Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012).
How to design and evaluate. Research in education.

17 Survey Research

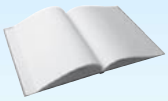
OBJECTIVES **Studying this chapter should enable you to:**

- Explain what a survey is.
- Name three types of surveys conducted in educational research.
- Explain the purpose of surveys.
- Explain the difference between a cross-sectional and a longitudinal survey.
- Describe how survey research differs from other types of research.
- Describe briefly how mail surveys, telephone surveys, and face-to-face interviews differ and state two advantages and disadvantages of each type.
- Describe the most common pitfalls in developing survey questions.
- Explain the difference between a closed-ended and an open-ended question.
- Explain why nonresponse is a problem in survey research and name two ways to improve the rate of response in surveys.
- Name two threats to instrument validity that can affect survey results. Explain how such threats can be controlled.
- Describe possible threats to internal validity in survey research.
- Recognize an example of survey research when you come across it in the educational literature.

INTERACTIVE AND APPLIED LEARNING After, or while, reading this chapter:

Go to the Online Learning Center at www.mhhe.com/fraenkel8e to:

- Learn More About Taking a Census



Go to your online Student Mastery Activities book to do the following activities:

- Activity 17.1: Survey Research Questions
- Activity 17.2: Types of Surveys
- Activity 17.3: Open- vs. Closed-Ended Questions
- Activity 17.4: Conduct a Survey

Tom Martinez, the principal of Grover Creek High School, is meeting with his vice principal, Jesse Sullivan. "I wish I knew how more of the faculty felt about this after-school detention program we've implemented this year," says Tom. "Jose Alcazar stopped me in the hall yesterday to say he thinks it's not working."

"Why?"

"He says many of the faculty think it doesn't do any good, so they don't even bother to send any students there."

"Really?" answers Jesse. "I've heard just the opposite. Just today, at lunch, Becky and Felicia were saying they think it's great!"

"Hmm, that's interesting. It seems we need more data."

A survey is an appropriate way for Tom and Jesse to get such data. How to conduct a survey is what this chapter is about.

What Is a Survey?

Researchers are often interested in the opinions of a large group of people about a particular topic or issue. They ask a number of questions, all related to the issue, to find answers. For example, imagine that the chairperson of the counseling department at a large university is interested in determining how students who are seeking a master's degree feel about the program. She decides to conduct a survey to find out. She selects a sample of 50 students from among those currently enrolled in the master's degree program and constructs questions designed to elicit their attitudes toward the program. She administers the questions to each of the 50 students in the sample in face-to-face interviews over a two-week period. The responses given by each student in the sample are coded into standardized categories for purposes of analysis, and these standardized records are then analyzed to provide descriptions of the students in the sample. The chairperson draws some conclusions about the opinions of the sample, which she then generalizes to the population from which the sample was selected, in this case, all of the graduate students seeking a master's degree in counseling from this university.

The previous example illustrates the three major characteristics that most surveys possess.

1. Information is collected from a group of people in order to *describe* some aspects or characteristics (such as abilities, opinions, attitudes, beliefs, and/or knowledge) of the population of which that group is a part.
2. The main way in which the information is collected is through *asking questions;* the answers to these questions by the members of the group constitute the data of the study.
3. Information is collected from a *sample* rather than from every member of the population.

Why Are Surveys Conducted?

The major purpose of surveys is to describe the characteristics of a population. In essence, what researchers want to find out is how the members of a population distribute themselves on one or more variables (for example, age, ethnicity, religious preference, attitudes toward school). As in other types of research, of course, the population as a whole is rarely studied. Instead, a

carefully selected sample of respondents is surveyed and a description of the population is inferred from what is found out about the sample.

For example, a researcher might be interested in describing how certain characteristics (age, gender, ethnicity, political involvement, and so on) of teachers in inner-city high schools are distributed within the group. The researcher would select a sample of teachers from inner-city high schools to survey. Generally, in a descriptive survey such as this, researchers are not so much concerned with why the observed distribution exists as with what the distribution *is*.

Types of Surveys

There are two major types of surveys—a cross-sectional survey and a longitudinal survey.

CROSS-SECTIONAL SURVEYS

A **cross-sectional survey** collects information from a sample that has been drawn from a predetermined population. Furthermore, the information is collected at just one point in time, although the time it takes to collect all of the data may take anywhere from a day to a few weeks or more. Thus, a professor of mathematics might collect data from a sample of all the high school mathematics teachers in a particular state about their interests in earning a master's degree in mathematics from his university, or another researcher might take a survey of the kinds of personal problems experienced by students at 10, 13, and 16 years of age. All these groups could be surveyed at approximately the same point in time.

When an entire population is surveyed, it is called a **census**. The prime example is the census conducted by the U.S. Bureau of the Census every 10 years, which attempts to collect data about everyone in the United States.

LONGITUDINAL SURVEYS

In a **longitudinal survey**, on the other hand, information is collected at different points in time in order to study changes over time. Three longitudinal designs are commonly employed in survey research: trend studies, cohort studies, and panel studies.

In a **trend study**, different samples from a population whose members may change are surveyed at different points in time. For example, a researcher might be interested in the attitudes of high school principals toward the use of flexible scheduling. He would select a sample each year from a current listing of high school principals throughout the state. Although the population would change somewhat and the same individuals would not be sampled each year, if random selection were used to obtain the samples, the responses obtained each year could be considered representative of the population of high school principals. The researcher would then examine and compare responses from year to year to see whether any trends were apparent.

Whereas a trend study samples a population whose members may change over time, a **cohort study** samples a particular population whose members do not change over the course of the survey. Thus, a researcher might want to study growth in teaching effectiveness of all the first-year teachers who had graduated in the past year from San Francisco State University. The names of all of these teachers would be listed, and then a different sample would be selected from this listing at different times.

In a **panel study**, on the other hand, the researcher surveys the *same* sample of individuals at different times during the course of the survey. Because the researcher is studying the same individuals, she can note changes in their characteristics or behavior and explore the reasons for these changes. Thus, the researcher in our previous example might select a sample of last year's graduates from San Francisco State University who are first-year teachers and survey the same individuals several times during the teaching year. Loss of individuals is a frequent problem in panel studies, however, particularly if the study extends over a fairly long period of time.

Following are the titles of some published reports of surveys that have been conducted by educational researchers.

- "What Does It Mean to Be African-American?"[1]
- "Can Teacher Education Make a Difference?"[2]
- "What Makes Professional Development Effective?"[3]
- "The Reading Habits and Literacy Attitudes of In-Service and Prospective Teachers."[4]
- "'You're Only Young Once': Things College Students Report Doing Now Before It Is Too Late."[5]
- "An Investigation into Teacher Turnover in International Schools."[6]
- "Integrating Technology into Preservice Literacy Instruction: A Survey of Elementary Education Students' Attitudes Toward Computers."[7]
- "Reflections on Surveys of Faculty Attitudes Toward Collaboration with Librarians."[8]

Survey Research and Correlational Research

It is not uncommon for researchers to examine the relationship of responses to one question in a survey to another, or of a score based on one set of survey questions to a score based on another set. In such instances, the techniques of correlational research described in Chapter 15 are appropriate.

Suppose a researcher is interested in studying the relationship between attitude toward school of high school students and their outside-of-school interests. A questionnaire containing items dealing with these two variables could be prepared and administered to a sample of high school students, and then relationships could be determined by calculating correlation coefficients or by preparing contingency tables. The researcher may find that students who have a positive attitude toward school also have a lot of outside interests, while those who have a negative attitude toward school have few outside interests.

Steps in Survey Research

DEFINING THE PROBLEM

The problem to be investigated by means of a survey should be sufficiently interesting and important to motivate individuals to respond. Trivial questions usually get what they deserve—they're tossed into the nearest wastebasket. You have probably done this yourself to a survey questionnaire you considered unimportant or found boring.

Researchers need to define clearly their objectives in conducting a survey. Each question should relate to one or more of the survey's objectives. One strategy for defining survey questions is to use a hierarchical approach, beginning with the broadest, most general questions and ending with the most specific. Jaeger gives a detailed example of such a survey on the question of why many public school teachers "burn out" and leave the profession within a few years. He suggests three general factors—economics, working conditions, and perceived social status—around which to structure possible questions for the survey. Here are the questions he developed with regard to economic factors.

I. Do economic factors cause teachers to leave the profession early?
   A. Do teachers leave the profession early because of inadequate yearly income?
      1. Do teachers leave the profession early because their monthly income during the school year is too small?
      2. Do teachers leave the profession early because they are not paid during the summer months?
      3. Do teachers leave the profession early because their salary forces them to hold a second job during the school year?
      4. Do teachers leave the profession early because their lack of income forces them to hold a different job during the summer months?
   B. Do teachers leave the profession early because of the structure of their pay scale?
      1. Do teachers leave the profession early because the upper limit on their pay scale is too low?
      2. Do teachers leave the profession early because their rate of progress on the pay scale is too slow?
   C. Do teachers leave the profession early because of inadequate fringe benefits?
      1. Do teachers leave the profession early because their health insurance benefits are inadequate?
      2. Do teachers leave the profession early because their life insurance benefits are inadequate?
      3. Do teachers leave the profession early because their retirement benefits are inadequate?[9]

A hierarchical set of research questions like this can help researchers identify large categories of issues, suggest more specific issues within each category, and conceive of possible questions. By determining whether a proposed question fits the purposes of the intended survey, researchers can eliminate those that do not. This is important, since the length of a survey's questionnaire or interview schedule is a crucial factor in determining the survey's success.

IDENTIFYING THE TARGET POPULATION

Almost anything can be described by means of a survey. That which is studied in a survey is called the **unit of analysis**. Although typically people, units of analysis can also be objects, clubs, companies, classrooms, schools, government agencies, and others. For example, in a survey of faculty opinion about a new discipline policy recently instituted in a particular school district,

each faculty member sampled and surveyed would be the unit of analysis. In a survey of urban school districts, the school district would be the unit of analysis.

Survey data are collected from a number of individual units of analysis to describe those units; these descriptions are then summarized to describe the population that the units of analysis represent. In the example given above, data collected from a sample of faculty members (the unit of analysis) would be summarized to describe the population that this sample represents (all of the faculty members in that particular school district).

As in other types of research, the group of persons (objects, institutions, and so on) that is the focus of the study is called the *target population.* To make trustworthy statements about the target population, it must be very well defined. In fact, it must be so well defined that it is possible to state with certainty whether or not a particular unit of analysis is a member of this population. Suppose, for example, that the target population is defined as "all of the faculty members in a particular school district." Is this definition sufficiently clear so that one can state with certainty who is or is not a member of this population? At first glance, you may be tempted to say yes. But what about administrators who also teach? What about substitute teachers, or those who teach only part-time? What about student teachers? What about counselors? Unless the target population is defined in sufficient detail so that it is unequivocally clear as to who is, or is not, a member of it, any statements made about this population, based on a survey of a sample of it, may be misleading or incorrect.

CHOOSING THE MODE OF DATA COLLECTION

There are four basic ways to collect data in a survey: by administering the survey instrument "live" to a group; by mail; by telephone; or through face-to-face interviews. Table 17.1 presents a summary of the advantages and the disadvantages of each of the four survey methods, which are discussed below.

Direct Administration to a Group. This method is used whenever a researcher has access to all (or most) of the members of a particular group in one place. The instrument is administered to all members of the group at the same time and usually in the same place. Examples would include giving questionnaires to students to complete in their classrooms or workers to complete at their job settings. The chief advantage of this approach is the high rate of response—often close to 100 percent (usually in a single setting). Other advantages include a generally low cost factor, plus the fact that the researcher has an opportunity to explain the study and answer any questions that the respondents may have before they complete the questionnaire. The chief disadvantage is that there are not many types of surveys that can use samples of individuals that are collected together as a group.

Web-Based Surveys. Technological advances have made administering surveys on the Internet quite common. Increasingly, researchers and students are turning to e-mail- or Web-based software and services to

TABLE 17.1 *Advantages and Disadvantages of Survey Data Collection Methods*

	Direct Administration	Telephone	Mail	Interview
Comparative cost	Lowest	Intermediate	Intermediate	High
Facilities needed?	Yes	No	No	Yes
Require training of questioner?	Yes	Yes	No	Yes
Data-collection time	Shortest	Short	Longer	Longest
Response rate	Very high	Good	Poorest	Very high
Group administration possible?	Yes	No	No	Yes
Allow for random sampling?	Possibly	Yes	Yes	Yes
Require literate sample?	Yes	No	Yes	No
Permit follow-up questions?	No	Yes	No	Yes
Encourage response to sensitive topics?	Somewhat	Somewhat	Best	Weak
Standardization of responses	Easy	Somewhat	Easy	Hardest

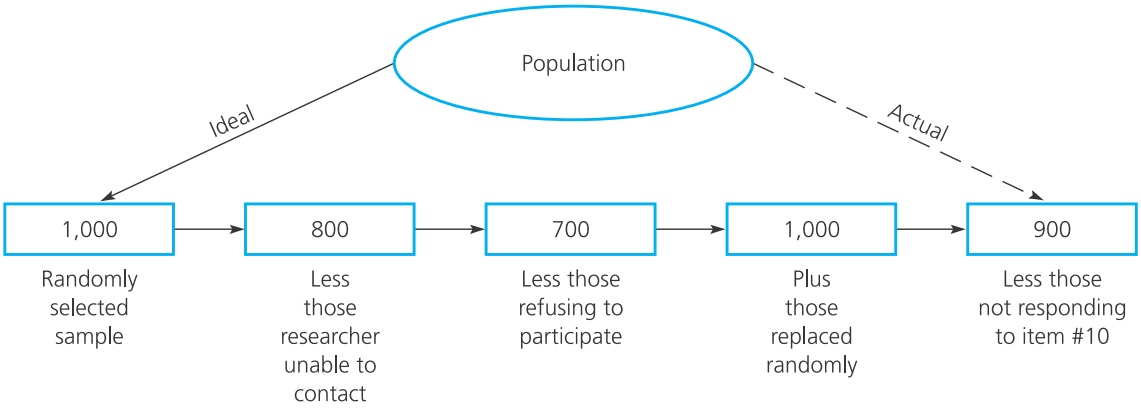


Figure 17.1 *Example of an Ideal Versus an Actual Telephone Sample for a Specific Question*

collect survey data from their target population. Survey Monkey, a popular Web-based survey company, allows users to design their own basic surveys for free. Additional services like survey administration and data analysis can be purchased for a nominal fee. Other advantages of Internet-based surveys include greater convenience, lower costs, faster turnaround, multimedia interface, mobile administration (using portable devices), and reduced data entry. Disadvantages can include lower response rates and erroneous data entry due to speedy responding facilitated by computers. For more information on Web-based survey software, see the updated reviews provided by the American Evaluation Association at the following URL: www.eval.org/Resources/surveylinks.asp.

Mail Surveys. When the data in a survey are collected by mail, the questionnaire is sent to each individual in the sample, with a request that it be completed and then returned by a given date. The advantages of this approach are that it is relatively inexpensive and it can be accomplished by the researcher alone (or with only a few assistants). It also allows the researcher to have access to samples that might be hard to reach in person or by telephone (such as the elderly), and it permits the respondents to take sufficient time to give thoughtful answers to the questions asked.

The disadvantages of mail surveys are that there is less opportunity to encourage the cooperation of the respondents (through building rapport, for example) or to provide assistance (through answering their questions, clarifying instructions, and so on). As a result, mail surveys have a tendency to produce low response rates. Mail surveys also do not lend themselves well to obtaining information from certain types of samples (such as individuals who are illiterate).

Telephone Surveys. In a telephone survey the researcher (or his or her assistants) asks questions of the respondents over the telephone. The advantages of telephone surveys are they are cheaper than personal interviews, can be conducted fairly quickly, and lend themselves easily to standardized questioning procedures. They also allow the researcher to assist the respondent (by clarifying questions, asking follow-up questions, encouraging hesitant respondents, and so on), permit a greater amount of follow-up (through several callbacks), and provide better coverage in certain areas where personal interviewers often are reluctant to go.*

The disadvantages of telephone surveys are that access to some samples (obviously, those without telephones and those whose phone numbers are unlisted) is not possible. Telephone interviews also prevent visual observation of respondents and are somewhat less effective in obtaining information about sensitive issues or personal questions. Generally, telephone surveys are reported to result in a 5 percent lower response rate than that obtained by personal interviews.[10] Figure 17.1 illustrates the difficulty sometimes encountered when obtaining a research sample by telephone.

Personal Interviews. In a personal interview, the researcher (or trained assistant) conducts a face-to-face

*Computers are being used more in telephone surveys. Typically, an interviewer sits in front of a computer screen. A central computer randomly selects a telephone number and dials it. The interviewer, wearing a headset, hears the respondent answer the phone. On the computer screen appears a typed introduction, such as "Hello, my name is _____," for the interviewer to read, followed by the first question. The interviewer then types the respondent's answer into the computer. The answer is immediately stored inside the central computer. The next question to be asked then appears on the screen, and the interviewer continues the questioning.

MORE ABOUT RESEARCH

Important Findings in Survey Research

Probably the most famous example of survey research was that done by the sociologist Alfred Kinsey and his associates on the sexual behavior of American men (1948)* and women (1953).† While these studies are best known for their shocking (at the time) findings concerning the frequency of various sexual behaviors, they are equally noteworthy for their methodological competence. Using very large (although not random) samples totaling some 12,000 men and 8,000 women, Kinsey and his associates were meticulous in comparing results from different samples (replication) and in examining reliability through retesting and validity through internal cross-checking and comparison with spouses or other partners. One of the more unusual aspects of the basic data-gathering process—individual interviews—was the interview schedule that contained 521 items (although the minimum per respondent was 300). The same information was elicited in several different questions, all asked in rapid-fire succession so as to minimize conscious distortion.

A more recent study came to somewhat different conclusions regarding sexual behavior. The researchers used an interview procedure very similar to that used in the Kinsey studies, but claimed a superior sampling procedure. They selected a random sample of 4,369 adults from a list of nationwide home addresses, with the household respondent also chosen at random. While the final participation rate of 79 percent (sample = 3,500) is high, 79 percent of a random sample is no longer a random sample.‡

*A. C. Kinsey, W. B. Pomeroy, and C. E. Martin (1948). *Sexual behavior in the human male.* Philadelphia: Saunders.
†A. C. Kinsey, W. B. Pomeroy, C. E. Martin, and P. H. Gebhard (1953). *Sexual behavior in the human female.* Philadelphia: Saunders.

‡E. Laumann, R. Michael, S. Michaels, and J. Gagnon (1994). *The social organization of sexuality.* Chicago: University of Chicago Press.

interview with the respondent. As a result, this method has many advantages. It is probably the most effective survey method for enlisting the cooperation of the respondents. Rapport can be established, questions can be clarified, unclear or incomplete answers can be followed up, and so on. Face-to-face interviewing also places less of a burden on the reading and writing skills of the respondents and, when necessary, permits spending more time with respondents.

The biggest disadvantage of face-to-face interviews is that they are more costly than direct, mail, or telephone surveys. They also require a trained staff of interviewers, with all that implies in terms of training costs and time. The total data collection time required is also likely to be quite a bit longer than in any of the other three methods. It is possible, too, that the lack of anonymity (the respondent is obviously known to the interviewer, at least temporarily) may result in less valid responses to personally sensitive questions. Last, some types of samples (individuals in high-crime areas, workers in large corporations, students, and so on) are often difficult to contact in sufficient numbers.

SELECTING THE SAMPLE

The subjects to be surveyed should be selected (randomly, if possible) from the population of interest. Researchers must ensure, however, that the subjects they intend to question possess the desired information and that they will be willing to answer these questions. Individuals who possess the necessary information but who are uninterested in the topic of the survey (or who do not see it as important) are unlikely to respond. Accordingly, it is often a good idea for researchers to conduct a preliminary inquiry among potential respondents to assess their receptivity. Frequently, in school-based surveys, a higher response rate can be obtained if a questionnaire is sent to persons in authority to administer to the potential respondents rather than sending it to the respondents themselves. For example, a researcher might ask classroom teachers to administer a questionnaire to their students rather than asking the students directly.

Some examples of samples that have been surveyed by educational researchers are as follows:

- A sample of all students attending an urban university concerning their views on the adequacy of the general education program at the university.
- A sample of all faculty members in an inner-city high school district as to the changes needed to help "at-risk" students learn more effectively.
- A sample of all such students in the same district concerning their views on the same topic.

- A sample of all women school superintendents in a particular state concerning their views as to the problems they encounter in their administrations.
- A sample of all the counselors in a particular high school district concerning their perceptions as to the adequacy of the school counseling program.

PREPARING THE INSTRUMENT

The most common types of instruments used in survey research are the questionnaire and the **interview schedule** (see Chapter 7).* They are virtually identical, except that the questionnaire is usually self-administered by the respondent, while the interview schedule is administered verbally by the researcher (or trained assistant). In the case of a mailed or self-administered questionnaire, the appearance of the instrument is very important to the overall success of the study. It should be attractive and not too long,† and the questions should be as easy to answer as possible. The questions in a survey, and the way they are asked, are of crucial importance. Fowler points out that there are four practical standards that all survey questions should meet:

1. Is this a question that can be asked exactly the way it is written?
2. Is this a question that will mean the same thing to everyone?
3. Is this a question that people can answer?
4. Is this a question that people will be willing to answer, given the data collection procedures?[11]

The answers to each of the previous questions for every question in a survey should be yes. Any survey question that violates one or more of these standards should be rewritten.

In the case of a personal interview or a telephone survey, the manner of the questioner is of paramount importance. He or she must ask the questions in such a way that the subjects of the study want to respond.

In either case, the audience to whom the questions are to be directed should be clearly identified. Specialized or unusual words should be avoided if possible or, if they must be used, defined clearly in the instructions written on the instrument. The most important thing for researchers to keep in mind, however, is that whatever type of instrument is used, the *same* questions must be asked of all respondents in the sample. Furthermore, the conditions under which the questionnaire is administered or the interview is conducted should be as similar as possible for all respondents.

*Tests of various types can also be used in survey research, as when a researcher uses them to describe the reading proficiency of students in a school district. We restrict our discussion here, however, to the description of preferences, opinions, and beliefs.

†This is very important. Long questionnaires discourage people from completing and returning them.

Types of Questions. The nature of the questions and the way they are asked are extremely important in survey research. Poorly worded questions can doom a survey to failure. Hence, they must be clearly written in a manner that is easily understandable by the respondents.[12]

Most surveys rely on multiple-choice or other forms of what are called **closed-ended questions**. Multiple-choice questions allow a respondent to select his or her answer from a number of options. They may be used to measure opinions, attitudes, or knowledge.

Closed-ended questions are easy to use, score, and code for analysis on a computer. Because all subjects respond to the same options, standardized data are provided. They are somewhat more difficult to write than open-ended questions, however. They also pose the possibility that an individual's true response is not present among the options given. For this reason, the researcher usually should provide an "other" choice for each item, where the subject can write in a response that the researcher may not have anticipated. Some examples of closed-ended questions are the following:

1. Which subject do you like *least?*
   a. Social studies
   b. English
   c. Science
   d. Mathematics
   e. Other (specify)
2. Rate each of the following parts of your master's degree program by circling the number under the phrase that describes how you feel.

	Very dissatisfied	Dissatisfied	Satisfied	Very satisfied
a. Coursework	1	2	3	4
b. Professors	1	2	3	4
c. Advising	1	2	3	4
d. Requirements	1	2	3	4
e. Cost	1	2	3	4
f. Other (specify)	1	2	3	4

Open-ended questions allow for more individualized responses, but they are sometimes difficult to interpret. They are also often hard to score, since so many different kinds of responses are received. Furthermore, respondents sometimes do not like them. Some examples of open-ended questions are as follows:

1. What characteristics of a person would lead you to rate him or her as a good administrator?
2. What do you consider to be the most important problem facing classroom teachers in high schools today?
3. What were the three things about this class you found most useful during the past semester?

Generally, therefore, closed-ended or short-answer questions are preferable, although sometimes researchers find it useful to combine both formats in a single question, as shown in the following example of a question using both open- and closed-ended formats.

1. Please rate and comment on each of the following aspects of this course:

	Very dissatisfied	Dissatisfied	Satisfied	Very satisfied
a. Coursework	1	2	3	4
Comment _____				
_____				
_____				
b. Professor	1	2	3	4
Comment _____				
_____				
_____				

Table 17.2 presents a brief comparison of the advantages and disadvantages of closed-ended and open-ended questions.

Some Suggestions for Improving Closed-Ended Questions. There are a number of relatively simple tips that researchers have found to be of value in writing good survey questions. A few of the most frequently mentioned ones follow.[13]

1. Be sure the question is *unambiguous*.
   Poor: Do you spend a lot of time studying?
   Better: How much time do you spend each day studying?
   a. More than 2 hours.
   b. One to 2 hours.
   c. Thirty minutes to 1 hour.
   d. Less than 30 minutes.
   e. Other (specify). _____
2. Keep the focus as simple as possible.
   Poor: Who do you think are more satisfied with teaching in elementary and secondary schools, men or women?
   a. Men are more satisfied.
   b. Women are more satisfied.
   c. Men and women are about equally satisfied.
   d. Don't know.
   Better: Who do you think are more satisfied with teaching in elementary schools, men or women?
   a. Men are more satisfied.
   b. Women are more satisfied.
   c. Men and women are about equally satisfied.
   d. Don't know.
3. Keep the questions short.
   Poor: What part of the district's English curriculum, in your opinion, is of the most

TABLE 17.2 *Advantages and Disadvantages of Closed-Ended Versus Open-Ended Questions*

Closed-Ended	Open-Ended
Advantages	
• Enhance consistency of response across respondents	• Allow more freedom of response
• Easier and faster to tabulate	• Easier to construct
• More popular with respondents	• Permit follow-up by interviewer
Disadvantages	
• May limit breadth of responses	• Tend to produce responses that are inconsistent in length and content across respondents
• Take more time to construct	• Both questions and responses subject to misinterpretation
• Require more questions to cover the research topic	• Harder to tabulate and synthesize

importance in terms of the overall development of the students in the program?

Better: What part of the district's English curriculum is the most important?

4. Use common language.

Poor: What do you think is the principal reason schools are experiencing increased student absenteeism today?

a. Problems at home.
b. Lack of interest in school.
c. Illness.
d. Don't know.

Better: What do you think is the main reason students are absent more this year than previously?

a. Problems at home.
b. Lack of interest in school.
c. Illness.
d. Don't know.

5. Avoid the use of terms that might bias responses.

Poor: Do you support the superintendent's "no smoking" policy on campus grounds while school is in session?

a. I support the policy.
b. I am opposed to the policy.
c. I don't care one way or the other about the policy.
d. I am undecided about the policy.

Better: Do you support a "no smoking" policy on campus grounds while school is in session?

a. I support the policy.
b. I am opposed to the policy.
c. I don't care one way or the other about the policy.
d. I am undecided about the policy.

6. Avoid leading questions.

Poor: What rules do you consider necessary in your classes?

Better: Circle each of the following that describes a rule you set in your classes.

a. All homework must be turned in on the date due.
b. Students are not to interrupt other students during class discussions.
c. Late homework is not accepted.
d. Students are counted tardy if they are more than 5 minutes late to class.
e. Other (specify) _____

7. Avoid double negatives.

Poor: Would you not be opposed to supervising students outside of your classroom?

a. Yes.
b. No.
c. Undecided.

Better: Would you be willing to supervise students outside of your classroom?

a. Yes.
b. No.
c. Undecided.

"Next question: I believe that life is a constant striving for balance, requiring frequent tradeoffs between morality and necessity, within a cyclic pattern of joy and sadness, forging a trail of bittersweet memories until one slips, inevitably, into the jaws of death. Agree or disagree?"

Pretesting the Questionnaire. Once the questions to be included in the questionnaire or the interview schedule have been written, the researcher is well advised to try them out with a small sample similar to the potential respondents. A "pretest" of the questionnaire or interview schedule can reveal ambiguities, poorly worded questions, questions that are not understood, and unclear choices; it can also indicate whether the instructions to the respondents are clear.

Overall Format. The format of a questionnaire—how the questions look to the respondents—is very important in encouraging them to respond. Perhaps the most important rule to follow is to ensure that the questions are spread out—that is, uncluttered. No more than one question should be presented on a single line. When respondents have to spend a lot of time reading a question, they quickly become discouraged from continuing.

There are a variety of ways to present the response categories from which respondents are asked to choose. Babbie suggests that boxes, as shown in the question below, are the best.[14]

Have you ever taught an advanced placement class?

[ ] Yes
[ ] No

Sometimes, certain questions will apply to only a portion of the subjects in the sample. When this is the case, follow-up questions can be included in the questionnaire. For example, a researcher might ask respondents if they are familiar with a particular activity, and then ask those who say yes to give their opinion of the activity. The follow-up question is called a **contingency question**—it is contingent upon how a respondent answers the first question. If properly used, contingency questions are a valuable survey tool, in that they can make it easier for a respondent to answer a given question and also improve the quality of the data a researcher receives. Although a variety of contingency formats may be used, the easiest to prepare is simply to set off the contingency question by indenting it, enclosing it in a box, and connecting it to the base question by means of an arrow to the appropriate response, as shown below.

Have you ever taught an advanced placement class?

[ ] Yes
[ ] No

If yes: Have you ever attended a workshop in which you received special training to teach such classes?

[ ] Yes
[ ] No

Did you substitute at any time during the past year? (Include part-time substituting.)

1. Yes

a. How many days did you substitute last week, counting all jobs, if more than one?
   1. Less than one day.
   2. One day.
   3. Two days.
   4. Three days.
   5. Four days.
   6. Five days.
   7. Other _____

b. Would you like to substitute more hours, or is that about as much as you want to work?
   1. Want more.
   2. Don't want more.
   3. Don't know.

c. How long have you been substitute teaching?
   1. Less than one year.
   2. One year.
   3. 2–3 years.
   4. 4–5 years.
   5. 6–10 years.
   6. More than 10 years.

d. In the past year, have there been any weeks when you were *not* offered a chance to substitute?
   1. Yes.
   2. No.
   3. Don't know.

2. No

e. Did you want to substitute last week?
   1. Yes.
   2. No.

f. Did you want to substitute at any time during the past 60 days?
   1. Yes.
   2. No.

g. What were you doing most of last week?
   1. Keeping house.
   2. Going to school.
   3. On vacation.
   4. Retired.
   5. Disabled.
   6. Other.

h. When did you last substitute?
   1. This month.
   2. Over a month ago.
   3. Over six months ago.
   4. Over a year ago.
   5. Disabled.
   6. Never substituted.

Figure 17.2 *Example of Several Contingency Questions in an Interview Schedule*

Adapted from E. S. Babbie (1973). *Survey research methods.* Belmont, CA: Wadsworth, p. 149.

COLLEGE OF EDUCATION

San Francisco State University

October 1, 2010

Mr. Robert R. Johnson
Social Studies Department
Oceana High School
Pacifica, California 96321

Dear Mr. Johnson,

The Department of Secondary Education of San Francisco State University prepares over 100 student teachers every year to teach in the public and private schools of California. It is our goal to help our graduates become as well prepared as possible to teach in today's schools. The enclosed questionnaire is designed to obtain your views on how to improve the quality of our training program. Your suggestions will be considered in planning for revisions in the program in the coming academic year. We will also provide you with a copy of the results of our study.

We will greatly appreciate it if you will complete the questionnaire and return it in the enclosed stamped, self-addressed envelope by October 18th. We realize your schedule is a busy one and that your time is valuable, but we are sure that you want to improve the quality of teacher training as much as we do. Your responses will be kept completely confidential; we ask for no identifying information on the questionnaire form. The study has been approved by the University's Research with Human Subjects review committee.

We want to thank you in advance for your cooperation.

William P. Jones
Chair of the Department

Figure 17.3 *Sample Cover Letter for a Mail Survey*

A clear and well-organized presentation of contingency questions is particularly important in interview schedules. An individual who receives a questionnaire in the mail can reread a question if it is unclear the first time through. If an interviewer becomes confused, however, or reads a question poorly or in an unclear manner, the whole interview may become jeopardized. Figure 17.2 illustrates a portion of an interview schedule that includes several contingency questions.

PREPARING THE COVER LETTER

Mailed surveys require something that telephone surveys and face-to-face personal interviews do not—a cover letter explaining the purpose of the questionnaire. Ideally, the cover letter also motivates the members of the sample to respond.

The cover letter should be brief and addressed specifically to the individual being asked to respond. It should explain the purpose of the survey, emphasize the importance of the topic of the research, and (it is hoped) engage the respondent's cooperation. If possible, it should indicate the researcher's willingness to share the results of the study once it is completed. Confidentiality and anonymity of the respondents should be assured.* It also helps if the researcher obtains the sponsorship of an institution of some importance that is known to the respondent. The letter should specify the date by which the completed questionnaire is to be returned, and it should be individually signed by the researcher. Every effort should be made to avoid the appearance of a form letter. Finally, the return should be made as easy as possible; hence, enclosing a stamped, self-addressed envelope is always a good idea. Figure 17.3 presents an example of a cover letter.

*If done under a university (or other agency) sponsorship, the letter should indicate that the study has been approved by the "Research with Human Subjects" review committee.

TRAINING INTERVIEWERS

Both telephone and face-to-face interviewers need to be trained beforehand. Many suggestions have been made in this regard, and we have space to mention only a few of them here.[15] Telephone interviewers need to be shown how to engage their interviewees so that they do not hang up on them before the interview has even begun. They need to know how to explain quickly the purpose of their call and why it is important to obtain information from the respondent. They need to learn how to ask questions in a way that encourages interviewees to respond honestly.

Face-to-face interviewers need all of the above and more. They need to learn how to establish rapport with their interviewees and to put them at ease. If a respondent seems to be resistant to a particular line of questioning, the interviewer needs to know how to move on to a new set of questions and return to the previous questions later. The interviewer needs to know when and how to "follow up" on an unusual answer or one that is ambiguous or unclear. Interviewers also need training in gestures, manner, facial expression, and dress. A frown at the wrong time can discourage a respondent from even attempting to answer a question! In sum, the general topics to be covered in training interviewers should always include at least the following:

1. Procedures for contacting respondents and introducing the study. All interviewers should have a common understanding of the purposes of the study.
2. The conventions that are used in the design of the questionnaire with respect to wording and instructions for skipping questions (if necessary) so that interviewers can ask the questions in a consistent and standardized way.
3. Procedures for probing inadequate answers in a nondirective way. *Probing* refers to following up incomplete answers in ways that do not favor one particular answer over another. Certain kinds of standard probes, such as asking "Anything else?" "Tell me more," or "How do you mean that?" usually will handle most situations.
4. Procedures for recording answers to open-ended and closed-ended questions. This is especially important with regard to answers to open-ended questions, which interviewers are expected to record verbatim.
5. Rules and guidelines for handling the interpersonal aspects of the interview in a nonbiasing way. Of particular importance here is for interviewers to focus on the task at hand and to avoid expressing their views or opinions (verbally or with body language) on any of the questions being asked.[16]

USING AN INTERVIEW TO MEASURE ABILITY

Although the interview has been used primarily to obtain information on variables other than cognitive ability, an important exception can be found in the field of developmental and cognitive psychology. Interviews have been used extensively in this field to study both the content and processes of cognition. The best-known example of such use is to be found in the work of Jean Piaget and his colleagues. They used a semistructured sequence of contingency questions to determine a child's cognitive level of development.

Other psychologists have used interviewing procedures to study thought processes and sequences employed in problem solving. While not used extensively to date in educational research, an illustrative study is that of Freyberg and Osborne, who studied student understanding of basic science concepts. They found frequent and important misconceptions of which teachers were often unaware. Teachers often assumed that students used such terms as *gravity, condensation, conservation of energy,* and *wasteland community* in the same way as they did themselves. Many 10-year-olds and even some older children, for example, believed that condensation on the outside of a water glass was caused by water getting through the glass. One 15-year-old displayed ingenious (although incorrect) thinking as shown in the following excerpt:

> (Jenny, aged 15): Through the glass—the particles of water have gone through the glass, like diffusion through air—well, it hasn't got there any other way. (Researcher): A lot of younger people I have talked to have been worried about this water . . . it troubles them. (Jenny): Yes, because they haven't studied `things like we have studied. (Researcher): What have you studied which helps? (Jenny): Things that pass through air, and concentrations and how things diffuse.[17]

Freyberg and Osborne make the argument that teachers and curriculum developers must have such information on student conceptions if they are to teach effectively. They have also shown how such research can improve the content of achievement tests by including items specifically directed at common misconceptions.

Nonresponse

In almost all surveys, some members of the sample will not respond. This is referred to as **nonresponse**. It may be due to a number of reasons (lack of interest in the topic being surveyed, forgetfulness, unwillingness to be surveyed, and so on), but it is a major problem that has been increasing in recent years as more and more people seem (for whatever reason) to be unwilling to participate in surveys.

Why is nonresponse a problem? The chief reason is that those who do not respond will very likely differ from the respondents on answers to the survey questions. Should this be the case, any conclusions drawn on the basis of the respondents' replies will be misleading and not a true indication of the views of the population from which the sample was drawn.

TOTAL NONRESPONSE

Kalton points out that total nonresponse can occur in interview surveys for any of the following reasons: Intended respondents can refuse to be interviewed, not be at home when the interviewer calls, be unable to take part in the interview for various reasons (such as illness, deafness, inability to speak the language), or sometimes cannot even be located.[18] Of these, refusals and not-at-homes are the most common.

In mail surveys, a few questionnaires may not be deliverable, and occasionally a few respondents will return their questionnaires unanswered as an indication of their refusal to participate. Generally, however, all that is known about most mail survey nonresponse is that the questionnaire has not been returned. The reason for the lack of return may be any of the ones we have already mentioned.

A variety of techniques are employed by survey researchers to reduce nonresponse. In interview surveys, the interviewers are carefully trained to be courteous, to ask questions pleasantly and sensitively, to dress conservatively, or to return to conduct an interview at a more appropriate time if the situation warrants. Assurances of anonymity and confidentiality are made (this is done in mailed surveys as well). Questions are usually organized to start with fairly simple and nonthreatening questions. Not-at-homes are treated by callbacks (a second, third, or even a fourth visit) on different days and at different times during the day. Sometimes appointments are set up at a convenient time for the respondent. Mailed questionnaires can be followed up with a reminder letter and often a second or sometimes even a third mailing. A frequently overlooked technique is the offering of a tangible reward as an inducement to respond. There is nothing inappropriate about paying (in some manner) respondents for providing information.

Nonresponse is a serious problem in many surveys. Some observers have stated that response rates for uncomplicated face-to-face surveys by nongovernment survey organizations are about 70 to 75 percent. Refusals make up the majority of nonrespondents in face-to-face interviews, with not-at-homes constituting most of the remainder. Telephone surveys generally have somewhat lower response rates than face-to-face surveys (respondents simply hang up). Response rates in mail surveys are quite varied, ranging from as low as 10 percent to as high as 90 percent.[19] Furthermore, nonresponse is not evenly spread out among various subgroups within the United States. Nonresponse rates in face-to-face interview surveys, for example, are much higher in inner cities than in other locations.

A procedure commonly used to handle nonresponse, especially in telephone surveys, is *random replacement,* which is continuing to add randomly selected cases until the desired sample size is reached. This method does not work for the same reason mentioned earlier: Those who are not contacted or who refuse to respond probably would have answered differently than those who do respond. Remember: A random sample requires that the sample actually comprises those who are originally selected.

In addition to doing as much as possible to reduce nonresponse, researchers should obtain, during the survey or in other ways, as much demographic information as they can on respondents. This not only permits a more complete description of the sample, but also may support an argument for representativeness—*if* it turns out that the sample is very similar to the population with regard to those demographics that are pertinent to the study (Figure 17.4). These may include gender, age, ethnicity, family size, and so forth. Needless to say, all such data must be reported, not just those that support the claim of representativeness. Such an argument is always inconclusive since it is impossible to obtain data on all pertinent variables (or even to be sure as to what they all are), but it is an important feature of any survey that has a substantial nonresponse (we would say over 10 percent). A major difficulty with this suggestion is that the needed demographics may not be available for the population. In any case, the nonresponse rate should always be reported.

ITEM NONRESPONSE

Partial gaps in the information provided by respondents can also occur for a variety of reasons: The respondent may not know the answer to a particular question; he or she may

CONTROVERSIES IN RESEARCH

Is Low Response Rate Necessarily a Bad Thing?

As pointed out by some researchers, "A basic tenet of survey research is that high response rates are better than low response rates. Indeed, a low rate is one of the few outcomes or features that—taken by itself—is considered to be a major threat to the usefulness of a survey."* Two recent studies of telephone response rates, however, suggest that this is not necessarily true. In one instance, the authors used an omnibus questionnaire that included demographic, behavioral, attitudinal, and knowledge items. In the other, the researcher used data from the *Index of Consumer Sentiment* (a measure of consumer opinions about the economy). In both studies, a comparison of response rates of 60 to 70 percent to rates substantially lower (i.e., 20 to 40 percent) showed minimal differences in substantive answers.

The implication is that the substantial expense of attaining higher rates may not be worth it. It is pointed out that "observing (the) little effect of nonresponse when comparing response rates of 60 to 70 percent with rates much lower does not mean that the surveys with 60 to 70 percent response rates do not themselves suffer from significant nonresponse bias,"† that is, a 90 percent rate may have given different results from the 60 percent rate. Further, these results should not be generalized to other types of questions or to respondents other than those in these particular surveys.

*R. Curtin, S. Presser, and E. Singer (2000). The effects of response rate changes on the Index of Consumer Sentiment. *Public Opinion Quarterly, 64:* 413.

†S. Keeter, C. Miller, A. Kohut, R. Groves, and S. Prosser (2000). Consequences of reducing nonresponse in a large national telephone survey. *Public Opinion Quarterly, 64:* 125–148.

Figure 17.4 *Demographic Data and Representativeness*

find certain questions embarrassing or perhaps irrelevant; the respondent may be pressed for time, and the interviewer may decide to skip over part of the questions; the interviewer may fail to record an answer. Sometimes during the data analysis phase of a survey, the answers to certain questions are thrown out because they are inconsistent with other answers. Some answers may be unclear or illegible.

Item nonresponse is rarely as high as total nonresponse. Generally it varies according to the nature of the question asked and the mode of data collection. Very simple demographic questions usually have almost no nonresponse. Kalton estimates that items dealing with income and expenditures may experience item nonresponse rates of 10 percent or more, while extremely sensitive or difficult questions may produce nonresponse rates that are much higher.[20]

Listed below is a summary of some of the more common suggestions for increasing the response rate in surveys.

1. *Administration of the questionnaire or interview schedule:*
   - Make conditions under which the interview is conducted, or the questionnaire administered, as simple and convenient as possible for each individual in the sample.
   - Be sure that the group to be surveyed knows something about the information you want to obtain.
   - Train face-to-face or telephone interviewers in how to ask questions.
   - Train face-to-face interviewers in how to dress.

2. *Format of the questionnaire or interview schedule:*
   - Be sure that sufficient space is provided for respondents (or the interviewer) to fill in the necessary biographical data that is needed (age, gender, grade level, and so on).
   - Specify in precise terms the objectives the questionnaire or interview schedule is intended to achieve—exactly what kind of information is wanted from the respondents?
   - Be sure each item in the questionnaire or interview schedule is related to one of the objectives of the study—that is, it will help obtain information about the objective.
   - Use closed-ended (e.g., multiple-choice) rather than or in addition to open-ended (e.g., free response) questions.
   - Ensure that no psychologically threatening questions are included.
   - Eliminate any leading questions.
   - Check for ambiguity of items with a panel of judges. Revise as needed.
   - Pretest the questionnaire or interview schedule with a small group similar to the sample to be surveyed.

Problems in the Instrumentation Process in Survey Research

Several threats to the validity of the instrumentation process in surveys can cause individuals to respond differently from how they might otherwise respond. Suppose, for example, that a group of individuals is brought together to be interviewed all in one place and an extraneous event (say, a fire drill) occurs during the interview process. The event might upset or otherwise affect various individuals, causing them to respond to the interview questions in a different way from how they would have responded if the event had not occurred.

Whenever researchers do not take care in preparing their questionnaires—if questions are leading or insensitive, for example—it may cause individuals to respond differently. If the conditions under which individuals are questioned in interview studies are somewhat unusual (during the dinner hour; in poorly lit rooms; and so on), they may react in certain ways unrelated to the nature of the questions themselves.

Finally, the characteristics of a data collector (such as garish dress, insensitivity, rudeness, and use of offensive language) can affect how individuals respond, causing them to react in part to the data collector rather than to the questions. There is also the possibility of an unconscious bias on the part of the data collector, as when he or she asks leading questions of some individuals but not others.

Evaluating Threats to Internal Validity in Survey Research

There are four main threats to internal validity in survey research: mortality, location, instrumentation, and instrument decay. A mortality threat arises in longitudinal studies unless all of the data on "lost" subjects are deleted, in which case the problem becomes one of appropriate generalization. A location threat can occur if the collection of data is carried out in places that may affect responses (e.g., a survey of attitudes toward the police conducted in a police station). Instrument decay can occur in interview surveys if the interviewers get tired or are rushed. This, as well as defects in the instruments themselves, not only may reduce the validity of the information obtained but also may introduce a systematic bias.

Data Analysis in Survey Research

After the answers to the survey questions have been recorded, there remains the final task of summarizing the responses in order to draw some conclusions from the results. The total size of the sample should be reported, along with the overall percentage of returns. The percentage of the total sample responding for each item should then be reported. Finally, the percentage of respondents who chose each alternative for each question should be given. For example, a reported result might be as follows: "For item 26, regarding the approval of a no-smoking policy while school is in session, 80 percent indicated they were in favor of such a policy, 15 percent indicated they were not in favor, and 5 percent said they were neutral."

An Example of Survey Research

In the remainder of this chapter, we present a published example of survey research, followed by a critique of its strengths and weaknesses. As we did in our critiques of the different types of research studies we analyzed in other chapters, we use several of the concepts introduced in earlier parts of the book in our analysis.

Russian and American College Students' Attitudes, Perceptions, and Tendencies Towards Cheating

Robert A. Lupton
Central Washington University

Kenneth J. Chapman
California State University, Chico

Summary

Justification

The literature reports that cheating is endemic throughout the USA. However, lacking are international comparative studies that have researched cheating differences at the post-secondary business education level. This study investigates the differences between Russian and American business college students concerning their attitudes, perceptions and tendencies towards academic dishonesty. The study found significant differences between Russian and American college students' behaviours and beliefs about cheating. These findings are important for business educators called to teach abroad or in classes that are increasingly multinational in composition.

INTRODUCTION

The Chinese have been concerned about cheating for longer than most civilizations have been in existence. Over 2,000 years ago, prospective Chinese civil servants were given entrance exams in individual cubicles to prevent cheating, and searched for crib notes as they entered the cubicles. The penalty for being caught at cheating in ancient China was not a failing grade or expulsion, but death, which was applicable to both the examinees and examiners (Brickman, 1961). Today, while we do not execute students and their professors when cheating is discovered, it appears we may not be doing enough to deter cheating in our classes (e.g., Collison, 1990; McCabe & Trevino, 1996; Paldy, 1996).

Literature Review

Cheating among U.S. college students is well documented in a plethora of published reports, with a preponderance of U.S. studies reporting cheating incidences in excess of 70% (e.g., Baird, 1980; Collison, 1990; Davis et al., 1992; Gail & Borin, 1988; Jendrek, 1989; Lord and Chiodo, 1995; McCabe & Trevino, 1996; Oaks, 1975; Stern & Havlicek, 1986; Stevens & Stevens, 1987). Indeed, U.S. academicians have addressed the issues of cheating for the past century, publishing over 200 journal articles and reports (Payne & Nantz, 1994).[1] The U.S. literature can be divided into five primary areas: (a) reporting the incidences and types of cheating (Baird, 1980; McCabe & Bowers, 1994, 1996), (b) reporting the behavioural and situational causes of cheating (Bunn, Caudill, & Gropper, 1992; LaBeff et al., 1990), (c) reporting the reactions of academicians towards cheating (Jendrek, 1989; Roberts, 1986), (d) discussing the prevention and control of cheating (Ackerman, 1971; Hardy, 1981–1982), and (e) presenting statistical research methodologies used to measure academic misconduct (Frary, Tideman, & Nicholaus, 1997; Frary, Tideman, & Watts, 1977).

[1]For a comprehensive review of the cheating literature, see Lupton's (1999) published dissertation.

The U.S. studies on cheating behaviours are disturbing since they indicate a widespread, insidious problem. Cheating devalues the educational experience in a number of ways. First, cheating behaviours may lead to inequitable grades and a misrepresentation of what a student may actually have learned and can use after graduation. Additionally, successful cheating behaviours in college may carry over as a way of life after college. That is, students may believe that if they can get away with cheating now, they can get away with cheating later. Obviously, academic dishonesty is not to be taken lightly, yet cheating seems to be prevalent, at least in the USA. This study investigated if the academic dishonesty problem crosses national boundaries. The researchers investigated if students' attitudes, beliefs, and cheating tendencies vary by country—specifically, as part of an ongoing research agenda (Lupton, Chapman, & Weiss, 2000); the researchers report differences between Russian and American students.

Justification

The international literature provides mostly anecdotal evidence of academic dishonesty and has few *comparative* research efforts. International studies and reports have looked at college students in Australia (Maslen, 1996; Waugh & Godfrey, 1994), Canada (Black, 1962; Chidley, 1997; Genereux & McLeod, 1995; Harpp & Hogan, 1993, 1998; Jenkinson, 1996), the UK (Baty, 1997; Bushby, 1997; Franklyn-Stokes & Newstead, 1995; Mackenzie & Smith, 1995; Newstead, Franklyn-Stokes, & Armstead, 1996), Palestine (Surkes, 1994), Poland (Curry, 1997) and Russia (Poltorak, 1995), and high school students in Austria (Hanisch, 1990), Germany (Rost & Wild, 1990) and Italy (*TES,* 1996).

Justification

Poltorak (1995), the only major Russian study, measured attitudes about and tendencies towards cheating at four Russian post-secondary technical universities. The research found cheating to be widespread, with over 80% of the students cheating at least once during college and with many of those incidences occurring during examinations. The most common types of cheating were: using crib sheets during examinations, looking at someone's examination, using unauthorized lecture notes during examinations, using someone's finished homework to copy from, and purchasing term papers and plagiarizing. Moreover, male college students were reported to have higher incidences of cheating than female students.

Only a handful of studies have investigated cross-national differences related to academic dishonesty (Curtis, 1996; Davis et al., 1994; Diekhoff et al., 1999; Evans, Craig, & Mietzel, 1993; Lupton et al., 2000; Waugh et al., 1995). Davis et al. (1994) reported that a majority of Australian and U.S. college students cheated more in high school than they did in college. The study is unique in that cheating is linked to grade-oriented and learning-oriented attitudes. It appears that Australian college students are more likely to attend school for the sake of learning, whereas U.S. students tend to be much more focused on grades. Thus, what motivates Australian college students to cheat is different from that of U.S. college students. Diekhoff et al. (1999) found that Japanese college students, as compared to U.S. students, report higher levels of cheating tendencies, have a greater propensity to neutralize the severity of cheating through rationale justification, and are not as disturbed when observing in-class cheating. Interestingly, U.S. and Japanese students agreed guilt is the most effective deterrent to cheating. Finally, Lupton et al. (2000) found significantly different levels of cheating between Polish and U.S. business students. The Polish students reported much higher frequencies of cheating than their American counterparts and were more likely to feel it was not so bad to cheat on one exam or tell someone in a later section about an exam. The Polish students were also more inclined than the American students to feel it was the responsibility of the instructor to create an environment that reduces the likelihood that cheating could occur.

Good summaries

Although cross-national comparative studies are appearing more often in academic literature, it is quite apparent that a major chasm in our knowledge still exists

Justification

Justification

regarding cross-national attitudes, perceptions and tendencies towards cheating at the post-secondary education level. Moreover, to date, no cross-national study has been conducted comparing Russian and U.S. business college students. Russian universities have been known to produce top students, particularly in computer programming (*Chronicle of Higher Education, 2000*). However, like many institutions in Russia, education has been the recipient of severe swings in its support and funding over the years. Some reports indicate the post-secondary educational system is in serious disrepair, where bribes for entrance and grades are commonplace and learning is minimal (Dolshenko, 1999). Additionally, the value of an education seems to be in question, with only 53% of Russia's citizens believing that higher education is important (ibid). It seemed likely that given some of the problems being experienced in the Russian higher education system, where the value of learning and education may be in a weakened state, cheating could be commonplace. Substantial differences in academic honesty may also be found due to Russia being a more collective society compared to the USA, which is more individualistic in culture (Ryan et al., 1991).

Purpose?

Building on the research conducted in the USA, the researchers present a cross-national study that compares attitudes, perceptions, and tendencies of college business students in Russia and the USA. The research begins to *fill in* the gap in our knowledge about cross-national differences in attitudes, beliefs, and tendencies towards cheating.

METHODOLOGY

Method and Sample

Volunteers?

Undergraduate business students from the USA and Russia were asked to participate in the study. Questionnaires were administered in the classes. Given the sensitive nature of the questions, respondents were repeatedly told, orally and in writing, that their responses would be anonymous and confidential. The respondents were asked to answer as many questions as possible, as long as they felt comfortable with the particular question.

Nonrandom sample

The American student sample was collected from Colorado State University, a mid-sized university located in the western USA, and the Russian sample was collected from Novgorod State University and the Norman School College. Colorado State University is located in Fort Collins, Colorado, a city of about 120,000 residents. Both Novgorod State University and the Norman School College are located in Novgorod, Russia, which has approximately 200,000 inhabitants. A total of 443 usable surveys were collected in the USA and 174 in Russia. Nearly 50% of the American students and 64% of the Russian students were male. In both regions, 90% of the sample was between the ages of 17 and 25, with an average age of 21 years. The average American grade-point average (GPA) was 3.02 and 4.27 for the Russian students (U.S. GPA, A = 4.0; Russian GPA, A = 5.0). Fifty-two percent of the American sample was juniors and 45.8% seniors. In contrast, 56.1% of the Russian survey respondents was freshmen, while sophomores and graduate students accounted for 20.5% and 17.5% respectively.

Limitation

See Internal validity

The Survey Instrument

Identical self-report questionnaires were used to collect the data in both countries. The survey was translated into Russian and translated back into English. To evaluate the attitudes, perceptions, and tendencies towards academic cheating, a 29-question survey instrument was developed consisting of a series of dichotomous (yes/no) and scalar questions, as well as a question that asked students to assess what proportion of their peers they believe cheat. Most of the yes/no questions specifically asked the students about

How are these defined?

cheating behaviours (e.g., "Have you cheated during college?" "Have you received information about an exam from students in earlier sections of the class?"). In addition, students were asked to respond to a series of statements using a seven-point scale anchored with Strongly disagree to Strongly agree. These scalar questions asked students about their attitudes and beliefs about cheating (e.g., "Cheating on one exam is really not that bad. I believe telling someone in a later section about an exam you just took is OK"). Students were also given two scenarios and asked to decide whether cheating had occurred. Each scenario was intentionally left rather vague. Having the scenarios be rather ambiguous meant that the student could not easily conclude that cheating had or had not occurred. In this fashion, students were left more to their own personal interpretations of trying to decide if cheating had or had not occurred. The first scenario (scenario A) was:

> *John Doe took Marketing 400 in the fall semester. His friend, Jane, took Marketing 400 in the spring semester. John gave Jane all his prior work from the course. Jane found John's answers to prior exams and uses these to prepare for tests in the course.*

Students were then asked to decide if John and Jane had cheated. The next scenario (scenario B) was:

> *Jane also discovered that John had received good grades on some written assignments for the class. Many of these assignments required John to go to the library to look up articles about various topics. Jane decides to forgo the library work and uses John's articles for her papers in the class.*

After reading scenario B, students were asked to decide if Jane had cheated. Finally, to account for possible confounds and explore individual level differences, the survey also included some basic demographic questions.

Reliability and validity should be discussed

RESULTS

American and Russian Business Students' Positions on Cheating Behaviours

American and Russian business students had significantly different positions on their self-reported cheating behaviours, on the degree to which they knew or saw others cheat, and on their perception of whether or not cheating had occurred in the two case scenarios.

Table 1 highlights the significant differences in self-reported cheating behaviour between the American and Russian business students. A larger share of the Russian students reported cheating at some point. While about 55% of the American students reported they had cheated at some point during college, nearly 64% of the Russian students reported having cheated. Russian students also were much more likely to report cheating in the class in which the data were collected. In fact, only 2.9% of the Amercian students acknowledged cheating in the class where the data were collected, whereas 38.1% of the Russian students admitted to cheating in the class. Additionally, Russian students were more likely to have reported that they knew or had seen a student who had cheated. The percentage of students who had given or received information about an exam that had been administered in an earlier section was higher with Russian students. Nearly 92% of the Russian students admitted to conveying exam information to their peers in a later section, while 68.5% of the American students admitted doing so. American students, however, reported a greater incidence of using examinations from a prior term to study for current exams.

Inappropriate statistic

Small differences (see Table 1)

TABLE 1 *Percentage of American or Russian Business Students Responding "Yes" to Questions about Cheating*

	Percentage responding "yes"	
	American students $n = 443$	**Russian students $n = 174$**
Cheated at some point during college	55.4	64.2***
Cheated in current class	2.9	38.1*
Know student who has cheated on an exam at the university	77.3	80.9**
Know student who has cheated on an exam in current class	6.3	66.9*
Seen a student cheat on an exam at the university	61.3	72.4**
Seen a student cheat on an exam in current class	5.6	63.2*
Used exam answers from a prior term to study for a current exam	88.7	48.6*
Given student in a later section information about an exam	68.5	91.9*
Received exam information from a student in an earlier section	73.9	84.3**
Scenario A: John cheated by giving Jane his past exams	5.2	49.1*
Scenario A: Jane cheated by using John's past exams	9.7	63.9*
Scenario B: Jane cheated by using John's articles	77.5	66.9**

Appear to have content validity

Inappropriate statistic

*χ^2 = test of differences between nationalities significant at $p < 0.000$.

**c^2 = test of differences between nationalities significant at $p < 0.01$.

***c^2 = test of differences between nationalities significant at $p < 0.05$.

American and Russian business students also had very different impressions of whether or not cheating had occurred in the scenarios. In scenario A, the Russian students were much more likely to believe that John and Jane had cheated. For example, only 5.2% of the American students felt John had cheated by giving Jane his past exams, while 49.1% of the Russian students felt the same. Additionally, 9.7% of the American students compared to 63.9% of the Russian students felt Jane had cheated by using John's past exams. However, in scenario B, a larger share of the American students felt Jane had cheated by using John's articles. These statistically significant and quite large differences in interpretations of the scenarios suggest that American and Russian business students have extremely different perspectives of what is or is not cheating.

American and Russian Business Students' Differences in Beliefs About Cheating

Table 2 reveals that American and Russian business students have significantly different beliefs about cheating. Students were asked to assess what proportion of their peers they believed to cheat. Russian students felt that about 69% of their colleagues cheat on exams, while American students stated that they felt only about 24% of their fellow students cheat. In a series of Strongly disagree/Strongly agree belief statements, the Russian students were more likely than the American students to believe that most students cheat on exams and out-of-class assignments, that cheating on one exam is not so bad, and that it is OK to tell someone in a later section about an exam just completed. However, as revealed earlier, the Russian students seem to have a different position on what

TABLE 2 *American and Russian Business Students' Beliefs about Cheating*

	Overall mean	American students $n = 443$	Russian students $n = 174$
Percentage of students believed to cheat on exams	36.53	24.18	69.59*
Most students cheat on exams	3.45	2.80	5.12*
Most students cheat on out-of-class assignments	4.09	3.88	4.64*
Cheating on one exam is not so bad	2.90	2.34	4.36*
OK to tell someone in later section about an exam	4.71	4.07	6.36*
Giving someone your past exams is cheating	2.26	2.02	2.87*
Using an exam from a prior semester is cheating	2.65	2.23	3.02*
Instructor must make sure students do not cheat	3.68	3.88	3.18*
Instructor discussing issues tied to cheating reduces amount of cheating	3.92	4.27	3.01*

Note: The first item in the table is a percentage (e.g., 36.53%). All other items are mean ratings using a seven-point scale, where 1 = Strongly disagree and 7 = Strongly agree.

*t = test of mean differences between nationalities significant at $p < 0.000$.

All appear to have content validity

Inappropriate statistic

is or is not cheating. The American students did not believe that giving someone past exams or using exams from a prior semester was cheating, while the Russian students were more neutral on the matter.

Finally, the students in each country were asked if they believed the instructor is responsible for ensuring that cheating does not occur, and if by discussing cheating-related issues (e.g., ethics, penalties, responsibilities), the instructor can reduce cheating incidents. The Russian students were less likely than the American students to feel that it is the instructor's responsibility to prevent cheating in the classroom and were less likely to believe that the instructor merely discussing cheating-related issues would reduce cheating.

Analysis of Possible Confounds

Although a number of differences were found based on nationality, it is possible that these differences may be due to some other issue. Past literature has suggested that a number of idiosyncratic variables could influence the likelihood of someone cheating (e.g., Alschuler & Blimling, 1995; Bunn et al., 1992; Johnson & Gormly, 1971; Kelly & Worrell, 1978; McCabe & Trevino, 1996; Stern & Havlicek, 1986; Stevens & Stevens, 1987). Therefore, analyses were conducted to check if expected grade in the course, overall grade-point average, college class, gender, or age were having any effects on the findings and, in particular, if these factors interacted with nationality. Of focal concern was the extent to which these factors were influencing the number of students that had reported cheating. Neither expected grade in the course, overall grade-point average, college class and gender, nor age interacted with country. This effectively eliminates the possibility that they are confounds for the differences found due to nationality.

Internal validity

Inappropriate statistic?

CONCLUSION

This is the first study to compare the attitudes, beliefs, and tendencies towards academic dishonesty of American and Russian business college students. The study reveals that American and Russian business students hold vastly different attitudes, perceptions, and tendencies towards cheating. It was surprising to find that Russian students reported much

Not sufficient

higher frequencies of cheating than their American counterparts. This raises the question: Do Russian students cheat more often than American students? In fact, we believe these higher self-reported cheating behaviours likely reflect that the Russian students have very different attitudes, beliefs, and definitions regarding cheating when compared to the American students. On the other hand, a few of the questions and the answers given were unequivocal. The Russian students were much more likely to feel it was not so bad to cheat on one exam or tell someone in a later section about an exam. This may indicate that the Russians do not take academic dishonesty as seriously as the Americans and/or are more motivated to cheat. Of course, the interpretation of why the differences exist between the Russian and American students is multidimensional, involving cultural nuances, societal values, teaching and educational philosophies, just to name a few. A true understanding of why these differences exist, however, is beyond the scope of this paper, but certainly worthy of future research endeavours.

Right

Good recommendation

Yet, educators hosting foreign students locally and teaching abroad need to understand the nuances and attitudes of different student populations and the association with classroom management. The better understanding we have of if and how international students' attitudes, perceptions, and tendencies towards academic dishonesty differ among countries, the greater the instructors' ability to communicate with expatriate students and take actions to prevent cheating. Students from all countries continue to enroll in colleges and universities around the world. Of the 1.5 million students who study abroad, nearly one-third of these (481,280) studied in the USA (*Chronicle of Higher Education,* 1998). Universities also continue to send faculty abroad to teach around the world. Organizations such as the International Institute of Education (IIE), the Council for International Educational Exchange (CIEE), and the Agency for International Development (AID) encourage global education and resource exchanges abroad (Barron, 1993; Garavalia, 1997). Post-secondary business education has been introduced to the former Soviet Union republics and to East Asia, bringing American faculty and resources to these regions (Fogel, 1994; Kerr, 1996; Kyj, Kyj, & Marshall, 1995; Petkus, 1995). As the student body becomes more international and educators increasingly teach abroad, research of this nature becomes vital for effective classroom management.

We agree.

Effective classroom management and teaching are influenced by the predominant norms within a country or region. Certainly part of the challenge that emerges for faculty members is to assist students in understanding what is or is not academic misconduct. Especially when teaching abroad or in courses with a large multinational composition, the instructor needs to clearly articulate to the students, orally and in writing, what behaviours are or are not considered academic misconduct.

Opinion

Instructors should educate students on the virtues of not engaging in cheating and the penalties for cheating, with the hope that this will reduce incidents of academic dishonesty. It should be noted, however, that while the American students felt neutral about the likelihood that discussing cheating-related issues might reduce the degree of cheating in the course, the Russian students slightly disagreed. Additionally, the Russian students were more inclined than the American students to feel it was not the responsibility of the instructor to create an environment that reduces the likelihood that cheating could occur (e.g., developing multiple versions of the same examination, cleaning off desktops before examinations, arranging multiple proctors to oversee the test period, not allowing bathroom breaks).

To this end, more research needs to be undertaken in order to fully understand how students view cheating. In particular, a cross-national study that compares data from a variety of diverse countries would greatly illuminate the magnitude of differences that may exist between countries. This research is the first step in highlighting and better understanding these differences.

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Analysis of the Study

PURPOSE/JUSTIFICATION

The purpose is not explicitly stated. It appears to be to "fill in the gap in our knowledge about cross-national differences in attitudes, beliefs, and tendencies towards cheating" and, more specifically, to compare college business students in Russia and the United States on these characteristics.

The study is justified by citing both evidence and opinion that cheating is widespread in the United States and, presumably (although with less documentation), worldwide. Additional justification includes the unfairness of cheating, the likelihood of cheating carrying into future life, and (in the discussion) the need for teachers in multinational classes to understand the issues involved. The importance of attitudes and perceptions seems to be taken for granted; the only justification for studying them is implied in the results of the three studies that found differences between American students and those in other countries. We think a stronger justification could and should have been made. The final justification is that there have been few such studies, none with business students in Russia and the United States.

The authors' concern about confidentiality is important, both with regard to ethics and the validity of information; they appear to have addressed it as effectively as possible. There appear to be no problems of risk or deception.

DEFINITIONS

Definitions are not provided and would be very helpful (as discussed below under "Instrumentation") because the terms *attitude, values,* and *beliefs,* especially, have many different meanings. The term *tendencies* appears to mean (from the example items) actual cheating in various forms. Some clarity is provided by partial operational definitions in the form of example items. We think a definition of *cheating* should have been provided to readers and to respondents. Based on the items provided, it appears to be something like "receiving credit for work that is not one's own."

PRIOR RESEARCH

The authors provide extensive citation of evidence and summaries of studies on the extent of college-level cheating and on cross-national comparisons. They give good brief summaries of what they state are the only three directly related studies.

HYPOTHESES

No hypothese are stated. A nondirectional hypothesis is clearly implied—i.e., there will be differences between the two groups.

SAMPLE

The two groups are convenience (and possibly volunteer) samples from the two nations. Each is described with respect to location, gender, age, and academic class. They consist only of business students, who may not be representative of all college students. Representativeness is further compromised by the unreported number of "unusable" surveys. Sample numbers (443 and 174) are acceptable.

INSTRUMENTATION

The questionnaire consists of yes-no questions (two based on brief scenarios) to measure "tendencies" and seven-point rating scales to assess attitudes and beliefs about cheating, for a total of 29 items, of which 21 are shown in the report. Neither reliability nor validity is discussed. Because the intent was to compare groups on individual items, no summary scores were used. Nevertheless, consistency of response to individual items is essential to meaningful results. Though admittedly difficult, the procedure followed in the Kinsey study (see page 398) of asking the same question with different wording might have been used with, at least, a subsample of students and items. Similarly, a comparison of the questionnaire with interview responses to the same content would have provided some evidence of validity.

The question of validity is confused by the lack of clear definitions. The items in Table 1 suggest that "tendencies to cheat" is taken to mean "having cheated or known of others cheating," although the two scenario items seem to be asking what is considered to constitute cheating. Attitudes and perceptions are combined in Table 2 as "beliefs," which seem to include both "opinions about the extent of cheating" and "judgments as to what behaviors are acceptable"—as well as what constitutes instructor responsibility. As such, the items appear to have content validity but omit other behaviors, such as destroying required library readings. This does not invalidate the items used unless they are considered to represent all forms of cheating. Finally, the validity of self-report items cannot be assumed, particularly in cross-cultural studies, where meanings may differ.

PROCEDURES/INTERNAL VALIDITY

If the study is intended simply to describe differences, internal validity is not an issue. If, however, results are used to imply causation, alternative explanations for nationality-causing cheating must be considered. The authors are to be commended for addressing this problem. They report that "neither expected grade in the course, overall grade-point-average, college class and gender, nor age interacted with country," thus eliminating these alternative explanations. It appears, however, that this conclusion may be based on a finding of no significant differences using inappropriate statistics as discussed under "Data Analysis" below. The demographic data on gender and academic class indicate substantial differences between groups.

The authors point out that other variables such as teaching philosophy and societal values may provide a better understanding, but these do not weaken the nationality explanation—they clarify it. A variable that might well weaken the nationality explanation is "financial status." If it is related to cheating and if the Russian and U.S. students differed on this variable, the nationality interpretation may be seriously misleading. Perhaps cheating behaviors and beliefs are both highly influenced by how much money one has.

DATA ANALYSIS

The descriptive statistics are appropriate, but the inferential statistics (*t*-test and chi square) are not. The samples are not random nor arguably representative of any defined populations. The appropriate basis for assessing differences is direct comparison of percentages and means, perhaps augmented with a calculation of effect size for means (see page 248).

Examination of Table 1 shows that it does not require the incorrect significance tests to show important differences between groups on some items—on the order of 2.9 versus 38.1 percent and 6.3 versus 66.9 percent. On the other hand, the difference between 77.3 and 80.9 percent is trivial, despite the significance level of .01. While the level of difference that is important is arguable, we would attach importance only to differences of at least 15 percent. This is the case with seven of the twelve comparisons.

With respect to Table 2, we can, in the absence of data, obtain a rough estimate of the standard deviation of each distribution of ratings as 1.5 (estimated range = $7 - 1 = 6$; 4 standard deviations = 95 percent of cases [see page 200]; therefore the estimated standard deviation is $6 \div 4 = 1.5$). Therefore, an effect size of .75 would meet the customary .50 requirement. All but one of the nine comparisons reach this value; three greatly exceed it—they should receive the most attention.

The written results are consistent with Tables 1 and 2 and generally emphasize the larger differences; we disagree only with the attention given to small differences.

DISCUSSION/INTERPRETATION

We agree that the study suggests large and important differences between the Russian and U.S. students regarding cheating. Our only quibble with the discussion of results is with the statement that Russian students were more inclined to feel it was not the instructor's responsibility to create an environment to reduce cheating—true, but the difference is small.

The authors' discussion places the study in a broader context and makes sensible recommendations, some of which follow directly from the results and some of which do not—i.e., "instructors should educate students on the virtues of not engaging in cheating."

The authors should have discussed the serious limitations on generalizing their findings. These include a seriously limited sample and the lack of evidence of questionnaire validity. Their statement that "In fact, we believe these higher self-reported cheating behaviours likely reflect that the Russian students have very different attitudes, beliefs, and definitions regarding cheating when compared to the American students"—a statement of belief—is not sufficient.

Go back to the **INTERACTIVE AND APPLIED** Learning feature at the beginning of the chapter for a listing of interactive and applied activities. Go to the **Online Learning Center** at **www.mhhe.com/fraenkel8e** to take quizzes, practice with key terms, and review chapter content.

Main Points

MAJOR CHARACTERISTICS OF SURVEY RESEARCH

- Most surveys possess three basic characteristics: (1) the collection of information (2) from a sample (3) by asking questions, in order to describe some aspects of the population of which the sample is a part.

THE PURPOSE OF SURVEY RESEARCH

- The major purpose of all surveys is to describe the characteristics of a population.
- Rarely is the population as a whole studied, however. Instead, a sample is surveyed and a description of the population is inferred from what the sample reveals.

TYPES OF SURVEYS

- There are two major types of surveys: cross-sectional surveys and longitudinal surveys.
- Three longitudinal designs commonly employed in survey research are trend studies, cohort studies, and panel studies.
- In a trend study, different samples from a population whose members change are surveyed at different points in time.
- In a cohort study, different samples from a population whose members do *not* change are surveyed at different points in time.
- In a panel study, the same sample of individuals is surveyed at different times over the course of the survey.
- Surveys are not suitable for all research topics, especially those that require observation of subjects or the manipulation of variables.

STEPS IN SURVEY RESEARCH

- The focus of study in a survey is called the *unit of analysis.*
- As in other types of research, the group of persons that is the focus of the study is called the *target population.*
- There are four basic ways to collect data in a survey: by direct administration of the survey instrument to a group, by mail, by telephone, or by personal interview. Each method has advantages and disadvantages.
- The sample to be surveyed should be selected randomly if possible.
- The most common types of instruments used in survey research are the questionnaire and the interview schedule.

QUESTIONS ASKED IN SURVEY RESEARCH

- The nature of the questions, and the way they are asked, are extremely important in survey research.
- Most surveys use some form of closed-ended question.
- The survey instrument should be pretested with a small sample similar to the potential respondents.
- A contingency question is a question whose answer is contingent upon how a respondent answers a prior question to which the contingency question is related. Well-organized and sequenced contingency questions are particularly important in interview schedules.

THE COVER LETTER

- A cover letter is sent to potential respondents in a mail survey explaining the purpose of the survey questionnaire.

INTERVIEWING

- Both telephone and face-to-face interviewers need to be trained before they administer the survey instrument.
- Both total nonresponse and item nonresponse are major problems in survey research that seem to be increasing in recent years. This is a problem because those who do not respond are very likely to differ from respondents in terms of how they would answer the survey questions.

THREATS TO INTERNAL VALIDITY IN SURVEY RESEARCH

- Threats to the internal validity of survey research include location, instrumentation, instrument decay, and mortality.

DATA ANALYSIS IN SURVEY RESEARCH

- The percentage of the total sample responding for each item on a survey questionnaire should be reported, as well as the percentage of the total sample who chose each alternative for each question.

Key Terms

census 394
closed-ended question 399
cohort study 394
contingency question 402
cross-sectional survey 394
interview schedule 399
longitudinal survey 394
nonresponse 405
open-ended question 400
panel study 394
trend study 394
unit of analysis 395

For Discussion

1. For what kinds of topics might a personal interview be superior to a mail or telephone survey? Give an example.
2. When might a telephone survey be preferable to a mail survey? to a personal interview?
3. Give an example of a question a researcher might use to assess each of the following characteristics of the members of a teacher group:
   a. Their income
   b. Their teaching style
   c. Their biggest worry
   d. Their knowledge of teaching methods
   e. Their opinions about homogeneous grouping of students
4. Which mode of data collection—mail, telephone, or personal interview—would be best for each of the following surveys?
   a. The reasons why some students drop out of college before they graduate
   b. The feelings of high school teachers about special classes for the gifted
   c. The attitudes of people about raising taxes to pay for the construction of new schools
   d. The duties of secondary school superintendents in a midwestern state
   e. The reasons why individuals of differing ethnicity did or did not decide to enter the teaching profession
   f. The opinions of teachers about the idea of minimum competency testing before granting permanent tenure
   g. The opinions of parents of students in a private school about the elimination of certain subjects from the curriculum

5. Some researchers argue that conducting a careful cross-sectional survey of the population of the United States would actually be preferable to doing a census of the population every ten years. What do you think? What might be some arguments for and against this idea?
6. Which do you think would be the hardest type of longitudinal survey to conduct—trend, cohort, or panel? the easiest? Explain your reasoning.
7. Why do you think many people do not respond to survey questionnaires that they receive in the mail?
8. Are there any questions that researchers could not survey people about through the mail? by telephone? personal interview? Explain.
9. When conducting a personal interview, when might it be better to ask a closed-ended rather than an open-ended question? What about the reverse? Suggest some examples.
10. See if you can suggest a question that you believe almost anyone would be sure to answer if asked. Can you think of any they would be sure *not* to answer? Why?
11. What suggestions can you offer, beyond those given in this chapter, for improving the rate of response in surveys?

Notes

1. N. S. Nasir, et al. (2009). What does it mean to be African-American? Constructions of race and academic identity in an urban public high school. *American Educational Research Journal, 46*(3); 73–114.
2. N. Brouwer and F. Korthagen. (2005). Can teacher education make a difference? *American Educational Research Journal, 42*(1): 153–224.
3. W. R. Penuel, et al. (2007). What makes professional development effective? Strategies that foster curriculum implementation. *American Educational Research Journal, 44*(12): 921–958.
4. S. Nathanson, et al. (2008). The reading habits and literacy attitudes of in-service and prospective teachers: Results of a questionnaire survey. *Journal of Teacher Education 59*(9): 313–321.
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