R^2$ when he examines the effect of age and income together on blood pressure?
   1. $R^2 = .39$
   2. $R^2 > .39$
   3. $R^2 < .39$
   4. $R^2 = .13$
   5. He can't tell until he runs the multiple regression with both variables.
10. Tim wants to know what factors affect high school test scores. He collects data on 15 different independent variables. Tim uses a computer software package to identify a subset of these independent variables that explains the high school scores. The program first identifies the independent variable that correlates best with the dependent variable, then incrementally adds additional variables that increase the explain variance by at least 1%. What kind of analysis is Tim using?
   1. factor analysis
   2. path analysis
   3. simple regression
   4. multiple regression
   5. stepwise multiple regression

11. Emmanuel is trying to understand household status in a small Cameroon town. He thinks that a household's status depends on the amount of land the household controls, its annual agricultural production, its annual wage earnings, and the distance of the house from the village center. Emmanuel wants to test a conceptual model for how the independent variables affect each other and household status. What kind of analysis should Emmanuel use?
   1. simple regression
   2. multiple regression
   3. stepwise multiple regression
   4. path analysis
   5. multidimensional scaling

12. When does multicollinearity occur?
   1. whenever a researcher uses more than three or four independent variables to predict a dependent variable
   2. whenever a researcher examines two or more dependent variables that are themselves related
   3. whenever the researcher is unsure of the direction of causality
   4. when two or more independent variables are highly correlated such that it is difficult to determinate their separate effects on the dependent variable
   5. none of the above

13. Tina wants to measure the fear that adolescents experience when they view horror films. During her exploratory data collection phase, Tina asks adolescents who have just seen a horror film to rate their experience on 30 different variables. Tina wants to reduce her 30 variables into a smaller number of related, underlying dimensions. What kind of analysis should she consider?
   1. multiple regression
   2. stepwise multiple regression
   3. partial regression
   4. factor analysis
   5. multicollinearity
14. There are different kinds of factor analysis. What kind identifies factors that have as little correlation with each other as possible?
   1. orthogonal solution
   2. diagonal solution
   3. partial solution
   4. bivariate solution
   5. none of the above

15. Factor analysis uses a set of original variables to generate a new set of super variables or factors. What are factor loadings?
   1. the degree to which factors are correlated with each other
   2. the correlations between the original variables and the new variables or factors
   3. the correlations of each respondent to each factor
   4. the degree to which each factor explains the variance in the original data set
   5. none of the above

16. John has just finished asking informants to sort 10 kinds of birth control methods into piles based on their similarities. After aggregating his data, John has a 10-by-10 similarity matrix. What kind of analysis should John use if he wants to visually depict how similar people think birth control methods are to each other?
   1. factor analysis
   2. path analysis
   3. multidimensional scaling
   4. discriminant function analysis
   5. correspondence analysis

17. If you had a similarity matrix of 10 items, what is the maximum number of dimensions you would you need to plot the items perfectly (i.e., without any stress) using multidimensional scaling?
   1. 2
   2. 3
   3. 5
   4. 9
   5. 10

18. Alice wants to study the effects of physical closeness on office communication patterns in a small firm. Since the firm is located on a single floor of an office building, Alice measures the actual distance (in feet) between each desk. Alice records the distances between desks in a desk-by-desk matrix. What kind of matrix has Alice created?
   1. similarity matrix
   2. dissimilarity matrix
   3. profile matrix
   4. 2-way matrix
   5. none of the above
19. Adam is looking at friendship networks among elementary students. Over one week, he records the number of times class members interact with each other on the playground. Adam wants to see if there are groups of children who play together. What kind of analysis should Adam try?
1. factor analysis
2. discriminant function analysis
3. cluster analysis
4. path analysis
5. multiple regression

20. What are some methods for conducting a cluster analysis?
1. single-link
2. farthest-neighbor
3. nonmetric
4. metric
5. 1 and 2

21. Bruce wants to identify which new car owners decided to pay extra for optional side airbags. Bruce sampled 100 new car owners who purchased the side airbags and 100 new car owners who did not. He collected data on each respondent's age, income, marital status, family size, and driving distance to work. What kind of analysis should Bruce consider if he wants to see how well these data classified people into buyers or nonbuyers of side airbags?
1. factor analysis
2. discriminant function analysis
3. cluster analysis
4. path analysis
5. multiple regression

22. T F Elaboration tables tell us how much an antecedent variable contributes to the correlation of interest.
   True
   False

23. T F Multiple regression assumes that the independent variables in a model are not correlated with each other.
   True
   False

24. T F Zero-order correlations do not take into consideration the influence of other variables.
   True
   False

25. T F A correlation matrix among five variables is symmetrical.
   True
   False
26. T F Multiple regression, like simple regression, produces a PRE measure.
   True
   False

27. T F Studies that account for less than 10% of the variance in their dependent variable are not worth reporting.
   True
   False

28. T F Path analysis lets you test a particular theory about the relationships among a set of variables.
   True
   False

29. T F Multidimensional scaling requires a matrix of similarity data (a square matrix).
   True
   False

30. T F Cluster analysis requires a profile matrix (a matrix where the rows and columns are different).
   True
   False
Topics and Questions for Discussion

Discuss the concept of controlling for the effect of some variable. This opens the discussion of concepts like zero-order correlation, partialling, and, finally, multiple regression.

Ask students to find two or three examples in the library of research that relies on multiple regression. Ask them to take notes on each example and to note especially the $R^2$ value for each example. In class, plot the distribution and take the average of the $R^2$ values. This is a good way to get the discussion going about the problem in social research of explaining small amounts at a time of complex phenomena.

Factor analysis, cluster analysis, and multidimensional scaling have little in common, from a data-processing point of view, but they share an important feature: In all cases, the researcher has to name the factors or the dimensions or clusters. This fact makes clear the importance of interpretation in data analysis. Ask students to find journal articles in which these various methods are used and ask them whether alternative interpretations might be possible in some of cases.

Once students have had some practice collecting and analyzing data, the earlier discussions in the course about induction versus deduction, validity versus reliability, and so on, will become more meaningful. Here, at the end of the course, it is a good time to reopen the discussion about epistemology and the problem of how we come to know what we think we know.