

Survey Research

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Survey Research

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Every method of data collection, including the survey, is only an approximation to knowledge. Each provides a different glimpse of reality, and all have limitations when used alone. Before undertaking a survey the researcher would do well to ask if this is the most appropriate and fruitful method for the problem at hand. The survey is highly valuable for studying some problems, such as public opinion, and worthless for others.

—Donald P. Warwick and Charles A. Lininger, *The Sample Survey*, pp. 5–6

In public opinion polls, most Americans say they would vote for a qualified female presidential candidate. Support for a qualified female candidate has steadily risen from 33 percent in 1937 to more than 92 percent in 2005. However, when survey researchers ask about controversial issues, they know that social desirability effects are a possibility (i.e., people give a false opinion so they will conform to general social norms). Streb et al. (2008) hypothesized that many Americans were being untruthful about this issue on surveys. Testing such a hypothesis required creativity. They created a list of four issues (e.g., gasoline prices rising, being required to wear seat belts) and asked how many “make you angry or upset.” They created a second identical list with the same questions, but including a fifth issue, “A woman serving as president.” They randomly selected more than 1,000 people for each list and conducted telephone interviews. The authors learned that when the woman as president item was on the list, the number of items that make people angry or upset was 26 percent higher. This suggests that about one in four people are giving a false, socially desirable answer on opinion polls and actually oppose a female presidential candidate.

The survey is the most widely used social science data-gathering technique. Surveys have many uses and take many forms—phone interviews, Internet opinion polls, and various types of questionnaires.

All rely on the principles of the professional social research survey. Many people say that they will do a survey to get information when they should say that they need the most appropriate way to get good data.

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Surveys can provide us accurate, reliable, and valid data, but to do this they require serious effort and thought. General public familiarity with the survey technique and the ease of conducting a survey can be a drawback. Despite their widespread use and popularity, without care, surveys can easily yield misleading results. As the issue of social desirability bias (discussed later in the chapter) described in the chapter's opening box shows, the survey methodology requires diligence. In this chapter, you will learn about survey research as well as its limitations.

Survey research grew within a positivist approach to social science.¹ As Groves remarked, "Surveys produce information that is inherently statistical in nature. Surveys are quantitative beasts" (1996:389). Most surveys ask a large number of people (usually called *respondents*) about their beliefs, opinions, characteristics, and past or present behaviors (see Expansion Box 1, What Is Asked in a Survey). For this reason, surveys are appropriate when we want to learn about self-reported beliefs or behaviors. Most surveys ask many questions at once, thereby measuring many variables. This allows us to gather descriptive information and test multiple hypotheses in a single survey

We can use surveys for exploratory, descriptive, or explanatory research. However, we should be cautious when asking "why" questions of respondents (e.g., Why do you think crime occurs?).² Such questions may tell us about people's beliefs and subjective understandings, but people often have incomplete, mistaken, or distorted views. We do not want confuse what people say or believe about why things occur with actual cause-effect relations in the social world.

A HISTORY OF SURVEY RESEARCH

The modern survey goes back to ancient forms of the census.³ A *census* is government-collected information on characteristics of the entire population in a territory. For example, the *Domesday Book* was a census of England conducted from 1085 to 1086 by William the Conqueror. The early census assessed property for taxation or young men for

EXPANSION BOX 1

What Is Asked in a Survey

Although the categories overlap, the following can be asked in a survey:

1. *Behavior.* How frequently do you brush your teeth? Did you vote in the last city election? When did you last visit a close relative?
2. *Attitudes/beliefs/opinions.* What type of job do you think the mayor is doing? Do you think other people say many negative things about you when you are not there? What is the biggest problem facing the nation these days?
3. *Characteristics.* Are you married, never married, single, divorced, separated, or widowed? Do you belong to a union? What is your age?
4. *Expectations.* Do you plan to buy a new car in the next 12 months? How much schooling do you think your child will get? Do you think the population in this town will grow, decrease, or stay the same?
5. *Self-classification.* Do you consider yourself to be liberal, moderate, or conservative? Into which social class would you put your family? Would you say you are highly religious or not religious?
6. *Knowledge.* Who was elected mayor in the last election? About what percentage of the people in this city are non-White? Is it legal to own a personal copy of Karl Marx's *Communist Manifesto* in this country?

military service. After representative democracy developed, officials used the census to assign elected representatives based on the population in a district and to allocate funds for public improvements.

Surveys for social research started with nineteenth century social reform movements in the United States and Great Britain. Surveys helped people document urban conditions and poverty produced by early industrialization. The early surveys were descriptive and did not use scientific sampling or statistical analyses. For example, between 1851 and 1864, Henry Mayhew published the four-volume *London Labour and the London Poor* based on conversations with street people and observations of daily life. Later studies by Charles Booth's

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seventeen-volume (1889–1902) *Labour and Life of the People of London* and B. Seebohm Rowntree's *Poverty* (1906) documented urban poverty in England; the *Hull House Maps and Papers of 1895* and W. E. B. DuBois's *Philadelphia Negro* (1899) documented urban conditions in the United States.

In the early twentieth century, the Social Survey Movement in Canada, Great Britain, and the United States used the survey method as part of qualitative community field studies. The Social Survey Movement was an action-oriented community research program that interviewed people and documented conditions to gain support for sociopolitical reforms. By the 1940s, the positivist, quantitative survey had largely displaced this early form of survey research.

Early social surveys offered a detailed empirical picture of specific areas and combined sources of quantitative and qualitative data. Their goal was to inform the public of the problems of rapid industrialization. Early leaders of the social survey—Florence Kelly and Jane Addams of the Hull House and settlement movement and African American W. E. B. DuBois—were outside the mainstream of academic life. Kelly, Addams, and DuBois had difficulties securing regular academic employment because of race and gender discrimination of that era. The early social surveys provide impressive pictures of daily community life in the early twentieth century. For example, the six-volume *Pittsburgh Survey* published in 1914 includes data from face-to-face interviews, statistics on health, crime, and industrial injury, and direct observations.

By the 1920s and 1930s, researchers began to use statistical sampling techniques, especially after the *Literary Digest* debacle. They created attitude scales and indexes to measure opinions and subjective beliefs in more precise, quantitative ways. Professionals in applied areas (e.g., agriculture, education, health care, journalism, marketing, public service, and philanthropy) adapted the survey technique for measuring consumer behavior, public opinion, and local needs.

By the 1930s, professional researchers who embraced a positivist orientation were fast displacing

the social reformers who had used the survey to document local social problems. The professional researchers incorporated principles from the natural sciences and sought to make the survey method more objective, quantitative, and nonpolitical. Many academic researchers sought to distance themselves from social reform politics after the Progressive Era (1895–1915) ended. Competition among researchers and universities for status, prestige, and funds accelerated a reorientation or positivist “modernization” of the survey method. This period saw the creation of several survey research centers: the Office of Public Opinion Research at Princeton University, the Division of Program Surveys in the U.S. Department of Agriculture under Rensis Likert, and the Office of Radio Research at Columbia University. A publication devoted to advancing the survey research method, *Public Opinion Quarterly*, began in 1937. Several large private foundations (Carnegie, Rockefeller, and Sage) funded the expansion of quantitative, positivist-oriented social research.⁴

Survey research dramatically expanded during World War II, especially in the United States. Academic social researchers and practitioners from industry converged in Washington, D.C., to work for the war effort. Survey researchers received generous funding and government support to study civilian and soldier morale, consumer demand, production capacity, enemy propaganda, and the effectiveness of bombing. Wartime cooperation helped academic researchers and applied practitioners learn from one another and gain valuable experience in conducting many large-scale surveys. Academic researchers helped practitioners appreciate precise measurement, sampling, and statistical analysis. Practitioners helped academics learn the practical side of organizing and conducting surveys. Officials in government and business executives saw the practical benefits of using information from large-scale surveys. Academic social scientists realized they could advance understanding of social events and test theories with survey data.

After World War II, officials quickly dismantled the large government survey establishment. This was done to cut costs and because political conservatives feared that reformers might use survey

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methods to document social problems. They feared such information about ill treatment and poor conditions could be used to advance policies that conservatives opposed, such as helping unemployed workers or promoting racial equality for African Americans in the segregated southern states.

After the war, many researchers returned to universities and founded new social research organizations such as the National Opinion Research Center at the University of Chicago in 1947. Likert moved from the Department of Agriculture to create what became the Institute for Survey Research at the University of Michigan in 1949.

At first, universities were hesitant to embrace the new survey research centers. They were expensive and employed many people. Traditional social researchers were wary of quantitative research and skeptical of bringing a technique popular within private industry into the university. The culture of applied research and business-oriented poll takers clashed with an academic culture of basic researchers, yet survey use quickly increased in the United States and other advanced nations. By 1948, France, Norway, Germany, Italy, the Netherlands, Czechoslovakia, and Britain had each established national survey research institutes.⁵

Publications including survey research accelerated in the 1950s to 1960s. For example, about 18 percent of articles in sociology journals used the survey method in the period 1939–1950; this rose to 55 percent by 1964–1965. In the 1960s, higher education and social science rapidly expanded, also spurring survey research. During the 1970s, computers first became available; they provided the statistical analysis of large-scale quantitative datasets, and hundreds of graduate students learned survey research techniques.⁶

Since the 1970s, quantitative survey research has become huge in private industry, government, and in many academic fields (e.g., communication, education, economics, political science, public health, social psychology, and sociology). The professional survey industry employs more than 60,000 people in the United States alone. Most are part-time workers, assistants, or semiprofessionals. About 6,000 full-time professional survey researchers design and analyze surveys.⁷ Weissberg (2005:11)

sees survey research becoming a separate discipline from the many fields (e.g., sociology, political science, marketing) that use it.

Professionals in education, health care, management, marketing, policy research, and journalism use survey research. Governments from the local to national levels around the world sponsor surveys to inform policy decisions. The private-sector survey industry includes opinion polling (e.g., Gallup, Harris, Roper, Yankelovich and Associates), marketing (e.g., Nielsen, Market Facts, Market Research Corporation), and nonprofit research (e.g., Mathematica Policy Research, Rand Corporation, etc.).⁸ In addition, survey research has several professional organizations.⁹

Over the past two decades, researchers have increasingly studied the survey process itself and developed theories of the communication-interaction process of a survey interview. They can pinpoint the effectiveness of visual and other clues in questionnaire design, recognize the impact of question wording or ordering, adjust for social desirability, incorporate computer-related technologies, and theorize about survey respondent cooperation or refusals.¹⁰

THE LOGIC OF SURVEY RESEARCH

In experimental research we divide small numbers of people into equivalent groups, test one or two hypotheses, manipulate conditions so that certain participants receive the treatment, and control the setting to reduce threats to internal validity (i.e., confounding variables). At the end of an experiment, we have quantitative data and compare participant responses on the dependent variable. Survey research follows a different logic. We usually sample many respondents and ask all of them the same questions. We measure many variables with the questions and test multiple hypotheses simultaneously. We infer temporal order from questions about past behavior, experiences, or characteristics. For example, years of schooling completed or race are prior in time to a person's current attitudes. We statistically analyze associations among the variables to identify causal relationships. We also anticipate possible alternative

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explanation and measure them with other survey questions (i.e. control variables). Later, we statistically examine their effects to rule out alternative explanations. Surveys are sometimes called correlational because the researchers do not control and manipulate conditions as in an experiment. In survey research, we use control variables to statistically approximate an experimenter's physical controls on confounding variables.

Steps in Conducting a Survey

To conduct a survey, researchers start with a theoretical or applied research problem. We can divide the steps in a survey study as outlined in Figure 1. The first phase is to create an instrument—a survey questionnaire or interview schedule. Respondents read the questions in a questionnaire themselves and mark the answers themselves. An *interview schedule* is a set of questions read to the respondent by an interviewer, who also records responses. To simplify the discussion, I will use only the term *questionnaire*.

Survey research proceeds deductively. First, we conceptualize variables and then operationalize each variable as one or more survey questions. This means we write, rewrite, and again rewrite survey questions for clarity and completeness. Once we have a collection of survey questions, we must organize them on the questionnaire and group and sequence the questions. Our research question, the types of respondents, and the type of survey (see types of surveys later in this chapter) should guide how we do this.

Let us say you are going to conduct a survey. As you prepare a questionnaire, think ahead to how you will record and organize the data. You also should pilot test the questionnaire with a small set of respondents who are similar to those in the final survey. If you use interviewers, you must train them with the questionnaire. In the pilot test and interviewer training, you ask respondents and interviewers whether the questions were clear, and you need to explore their interpretations to see whether your intended meaning was clear (see pilot testing and cognitive interviewing later in the chapter).¹¹

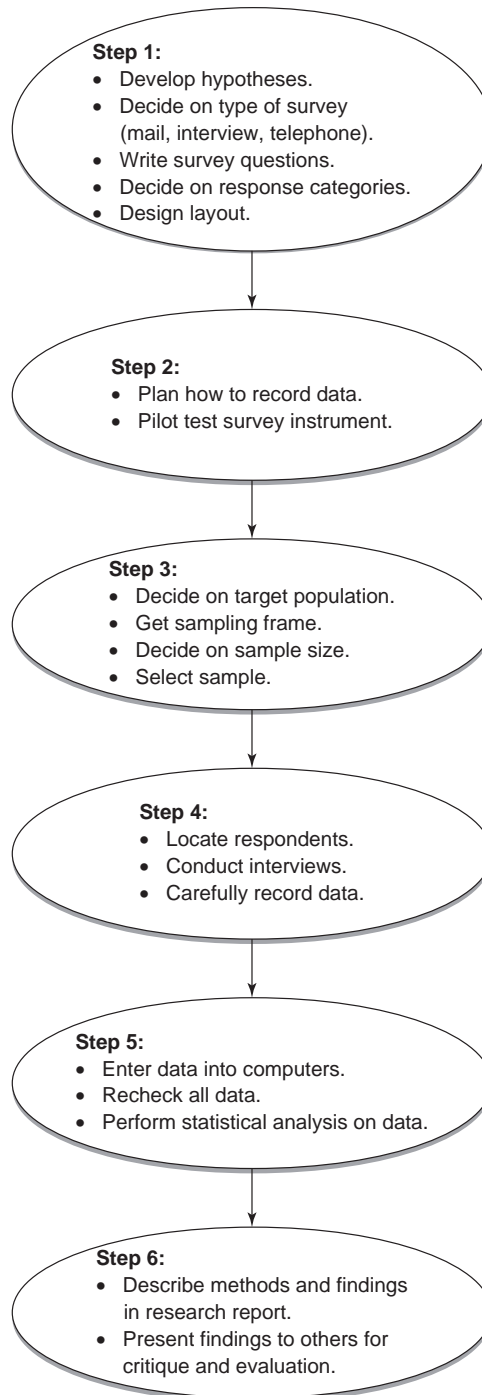


FIGURE 1 Steps in the Process of Survey Research

This is the stage at which you would draw the sample of respondents. After the planning phase, you are ready to collect data. You must locate sampled respondents in person, by telephone, by mail, or over the Internet. You provide respondents the instructions on completing the questionnaire or interview. The questions usually follow a simple stimulus/response or question/answer pattern. You must accurately record the answers or responses immediately after they are given. After all respondents have completed the questionnaire and you thank them for participating, you organize the quantitative data and prepare them for statistical analysis.

Conducting survey research requires good organization. A large survey can be complex and expensive. It involves coordinating other people, moving through multiple steps, and accurate record keeping.¹² You must keep track of each respondent's answer to every question on each questionnaire. To help with this task, you should assign each sampled respondent an identification number and attach the number to the questionnaire.

After collecting all of the data, you will want to review responses on individual questionnaires, store original questionnaires, and transfer information from questionnaires to a computer-readable format for statistical analysis. Meticulous bookkeeping and labeling are essential. If you are sloppy, you can lose the data or end up with worthless, inaccurate data.

There are many ways to make mistakes or errors in survey research (see Expansion Box 2, Sources of Errors in Survey Research). Errors can occur in sampling and respondent selection, in creating questionnaires or interviewing, and in handling or processing the data. Next we look at possible errors to avoid when you write questions for a survey research questionnaire.

CONSTRUCTION OF THE QUESTIONNAIRE

Principles of Good Question Writing

Dozens of books have been published on writing survey questionnaires, so only the basics are reviewed here. Writing good survey questions involves a

EXPANSION BOX 2

Sources of Errors in Survey Research

Error is the difference between obtained values and "true values." It occurs when survey data (obtained values) do not accurately reflect the actual behaviors, beliefs, and understandings of respondents in a population that a survey researcher seeks to understand (true values).

1. Errors in selecting the respondent
 - a. Sampling errors (e.g., using a nonprobability sampling method)
 - b. Coverage errors (e.g., a poor sampling frame omits certain groups of people)
 - c. Nonresponse errors at the level of a sampled unit (e.g., a respondent refuses to answer)
2. Errors in responding to survey questions
 - a. Nonresponse errors specific to a survey item (e.g., certain questions are skipped or ignored)
 - b. Measurement errors caused by respondent (e.g., respondent does not listen carefully)
 - c. Measurement errors caused by interviewers (e.g., interviewer is sloppy in reading questions or recording answers)
3. Survey administration errors
 - a. Postsurvey errors (e.g., mistakes in cleaning data or transferring data into an electronic form)
 - b. Mode effects (e.g., differences due to survey method: by mail, in person, over the Internet)
 - c. Comparability errors (e.g., different survey organizations, nations, or time periods yield different data for the same respondents on the same issues).

See: Weisberg (2005:10–28) and Willis (2005:13–17).

mixture of art and science. It is best to see the entire questionnaire as an integrated whole with the questions flowing smoothly from one to another after a few introductory remarks and instructions for ease of entry and clarity.

Two key principles guide writing good survey questions: Avoid possible confusion and keep the respondent's perspective in mind. Avoiding confusion is easier said than done. You want the survey questions to provide a valid and reliable measure.

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Being valid and reliable means that the respondents should quickly grasp each question's meaning as you intended, answer completely and honestly, and believe that their answers are meaningful.

You do not want questions that confuse or frustrate respondents. This means that you must exercise extra care if the respondents are heterogeneous, come from life situations unfamiliar to you, or have different priorities than yours. You must be vigilant if the respondents use a different vocabulary or think in different ways than you do.

You want the questions to be equally clear, relevant, and meaningful to all respondents, but you face a dilemma. If the respondents have diverse backgrounds and frames of reference, the same question wording may not have the same meaning for everyone, yet you want everyone to hear the same question because you will combine all answers into numerical data for analysis. If each question is tailored to each respondent, you would not know whether variations in the data are due to question wording or real differences among the respondents.

Survey question writing takes skill, practice, patience, and creativity. You can understand principles of question writing by knowing ten things to avoid when you write survey questions. The list includes only frequently encountered potential problems.¹³

1. *Avoid jargon, slang, and abbreviations.* Jargon and technical terms come in many forms. Plumbers talk about *snakes*, lawyers about a contract of *uberrima fides*, and psychologists about the *Oedipus complex*. Slang is a kind of jargon within a subculture. For example, people who are homeless talk about a *snowbird*, and snowboarders talk about *goofy foot*. People inside a profession or members of a distinct subculture may be familiar and comfortable with the jargon or slang terms but only confuse outsiders. Also, avoid using abbreviations and acronyms. The same ones often have many meanings. For example, I received a letter from the Midwest Sociological Society (MSS). Look up the acronym, and you will see that MSS refers to Manufacturers Standardization Society, Marine Systems Simulator, Medical Student Society, and Minnesota Speleological Society, among a

dozen others that use the MSS abbreviation. I belong to a professional association, the Association for Asian Studies, or AAS. Six other academic organizations use the same acronym: American Astronomical Society, American Association of Suicidology, American Audiology Society, American Astronautical Society, American Antiquarian Society, and the Assyrian Academic Society.

When you survey the public, you should use the language of popular culture (i.e., what is on television or in a local newspaper with about an eighth-grade reading vocabulary). Survey researchers have found that respondents often misunderstand basic terms and are confused by many words. For example, a survey asked respondents whether they thought television news was impartial. Researchers later learned that large numbers of respondents had ignored the word *impartial*—a term the researchers assumed everyone would know. Less than half of the respondents had interpreted the word as intended with its proper meaning. More than one-fourth had no idea of its meaning; others gave it unusual meanings, and one-tenth thought it was directly opposite to its true meaning. In another case, one in four respondents who had less than a high school degree (about 20 percent of the U.S. adult population) did not know what *vaginal intercourse* meant.¹⁴

2. *Avoid ambiguity, confusion, and vagueness.* Ambiguity and vagueness plague most question writers. It is very easy to make implicit assumptions that can confuse respondents. For example, the question "What is your income?" could mean weekly, monthly, or annually; family or personal; before taxes or after taxes; for this year or last year; from salary or from all sources. Such confusion can cause inconsistencies in respondents' answers to the question. If you want before-tax annual family income for last year, you should explicitly ask for it. Many respondents may not know this, but they tell you their weekly take-home pay (see item 6 following as to questions beyond respondent capabilities).¹⁵ Indefinite words or response categories are also sources of ambiguity. For example, an answer to the question "Do you jog regularly? Yes _____ No _____" hinges on the meaning of the word *regularly*. Some respondents

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may define *regularly* as every day, others as once a week. To reduce confusion and get more information, be more specific: Rather than ask if a person *regularly* jogs, ask whether a person jogs “about once a day,” “a few times a week,” “once a week,” and so on. (See Expansion Box 3, Improving Unclear Questions.)

3. *Avoid emotional language and prestige bias.* Words have implicit connotative as well as explicit denotative meanings. Likewise, titles or positions in society (e.g., president, expert) carry prestige and status. Words with strong emotional connotations and issues connected to high-status people can color how respondents answer survey questions. It is best to use neutral language and

avoid words with emotional “baggage” because respondents may be reacting to the emotional words rather than the substantive issue. For example, the question “What do you think about paying murderous terrorists who threaten to steal the freedoms of peace-loving people?” is full of emotional words: *murderous, freedoms, steal, and peace.*

Prestige bias occurs when questions include terms about a highly prestigious person, group, or institution and a respondent’s feelings toward the

Prestige bias A problem in survey research question writing that occurs when a highly respected group or individual is associated with an answer choice.

EXPANSION BOX 3

Improving Unclear Questions

Here are three survey questions written by experienced professional researchers. They revised the original wording after a pilot test revealed that 15 percent of respondents asked for clarification or gave

inadequate answers (e.g., don’t know). As you can see, question wording is an art that may improve with practice, patience, and pilot testing.

ORIGINAL QUESTION	PROBLEM	REVISED QUESTION
Do you exercise or play sports regularly?	What counts as exercise?	Do you do any sports or hobbies, physical activities, or exercise, including walking, on a regular basis?
What is the average number of days each week you have butter?	Does margarine count as butter?	This next question is just about butter—not including margarine. How many days a week do you have butter?
[Following question on eggs] What is the number of servings in a typical day?	How many eggs is a serving? What is a typical day?	On days when you eat eggs, how many eggs do you usually have?

	PERCENTAGE OF RESPONSES TO QUESTION		PERCENTAGE ASKING FOR CLARIFICATION	
	<i>Original</i>	<i>Revision</i>	<i>Original</i>	<i>Revision</i>
Exercise question (saying “yes”)	48%	60%	5%	0%
Butter question (saying “none”)	33	55	18	13
Egg question (saying “one”)	80	33	33	0

Source: Survey questions adapted from Fowler, *Survey Research Methods*, Sage Publications, 1992.

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prestigious person or group overshadows how he or she answers a question. You would not know whether you are measuring their feelings about a prestigious person or their real thoughts on the issue. For example, you ask, “Most doctors say that cigarette smoke causes lung disease for those who are near a smoker. Do you agree?” People who think it best to agree with doctors might agree even if they personally disagree.

4. *Avoid double-barreled questions.* This is a version of avoiding ambiguity. You want each question to be about one and only one topic. A **double-barreled question** consists of two or more questions mixed together. For example, you ask, “Does your employer offer pension and health insurance benefits?” A respondent working for a company that offers health insurance benefits but not a pension could answer either yes or no. A respondent who hears the word *and* and thinks it means *and/or* will say yes. A respondent who hears *and* and thinks it means *both* or *and also* will say “no.” With double-barreled questions, you cannot be certain of the respondent’s intention. If you want to ask about the joint occurrence of two things, ask two separate questions, each about a single issue. During data analysis, you can see whether people who answered yes to one question also answered yes to another.

5. *Avoid leading questions.* You always want respondents to believe that all response choices are equally legitimate and never want them to become aware of an answer that you expect or want. A *leading* (or *loaded*) *question* is one that leads the respondent to one response over another by its wording. There are many kinds of leading questions. For example, the question “You don’t smoke, do you?” leads respondents to state that they do not smoke.

Loaded questions can lead respondents to either positive or negative answers. For example, “Should the mayor spend even more tax money to keep the city’s excellent streets in super shape?”

leads respondents to answering no. A question phrased, “Should the mayor allocate funds to fix streets with large potholes that have become dangerous and are forcing drivers to make costly repairs?” leads respondents to say yes.

6. *Avoid questions beyond respondents’ capabilities.* Asking something that respondents do not know creates confusion, frustration, and inaccurate responses. Respondents cannot always recall past details and may not know specific information. For example, asking a 40-year-old, “How did you feel about your brother when you were 6 years old?” is probably worthless, as is asking about an issue respondents know nothing about (e.g., a technical issue in foreign affairs or an internal policy of an organization). Respondents may give you an answer but an unreliable and meaningless one. When many respondents are unlikely to know about an issue, use special question formats (we discuss this later in the chapter).

Try to rephrase questions into the terms in which respondents think. For example, few respondents can answer, “How many gallons of gasoline did you buy last year for your car?” Yet they might be able to answer a question about gasoline purchases in a typical week. You can do the calculations to estimate annual purchases.¹⁶

Clear, relevant questions increase accuracy and reduce errors. Clear questions contain built-in clues and make contrasts explicit. Instead of asking “Do you pay money to the children of your past marriage?” it would be better to ask “Do you pay child support?” For those answering yes, follow-up questions could be “Did you pay alimony in addition to child support?” and “Did you have any other financial obligations, such as paying health insurance, tuition, or contributing to the mortgage or rent payments?”¹⁷

7. *Avoid false premises.* If you begin a question with a premise with which respondents disagree and offer choices regarding it, respondents may become frustrated and not know how to answer. About two years ago, I experienced a false premise question, but it was not in a survey. I was an airline passenger shortly after the airlines ceased providing free in-flight snacks. A flight attendant handed me an optional snack, and asked, “Will you

Double-barreled question A survey enquiry that contains more than one issue and can create respondent confusion or ambiguous answers.

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be paying by cash or credit card?” I hesitated a second and then realized that it was a ploy to get me to purchase the now optional snack that I did not want. I replied “neither” and returned it quickly. The false premise in this situation was that I wanted to buy the snack. I became a little irritated with this premise. Apparently, the false premise had irritated others because six months later, flight attendants no longer tried to trick passengers into buying the snacks.

8. *Avoid asking about distant future intentions.* Avoid asking people about what they might do under hypothetical circumstances. Questions such as “Suppose a new grocery store opened down the road. Would you shop at it?” are usually a waste of time. It is best to ask about current or recent attitudes and behavior. Respondents give more reliable answers to specific, concrete, and relevant questions than to questions about things remote from immediate experiences.

9. *Avoid double negatives.* Double negatives in ordinary language are grammatically incorrect and confusing. For example, “I ain’t got no job” grammatically and logically means that I have a job. Some people use the second negative for emphasis. Such blatant errors are rare, but subtle forms of the double negative are also confusing. They can arise when we ask respondents to agree or disagree with a statement. For example, you ask “Do you agree or disagree that students should not be required to take a comprehensive exam to graduate?” This is confusing. To disagree is a double negative; it is to *disagree* with *not* doing something. You always want to keep questions simple and straightforward.

10. *Avoid overlapping or unbalanced response categories.* Make response categories or choices mutually exclusive, exhaustive, and balanced. *Mutually exclusive* means that the response categories do not overlap. It is easy to fix overlapping categories that are numerical ranges (e.g., 5–10, 10–20, 20–30 become 5–9, 10–19, 20–29). Ambiguous verbal choices can be overlapping response categories: for example, “Are you satisfied with your job, or are there things you do not like about it?” Assume that I am satisfied overall with my job, but it has some specific things I really

dislike. *Exhaustive* means that every respondent has a choice—a place to go. For example, asking respondents, “Are you working or unemployed?” omits respondents who are not working and who are not unemployed, such as full-time homemakers, people on vacation, full-time students, people who are permanently disabled and cannot work, and people who are retired. To avoid such problems, first think seriously about what you really want to measure and consider the circumstances of all possible respondents. For example, if you ask about employment, do you want information on a primary job or on all jobs, on full-time work only or both full- and part-time work, on jobs for pay only or on unpaid or volunteer jobs as well?

Keep response categories *balanced*. Unbalanced response categories create a type of leading question. An unbalanced choice is “What kind of job is the mayor doing: outstanding, excellent, very good, or satisfactory?” Another type of unbalanced question omits information—for example, “Which of the five candidates running for mayor do you favor: Eugene Oswego or one of the others?”

You can balance categories by offering polar opposites. It is easy to see that the terms *honesty* and *dishonesty* have different meanings and connotations. If you ask whether a mayor is highly, somewhat, or not very honest is not the same as asking whether a mayor is very honest, somewhat honest, neither honest nor dishonest, somewhat dishonest, or very dishonest. The way that you ask a question could give you very different pictures of what people think. Unless you have a specific reason for doing otherwise, offer polar opposites at each end of a continuum¹⁸ (see Table 1).

Respondent Recall

We often want to ask respondents about past behaviors or events. Respondents vary in their ability to recall accurately when answering survey questions.¹⁹ Recalling past events often takes more time and effort than the few seconds we give respondents to answer a survey question. Also, the ability of people to recall accurately declines quickly over time. They might accurately recall a significant event that occurred 2 weeks ago, but

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TABLE 1 Summary of Survey Question Writing Pitfalls

THINGS TO AVOID	NOT GOOD	A POSSIBLE IMPROVEMENT
Jargon, slang, abbreviations	Did you drown in brew until you were totally blasted last night?	Last night, about how much beer did you drink?
Vagueness	Do you eat out often?	In a typical week, about how many meals do you eat away from home, at a restaurant, cafeteria, or other eating establishment?
Emotional language and prestige bias	“The respected Grace Commission documents that a staggering \$350 BILLION of our tax dollars are being completely wasted through poor procurement practices, bad management, sloppy bookkeeping, ‘defective’ contract management, personnel abuses and other wasteful practices. Is cutting pork barrel spending and eliminating government waste a top priority for you?”*	How important is it to you that Congress adopt measures to reduce government waste? Very Important Somewhat Important Neither Important or Unimportant Somewhat Unimportant Not Important at All
Double-barreled questions	Do you support or oppose raising Social Security benefits and increased spending for the military?	Do you support or oppose raising Social Security benefits? Do you support or oppose increasing spending on the military?
Leading questions	Did you do your patriotic duty and vote in the last election for mayor?	Did you vote in last month’s mayoral election?
Issues beyond respondent capabilities	Two years ago, how many hours did you watch TV every month?	In the past two weeks, about how many hours do you think you watched TV on a typical day?
False premises	When did you stop beating your girl- or boyfriend?	Have you ever slapped, punched, or hit your girl- or boyfriend?
Distant future intentions	After you graduate from college, get a job, and are settled, will you invest a lot of money in the stock market?	Do you have definite plans to put some money into the stock market within the coming two months?
Double negatives	Do you disagree with those who do not want to build a new city swimming pool?	There is a proposal to build a new city swimming pool. Do you agree or disagree with the proposal?
Unbalanced responses	Did you find the service at our hotel to be Outstanding, Excellent, Superior, or Good?	Please rate the service at our hotel: Outstanding, Very Good, Adequate, or Poor.

*Actual question taken from a mail questionnaire that was sent to the author in May 1998 by the National Republican Congressional Committee. It is also a double-barreled question.

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few can be accurate about minor events that happened 2 years ago.

Survey researchers recognize that memory is less trustworthy than was once assumed. Many factors influence recall: the topic (threatening or socially desirable), events occurring simultaneously and subsequently, the significance of an event for a person, the situational condition (question wording and interview style), and a respondent's need for internal consistency. Also, recall (e.g., what is the name of your town's mayor) is more difficult than recognition (e.g., look at this list of names and please identify which one is your town's mayor).

The issue of respondent recall does not mean that we cannot ask about past events; rather, we

must write survey questions specifically for that purpose and interpret results with caution. To improve recall, we can offer special instructions and extra thinking time. We can provide aids to respondent recall, such as a fixed timeframe or location references. Rather than ask "How often did you attend a sporting event last winter?" you should say, "I want to know how many sporting events you attended last winter. Let's go month by month. Think back to December. Did you attend any sporting events for which you paid admission in December? Now, think back to January. Did you attend any sporting events that charged admission in January?" (See Example Box 1, How to Measure TV Watching in a Survey.)

EXAMPLE BOX 1

How to Measure TV Watching in a Survey

Two studies by Prior (2009a, 2009b) illustrate the difficulty of using recall survey questions to measure television watching. The primary way we measure media usage is by self-reports on surveys. In the past 10 years, nearly fifty studies in leading scholarly journals used survey self-reports of media usage as data. Unfortunately, people do not recall accurately and can dramatically overstate media usage in surveys. Survey self-reports of watching television news during the past week are three times higher than the media company Nielsen has found based on its in-set usage-monitoring technology. While most demographic groups overreport, Prior found overreporting was highest in the 18–34-year-old age group. About thirty-five percent in this age group said they watch TV news on each day, but the Nielsen technology shows that only 5 percent really do. Even older age groups who are much more accurate overstate by a factor of 2. Prior looked at three explanations for inaccurate recall of behavior on surveys from the literature on how respondents answer in survey: *satisficing*, *flawed estimates*, and *social desirability*. *Satisficing* is a word that describes people having inaccurate recall because they lack motivation or do not try hard enough to search their memories. *Flawed estimates* result when people do not use good memory searching strategies to remember. *Social desirability* indicates that people report what they believe to be a socially appropriate

or normative answer. In a series of experiments with survey question formats, Prior found little support for satisficing or social desirability, at least for TV news recall. Even when given extra time to think, told that their answer was important, and asked a second time, people highly overstated. When people were told how much others watched TV news, they changed answers dramatically to conform. However, when given some assistance in recall, extreme overstating decreased. When people were given an "anchor" or some additional factual information to assist their recall, their estimates improved. Respondents were asked, "The next question is about the nightly national network news on CBS, ABC, and NBC. This is different from local news shows about the area where you live and from cable news channels such as CNN or Fox News channel. How many days in the past week did you watch national network news on television?" One group of respondents heard the following introductory statement. "Television news audiences have declined a lot lately. Less than one out of every ten Americans watches the national network news on a typical weekday evening." Respondents who heard this introductory statement took longer to answer and gave lower reports of news watching. Prior's research suggests that respondents may give more accurate recalls in survey questions if they are both given more time to respond and are helped along in the recall process.

Respondents often **telescope**, or compress time, when asked about past events. They recall an event but earlier (backward telescope) or later (forward telescope) than it actually occurred. Several techniques reduce telescoping (see Expansion Box 4, Four Techniques to Reduce Telescoping).

Honest Answers

Questions about Sensitive Topics. We sometimes ask about sensitive issues or ones that people believe threaten their presentation of themselves. These include questions about sexual behavior, drug or alcohol use, mental health problems, law violations, or socially unpopular behavior. Respondents may be reluctant to answer completely and truthfully. To ask about such issues, we adjust how we ask and are especially cautious about the results²⁰ (see Table 2).

Questions on sensitive issues are part of the larger issue of ego protection. Most of us try to

Telescoping Survey research respondents' compressing time when answering about past events, overreporting recent events, and underreporting distant past ones.

EXPANSION BOX 4
Four Techniques to Reduce Telescoping

1. *Situational framing.* Ask the respondent to recall a specific situation and ask details about it ("Tell me what happened on the day you were married, starting with the morning").
2. *Decomposition.* Ask the respondent several specific events and then add them up ("Last week did you buy anything from a vending machine? Now, for the week before that, did you buy any items?").
3. *Landmark anchoring.* Ask the respondent whether something occurred before or after a major event ("Did that occur before or after the major earthquake here in June 2010?").
4. *Bounded recall.* (for panel surveys). Ask the respondent about events that occurred since the last interview ("We last talked 2 years ago; since that time, what jobs have you held?").

TABLE 2 Threatening Questions and Sensitive Issues

TOPIC	PERCENTAGE VERY UNEASY
Masturbation	56
Sexual intercourse	42
Use of marijuana or hashish	42
Use of stimulants and depressants	31
Getting drunk	29
Petting and kissing	20
Income	12
Gambling with friends	10
Drinking beer, wine, or liquor	10
Happiness and well-being	4
Education	3
Occupation	3
Social activities	2
General leisure	2
Sports activity	1

Source: Adapted from *Improving Interview Method and Questionnaire Design*. Bradburn and Sudman. 1980. JosseyBass. ISBN 10: 087589402X

present a positive image of ourselves to others. We may be ashamed, embarrassed, or afraid to give truthful answers, or may find confronting our actions honestly to be emotionally painful, let alone admitting them to others. When this occurs, we underreport the behaviors or attitudes we wish to hide or believe to violate social norms. People often underreport having an illness or disability (e.g., cancer, mental illness, venereal disease), engaging in illegal or deviant behavior (e.g., evading taxes, taking drugs, consuming alcohol, engaging in uncommon sexual practices), or revealing their financial status (e.g., income, savings, debts)

We can increase honest answering about sensitive topics in four ways: create comfort and trust, use enhanced phrasing, establish a desensitizing context, and use anonymous questioning methods. Each is discussed next.

1. *Create comfort and trust.* Establish trust and a comfortable setting before asking questions. Before starting an interview we can explicitly restate guarantees of anonymity and confidentiality and emphasize the need for obtaining honest

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answers from respondents. We also can ask sensitive questions only after a “warm-up period” of asking nonthreatening questions and creating feelings of trust or comfort.

2. *Use enhanced phrasing.* Modify question wording to reduce threat. For example, you could ask “Have you ever shoplifted?” which carries an accusatory tone and uses the emotional word *shoplift* that names an illegal act. You could get at the same behavior by asking “Have you ever taken anything from a store without paying for it?” This only describes the behavior, avoids using emotional words, and leaves open the possibility that it happened under acceptable conditions (e.g., accidentally forgetting to pay).

3. *Establish a desensitizing context.* We can also reduce threat and make it easier for respondents to answer honestly about sensitive topics by providing desensitized contextual information. One way is to first asking about behaviors more serious than ones of real interest to us. For example, a respondent may hesitate to answer a question about shoplifting, but if it follows questions regarding a long list of serious crimes (e.g., armed robbery, burglary), it will appear less serious and might be answered honestly.

4. *Use anonymous questioning methods.* The questioning format significantly affects how respondents answer sensitive questions. Formats that permit increased anonymity, such as a self-administered questionnaire or a Web-based survey, increase the likelihood of honest responses to sensitive questions over formats that require interacting with another person as in a face-to-face interview.²¹

Technological innovations such as **computer-assisted self-administered interviewing (CASAI)** and **computer-assisted personal interviewing (CAPI)** enable respondents to have a degree of anonymity. CASAI “interviews” a respondent by having the person read questions on a computer screen or listen to them with earphones. The respondent answers by moving a computer mouse or typing on a keyboard. Even when an interviewer or others are present in the same room, the respondent is semi-insulated from human contact and interacts only with an automated system. In CAPI, the respondent uses a laptop computer, and an inter-

viewer is available to help or answer questions. Respondents hear questions over earphones and/or read them on a screen and then enter answers without the interviewer directly observing. While completing computer-based interviews, respondents appear to believe they have privacy even if others are present.²²

A complicated method for asking sensitive questions in face-to-face interview situations is the **randomized response technique (RRT)**. The technique uses statistics beyond the level of this book but is similar to the method described in the chapter’s opening box on female presidential candidates. The basic idea is to use known probabilities to estimate unknown proportions. Here is how RRT works. An interviewer gives the respondent two questions: One is threatening (e.g., “Do you use heroin?”), the other not threatening (e.g., “Were you born in September?”). A random method (e.g., toss of a coin, using heads to indicate the heroin question and tails for the birthdate question) is used to select the question to answer. The interviewer does not see the question and records the respondent’s answer (yes or no). By using the probability of the random outcomes (e.g., the percent of people born in September), we can estimate the frequency of the sensitive behavior.

We want honest answers to questions on sensitive topics and want to reduce the chances that respondents will give a less-than-honest socially

Computer-assisted self-administered interviewing (CASAI) Technique in which a respondent reads questions on a computer screen or listens over earphones and then answers by moving a computer mouse or typing on a keyboard.

Computer-assisted personal interviewing (CAPI) Technique in which an interviewer sets up a laptop computer and is available to help respondents who hear questions over earphones and/or read them on a screen and then enter answers.

Randomized response technique (RRT) A specialized method in survey research used for very sensitive topics; the random receipt of a question by the respondent without the interviewer being aware of the question to which the respondent is answering.

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acceptable answer as described in this chapter's opening box. However, **social desirability bias** is widespread. It occurs when respondents distort answers to conform to popular social norms. People tend to overstate being highly cultured (e.g., reading, attending cultural events), giving money to charity, having a good marriage, loving their children, and so forth. One study found that 34 percent of people who reported in a survey that they gave money to a local charity really did not.²³ Because a norm says that one should vote in elections, many report voting when they did not. In the United States, those under the greatest pressure to vote (i.e., highly educated, politically partisan, highly religious people who had been contacted by an organization that urged them to vote) are the people most likely to overreport voting. This patterned misrepresentation of voting "substantially distorts" studies of voting that rely on self-reported survey data (Bernstein et al., 2001:41).

One way to reduce social desirability bias is to phrase questions in ways that make norm violation appear less objectionable or give respondents "face-saving" alternatives. For example, Belli et al. (1999) reduced overreporting of voting and permitted respondents to "save face" by including in their voting question statements such as "A lot of people were not able to vote because they were not registered, were sick, or just didn't have time." They offered four response choices: "I did not vote in the November 5 election; I thought about voting but did not vote; I usually vote but did not vote this time; I am sure I voted on November 5." Only the last response choice is a clear, unambiguous indication that the person voted. Phrased in this manner, more people admitted that they did not vote.

Knowledge Questions. Studies suggest that a large majority of the public cannot correctly answer elementary geography questions, name their elected leaders, or identify major documents (e.g., the

Declaration of Independence). If we use knowledge questions to learn what respondents know, we need to be careful because respondents may lie because they do not want to appear ignorant.²⁴ Knowledge questions are important because they address the basis on which people make judgments and form opinions. They tell us whether people are forming opinions based on inaccurate information.

Nadeau and colleagues (1993) found that most Americans seriously overestimate the percent of racial minorities in the population. Only 15 percent (plus or minus 6 percent) of U.S. adults accurately report that 12.1 percent of the U.S. population is African American. More than half believe it is above 30 percent. Similarly, Jews make up about 3 percent of the U.S. population, but a majority (60 percent) of Americans believe the proportion to be 10 percent. A follow-up study by Sigelman and Niemi (2001:93) found that "African Americans themselves overestimate the black population by at least as much" as other respondents. Nearly twice as many African Americans (about 30 percent) versus 15 percent of Whites thought that African Americans were one-half of the U.S. population. Apparently, many Americans have a distorted view of the true racial composition of their country.

Race is not the only issue of which the public has a distorted picture. For example, when we ask Americans about government spending for foreign aid, a large percentage will say that it is too high. However, if we ask them how much the government should be spending on foreign aid, people report an amount that is actually more than the government is currently spending. This situation creates a dilemma. If we ask about the issue in one way, we find that the public says the spending is too high, but if we ask in a different way, we find the public says (indirectly) that it is lower than it should be. Such a dilemma is not unique to the foreign aid issue. In many issue areas—university expenses, health care programs, aid to poor people—respondents offer an opinion to support or oppose an issue or policy position, but if we ask them about the issue in a different way, their position reverses.

This dilemma does not mean that we cannot obtain valid measures of public opinions with surveys. It reminds us that social life is complex and

Social desirability bias A problem in survey research in which respondents give a "normative" response or a socially acceptable answer rather than an honest answer.

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writing good surveys to learn about what people think requires effort and diligence. If we carelessly ask for an opinion, we may receive a superficial one offered without serious thought or based on inaccurate knowledge. Or we might get an opinion parroted from what a neighbor said or what was heard in a television advocacy “sound bite.”

You may think having an inaccurate view of the country’s racial composition or foreign aid spending occurs because the information is beyond people’s everyday experiences, but people can also give inaccurate answers to questions about the number of people living in their household. This is not due to ignorance but comes from the complexity of their daily lives. Some people will not report as part of their households marginal persons (e.g., a boyfriend who left for a week, the adult daughter who ran out after an argument about her pregnancy, or the uncle who walked out after a dispute over money). However, such marginal people may not have another permanent residence. If we asked them where they live, they would say they are still living in the household that did not include them, and they plan to return to it.²⁵

Our goal in survey research is to obtain accurate information (i.e., a valid and reliable measure of what a person really thinks, does, or feels). Pilot testing questions (discussed later in this chapter) helps to achieve this. Pilot tests reveal whether questions are at an appropriate level of difficulty. We gain little if 99 percent of respondents cannot answer the question. We must word questions so that respondents feel comfortable saying they do not know the answer—for example, “How much, if anything, have you heard about . . .?”

We can check whether respondents are overstating their knowledge with a **sleeper question** to which a respondent could not possibly know the answer. For example, in a study to determine which U.S. civil rights leaders respondents recognized, researchers added the name of a fictitious person. This person was “recognized” by 15 percent of the respondents. This implies that 15 percent of the actual leaders that respondents “recognized” were probably unknown. Another method is to ask respondents an open-ended question after they recognize a name, such as “What can you tell me about

the person” (see the next section, open- versus closed-ended questions).

Contingency Questions. Some questions apply only to specific respondents, and researchers should avoid asking questions that are irrelevant for a respondent. A **contingency question** (sometimes called a *screen* or *skip* question) is a two- (or more) part question.²⁶ The answer to the first part of the question determines which of two different questions to ask a respondent next. Contingency questions identify respondents for whom a second question is relevant. On the basis of the answer to a first question, the researchers instruct the respondent or the interviewer to go to another or to skip certain questions (see Expansion Box 5, Example of a Contingency Question).

Open-Ended versus Closed-Ended Questions

Researchers actively debate the merits of open versus closed survey questions.²⁷ An **open-ended question** (requiring an unstructured, free response) asks a question (e.g., “What is your favorite television program?”) to which respondents can give any answer. A **closed-ended question** (asking for a structured, fixed response) asks a question and offers a fixed set of responses from which a respondent can choose (e.g., “Is the president doing a very good, good, fair, or poor job, in your opinion?”).

Sleeper question Survey research inquiry about nonexistent people or events to check whether respondents are being truthful.

Contingency question A two-part survey item in which a respondent’s answer to a first question directs him or her either to the next questionnaire item or to a more specific and related second question.

Open-ended question A type of survey research inquiry that allows respondents freedom to offer any answer they wish to the question.

Closed-ended question A type of survey research inquiry in which respondents must choose from a fixed set of answers.

EXPANSION BOX 5

Example of a Contingency Question

QUESTION VERSION 1 (NOT CONTINGENCY QUESTION)

In the past year, how often have you used a seat belt when you have ridden in the backseat of a car?

QUESTION VERSION 2 (CONTINGENCY QUESTION)

In the past, have you ridden in the backseat of a car?

No [Skip to next question]

Yes → When you rode in the backseat, how often did you use a seat belt?

Results	Always Use	Never Use
Version 1	30%	24%
Version 2	42	4

During pilot testing, researchers learned that many respondents who answered “never” to Version 1 did not ride in the backseat of a car. Version 1 created ambiguity because respondents who never rode in the backseat plus those who rode there but did not use a seat belt both answered “Never.” Version 2 using a contingency question format clarified the question.

Source: Adapted from Presser, Evaluating Survey Questionnaires, Hoboken, NJ: Wiley. (2004). Reprinted by permission of John Wiley & Sons, Inc.

Each question form has advantages and disadvantages (see Table 3). The crucial issue is not which form is better, but which form is most appropriate for a specific situation. Your choice of an open- or closed-ended question depends on the purpose and the practical limits of a study. The demands of using open-ended questions requiring interviewers to write verbatim answers followed by time-con-

suming coding may make them impractical for many studies.

We use closed-ended questions in large-scale surveys because they are faster and easier for both respondents and researchers, yet we can lose something important whenever we force an individual’s beliefs and feelings into a few fixed, predetermined categories. To learn how a respondent thinks and discover what is important to him or her or for questions with numerous answer categories (e.g., age), open questions are best.

You can reduce the disadvantages of a question format by mixing open-ended and closed-ended questions in a questionnaire. Mixing them also offers a change of pace and helps interviewers establish rapport. Periodic probes (i.e., follow-up questions by interviewers, discussed later) with closed-ended questions can reveal a respondent’s reasoning. Having interviewers periodically use probes to ask about a respondent’s thinking can check on whether the respondent understands the questions as you intended. However, probes are not substitutes for writing clear questions or creating a framework of understanding for the respondent. Unless carefully stated, probes might influence a respondent’s answers or obtain answers for respondents who have no opinion, yet flexible or conversational interviewing (discussed later in this chapter) encourages many probes. For example, to the question “Did you do any work for money last week?” a respondent might hesitate and then reply, “Yes.” An interviewer probes, “Could you tell me exactly what work you did?” The respondent may reply “On Tuesday and Wednesday, I spent a couple of hours helping my buddy John move into his new apartment. For that he gave me \$40, but I didn’t have any other job or get paid for doing anything else.” If your intention is to get reports of only regular employment, the probe revealed a misunderstanding. We also use **partially open questions** (i.e., a set of fixed choices with a final open choice of “other”), which allows respondents to offer an answer other than one of the fixed choices.

A total reliance on closed questions can distort results. For example, a study compared open and closed versions of the question “What is the major problem facing the nation?” Respondents

Partially open question A type of survey research enquiry in which respondents are given a fixed set of answers to choose from, but the addition an “other” category is offered so that they can specify a different answer.

TABLE 3 Closed versus Open Questions

ADVANTAGES OF CLOSED

- They are easier and quicker for respondents to answer.
- The answers of different respondents are easier to compare.
- Answers are easier to code and statistically analyze.
- The response choices can clarify a question's meaning for respondents.
- Respondents are more likely to answer about sensitive topics.
- There are fewer irrelevant or confused answers to questions.
- Less articulate or less literate respondents are not at a disadvantage.
- Replication is easier.

ADVANTAGES OF OPEN

- They permit an unlimited number of possible answers.
- Respondents can answer in detail and can qualify and clarify responses.
- They can help us discover unanticipated findings.
- They permit adequate answers to complex issues.
- They permit creativity, self-expression, and richness of detail.
- They reveal a respondent's logic, thinking process, and frame of reference.

DISADVANTAGES OF CLOSED

- They can suggest ideas that the respondent would not otherwise have.
- Respondents with no opinion or no knowledge can answer anyway.
- Respondents can be frustrated because their desired answer is not a choice.
- It is confusing if many (e.g., 20) response choices are offered.
- Misinterpretation of a question can go unnoticed.
- Distinctions between respondent answers may be blurred.
- Clerical mistakes or marking the wrong response is possible.
- They force respondents to give simplistic responses to complex issues.
- They force respondents to make choices they would not make in the real world.

DISADVANTAGES OF OPEN

- Different respondents give different degrees of detail in answers.
- Responses may be irrelevant or buried in useless detail.
- Comparisons and statistical analysis become very difficult.
- Coding responses is difficult.
- Articulate and highly literate respondents have an advantage.
- Questions may be too general for respondents who lose direction.
- Responses are written verbatim, which is difficult for interviewers.
- An increased amount of respondent time, thought, and effort is necessary.
- Respondents can be intimidated by questions.
- Answers take up a lot of space in the questionnaire.

ranked different problems as most important depending on the form of the question. As Schuman and Presser (1979:86) reported, "Almost all respondents work within the substantive framework of the priorities provided by the investigators, *whether or not it fits their own priorities*" [emphasis added]. In a study that asked respondents open and closed questions about what was important in

a job, half of the respondents who answered the open-ended version gave answers outside closed-ended question responses.

Open-ended questions are especially valuable in early or exploratory stages of research. For large-scale surveys, we can use open questions in pilot tests and later develop closed-ended questions from the open question answers.

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Closed-ended questions require us to make many decisions. How many response choices do we provide? Should we offer a middle or neutral choice? What should be the order of responses? What types of response choices should be included? Answers to these questions are not easy. For example, two response choices are too few, but more than seven are rarely a benefit. We want to measure meaningful distinctions, not collapse them. More specific answer choices yield more information, but too many specifics create respondent confusion. For example, rephrasing the question “Are you satisfied with your dentist?” (which has a yes/no answer) to “How satisfied are you with your dentist: very satisfied, somewhat satisfied, somewhat dissatisfied, or not satisfied at all?” gives us more information and a respondent more choices.

Neutral Positions, Floaters, and Selective Refusals

Failing to get valid responses from each respondent weakens a survey. Respondents may answer three ways that yield invalid responses.

1. *Swayed opinion.* This involves falsely overstating a position as with the social desirability bias, or falsely understating or withholding a position as with sensitive topics.
2. *False positive.* This results from selecting an attitude position but lacking any knowledge on

an issue and really having no true opinion or view on it.

3. *False negative.* Caused when a respondent refuses to answer some questions or withholds an answer when he or she actually has information or really holds an opinion.

The three types of responses overlap. The first involves an inaccurate direction of a response toward a normative position, the second substitutes wild guesses for a serious response, and the last type is the partial and selective nonresponse to the survey.²⁸

Neutral Positions. Survey researchers debate whether they should offer respondents who lack knowledge or have no position a neutral position and a “no opinion” choice.²⁹

Some argue against offering a neutral or middle position and the no opinion option and favor pressuring respondents to give a response.³⁰ This perspective holds that respondents engage in **satisficing**; that is, they pick no opinion or a neutral response to avoid the cognitive effort of answering. Those with this position maintain that the least educated respondents may pick a no opinion option when they actually have one they believe that pressuring respondents for an answer does not lower data quality.

Others argue that it is best to offer a neutral (“no opinion”) choice because people often answer questions to please others or not to appear ignorant. Respondents may give opinions on fictitious issues, objects, and events. By offering a nonattitude (middle or no opinion) choice, we can identify respondents without an opinion and separate them from respondents who really have one.

Floaters. Survey questions address the issue of nonattitudes with three types of attitude questions: standard-format, quasi-filter, and full-filter questions (see Expansion Box 6, Standard-Format, Quasi-Filter, and Full-Filter Questions). The **standard-format question** does not offer a “don’t know” choice; a respondent must volunteer it. A **quasi-filter question** offers a “don’t know” alternative. A **full-filter question** is a special type of contingency question. It first asks whether respondents have an opinion, and then asks for the opinion of those who state that they do have one.

Satisficing Avoiding exerting cognitive effort when answering survey questions and giving the least demanding answer that will satisfy the minimal requirements of a survey question or interview situation.

Standard-format question A survey research inquiry for which the answer categories do not include a “no opinion” or “don’t know” option.

Quasi-filter question A survey research inquiry that includes the answer choice “no opinion,” “unsure,” or “don’t know.”

Full-filter question A survey research inquiry that first asks respondents whether they have an opinion or know about a topic; then only those with an opinion or knowledge are asked specifically about the topic.

EXPANSION BOX 6

Standard-Format, Quasi-Filter, and Full-Filter Questions

STANDARD FORMAT

Here is a question about another country. Do you agree or disagree with this statement? “The Russian leaders are basically trying to get along with America.”

QUASI-FILTER

Here is a statement about another country: “The Russian leaders are basically trying to get along with America.” Do you agree, disagree, or have no opinion on that?

FULL FILTER

Here is a statement about another country. Not everyone has an opinion on this. If you do not have an opinion, just say so. Here’s the statement: “The Russian leaders are basically trying to get along with America.” Do you have an opinion on that? No (go to next question), Yes (continue). Do you agree or disagree?

Example of Results from Different Question Forms

	<i>Standard Format (%)</i>	<i>Quasi-Filter (%)</i>	<i>Full Filter (%)</i>
Agree	48.2	27.7	22.9
Disagree	38.2	29.5	20.9
No opinion	13.6*	42.8	56.3

*Volunteered

Source: Adapted from Schuman and Presser (1981). *Questions and Answers in Attitude Surveys: Experiments in Question Form, Wording, and Context* (116–125). Academic Press. With permission from Elsevier. Standard format is from Fall 1978; quasi- and full-filter forms are from February 1977.

The logic behind these three formats is that many respondents will answer a question if a “no-opinion” choice is missing, but they pick “don’t know” when we offer it, or say they do not have an opinion if asked directly. These respondents are **floaters** because they “float” from responding to questions they understand and have knowledge about responding to questions which they have no knowledge and do not understand. Minor wording changes are likely to change their answers. Quasi-filter or full-filter questions help screen out floaters. Filtered questions may not eliminate all respondents answering to nonexistent issues, but they reduce the problem.

Middle alternative floaters will choose a middle position when we offer it but another alternative if we do not. They feel ambivalent or less intense about an issue. There may be a slight **recency effect**; that is, respondents tend to choose

the last alternative offered. The recency effect suggests that we should present responses on a continuum and place the neutral position in the middle.

Attitudes have two aspects: direction (for or against) and intensity (strongly held or weakly held). For example, two respondents both oppose abortion. One is fiercely attached to the opinion and strongly committed to it; the other holds the opinion weakly and is wavering. If we ask only an

Floaters Survey research respondents without the knowledge or an opinion to answer a survey question but who answer it anyway, often giving inconsistent answers.

Recency effect A result in survey research that occurs when respondents choose the last answer response offered rather than seriously considering all answer choices.

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agree/disagree question, respondents may respond in the same way; however, we can capture both aspects of the opinion by offering more choices (strongly agree, agree) or with a contingency question (agree/disagree and then how strongly do you hold that opinion).

Selective Refusals. In addition to the issue of satisficing, by which respondents pick no or a neutral response to avoid the effort of answering, some respondents refuse to answer certain questions. This often is the case involving a sensitive issue. Respondents refuse rather than indicate a socially inappropriate answer.

For example, in 1992 more than one-third of Americans refused to answer a sensitive question about racial integration. When many respondents do not answer a question, the findings may be misleading if the nonresponding people actually hold an opinion. For example, if the respondents who opposed racial integration answered “don’t know,” the results appeared more favorable to integration than if all respondents had answered the question. After adjusting for nonresponses, Berinsky (1999) found that the percentage of Americans who favored racial integration dropped from 49.4 to 34.9 percent. He warned (p. 1225) that “the opinions respondents express in the survey interview are not necessarily identical to the opinions they construct when coming to grips with a survey question.”

Agree/Disagree, Rankings or Ratings? Survey researchers who measure values and attitudes have debated two issues about responses offered.³¹ Should a questionnaire item make a statement and ask respondents whether they agree or disagree with it, or should it offer respondents specific alternatives? Should the questionnaire include a set of items and ask respondents to rate them (e.g., approve, disapprove), or should it give them a list of items and force them to rank order them (e.g., from most favored to least favored)?

Offering respondents explicit alternatives is best. For example, instead of asking, “Do you agree or disagree with the statement, ‘Men are better suited to run the nation?’” ask instead, “Do you think men are better suited to run the nation, women

are better suited, or both are equally suited?” Less well-educated respondents tend to agree with a statement. Explicit forced-choice alternatives encourage thought and avoid the *response set* bias—the tendency of some respondents to agree.

Survey respondents asked about values often show little differentiation and their responses pile up at the extremes. One solution is to use a “rank-then-rate” procedure. We first ask respondents to rank values, most to least important. Next, we ask them to assign each a rating. For example, respondents rank values (e.g., world peace, personal wealth, family security) in importance. Next they assign a value, 1 to 10, from extremely important to not important at all. A respondent may rank the value of world peace ahead of personal wealth, but when asked to rate the importance of world peace or its personal significance, a respondent may give world peace a 4 but personal wealth an 8.³²

Remember that we must present the alternatives fairly and not offer a reason for respondents to choose one alternative. For example, if you ask “Do you support the law for energy conservation or do you oppose it because the law would be difficult to enforce?” instead of simply “Do you support or oppose the law for energy conservation?” you created a leading question against the energy conservation law. This is why we ask respondents to choose among alternatives by ranking (e.g., please give me your first choice, second choice, and third choice) instead of rating items along an imaginary continuum (e.g., which of these is best). Respondents can rate several items equally high but place them in a hierarchy if we ask them to rank the items compared to one another.³³

Attaching numbers to a response scale can assist respondents and give them a clue for understanding. Positive and negative numbers at the extremes (e.g., +5 to -5) are best when we conceptualize the variables as polar. It is best to use a series of positive numbers (e.g., 0 to 10) if we conceptualize the variable as a single continuum. Again, how we do this tells us how we should organize the question and its answer choices.

Visual presentations, including the use of colors, symbols, and pictures, can influence respondents’

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reactions to questionnaires. Visuals sometimes may have a larger impact than question wording changes. Respondents tend to interpret the middle of a set of responses as a typical or middle option, treat closeness in space on a questionnaire as indicating similar meaning, view the top items in a vertical list as being most desirable, and see differences in space between answers or the use of different colors as indicating more significant differences in meaning. Also, respondents find that organizing response categories vertically is less confusing than if they are organized horizontally.³⁴

Question format and questionnaire design may influence the results we obtain. Rockwood, Sangster, and Dillman (1997) asked college students how many hours they studied per day. Some students got a “low set” of five answer choices, ranging from 0.5 hour to more than 2.5 hours per day. Other students received a “high set” of five answer choices, ranging from less than 2.0 hours to more than 4.5 hours per day. Of students who received the “low” set of choices, 28 percent said they studied over 2.5 hours. Of students who got the “high” set of choices, 69 percent studied over 2.5 hours. Apparently, answer choices had influenced answers. The researchers also compared survey format for the same question and answer choices. They sent some students mail questionnaires and interviewed others by telephone. Answers changed with the survey format. Of students asked about studying with the “low” set of five answer choices by mail questionnaire, 23 percent said they studied over 2.5 hours per day. Of students interviewed by phone with the “low” set of choices, 42 percent gave the answer of 2.5 hours per day. For students who received the “high” set of five answer choices, answers by mail questionnaire and phone interview were similar. In the same study, the researchers asked students about the number of hours they watched television with similar “high” and “low” response category sets, comparing mail questionnaires and telephone interviews. For the topic of television watching, ranges of response categories or format did not affect answers.

This study shows us three things. Respondents rely on the range of response categories in a question for guidance; they answer more honestly with more anonymous survey formats, such as a mail

questionnaire, compared to less anonymous formats, such as interviews; and both response categories and survey format shape answers about some topics more than other topics.³⁵

Wording Issues

We face two wording issues in creating questionnaires. The first, discussed earlier, is to use simple vocabulary and grammar to minimize confusion. The second issue involves the effects of specific words or phrases. This is trickier because we do not know in advance whether a word or phrase affects responses.³⁶

A well-documented difference between *forbid* and *not allow* illustrates the problem. Both terms have the same meaning, but many more people are willing to “not allow” something than to “forbid” it. In general, less well-educated respondents are influenced more by minor wording differences than educated ones.

Certain words trigger an emotional reaction, and we are just beginning to learn of them. For example, Smith (1987) found large differences (e.g., twice as much support) in U.S. survey responses depending on whether a question asked about spending “to help the poor” or “for welfare.” He suggested that for Americans, the word *welfare* has such strong negative connotations (lazy people, wasteful and expensive programs, etc.) that it is best to avoid it.

Possible **wording effects** are illustrated by what appears to be a noncontroversial question. Peterson (1984) examined four ways to ask about age: “How old are you?” “What is your age?” “In what year were you born?” and “Are you . . . 18–24, 25–34, . . . ?” He checked responses against birth certificate records and found that from 98.7 to 95.1 percent of respondents gave correct responses depending on the form of question used. He also found that the form of the question that had the

Wording effects Results in survey research when the use of a specific term or word strongly influences how some respondents answer a survey question.

fewest errors had the highest percentage of refusals to answer, and the form with the most errors had the lowest refusal rate. This example suggests that errors in a noncontroversial factual question may vary with minor wording changes.

Questionnaire Design Issues

Length of Survey or Questionnaire. How long should a questionnaire be or an interview last?³⁷ We prefer long questionnaires or interviews because they are more cost effective. The cost for a few extra questions once a respondent has been sampled, has been contacted, and has completed other questions is small. There is no absolute proper length. It depends on the survey format (to be discussed) and on the respondent's characteristics. A 5-minute telephone interview is rarely a problem. Mail questionnaires are more variable. A short (three-page) questionnaire is appropriate for the general population. Some researchers have had success with questionnaires as long as ten pages (about one hundred items), but responses drop significantly for longer questionnaires. For highly educated respondents and a very salient topic, a fifteen-page questionnaire may be possible. Face-to-face interviews can be long, with ones lasting an hour not uncommon. In special situations, researchers have conducted face-to-face interviews as long as 3 or 5 hours.

Question Order or Sequence. We face three question sequence issues: organization of the overall questionnaire, question order effects, and context effects.

1. *Organization of questionnaire.* In general, you should sequence questions to minimize respondent discomfort and confusion. A questionnaire has opening, middle, and ending questions. After an introduction explaining the survey, it is best to make opening questions pleasant, interesting, and easy to answer. This helps a respondent to feel comfortable

about the questionnaire. Avoid asking many boring background questions or sensitive questions at the beginning. Organize questions in the middle into common topics. Mixing questions on different topics causes confusion. Orient respondents by placing questions on the same topic together after introducing the section with a short statement (e.g., "Now I would like to ask you questions about housing"). Make question topics flow smoothly and logically, and organize them to assist respondents' memory or comfort levels. Do not end with sensitive issue questions, and always say "thank you."

2. *Order effects.* The order in which questions appear in a questionnaire can influence respondent answers.³⁸ Such **order effects** appear to be strongest for people who lack strong views, for less educated respondents, and for older respondents or those with memory loss.³⁹ For example, opinions that support a single woman having an abortion regularly rises if the question follows a question about abortion being acceptable when a fetus has serious defects but not when the question is alone or before a question about fetus defects. A classic example of order effects is presented in Expansion Box 7, Question Order Effects.

Answers to earlier questions can influence later ones in two ways: through their content (i.e., the issue) and through the respondent's response. For example, you ask a student, "Do you support or favor educational contributions for students?" Answers vary depending on the preceding question topic. If it comes after "How much tuition does the average U.S. student pay?" respondents will interpret "contributions" to mean what students will pay. If the question comes after "How much does the Swedish government pay to students?" respondents interpret "contributions" to mean those the government will make. Previous answers can also influence responses because having already answered one part respondents will assume no overlap. For example, you ask a respondent, "How is your wife?" The next question is, "How is your family?" Most respondents assume that the second question means family members other than the wife because they already answered about her.⁴⁰

3. *Context effects.* Survey researchers have observed powerful **context effects** in surveys.⁴¹

Order effect A result in survey research in which a topic or some questions asked before others influence respondents' answers to later questions.

EXPANSION BOX 7

Question Order Effects

QUESTION 1

“Do you think that the United States should let Communist newspaper reporters from other countries come in here and send back to their papers the news as they see it?”

QUESTION 2

“Do you think a Communist country like Russia should let U.S. newspaper reporters come in and send back to America the news as they see it?”

Heard First	PERCENTAGE SAYING YES	
	Yes to Question 1 (Communist Reporter)	Yes to Question 2 (American Reporter)
Question 1	54%	75%
Question 2	64	82

The context created by answering the first question affects the answer to the second question.

Source: Adapted from Schuman and Presser (1981). *Questions and Answers in Attitude Surveys: Experiments in Question Form, Wording, and Context*, p. 29. New York: Academic Press. With permission from Elsevier.

“Context includes more than just the influence of one question on another. It includes the effects of the interviewer, the interview setting, and indeed the historical setting. . . . At present, we do not have a good grasp of how questionnaire context effects relate to response effects on surveys” (Schuman, 1992:18). The context has a more significant impact in mail versus phone surveys because a respondent can see all of the questions in the former.⁴²

You can do two things regarding context effects. Use a **funnel sequence** of questions; that is, ask general questions before specific ones (e.g., about health in general before specific diseases). Alternatively, you can divide respondents in half and give one half questions in one order and the other half questions in an alternative order and then examine the results to see whether question order mattered. If you discover question order effects, which order tells you what the respondents really think? The answer is that you cannot know for sure.

For example, a few years ago, my students conducted a telephone survey on two topics: concern about crime and attitudes toward a new

antidrunken-driving law. A random half of the respondents heard questions about the drunk-driving law first; the other half heard about crime first. I examined the results to see whether there was any context effect—a difference resulting from topic order. I found that respondents asked about the antidrunken-driving law first expressed less fear about crime than did those who were asked about crime first. Likewise, respondents were more supportive of the antidrunken-driving law than were those who first heard about crime. The first topic created a context within which respondents answered questions on the second topic. After we asked respondents about crime in general and they

Context effect A result in survey research when an overall tone, setting, or set of topics heard by respondents affect how they interpret the meaning of subsequent questions.

Funnel sequence Organization of survey research questions in a questionnaire from general to specific questions.

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thought about violent crimes, drunk driving may have appeared to be a less important issue to them. By contrast, after we asked about drunk driving as a crime, respondents may have expressed less concern about crime in general.

We need to remember that context effects are strong if the question is ambiguous because respondents will draw on the context to interpret and understand the question. Previous questions on the same topic and ones immediately preceding a question can have a large context effect. For example, Sudman et al. (1996:90–91) contrasted three ways of asking how much a respondent followed politics. When they asked the question alone, about 21 percent of respondents said they followed politics “now and then” or “hardly at all.” When they asked the question after asking about something that the respondent’s elected representative recently did, the percentage who said they did not follow nearly doubled (39 percent). The knowledge question made many respondents feel that they did not really know much. When a question about the amount of “public relations work” the elected representative provided to the area came between the two questions, 29 percent of respondents said they did not follow politics. This question gave respondents an excuse for not knowing the first question; they could blame their representative for their ignorance. The context of a question can make a difference, and researchers need to be aware of it at all times: “Question comprehension is not merely a function of the wording of a question. Respondents use information provided by the context of the question to determine its intended meaning” (Sudman et al., 1996:69).

Layout and Format. There are two format or layout issues: the overall physical layout of the questionnaire and the format of questions and responses.

Questionnaire Layout. Layout of a questionnaire is important both to an interviewer and for the respondent.⁴³ Questionnaires should be clear, neat, and easy to follow. Put identifying information (e.g., name of organization) on questionnaires and give each question a number. Never cramp questions together or create a confusing appearance. A few cents saved in postage or printing will ultimately

cost more in terms of lower validity resulting from a lower response rate or of confusion of interviewers and respondents. A professional appearance with high-quality graphics, space between questions, and good layout encourages accuracy and completeness and helps the questionnaire flow. If using an interview format, create a *face sheet* as part of the questionnaire for administrative use. The face sheet should include the time and date of the interview, the interviewer’s name, the respondent’s identification number, and the interviewer’s comments and observations on the interview.

Give interviewers and respondents instructions. It is best to print instructions in a different style from the questions (e.g., in a different color or font) to distinguish them. This helps an interviewer to distinguish between questions for respondents and instructions intended for the interviewer alone.

Layout is crucial for mail and Web questionnaires because there is no friendly interviewer to interact with the respondent. Instead, the questionnaire’s appearance persuades the respondent.

Include a polite, professional cover letter on letterhead stationery with mail surveys, identifying the researcher and offering a telephone number for questions. Details matter. Respondents will be turned off if they receive a bulky brown envelope with bulk postage addressed to Occupant or if the questionnaire does not fit into the return envelope.

Web surveys are still new, and researchers are just learning which design features are most effective, but visual design details matter (see Web survey discussion later in this chapter).

Question Format. You must decide on a format for questions and responses. Should respondents circle responses, check boxes, fill in dots, or write in a blank? The principle is to make responding clear and unambiguous. Boxes or brackets to be checked and numbers to be circled are usually clearest. Also, listing responses down a page rather than across makes them easier to see (see Expansion Box 8, Question Format Examples). Use arrows and instructions for contingency questions. Visual aids are helpful. For example, hand out thermometer-like drawings to respondents when asking whether their feeling

EXPANSION BOX 8

Question Format Examples

EXAMPLE OF HORIZONTAL VERSUS VERTICAL RESPONSE CHOICES

Do you think it is too easy or too difficult to get a divorce, or is it about right?

- Too Easy Too Difficult About Right

Do you think it is too easy or too difficult to get a divorce, or is it about right?

- Too Easy
 Too Difficult
 About Right

EXAMPLE OF A MATRIX QUESTION FORMAT

	<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>	<i>Don't Know</i>
The teacher talks too fast.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I learned a lot in this class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The tests are very easy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The teacher tells many jokes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The teacher is organized.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

EXAMPLES OF SOME RESPONSE CATEGORY CHOICES

Excellent, Good, Fair, Poor

Approve/Disapprove

Favor/Oppose

Strongly Agree, Agree, Somewhat Agree, Somewhat Disagree, Disagree, Strongly Disagree

Too Much, Too Little, About Right

Better, Worse, About the Same

Regularly, Often, Seldom, Never

Always, Most of the Time, Some of the Time, Rarely, Never

More Likely, Less Likely, No Difference

Very Interested, Interested, Not Interested

toward someone is warm or cool. A **matrix question** (or *grid question*) is a compact way to present a series of questions using the same response categories. It saves space and makes it easier for the respondent or interviewer to note answers for the same response categories.

Nonresponse. The failure to get a valid response from every sampled respondent weakens a survey. In addition to research surveys, people are asked to respond to many surveys from charities, marketing firms, candidate polls, and so forth. Charities and

marketing firms generally have low response rates, whereas government organizations have much higher rates. Nonresponse can be a major problem because if a high proportion of the sampled respondents do not respond, results may not be generalizable, especially if those who do not respond differ from those who do.

Matrix question A survey research inquiry that groups together a set of questions that share the same answer categories in a compact form.

Almost all people complete surveys at some time, and the reporting of survey or poll results in major newspapers grew rapidly after the 1960s. By the 1970s, it seemed that every day a newspaper story cited survey or poll results. As surveys became increasingly used, response rates have declined. Non-response rates in surveys vary greatly; for academic organizations, they range from 25 to 33 percent. In the United States, nonresponse rates for major academic surveys rose from less than 10 percent in the 1950s to 25 percent in the 1980s. Public cooperation in survey research has declined across most countries with the Netherlands having the highest refusal rate; it is as high as 30 percent in the United States.⁴⁴ The nonresponse rates to commercial polls (Roper, Gallup, CBS, etc.) and campaign polls tend to be higher, however, reaching as high as 50 percent.

Researchers discovered a growing group of “hard core” refusing people who decline all surveys. In addition, general survey participation has declined because people believe there are too many surveys. Other reasons for declining survey participation include a fear of strangers, a more hectic lifestyle, a loss of privacy, and a rising distrust of authority. The misuse of a survey to sell products or persuade people, poorly designed questionnaires, and inadequate explanations of surveys also increase refusals for legitimate, serious ones.

The most interested, informed, and active members of society tend to participate in surveys. This means that nonresponse both harms survey validity and omits a particular segment of the population. In the United States, nonrespondents tend to be young non-White males and the less educated.

Nonresponse rates have five components (see Expansion Box 9, Confusion about Response Rates).⁴⁵

1. *Location*—Could a sampled respondent be located?
2. *Contact*—Was a located respondent at home or reached after many attempts?
3. *Eligibility*—Was the contacted respondent the proper age, race, gender, citizenship, and so on for the survey purpose?
4. *Cooperation*—Was an eligible respondent willing to be interviewed or fill in a questionnaire?

EXPANSION BOX 9

Confusion about Response Rates

There is some confusion about response rates because the total response rate depends on the success rate of five component responses, each of which has its own rate:

Location rate: Percentage of respondents in the sampling frame who are located.

Contact rate: Percentage of located respondents who are contacted.

Eligibility rate: Percentage of contacted respondents who are eligible.

Cooperation rate: Percentage of contacted, eligible respondents who agree to participate.

Completion rate: Percentage of cooperating respondents who complete the survey.

Total response rate: Percentage of all respondents in the initial sampling frame who were located, contacted, eligible, agreed to participate, and completed the entire questionnaire.

For example, researchers begin with 1,000 respondents in a sampling frame, locate 950 by telephone or an address, are able to contact 800 (by an interviewer or successful mailing), and determine that 780 are eligible (i.e., meet basic criteria, speak the language, are mentally competent). They find that 700 people cooperate with the questionnaire or interview, and 690 complete the entire questionnaire or interview. This yields the following rates: *location rate:* 95 percent; *contact rate:* 84.2 percent; *eligibility rate:* 97.5 percent; *cooperation rate:* 89.8 percent; *completion rate:* 98.6 percent; *total response rate:* 69 percent. The *total response rate* is the product of all of the individual rates: $.95 \times .842 \times .975 \times .898 \times .986 = .690$.

5. *Completion*—Did a cooperating respondent stop answering before the end or start answering most questions with “do not know” or “no opinion”?

Improving the overall survey response rate requires us to reduce each type of nonresponse.

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Location Rate. Improving location means using better sampling frames and maps or phone directories. Improving contact necessitates making many repeat calls, varying the time of day for calls, and lengthening the period to make contact. Several factors are associated with noncontact in the United States: high population density, urban central city, nonowner-occupied housing (i.e., rental), high crime rate, high percentage of minority race population, presence of physical barriers (i.e., fences, bars on windows, beware of dog or no trespassing signs), and a single adult living alone or households without young children. Although they may be easier to locate and contact, people who have higher income and more education may be less likely to cooperate once contacted. As Groves and Couper (1998:130) observed, “We find support in our data for the notion that those in high SES [socio-economic status] households cooperate less with surveys than those in low SES groups.” Although caller ID has increased, few respondents use caller ID and telephone machine screening technologies to block survey research in a significant way.⁴⁶

Contact Rate. A critical area of nonresponse or refusal to participate occurs with the initial contact between an interviewer and a respondent. Cooperation increases when a respondent believes that the survey topic or results will be salient to him or her (i.e., are of great interest or will produce direct benefits), or when interviewers use “tailoring” (discussed later in this chapter) in their introductions to respondents, or offer a small incentive (e.g., a few dollars).

Eligibility Rate. We can improve eligibility rates by creating careful respondent screening, using better sample-frame definitions, and having multilingual interviewers. We can decrease refusals by sending letters in advance of an interview, offering to reschedule interviews, using small incentives (i.e., small gifts or amounts of money, as noted), adjusting interviewer behavior and statements (i.e., making eye contact, expressing sincerity, explaining the sampling or survey, emphasizing importance of the interview, clarifying promises of confidentiality). We can also use alternative interviewers (i.e., different demographic characteristics, age, race,

gender, or ethnicity), use alternative interview methods (i.e., phone versus face to face), or accept alternative respondents in a household.

Cooperation Rate. Cooperation among inner-city residents, low-income persons, and racial-ethnic minorities have increased as a result of using a journalistic-style letter and a personal phone call compared to using a standard academic letter. Respondents who were pessimistic about government and social service agencies and who felt misunderstood were more likely to participate after someone explained the nature of the survey to them in terms to which they could easily relate.⁴⁷

As mentioned, small prepaid incentives increase respondent cooperation in all types of surveys and appear to have no negative effects on survey composition or future participation. For example, Brehm (1994) found that without advance contact, 71 percent of respondents cooperated, but the rate rose to 78 percent with advance contact (a letter) and an incentive (\$1) and the respondents were more talkative. Moreover, respondents do not feel that differential payments for participation are unfair.⁴⁸

Instead of seeing respondents as already having well-developed attitudes, beliefs, and opinions that they are ready to retrieve and deliver when asked in a survey, we see a survey as involving several processes. The first is to win cooperation-motivation so that people will participate fully in the survey process. A second is assisting respondents in correctly interpreting the survey question and assembling an appropriate and accurate response from memory or past experiences. A third is helping respondents properly answer or deliver the appropriate response (also see Example Box 1 earlier in this chapter).

Two related theories help explain the cooperation-motivation process. Social exchange theory, or the total design method (see Dillman, 1978, 2000), sees the formal survey as a special type of social interaction. A respondent behaves based on what he or she expects to receive in return for cooperation. To increase response rates and accuracy, we need to minimize the burdens of cooperating by making participation very easy and to maximize rewards by providing benefits (i.e., feelings of

esteem, material incentives, and emotional rewards) for cooperation.

Leverage saliency theory holds that the salience or interest/motivation varies by respondent. Different people value, either positively or negatively, specific aspects of the survey process differently (e.g., length of time, topic of survey, sponsor). To maximize survey cooperation, we need to identify and present positively valued aspects early in the survey process. Two practical implications are sponsorship and tailoring. *Sponsorship* refers to the organization that conducts or pays for the survey. **Tailoring** occurs when interviewers adjust what they say in an introduction to specific respondents, highlighting what they believe will encourage a respondent to cooperate. Tailoring is achieved by training survey interviewers to be sensitive to a range of household types and concerns so they can “read” the setting and the various verbal and nonverbal cues. Interviewers should be able to shift quickly to alternative scripts for persuading a respondent and tailor the persuasion to a specific respondent.⁴⁹

Completion Rate. Dillman (2000:252) reports higher self-administered questionnaire completion rates if someone is personally handed the questionnaire as opposed to receiving it on the doorstep or via the mail. He was able to achieve response rates of 77 percent with a combination of personally handing a questionnaire to a respondent, sending two follow-up reminders, and including a monetary incentive for completion (compared to 53 to 71 percent rates when one or more technique was not included).

Leverage saliency theory A hypothesis of survey research cooperation that states that different respondents find different aspects of a survey interview to be salient and decide whether to cooperate based on different specific aspects of the interview.

Tailoring Encouraging a respondent’s cooperation in survey research interviews by having interviewers highlight specific aspects of the interview that a respondent finds salient and values positively.

Total Response Rate. A large body of literature examines how to increase response rates for mail questionnaires (see Expansion Box 10, Ten Ways to Increase Mail Questionnaire Response).⁵⁰

A meta-analysis of 115 articles on mail survey responses taken from 25 journals published between 1940 and 1988 revealed that cover letters, questionnaires of four pages or less, a return envelope with postage, and a small monetary reward all increase returns (Yammarino et al., 1991). Another meta-analysis comparing mail with Web surveys found that mail surveys have higher response rates.

EXPANSION BOX 10

Ten Ways to Increase Mail Questionnaire Response

1. Address the questionnaire to a specific person, not “Occupant,” and send it first class.
2. Include a carefully written, dated cover letter on letterhead stationery. In it, request respondent cooperation, guarantee confidentiality, explain the purpose of the survey, and give the researcher’s name and phone number.
3. *Always* include a postage-paid, addressed return envelope.
4. The questionnaire should have a neat, attractive layout and reasonable page length.
5. The questionnaire should be professionally printed, be easy to read, and have clear instructions.
6. Send two follow-up reminder letters to those not responding. The first should arrive about one week after sending the questionnaire, the second a week later. Gently ask for cooperation again and offer to send another questionnaire.
7. Do not send questionnaires during major holiday periods.
8. Do not put questions on the back page. Instead, leave a blank space and ask the respondent for general comments.
9. Sponsors that are local and are seen as legitimate (e.g., government agencies, universities, large firms) get a better response.
10. Include a small monetary inducement (\$1) if possible.

College respondents are more responsive to Web surveys, but other respondents (e.g., medical doctors, teachers, consumers) prefer mail surveys. Follow-up reminders appear to be less effective for Web than for mail surveys (Shih and Fan, 2008). Many of the techniques suggested follow the total design method and help to make the task easy and interesting for respondents.

TYPES OF SURVEYS: ADVANTAGES AND DISADVANTAGES

Mail and Self-Administered Questionnaires

Advantages. We can give or mail questionnaires directly to respondents, who read the instructions and questions and then record their answers. A single researcher can conduct this type of survey at very low cost and cover a wide geographical area. The respondent can complete the questionnaire when it is convenient and can check personal records for information if necessary. Mail questionnaires offer anonymity and avoid interviewer bias. They are very effective and can achieve acceptable response rates from an educated sample that has a strong interest in the topic or the survey organization.

Disadvantages. Because many people do not complete and return mail questionnaires, their biggest problem is a low response rate. Most questionnaires are returned within 2 weeks, but others trickle in for up to 2 months. We can improve response rates by sending nonrespondents reminder letters, but this adds to the time and cost of data collection.

We lack control over the conditions under which a mail questionnaire is completed. A questionnaire completed during a drinking party by a dozen laughing people may be returned along with one filled out by an earnest respondent. Also, no one is present to clarify questions or to probe for more information when respondents give incomplete answers. Someone other than the sampled respondent (e.g., spouse, new resident) may open the mail and complete the questionnaire without

the researcher's knowledge. We cannot visually observe the respondent's reactions to questions, physical characteristics, or the setting. For example, an impoverished 70-year-old White woman living alone on a farm could falsely state that she is a prosperous 40-year-old Asian male doctor with three children living in a town. Such extreme lies are rare, but serious errors can go undetected. In addition, different respondents can complete the questionnaire weeks apart or answer questions in a different order than intended. Incomplete questionnaires can also be a serious problem.

The mail questionnaire format limits the questions that we can use. Those that require visual aids (e.g., look at this picture and tell me what you see), open-ended questions, many contingency questions, and complex questions cannot be used in most mail questionnaires. Likewise, mail questionnaires are ill suited for people who are illiterate or nearly illiterate (see Table 4).

Telephone Interviews

Advantages. The telephone interview is a popular survey method because about 95 percent of the population can be reached by telephone. An interviewer calls a respondent (usually at home), asks questions, and records answers. Researchers sample respondents from lists and telephone directories or use RDD and can quickly reach many people across all geographic areas. A staff of interviewers can interview 1,500 respondents across a nation within a few days and, with a dozen callbacks, achieve response rates as high as 80 percent. The telephone survey is more expensive than a mail questionnaire because it requires interviewer time. In general, the telephone interview is a flexible method with most of the strengths of face-to-face interviews but at a much lower cost. Interviewers control the sequence of questions and can use some probes. A specific respondent is chosen and is likely to answer all questions alone. We know when the questions were answered and can use contingency questions effectively.

Most researchers use computer-assisted technologies in telephone interviews, two of which

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TABLE 4 Types of Surveys and Their Features

FEATURES	TYPE OF SURVEY			
	<i>Mail Questionnaire</i>	<i>Telephone Interview</i>	<i>Face-to-Face Interview</i>	<i>Web Survey</i>
<i>Administrative Issues</i>				
Cost	Cheap	Moderate	Expensive	Cheapest
Speed	Slowest	Fast	Slow to moderate	Fastest
Length (number of questions)	Moderate	Short	Longest	Moderate
Response rate	Lowest	Moderate	Highest	Moderate
<i>Research Control</i>				
Probes possible	No	Yes	Yes	No
Specific respondent	No	Yes	Yes	No
Question sequence	No	Yes	Yes	Yes
Only one respondent	No	Yes	Yes	No
Visual observation	No	No	Yes	Yes
<i>Success with Different Questions</i>				
Visual aids	Limited	None	Yes	Yes
Open-ended questions	Limited	Limited	Yes	Yes
Contingency questions	Limited	Yes	Yes	Yes
Complex questions	Limited	Limited	Yes	Yes
Sensitive questions	Some	Limited	Limited	Yes
<i>Sources of Bias</i>				
Social desirability	No	Some	Worse	No
Interviewer bias	No	Some	Worse	No
Respondent's reading skill level	Yes	No	No	Some

we discuss here. **Computer-assisted telephone interviewing (CATI)** systems are widely used.⁵¹ When using CATI, the interviewer sits in front of a computer, which makes the calls. Wearing a headset and microphone, the interviewer reads the questions

from a computer screen for the specific respondent called and then enters the answer via the computer keyboard. The computer program will control which question next appears and will allow for complex contingency questions. CATI speeds the process and reduces interviewer errors. It also eliminates the separate step of having the interviewer write responses on paper and then having someone else enter information into a computer, and speeds data collection.

Interactive voice response (IVR) includes several computer-automated systems available through phone technology and is widely used in marketing. IVR has a respondent listen to questions and response options over the telephone and indicate responses by touch-tone entry or by voice (the computer uses voice recognition software). IVR may

Computer-assisted telephone interviewing (CATI) Technique in which the interviewer sits before a computer screen and keyboard, reads questions from the screen, and enters answers directly into the computer.

Interactive voice response (IVR) A technique in telephone interviewing in which respondents hear computer-automated questions and indicate their responses by touch-tone phone entry or voice-activated software.

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have some advantages over live interviewers, such as rapid and automated data collection, no interviewer reading or recording errors, and high anonymity. Some IVR interviewers have a live interviewer to recruit and set up the respondent and then records the questions following the setup. IVR can be successful for very short and very simple surveys.

Disadvantages. IVR has a sharp drop-off rate (as many as 40 percent not completing the long questionnaires).⁵² Moderately high cost and limited interview length are also disadvantages of both CATI and traditional telephone interviews. In addition, the call may come at an inconvenient time and respondents without a telephone are impossible to reach. The use of an interviewer reduces anonymity but introduces potential interviewer bias. Open-ended questions are difficult to use, and questions requiring visual aids are impossible. Interviewers can note only serious disruptions (e.g., background noise) and respondent tone of voice (e.g., anger or flippancy) or hesitancy.

Survey researchers developed telephone interviewing when people had only landline phones. Increased cell phone use since 2000 has become an issue. As of 2006, about one in four adults aged 18 to 24 years in the United States lived in cell-phone-only households and are not covered by current RDD landline sampling procedures. The cell-phone-only population is likely to increase, suggesting a growing need to combine samples that include both cell phone and landline phone respondents. In comparison to landline surveys, cell phone surveys tend to have lower response rates, higher refusal rates, and lower rates of turning an initial refusal into participation. Early studies provide some suggestions for cell phone interviews such as calling during evening weekday hours, letting a cell phone ring longer than a landline, being extra alert to cues that suggest it is a bad time to do the interview (e.g., the respondent is operating a motor vehicle), needing to schedule a callback, and deciding how long to wait before recontacting the cell phone number.⁵³

Face-to-Face Interviews

Advantages. Face-to-face interviews have the highest response rates and permit the longest and

most complex questionnaires. They have all the advantages of the telephone interview and allow interviewers to observe the surroundings and to use nonverbal communication and visual aids. Well-trained interviewers can ask all types of questions and can use extensive probes.

Disadvantages. High cost is the biggest disadvantage of face-to-face interviews. The training, travel, supervision, and personnel costs for interviews can be high. Interviewer bias is also greatest in face-to-face interviews. The interviewer's appearance, tone of voice, question wording, and so forth may affect the respondent. In addition, interviewer supervision is lower than for telephone interviews that supervisors monitor by listening in.⁵⁴

A variation on the face-to-face survey with questions on sensitive issues is CAPI (described earlier in the chapter). A CAPI interviewer with a laptop computer is present, and the respondent completes questions on the laptop. The interviewer serves to motivate completion and to clarify questions.

Web Surveys

The public did not have widespread access to the Internet and e-mail until the end of the 1990s. For example, in 1994, only 3 percent of the U.S. population had e-mail at home or work; by 2007, 62 percent of households had both e-mail and Internet connections. By 2012, some projections suggest that 77 percent of households will be connected. Internet connection rates are higher in other nations, for example, 97 percent in South Korea, 82 percent in the Netherlands, 81 percent in Hong Kong, 79 percent in Canada, and 77 percent in Japan.⁵⁵

Advantages. Web-based or e-mail surveys are very fast and inexpensive; they allow flexible design and can use visual images and even audio or video. The two types of Web surveys are static and interactive. A static Web or e-mail survey is like the presentation of a page of paper but on the computer screen. An interactive Web or e-mail survey has contingency questions and may present different questions to different respondents based on prior answers.

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Disadvantages. An unusual disadvantage of Web surveys is that they are cheap and easy. As Weisberg (2005:38) remarked: “Putting a poll up on the Internet can be inexpensive, so many groups put up polls without paying attention to quality.” Web surveys have three disadvantages or areas of concern: coverage, privacy and verification, and design issues. The first concern involves sampling and unequal access to and use of the Internet. Older, less educated, low-income, and rural people are less likely to have access, and a majority without access now say that they do not plan to acquire it in the future. In addition, many people have multiple e-mail addresses.

A second concern involves protecting respondent privacy. Secure Web sites with passwords or PINs and high confidentiality protection can help. Respondent verification is needed to ensure that the sampled respondent alone participates and only once.

A third concern involves design complexity and flexibility. The compatibility of various Web software and hardware combinations must be verified. We are just beginning to learn the most effective way to design Web surveys. For example, it appears best to provide one or a few questions per screen, making the entire question visible on the screen at one time in a consistent format with drop-down boxes for answer choices. It is best to include a progress indicator (as motivation) such as a clock or symbol indicating progress (how far respondents have gone and how much questionnaire remains). Keeping visual appearance simple (limited colors and fonts) and maintaining consistency is best. Very clear instructions are needed for any computer action (e.g., use of drop-down screens) and they should include “click here” instructions. Also, making it easy for respondents to move back and forth across questions is best. Providing detailed questions and a large space for answers in open-ended questions on Internet surveys helps elicit longer and

more complete answers. Avoiding technical glitches and “bugs” at the implementation stage with dedicated servers and sufficient broadband to handle demand is important.⁵⁶

Special Situations

There are many kinds of special surveys. One is a survey of organizations (e.g., businesses, schools). We write questions to ask about the organization but also to learn who in the organization has necessary information. Making the significance of the survey clear is also essential because officials in an organization receive many requests for information and do not answer all of them.

Surveying white-collar elites requires special techniques.⁵⁷ Powerful leaders in business, the media, and government are difficult to reach. Assistants frequently intercept mail questionnaires or restrict access to face-to-face or telephone interviewing. One way to facilitate access is to have a respected source call or send a letter of introduction. After making an appointment, the researcher him- or herself, not a hired interviewer, needs to conduct the interview. Personal interviews with a high percentage of open-ended questions are usually more successful than those with all closed-ended questions. Confidentiality is a crucial issue because elites often have information that few others do and are very sensitive about being identified as having provided specific information.

The **time budget survey** is a special type used to study how people allocate their time. Studies of urban planning, the gender division of labor, quality of life, mass media usage, and leisure use time budget surveys. A respondent to a time budget survey agrees to record her or his activities in detail over several days, usually in a diary, noting activities for each 10- or 15-minute period. For example, about 10 years ago, several professors who work at my university were asked to be part of a time budget survey. Government officials who wanted to learn how much time professors devoted to academic work activities initiated the survey. The professors filled in a detailed diary, recording what they did for each 15-minute period at home and work for a two-week period. The officials thought that professors

Time budget survey A specialized type in which respondents record details about the timing and duration of their activities over a period of time.

worked too little. As with dozens of other such time budget surveys when all meetings, community service activities, research work, course preparation and planning, exam writing and grading, paper evaluation, student advising, and direct teaching time are totaled, most professors work 55 to 60 hours a week. By the way, undergraduate students tend to believe that professors put in about 40 hours a week.⁵⁸

Costs

Professional-quality survey research can be expensive if we consider all of the costs, which vary according to the type of survey used. A simple formula is that for every \$1 in cost for a mail survey, a telephone interview survey costs about \$5 and a face-to-face interview about \$25. Internet surveys can cost almost nothing except setup time.

Costs vary greatly.⁵⁹ Beyond modest supply costs, the highest expenses are labor costs to hire professional staff (who develop and pilot test a questionnaire) to hire clerical staff and interviewers, and to train interviewers. Beginning researchers tend to underestimate all of the expenses and time required. In 2008, a two-page mail questionnaire sent to 300 respondents cost me \$2,500, or about \$8.30 each. This did not include payment for writing and checking the questionnaire or for statistically analyzing the data. With a 60 percent response rate (180 returns), the real cost was closer to \$13.90 per completed questionnaire.

Professional survey organizations often charge \$75 or more for a completed 15-minute telephone interview. The costs for a face-to-face interview study are higher. A professionally completed face-to-face interview can cost more than \$200, depending on the interview length and travel expenses. At one extreme, a face-to-face survey of 1,000 geographically dispersed respondents from the public can cost more than \$300,000 and require a year to complete. At the other extreme, a simple one-page, self-administered questionnaire that a teacher photocopies and distributes to 100 students in one school can cost very little except for the teacher's time and effort. The teacher might be able to prepare and distribute the questionnaire, collect responses, and tabulate results in as little as one week.

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Over the decades, our knowledge of interviewing errors evolved in three stages. During the 1960s and 1970s, we focused on how to stop mistakes because a respondent was not being fully committed to the seriousness of the survey interview situation. To improve survey interviews, we told interviewers to emphasize the importance of complete and accurate answers or to model proper respondent behavior. By the 1980s–1990s, improving interviews shifted to standardizing interviewer behavior. We carefully trained interviewers to read each survey question exactly as written, to use neutral probes, to record respondent answers verbatim, and to be very non-judgmental. We emphasized making each interview situation an identical experience.

The standard interview is based on the **naïve assumption model** (see Foddy, 1993:13). We sought to reduce any gap between actual experience in conducting surveys and the ideal survey as expressed in the model's assumptions (see Expansion Box 11, Naïve Assumption Model of Survey Interviews).

By 2000, some researchers advocated abandoning the standardized approach and using an alternative interview format, a flexible or **conversational interview**, which is based on the collaborative encounter model (discussed later in this chapter). The interview is treated as a social situation in which respondents must interpret the meaning of a survey question. Interviewers collaborate with respondents or assist so that respondents accurately grasp the researcher's intent in a question. The interviewers actively work to improve accuracy on questions about complex issues or

Naïve assumption model A particular standardized survey research type in which there are no communication problems and respondents' responses perfectly match their thoughts.

Conversational interview A flexible technique based on the collaborative encounter model in which interviewers adjust interviewing questions to the understanding of specific respondents but maintain the researcher's intent in each question.

EXPANSION BOX 11**Naïve Assumption Model
of Survey Interviews**

1. Researchers have clearly conceptualized all variables being measured.
2. Questionnaires have no wording, question order, or related effects.
3. Respondents are motivated and willing to answer all questions asked.
4. Respondents possess complete information and can accurately recall events.
5. Respondents understand each question exactly as the researcher intends it.
6. Respondents give more truthful answers if they do not know the hypotheses.
7. Respondents give more truthful answers if they receive no hints or suggestions.
8. The interview situation and specific interviewers have no effects on answers.
9. The process of the interview has no impact on the respondents' beliefs or attitudes.
10. Respondents' behaviors match perfectly their verbal responses in an interview.

about which respondents have difficulty expressing their thoughts.

Most professional survey researchers still rely on standardized interviewing and question the validity of conversational interviewing. They believe interviewer effects will distort or bias respondent answers. However, both approaches to interviewing have their defenders. Advocates of a standardized interview approach believe more refined survey question wording can resolve any respondent misinterpretations. Advocates of conversational interviewing emphasize the fluid nature of social interactions and the different social realities or understandings held by socially diverse respondents. These advocates say that the goal is to create a common interpretation of the survey researcher's intent behind a question, not to repeat the same words in a question. To achieve a common interpretation among diverse respondents, an interviewer may have to ask some respondents the question in different ways. Only a highly trained, socially adept

interviewer who has a deep understanding of the researcher's intent in each survey question may be able to reach a shared understanding of that intent with many diverse respondents. We can trace the cause of the standard versus the conversational interview disagreement to the assumptions of the positivist versus interpretative approaches to social science.⁶⁰

The Role of the Interviewer

Interviews to gather information occur in many settings. Employers interview prospective employees, medical personnel interview patients, mental health professionals interview clients, social service workers interview people who are needy, reporters interview politicians and others, police officers interview witnesses and crime victims, and talk show hosts interview celebrities (see Expansion Box 12, Types of Nonresearch Interviews). Survey research interviewing is a specialized type of interviewing. As with most interviewing, its goal is to obtain accurate information from another person.⁶¹

The interview is a short-term, secondary social interaction between two strangers with the explicit purpose of one person obtaining specific information from the other. The social roles are those of the interviewer and the interviewee or respondent. Interaction takes the form of a structured conversation in which the interviewer asks prearranged questions and the respondent gives answers, which the interviewer records. It differs in several ways from ordinary conversation (see Table 5).

Interviewers often find that respondents are unfamiliar with a survey respondent's role and "respondents often do not have a clear conception of what is expected of them" (Turner and Martin, 1984:282). As a result, respondents may substitute a role with which they are familiar (e.g., an intimate conversation or therapy session, a bureaucratic exercise in completing forms, a citizen referendum on policy choices, a testing situation, or a form of deceit in which interviewers are try to entrap respondents). Even for a well-designed, professional survey, follow-up studies found that only half of respondents understand questions exactly as intended by researchers. Respondents often

EXPANSION BOX 12**Types of Nonresearch Interviews**

1. *Job interview.* An employer asks open-ended questions to gather information about a candidate for a job and to observe how the candidate presents himself or herself. The candidate (respondent) initiates the contact and attempts to present a positive self-image. The employer (interviewer) tries to discover the candidate's true talents and flaws. A serious, judgmental tone exists with the employer having the power to accept or reject the candidate. This often creates tension and limited trust. The parties may have conflicting goals, and each may use some deception. The results are not confidential.
2. *Assistance interview.* A helping professional (counselor, lawyer, social worker, medical doctor, etc.) seeks information on a client's problem, including background and current conditions. The helping professional (interviewer) uses the information to understand and translate the client's (respondent's) problem into professional terms for problem resolution. The tone is serious and concerned. There is usually low tension and high mutual trust. The parties share the goal of resolving the client's problem, and deception is rare. The interview results are usually confidential.
3. *Journalistic interview.* A journalist gathers information from a celebrity, newsmaker, witness, or background person for later use in constructing a newsworthy story. The journalist (interviewer) uses various skills in attempting to get novel information, some that may not be easily revealed, and "quotable quotes" from the news source (respondent). The journalist uses the interview information selectively in combination with other information, usually beyond the respondent's control. The tone and degree of trust and tension vary greatly. The goals of the parties may diverge, and each may use deception. The interview results are not confidential and they may get a lot of publicity.
4. *Interrogation or investigative interview.* A criminal justice official, auditor, or other person in authority seriously asks questions to obtain information from an accused person or others with information about wrongdoing. The official (interviewer) will use the information as evidence to construct a case against someone (possibly the respondent). The tension is often extreme with mutual distrust. The goals of the parties diverge sharply, and each often uses deception. Interview results are rarely confidential and may become part of an official, public record.
5. *Entertainment interview.* An emcee or show host offers comments and asks open-ended questions to a celebrity or other person who may digress in answers or begin a monologue. The primary goal is to stimulate interest, enjoyment, or gaiety among an audience. Often, the style displayed by each is more central than any information revealed. The host (interviewer) seeks an immediate response or reaction in the audience, while the celebrity (respondent) tries to increase his or her fame or reputation. The tone is light, tension is low, and trust is moderately high. The limited goals of each often converge. They may deceive each other or join in deceiving the audience. The situation is the opposite to one in which confidentiality can occur.

People can mix the types of interviews, and people often use several types. For example, the social worker in a social control role instead of a helping role may conduct an investigative interview. Or a police officer helping a crime victim may use an assistance interview instead of an interrogation.

reinterpreted questions to make them applicable to their own idiosyncratic, personal situations or to make them easy to answer.⁶²

Interviewers have a difficult role. They encroach on the respondents' time and privacy, seeking cooperation and building rapport to obtain information that may not directly benefit the respondents. They may have to explain the nature of survey research

or give hints about social roles in an interview. At the same time, interviewers must remain neutral and objective. They try to reduce embarrassment, fear, and suspicion so that respondents feel comfortable revealing information. Good interviewers monitor the pace and direction of the social interaction as well as the content of answers and the behavior of respondents.

TABLE 5 Differences between Ordinary Conversation and a Structured Survey Interview

ORDINARY CONVERSATION	THE SURVEY INTERVIEW
1. Questions and answers from each participant are relatively equally balanced.	1. Interviewer asks and respondent answers most of the time.
2. There is an open exchange of feelings and opinions.	2. Only the respondent reveals feelings and opinions.
3. Judgments are stated and attempts made to persuade the other of particular points of view.	3. Interviewer is nonjudgmental and does not try to change respondent's opinions or beliefs.
4. A person can reveal deep inner feelings to gain sympathy or as a therapeutic release.	4. Interviewer tries to obtain direct answers to specific questions.
5. Ritual responses are common (e.g., "Uh huh," shaking head, "How are you?" "Fine").	5. Interviewer avoids making ritual responses that influence a respondent and seeks genuine answers, not ritual responses.
6. The participants exchange information and correct the factual errors that they are aware of.	6. Respondent provides almost all information. Interviewer does not correct a respondent's factual errors.
7. Topics rise and fall, and either person can introduce new topics. The focus can shift directions or digress to less relevant issues.	7. Interviewer controls the topic, direction, and pace. He or she keeps the respondent "on task," and irrelevant diversions are contained.
8. The emotional tone can shift from humor, to joy, to affection, to sadness, to anger, and so on.	8. Interviewer attempts to maintain a consistently warm but serious and objective tone throughout.
9. People can evade or ignore questions and give flippant or noncommittal answers.	9. Respondent should not evade questions and should give truthful, thoughtful answers.

Source: Adapted from Gorden (1980:19–25) and Sudman and Bradburn (1983:5–10).

Survey interviewers are nonjudgmental and do not reveal their opinions, verbally or nonverbally. For example, if the respondent gives a shocking answer (e.g., "I was arrested three times for beating my infant daughter and burning her with cigarettes"), the interviewer does not show shock, surprise, or disdain but treats the answer in a matter-of-fact manner. Interviewers help respondents feel that they can give any truthful answer. If a respondent asks for an interviewer's opinion, he or she politely redirects the respondent and indicates that such questions are inappropriate. For example, if a respondent asks "What do you think?" the interviewer may answer "Here we are interested in what *you* think; what I think doesn't matter."

An interviewer helps define the situation and ensures that respondents have the information

sought, understand what is expected, give relevant and serious answers, and are motivated to cooperate. Interviewers do more than interview respondents. Face-to-face interviewers spend only about 35 percent of their time interviewing. About 40 percent is spent locating the correct respondent, 15 percent traveling, and 10 percent studying survey materials and dealing with administrative and recording details.⁶³

Stages of an Interview

The interview proceeds through stages, beginning with an introduction and entry. For a face-to-face interview, the interviewer gets in the door, shows authorization, and reassures the respondent and secures his or her cooperation. The interviewer is

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prepared for reactions such as “How did you pick me?” “What good will this do?” “I don’t know about this.” “What’s this about, anyway?” The interviewer explains why a specific respondent, not a substitute, must be interviewed.

The interview’s main part consists of asking questions and recording answers. In a standard interview (not conversational), the interviewer uses the exact wording on the questionnaire, adds or omits no words, does not rephrase, and asks questions in order without returning to or skipping questions. He or she goes at a comfortable pace and gives nondirective feedback to maintain interest.

In addition to asking questions, the interviewer accurately records answers. This is easy for closed-ended questions, for which interviewers just mark the correct box. For open-ended questions, the interviewer’s job is more difficult. He or she listens carefully, must write legibly, and must record what is said verbatim without correcting grammar or slang. More important, the interviewer never summarizes or paraphrases. Doing so causes a loss of information or distorts answers. For example, the respondent says, “I’m really concerned about my daughter’s heart problem. She’s only 10 years old and already she has trouble climbing stairs. I don’t know what she’ll do when she gets older. Heart surgery is too risky for her and it costs so much. She’ll have to learn to live with it.” If the interviewer writes, “concerned about daughter’s health,” much is lost.

The interviewer knows how and when to use a **probe**, a neutral request to clarify an ambiguous answer, to complete an incomplete answer, or to obtain a relevant response. Interviewers recognize an irrelevant or inaccurate answer and use probes as needed.⁶⁴ There are many types of probes. A 3- to 5-second pause is often effective. Nonverbal communication (e.g., tilt of head, raised eyebrows, or eye contact) also works well. The interviewer can repeat the question or repeat the reply and then pause. She or he can ask a neutral question, such as “Any other reasons?” “Can you tell me more about that?” “How do you mean that?” “Could you explain more for me?” (see Expansion Box 13, Example of Probes and Recording Full Responses to Closed Questions).

Respondents often interpret straightforward questions differently than the survey designer intended. For example, “Inaccurate reporting is not a response tendency or a predisposition to be untruthful. Individuals who are truthful on one occasion or in response to particular questions may not be truthful at other times or to other questions” (Wentworth, 1993:130).

Techniques to reduce misunderstanding, such as conversational interviewing, deviate from the standardized interview model. Beyond concerns about introducing bias, conversational interviewing requires more time and more intense interviewer training. Yet as Conrad and Schober (2000:20) have observed, respondent “comprehension can be made more consistent—and responses more comparable—when certain interviewer behaviors (discussions about the meaning of questions) are *less* consistent.” Paradoxically, nonstandardized interviewing can increase reliability by improving the consistency in how respondents interpret the meaning of survey questions and responses.

Given this complexity and possible distortion, what should the diligent survey researcher do? We should at least supplement closed-ended questionnaires with open-ended questions and probes. Open-ended questions take more time, require better-trained interviewers, and produce responses that may be less standardized and more difficult to quantify. Fixed-answer questionnaires based on the naïve assumption model imply a more simple and mechanical way of responding than occurs in many situations. The inquiry into interviewer bias, cultural meanings, and the interview as a social situation provides a lesson in how qualitative and quantitative styles of social research complement one another. In all research we strive to eliminate sources of interviewer bias and respondent confusion. In the past decade quantitative survey researchers discovered that qualitative researchers offer valuable insights into how people construct meaning in diverse social settings.

Probe A follow-up question asked by an interviewer to elicit an appropriate response when a respondent’s answer is unclear or incomplete.

EXPANSION BOX 13**Example of Probes and Recording Full Responses to Closed Questions**

Interviewer question: What is your occupation?

Respondent answer: I work at General Motors.

Probe: What is your job at General Motors? What type of work do you do there?

Interviewer question: How long have you been unemployed?

Respondent answer: A long time.

Probe: Could you tell me more specifically when your current period of unemployment began?

Interviewer question: Considering the country as a whole, do you think we will have good times during the next year, or bad times, or what?

Respondent answer: Maybe good, maybe bad, it depends, who knows?

Probe: What do you expect to happen?

Record Response to a Closed Question

Interviewer question: On a scale of 1 to 7, how do you feel about capital punishment or the death penalty, where 1 is strongly in favor of the death penalty, and 7 is strongly opposed to it? (Favor) 1 _ 2 _ 3 _ 4 _ 5 _ 6 _ 7 _ (Oppose)

Respondent answer: About a 4. I think that all murderers, rapists, and violent criminals should get death, but I don't favor it for minor crimes like stealing a car.

The last interview stage is the exit when the interviewer thanks the respondent and leaves. The interviewer usually goes to a quiet, private place to edit the questionnaire and record other details such as the date, time, and place of the interview. Often interviewers write a thumbnail sketch of the respondent and interview situation, including the respondent's attitude (e.g., serious, angry, or laughing) and any unusual circumstances (e.g., "Telephone rang at question 27 and respondent talked for 4 minutes before the interview started again"). He or she notes anything disruptive that happened during the interview (e.g., "Teenage son entered room, sat at opposite end, turned on television with the volume loud, and watched a baseball game"). The interviewer also records his or her personal feelings and anything that was suspected (e.g., "Respondent became nervous and fidgeted when questioned about his marriage").

Training of Interviewers

A large-scale survey requires hiring multiple interviewers.⁶⁵ A professional-quality interview requires carefully selecting interviewers and providing them with rigorous training. As with any employment situation, adequate pay and good supervision are important for consistent high-quality performance. Unfortunately, professional interviewing has not always paid well or provided regular employment. In the past, most interviewers were middle-aged women willing to accept irregular part-time work. Good interviewers are pleasant, honest, accurate, mature, responsible, moderately intelligent, stable, and motivated. They have a nonthreatening appearance, have experience with many types of people, and possess poise and tact. If the survey involves interviewing in high-crime areas, interviewers need to be protected.

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We may consider interviewers' physical appearance, age, race, gender, languages spoken, and even the voice (see interviewer bias discussion later in this chapter). For example, in a study using trained female telephone interviewers from homogeneous social backgrounds, Oksenberg and colleagues (1986) found fewer refusals for interviewers whose voices had higher pitch and more pitch variation and who spoke louder and faster with clear pronunciation and sounded more pleasant and cheerful. Most training programs for professional interviewers are 2 weeks long. They usually include a mix of lectures and reading, observation of expert interviewers, mock interviews in the office and in the field that are recorded and critiqued, many practice interviews, and role-playing. The interviewers learn about survey research and the role of the interviewer. They become familiar with the questionnaire and the purpose of questions, although not with the answers expected.

Although interviewers largely work alone, researchers use an interviewer supervisor in large-scale surveys with multiple interviewers. Supervisors are familiar with the location, assist with problems, oversee the interviewers, and ensure that work is completed on time. For telephone interviewing, supervisors help with calls, check when interviewers arrive and leave, and monitor interview calls. In face-to-face interviews, supervisors check to find out whether the interview actually took place. This means calling back or sending a confirmation postcard to a sample of respondents. Supervisors can also check the response rate and incomplete questionnaires to see whether interviewers are obtaining cooperation, and they may reinterview a small subsample, analyze answers, or observe interviews to see whether interviewers are accurately asking questions and recording answers.

Interviewer Bias

Survey researchers proscribe interviewer behavior to reduce bias. Ideally, the actions of a particular interviewer will not affect how a respondent answers, and responses will not vary from what they would have been if asked by any other interviewer.

Proscribed behavior for interviewers goes beyond instructions to read each question exactly as worded, and interview bias takes many forms (see Expansion Box 14, Six Categories of Interview Bias).

We are still learning about the factors that influence survey interviews. We know that interviewer expectations can create significant bias. Interviewers who expect difficult interviews have them, and those who expect certain answers are more likely to get them (see Chart 1). Proper interviewer behavior and exact question reading may be difficult, but there are many other forms of interview bias.

Interviewer bias can arise from expectations based on a respondent's age and race. In a major national U.S. survey, researchers learned that interviewers regularly coded Black respondents as being less intelligent and coded younger respondents as both less intelligent and less informed. Better interviewer training is needed to reduce such bias in survey results.⁶⁶

EXPANSION BOX 14

Six Categories of Interview Bias

1. *Errors by the respondent.* Forgetting, embarrassment, misunderstanding, or lying because of the presence of others
2. *Unintentional errors or interviewer sloppiness.* Contacting the wrong respondent, misreading a question, omitting questions, reading questions in the wrong order, recording the wrong answer to a question, or misunderstanding the respondent
3. *Intentional subversion by the interviewer.* Purposeful alteration of answers, omission or rewording of questions, or choice of an alternative respondent
4. *Influence due to the interviewer's expectations* about a respondent's answers based on the respondent's appearance, living situation, or other answers
5. *Failure of an interviewer to probe* or to probe properly
6. *Influence on the answers due to the interviewer's appearance, tone, attitude, reactions to answers, or comments made outside the interview schedule*

CHART 1 Interviewer Characteristics Can Affect Responses

EXAMPLE OF INTERVIEWER EXPECTATION EFFECTS

<i>Asked by Female Interviewer Whose Own</i>	<i>Female Respondent Reports That Husband Buys Most Furniture</i>
Husband buys most furniture	89%
Husband does not buy most furniture	15

EXAMPLE OF RACE OR ETHNIC APPEARANCE EFFECTS

<i>Interviewer</i>	PERCENTAGE ANSWERING YES TO	
	<i>“Do you think there are too many Jews in government jobs?”</i>	<i>“Do you think that Jews have too much power?”</i>
Looked Jewish with Jewish-sounding name	11.7%	5.8%
Looked Jewish only	15.4	15.6
Non-Jewish appearance	21.2	24.3
Non-Jewish appearance and non-Jewish-sounding name	19.5	21.4

Note: Racial stereotypes held by respondents can affect how they respond in interviews.

Source: Adapted from *Interviewing in social research* by Herbert H. Hyman with William J. Cobb et al.; foreword by Samuel A. Stouffer. © 1954, 1975 University of Chicago Press, p. 153.

The interview setting can affect answers. For example, high school students answer differently depending on whether we interview them at home or at school. The presence of other people often affects responses, so usually we do not want others present.⁶⁷ For example, Zipp and Toth (2002) found greater agreement on numerous attitude items when a spouse was present at an interview; wives modified their answers to conform to their husbands' responses and husbands' changed little.

An interviewer's visible physical characteristics, including race and gender, can affect respondent answers, especially for questions about issues related to race or gender. For example, African American and Hispanic American respondents express different policy positions on race- or ethnic-related issues depending on the apparent race or ethnicity of the interviewer. This occurs even with telephone interviews when a respondent has clues about the interviewer's race or ethnicity. In general, interviewers of the same racial-ethnic group get

more accurate answers than does an interviewer of a different background. Gender also affects interviews both in terms of obvious issues, such as sexual behavior, as well as support for gender-related collective action or gender equality. Yet, as Weisberg (2006:61) noted, "Interviewer matching is rarely used in the United States, except when it is necessary to use interviewers who can speak another language. . . . Interview matching is more necessary in some other countries, as in Arab countries where it would be considered inappropriate for an interviewer of one gender to speak with a respondent of another gender."⁶⁸

Interviewer characteristics can influence answers in many ways. For example, when the interviewer was a person with disabilities, respondents lowered their self-reported level of "happiness" compared to answering a self-administered questionnaire. Apparently, they did not want to sound too well off compared to the interviewer. However, when respondents completed a self-administered

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questionnaire while a person with disabilities was in the same room, they reported higher levels of happiness. Apparently, respondents felt comparatively better off due to the physical presence of the person with the disability compared to situations in which there was no immediate reminder of the life situations of others.⁶⁹ A respondent who answers identical questions differently depending on features of an interviewer threatens representative reliability.

Cultural Meanings and Survey Interviews

Research into survey errors and interview bias has advanced information about how people create meaning and achieve cultural understanding.⁷⁰ We are troubled when a word has different meanings and implications depending on the social situation, who speaks it, how it is spoken, and the social distance between the speaker and listener. Survey research is complicated when respondents misinterpret the nature of survey research and seek clues for how to answer in the wording of questions or subtle actions of the interviewer. Moreover, “it is important not to lose sight of the fact that the interview setting is itself distinct from other settings in which attitudes are expressed, and hence we should not expect to find complete congruence between attitudes expressed in interviews and in other social contexts.”⁷¹

We face a dilemma: An interviewer who strives to act in a neutral and uniform way reduces the type of bias that causes unreliability because of individual interviewer behavior, yet such attempts cause other problems according to interpretive or critical social science researchers, including feminist researchers (see Expansion Box 15, Interviewing: Positivist and Feminist Approaches).⁷⁰

Nonpositivist researchers argue that meaning is created in social context; therefore, standard survey question wording will not produce the same meaning for all respondents. For example, some respondents express feelings by telling stories instead of answering straightforward questions with fixed answers. Nonpositivist researchers advocate the **collaborative encounter model** of the survey

situation. This model views all human encounters as highly dynamic, complex mutual interactions in which even minor, unintended forms of feedback (e.g., saying hmmm, laughing, smiling, nodding) have an influence, and suggests conversational interviewing. The collaborative encounter model also allows interviewers to incorporate information offered by respondents in response to fixed-choice questions that the standardized interview prohibits or treats as an error because it does not correspond to a preset, standardized format.

According to the collaborative encounter model, in complex human interactions, people add interpretative meaning to simple questions. For example, my neighbor asks me the simple question, “How often do you mow your lawn?” I could interpret his question in the following ways:

- How often do I personally mow the lawn (versus having someone else mow it for me)?
- How often do I mow it to cut grass (versus run my lawnmower over it to chop up leaves)?
- How often do I mow the entire lawn (versus cutting the quick-growing parts only)?
- How often do I mow it during an entire season, a month, a week?
- How often do I mow it most seasons (versus last year when my lawnmower was broken several times and it was very dry and the grass grew less, so I did not mow it as frequently)?

Within seconds, I make an interpretation and give an answer, but the open-ended, ongoing interaction between myself and the neighbor permits me to ask for clarification and for several follow-up questions that help us arrive at mutual understanding.

A survey interview interaction differs from ordinary conversation. The standard survey research interview is an artificial interaction that treats diverse

Collaborative encounter model A particular survey interview in which the respondent and interviewer work together to reach the meaning of the survey question as intended by the researcher and produce an accurate response to it.

EXPANSION BOX 15**Interviewing: Positivist and Feminist Approaches**

In this chapter, we have mostly considered the positivist approach to survey research interviewing. In the ideal survey interview, the interviewer withholds her or his own feelings and beliefs. The interviewer should be so objective and neutral that it should be possible to substitute another interviewer and obtain the same responses.

Feminist researchers approach interviewing very differently. Feminist interviewing is similar to qualitative interviewing. Oakley (1981) criticized positivist survey interviewing as being part of a masculine paradigm. It is a social situation in which the interviewer exercises control and dominance while suppressing the expression of personal feelings. The interview is manipulative and instrumental. The interviewer and the respondent become merely the vehicles for obtaining the objective data.

The goals of feminist research vary, but two common goals are to give greater visibility to the subjective experience of women and to increase the involvement of the respondent in the research

process. Features of feminist interviewing include the following:

- A preference for an unstructured and open-ended format
- A preference for interviewing a person more than once
- Creation of social connections and building a trusting social relationship
- Disclosure of personal experiences by the interviewer
- Encouragement of female skills of being open, receptive, and understanding
- Avoidance of control and encouragement of equality by downplaying professional status
- Careful listening; interviewers become emotionally engaged with respondents
- Respondent-oriented direction, not researcher oriented or questionnaire oriented
- Encouragement of respondents to express themselves in ways they are most comfortable—for example, by telling stories or following digressions
- Creation of a sense of empowerment and an esprit de corps among women

respondents alike to control the communication situation and yield a uniform measure. Ordinary interaction contains built-in features to detect and correct misinterpretation; it relies on nuance and give and take. People achieve social meaning in ordinary conversation by relying on clues in the context, adjusting the interaction flow to specific people involved, and building on a cultural frame (often based on race, class, gender, region, or religion). The fluid interaction of ordinary conversation is self-adjusting because different people do not always assign the same meaning to the same words, phrases, and questions. For example, men and women report health differently. A man saying he is in excellent health

means something different from a woman answering the same question with the same response. By standardizing human interaction, the survey interview strips away features in ordinary conversation that provide self-correction, promote the construction of a shared meaning among different people, and increase human mutual understanding.⁷³

Pilot Testing and Cognitive Interviews

It is important to pilot test survey interviews and questionnaires prior to implementation. Systematic study of pilot tests in the survey process and models of cognitive processing has helped us better understand the survey process. We see that the process of answering survey questions has several steps: interpret and comprehend the question, retrieve relevant information, integrate and evaluate the information, and select a response category. A recent area of study is cognitive testing or **cognitive interviewing** in which we study how respondents answer questions in pilot test situations.⁷⁴

Cognitive interviewing A technique used in pilot testing surveys in which researchers try to learn about a questionnaire and improve it by interviewing respondents about their thought processes or having respondents “think out loud” as they answer survey questions.

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Cognitive interviewing helps us to identify problems in questionnaires under development by asking a small number of pretest participants to verbally report their thinking while answering the draft questions. It provides a window into respondents' thinking and problems they face when answering survey questions. Cognitive interviewers probe for additional information about the process of answering questions. We use this information to refine the questionnaire or interviewing process (see Expansion Box 16, Methods of Improving Questionnaire with Pilot Tests).

Another related development draws on ethnomethodology and conversation analysis to study the interview process as a special type of social

interaction and speech event. These approaches support the collaborative encounter model and suggest treating nonstandardized interview behaviors, such as respondent queries or minor forms of interviewer feedback (saying hmmm, laughing, smiling) as opportunities to learn more about the interview.⁷⁵

THE ETHICAL SURVEY

Like all social research, we can conduct surveys in ethical or unethical ways. A major ethical issue in survey research is the invasion of privacy.⁷⁶ People have a right to privacy. Respondents have a right to decide when and to whom to reveal personal information. We intrude into a respondent's privacy by asking about intimate actions and personal beliefs. Respondents are likely to provide such information accurately and honestly when asked for it in a comfortable context with mutual respect and trust. They are most likely to answer when they believe we want serious answers for legitimate research purposes and when they believe answers will remain confidential. We need to treat all respondents with dignity, reduce discomfort, and protect the confidentiality of survey data.

A second issue involves voluntary participation by respondents. Respondents can agree to answer questions or refuse to participate at any time. They give "informed consent" to participate in research. We depend on respondents' voluntary cooperation and need to ask well-developed questions in a sensitive way, treat respondents with respect, and be very sensitive to confidentiality.

A third ethical issue is the exploitation of surveys and pseudosurveys. Because of its popularity, some organizations and people have used surveys to mislead others. A **pseudosurvey** is a survey format that is used in an attempt to persuade someone to do something and has little or no real interest in learning information from a respondent. Charlatans

EXPANSION BOX 16

Methods of Improving Questionnaire with Pilot Tests

1. *Think aloud interviews.* A respondent explains his or her thinking out loud during the process of answering each question.
2. *Retrospective interviews and targeted probes.* After completing a questionnaire, the respondent explains to researchers the process used to select each response or answer.
3. *Expert evaluation.* An independent panel of experienced survey researchers reviews and critiques the questionnaire.
4. *Behavior coding.* Researchers closely monitor interviews, often using audio or videotapes, for misstatements, hesitations, missed instructions, nonresponse, refusals, puzzled looks, answers that do not fit any of the response categories, and so forth.
5. *Field experiments.* Researchers administer alternative forms of the questionnaire items in field settings and compare results.
6. *Vignettes and debriefing.* Interviewers and respondents are presented with short, invented "lifelike" situations and asked which questionnaire response category they would use.

Sources: Dillman and Redine (2004), Fowler (2004), Martin (2004), Tourangeau (2004a, 2004b), van der Zouwen and Smit (2004), and Willis (2004).

Pseudosurvey A false and deceptive survey-like instrument using the format of a survey interview but whose true purpose is to persuade a respondent.

use the guise of conducting a survey to invade privacy, gain entry into homes, or “suggle” (sell in the guise of a survey). An example of a pseudosurvey occurred during the 1994 U.S. election campaign with “suppression polls” in which an unknown survey organization telephoned a potential voter and asked whether the voter supported a given candidate. If the voter supported the candidate, the interviewer asked whether the respondent would still support the candidate if he or she knew that the candidate had an unfavorable characteristic (e.g., had been arrested for drunk driving, used illegal drugs, raised the wages of convicted criminals in prison). The goal of the interview was not to measure candidate support; rather, it was to identify a candidate’s supporters and then attempt to suppress voting. I received such calls, as did an unsuccessful candidate for governor who was the object of the suppression poll. No one has been prosecuted for using this campaign tactic.

Another ethical issue is the misuse of survey results or use of poorly designed or purposely rigged surveys. People may demand answers from surveys that surveys cannot provide or they do not appreciate the limitations of survey data. Also, people who design and prepare surveys may lack sufficient training about conducting a legitimate survey. Policy decisions made based on careless or poorly designed surveys may result in waste and human hardship. Such misuse makes it important for you to learn about the complexity of survey research and to conduct only methodologically sound survey research studies.

Another issue is that the mass media’s reporting of survey results can permit abuse.⁷⁷ Few people reading survey results may appreciate them, but we should always include details about the survey (see Expansion Box 17, Ten Items to Include When Reporting Survey Research) to reduce the misuse of survey research and increase questions about surveys that lack such information. More than 88 percent of reports on surveys in the mass media fail to reveal the researcher who conducted the survey, and only 18 percent provide details on how the survey was conducted.⁷⁸ We urge the media to include such information, especially because the media

EXPANSION BOX 17

Ten Items to Include When Reporting Survey Research

1. The sampling frame used (e.g., telephone directories)
2. The dates on which the survey was conducted
3. The population that the sample represents (e.g., U.S. adults, Australian college students)
4. The size of the sample for which information was collected
5. The sampling method (e.g., random)
6. The exact wording of the questions asked
7. The method of the survey (e.g., face to face, telephone)
8. The organization(s) that sponsored the survey (who paid for it and conducted it)
9. The response rate or percentage of those contacted who actually completed the questionnaire
10. Any missing information or “don’t know” responses when results on specific questions are reported

report more surveys than other types of social research.

Currently, there are no quality-control standards to regulate the U.S. media’s reporting of opinion polls or surveys. For nearly 50 years the professional survey research community has sought, without success, to have media only report studies with adequate scientific samples, rigorous interviewer training and supervision, satisfactory questionnaire design, public availability of data, and controls on the integrity of survey organizations.⁷⁹ Unfortunately, the mass media report both biased, misleading survey results and results from rigorous, professional surveys without distinction. It is not surprising that public confusion regarding and a distrust of all surveys occur.

CONCLUSION

In this chapter, you read about survey research. The survey is the most widely used social research technique. You also read about some principles of writing good survey questions. There are many things to avoid and to include when writing questions. The

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chapter presented the advantages and disadvantages of various types of survey research and noted that interviewing, especially face-to-face interviewing, can be difficult.

Although this chapter focused on survey research, we use questionnaires to measure variables in other types of quantitative research (e.g., experiments). The survey, often called the *sample survey* because random sampling is usually used with it, is a distinct technique. It is a process of asking many people the same questions and examining their answers.

Survey researchers try to minimize errors, but survey data often contain them. Errors in surveys can compound each other. For example, errors can arise in sampling frames, from nonresponse, from question wording or order, and from interviewer bias. Do not let the potential for errors discourage you from using the survey, however. Instead, learn to be very careful when designing survey research and cautious about generalizing from its results.

KEY TERMS

closed-ended question	double-barreled question	pseudosurvey
cognitive interviewing	floaters	quasi-filter question
collaborative encounter model	full-filter question	randomized response technique (RRT)
computer-assisted personal interviewing (CAPI)	funnel sequence	recency effect
computer-assisted self-administered interviewing (CASAI)	interactive voice response (IVR)	satisficing
computer-assisted telephone interviewing (CATI)	leverage salience theory	sleepier question
context effect	matrix question	social desirability bias
contingency question	naïve assumption model	standard-format question
conversational interview	open-ended question	tailoring
	order effects	telescope
	partially open question	time budget survey
	prestige bias	wording effects
	probe	

REVIEW QUESTIONS

1. What are the six types of information that surveys often ask about? Give an example of each that is different from the examples in the book.
2. Why are surveys called *correlational*, and how do these differ from experiments?
3. Identify five of the ten things to avoid in question writing.
4. What topics are commonly threatening to respondents, and how can a researcher ask about them?
5. What are advantages and disadvantages of open-ended versus closed-ended questions?
6. What are filtered, quasi-filtered, and standard-format questions? How do they relate to floaters?
7. What are differences between and relative merits of a standard versus a conversational interview?
8. What is cognitive interviewing, and how does it improve survey research?

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9. Under what conditions are mail questionnaires, telephone interviews, Web surveys, and face-to-face interviews best?
10. What are CATI and IVR, and when might they be useful? How do they differ from CASAI or CAPI?

NOTES

1. See Carr-Hill (1984b), Denzin (1989), Mishler (1986), and Phillips (1971) for criticisms of a strict positivist approach in surveys.
2. “Why” questions require special techniques. See Barton (1995) and Wilson and colleagues (1996).
3. The history of survey research is discussed in Converse (1987), Hyman (1991), Marsh (1982:9–47), Miller (1983:19–125), Moser and Kalton (1972:6–15), Rossi and colleagues (1983), Sudman (1976b), and Sudman and Bradburn (1987).
4. See Bannister (1987), Blumer (1991a, 1991b), Blumer et al. (1991), Camic and Xie (1994), Cohen (1991), Deegan (1988), Ross (1991), Sklar (1991), Turner (1991), and Yeo (1991). Also see R. Smith (1996) on how political ideological conflicts and private foundations affected the development of survey research.
5. See Scheuch (1990) on national surveys conducted in various countries.
6. See Converse (1987:383–385), *Statistical Abstract of the United States*, and Rossi et al. (1983:8).
7. See Rossi et al. (1983:10).
8. See Bayless (1981) on the Research Triangle Institute.
9. Some organizations include the American Association for Public Opinion Research, founded in 1947. The Council of American Survey Research Organization is an organization for U.S. commercial polling firms and the World Association of Public Opinion Research is an international organization for commercial polling. See Bradburn and Sudman (1988).
10. Bishop et al. (1983, 1984, 1985), Bradburn (1983), Bradburn and Sudman (1980), Cannell et al. (1981), Converse and Presser (1986), Groves and Kahn (1979), Groves et al. (2000), Groves and Couper (1998), Hyman (1991), Lacy (2001), Lyberg et al. (1997), Schacter (2001), Schuman and Presser (1981), Schwarz and Sudman (1992, 1994), Sniderman and Grob (1996), Sudman and Bradburn (1983), Sudman et al. (1996), and Tanur (1992).
11. For a discussion of pilot testing techniques, see Bishop (1992), Bolton and Bronkhorst (1996), Fowler and Cannell (1996), and Sudman et al. (1996).
12. On the administration of survey research, see Backstrom and Hursh-Cesar (1981:38–45), Dillman (1978:200–281; 1983), Frey (1983:129–169), Groves and Kahn (1979:40–78, 186–212), Prewitt (1983), Tanur (1983), and Warwick and Lininger (1975:20–45, 220–264).
13. Similar lists of prohibitions can be found in Babbie (1990:127–132), Backstrom and Hursh-Cesar (1981:140–153), Bailey (1987:110–115), Bradburn and Sudman (1988:145–153), Converse and Presser (1986:13–31), deVaus (1986:71–74), Dillman (1978:95–117), Fowler (1984:75–86), Frey (1983:116–127), Moser and Kalton (1972:318–341), Sheatsley (1983:216–217), Sudman and Bradburn (1983:132–136), and Warwick and Lininger (1975:140–148).
14. Binson and Catania (1998), Foddy (1993), and Presser (1990).
15. Sudman and Bradburn (1983:39) suggest that even simple questions (e.g., “What brand of soft drink do you usually buy?”) can cause problems. Respondents who are highly loyal to one brand answer the question easily.
16. See Schaeffer (2000) and Sudman et al. (1996:197–226).
17. See Dykema and Schaeffer (2000).
18. On using a continuum, see Ostrom and Gannon (1996).
19. See Abelson and associates (1992), Auriat (1993), Bernard et al. (1984), Croyle and Loftus (1992), Gaskell et al. (2000), Krosnick and Abelson (1992), Loftus et al. (1990), Loftus et al. (1992), Pearson and Dawes (1992), Sudman et al. (1996), and Weisberg (2005:76–81, 127).
20. See Bradburn (1983), Bradburn and Sudman (1980), and Sudman and Bradburn (1983) on threatening or sensitive questions. Backstrom and Hursh-Cesar (1981:219) and Warwick and Lininger (1975:150–151) provide useful suggestions as well. Fox and Tracy (1986) discuss the randomized response technique. Also see DeLamater and MacCorquodale (1975) on measuring sexual behavior and Herzberger (1993) on sensitive topics.
21. For studies on survey format and answer honesty, see Holbrook et al. (2004), Johnson et al. (1989), Schaeffer and Presser (2003:75), and Tourangeau et al. (2002).
22. See Couper et al. (2003), DeMaio (1984), and Sudman and Bradburn (1983:59).

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23. For more on surveys with threatening or sensitive topics and computer-assisted techniques, see Aquilino and Losciuto (1990), Couper and Rowe (1996), Johnson et al. (1989), Tourangeau and Smith (1996), and Wright et al. (1998).
24. For a discussion of knowledge questions, see Backstrom and Hursh-Cesar (1981:124–126), Converse and Presser (1986:24–31), Sudman and Bradburn (1983: 88–118), and Warwick and Lininger (1975:158–160).
25. On how “Who knows who lives here?” can be complicated, see Martin (1999) and Tourangeau et al. (1997).
26. Contingency questions are discussed in Babbie (1990:136–138), Bailey (1987:135–137), deVaus (1986:78–80), Dillman (1978:144–146), and Sudman and Bradburn (1983:250–251).
27. For further discussion of open and closed questions, see Bailey (1987:117–122), Converse (1984), Converse and Presser (1986:33–34), deVaus (1986:74–75), Geer (1988), Moser and Kalton (1972:341–345), Schuman and Presser (1979; 1981:79–111), Sudman and Bradburn (1983:149–155), and Warwick and Lininger (1975: 132–140).
28. See Gilljam and Grandberg (1993). Moors (2008) notes that generally five versus six choices are equally effective in statistical tests but six is sometimes better, and the “optimal” solution depends on the content of the survey items.
29. For a discussion of the “don’t know,” “no opinion,” and middle positions in response categories, see Backstrom and Hursh-Cesar (1981:148–149), Bishop (1987), Bradburn and Sudman (1988:154), Brody (1986), Converse and Presser (1986:35–37), Duncan and Stenbeck (1988), Poe et al. (1988), Sudman and Bradburn (1983: 140–141), and Schuman and Presser (1981:113–178). For more on filtered questions, see Bishop et al. (1983, 1984), Bishop et al. (1986), and Weisberg (2005:134–136).
30. See Krosnick et al. (2002), Schaefer and Presser (2003:79–80), and Tourangeau (2004:786).
31. The disagree/agree versus specific alternatives debate is discussed in Bradburn and Sudman (1988: 149–151), Converse and Presser (1986:38–39), Schuman and Presser (1981:179–223), and Sudman and Bradburn (1983: 119–140). Backstrom and Hursh-Cesar (1981:136–140) discuss asking Likert, agree/disagree questions.
32. See McCarty and Shrum (2000) and Narayan and Krosnick (1996).
33. The ranking versus ratings issue is discussed in Alwin and Krosnick (1985), Krosnick and Alwin (1988), and Presser (1984). Also see Backstrom and Hursh-Cesar (1981:132–134) and Sudman and Bradburn (1983:156–165) for formats of asking rating and ranking questions.
34. For more on specific design issues, see Christian and Dillman (2004), Dillman and Redline (2004), Kaplowitz et al. (2004), Ostrom and Gannon (1996), Schwarz et al. (1991), and Tourangeau et al. (2004).
35. See Dillman (2000:32–39) and Dillman and Christian (2005) for discussion.
36. For a discussion of wording effects in questionnaires, see Bradburn and Miles (1979), Peterson (1984), Schuman and Presser (1981:275–296), Sheatsley (1983), and Smith (1987). Hippler and Schwarz (1986) found the same difference between *forbid* and *not allow* in the Federal Republic of Germany.
37. The length of questionnaires is discussed in Dillman (1978:51–57; 1983), Frey (1983:48–49), Herzog and Bachman (1981), and Sudman and Bradburn (1983: 226–227).
38. For a discussion of the sequence of questions or question order effects, see Backstrom and Hursh-Cesar (1981:154–176), Bishop et al. (1985), Bradburn (1983: 302–304), Bradburn and Sudman (1988:153–154), Converse and Presser (1986:39–40), Dillman (1978: 218–220), McFarland (1981), McKee and O’Brien (1988), Moser and Kalton (1972:346–347), Schuman and Ludwig (1983), Schuman and Presser (1981:23–74), Schwartz and Hippler (1995), and Sudman and Bradburn (1983:207–226). Also see Knäuper (1999), Krosnick (1992), Lacy (2001), and Smith (1992) on the issue of question-order effects.
39. A study by Krosnick (1992) and a meta-analysis by Narayan and Krosnick (1996) show that education reduces response-order (primacy or recency) effects, but Knäuper (1999) found that age is strongly associated with response-order effects.
40. This example comes from Strack (1992).
41. For additional discussion of context effects, see Schuman (1992), Smith (1992), Todorov (2000a, 2000b), and Tourangeau (1992).
42. Tarnai and Dillman (1992) discuss how the method of survey affects context effects.
43. For a discussion of format and layout, see Babbie (1990), Backstrom and Hursh-Cesar (1981:187–236), Dillman (1978, 1983), Mayer and Piper (1982), Sudman and Bradburn (1983:229–260), Survey Research Center (1976), and Warwick and Lininger (1975:151–157).
44. For a discussion, see Couper et al. (1998), de Heer (1999), Keeter et al. (2000), Sudman and Bradburn (1983:11), and “Surveys Proliferate, but Answers Dwindle,” *New York Times* (October 5, 1990), p. 1. Smith (1995) and Sudman (1976b:114–116) also discuss refusal rates.

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45. For additional discussion of nonresponse and refusal rates, see Backstrom and Hursh-Cesar (1981:140–141, 274–275), DeMaio (1980), Frey (1983:38–41), Groves and Couper (1998), Groves and Kahn (1979:218–223), Martin (1985:701–706), Nederhof (1986), Oksenberg et al. (1986), Schuman and Presser (1981:331–336), Sigelman (1982), Stech (1981), Sudman and Bradburn (1983), and Yu and Cooper (1983). For a discussion of methods for calculating response rates, see Bailey (1987:169), Dillman (1978:49–51), Fowler (1984:46–52), and Frey (1983:38).
46. Link and Oldendick (1999) examined telephone screening.
47. See Pottick and Lerman (1991) for a discussion of the study.
48. Introductions and incentives are discussed in Brehm (1994), Couper (1997), De Leeuw et al. (2007), Goldstein and Jennings (2002), Singer (1999), Singer et al. (1998), Singer et al. (1999), Singer et al. (2000), and Trussell and Lavrakas (2004). Dillman et al. (1996) discuss mandatory appeals.
49. Tailoring is discussed in Brehm (1994), Groves and Couper (1996, 1998, 2004), and Groves, Presser, and Dipko (2004).
50. On increasing mail questionnaire return rates, see Bailey (1987:153–168), Church (1993), Dillman (1978, 1983), Fox et al. (1988), Goyder (1982), Heberlein and Baumgartner (1978, 1981), Hubbard and Little (1988), Jones (1979), and Willimack et al. (1995).
51. CATI is discussed in Bailey (1987:201–202), Bradburn and Sudman (1988:100–101), Freeman and Shanks (1983), Frey (1983:24–25, 143–149), Groves and Kahn (1979:226), Groves and Mathiowetz (1984), and Karweit and Meyers (1983).
52. See Tourangeau et al. (2002), Tourangeau (2004a:791–792), and Weisberg (2005:30–37).
53. On cell phone survey interviewing issues, see Brick et al. (2007), Lavrakas et al. (2007), and Link et al. (2007).
54. For comparison of surveys, see Backstrom and Hursh-Cesar (1981:16–23), Bradburn and Sudman (1988:94–110), Dillman (1978:39–78), Fowler (1984:61–73), and Frey (1983:27–55).
55. For discussions of Web and e-mail surveys, see Birnbaum (2004), Couper (2000), Couper (2008), Couper et al. (2001), Fox and associates (2003), Koch and Emrey (2001), and Tourangeau (2004a:792–794). On Internet usage see “Internet Use Triples in Decade, U.S. Census Bureau Reports,” June 3, 2009 [http://www.census.gov/Press-Release/www/releases/archives/communication_industries/013849.html] and “Broadband Internet to Reach 77 Percent of Households by 2012,” TMCnet, July 29, 2008 [<http://www.tmcnet.com/voip/ip-communications/articles/35393-gartner-broadband-internet-reach-77-percent-households-2012.html>].
56. See Couper, Conrad, and Tourangeau (2007), Couper (2008), Dillman (2000:376–400), and Smyth et al. (2009).
57. Elite interviewing is discussed in Dexter (1970). Also see Galaskiewicz (1987), Useem (1984), Verba and Orren (1985), and Zuckerman (1972).
58. On time budget surveys, see Andorka (1987), Bittman and Wajcman (2000), ERIC (1976), Hornsby-Smith (1974), Jordan and Layzell (1992), Mattingly and Bianchi (2003), Meyer (1998), Milem et al. (2000), and Wiedmer (1993) for faculty hours.
59. Dillman (1983) and Groves and Kahn (1979:188–212) discuss costs.
60. See Maynard et al. (2002), Schwartz (1996), and Weisberg (2005:72–91).
61. For more on interviewing, see Brenner et al. (1985), Cannell and Kahn (1968), Converse and Schuman (1974), Dijkstra and van der Zouwen (1982), Foddy (1993), Gorden (1980), Hyman (1975), Moser and Kalton (1972:270–302), and Survey Research Center (1976). For a discussion of telephone interviewing, see Frey (1983), Groves and Mathiowetz (1984), Jordan et al. (1980), and Tucker (1983).
62. See Turner and Martin (1984:262–269, 282).
63. From Moser and Kalton (1972:273).
64. The use of probes is discussed in Backstrom and Hursh-Cesar (1981:266–273), Foddy (1995), Gorden (1980:368–390), Hyman (1975:236–241), Schober and Conrad (1997), and Smith (1989).
65. On interviewer training, see Backstrom and Hursh-Cesar (1981:237–307), Billiet and Loosveldt (1988), Bradburn and Sudman (1980), Oksenberg et al. (1986), Singer and Kohnke-Aguirre (1979), and Tucker (1983). Olson and Peytchev (2007) found negative effects from more interviewer experience, suggesting interviewers become sloppy or rush as they gain more experience.
66. See Leal and Hess (1999).
67. See Bradburn and Sudman (1980), Pollner and Adams (1997), and Zane and Matsoukas (1979).
68. See Anderson et al. (1988), Bradburn (1983), Catania et al. (1996), Cotter et al. (1982), Finkel et al. (1991), Gorden (1980:168–172), Kane and MacAulay (1993), Reese et al. (1986), Schaeffer (1980), Schuman and Converse (1971), and Weeks and Moore (1981). Davis (1997) found that when African Americans are interviewed by Whites, they put “self-imposed limits on free expression” and are less likely to say that Whites keep

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Blacks down or that Blacks do not have the power to effect change.

69. Sudman et al. (1996:74–76).

70. See Bateson (1984), Clark and Schober (1992), Foddy (1993), Lessler (1984), and Turner (1984).

71. From Turner and Martin (1984:276).

72. See Briggs (1986), Cicourel (1982), and Mishler (1986) for critiques of survey research interviewing.

73. For additional discussion of ordinary conversation and survey interviews, see Beatty (1995), Conrad and Schober (2000), Groves et al. (1992), Moore (2004), Schaeffer (2004), Schober and Conrad (2004), Smith (1984), and Suchman and Jordan (1992).

74. On cognitive interviews, see Conrad and Blair (2009), Willis, (2004, 2005), and van der Zouwen and Smit (2004).

75. See Maynard et al. (2002), Maynard and Schaeffer (2004), Moore (2004), Schaeffer (2004), Schober and Conrad (2004), and Willis (2005) on pilot testing methods such as the cognitive interview and related techniques.

76. For a discussion of ethical concerns specific to survey research, see Backstrom and Hursh-Cesar (1981: 46–50), Fowler (1984:135–144), Frey (1983:177–185), Kelman (1982:79–81), Marsh (1982:125–146), Miller (1983:47–96), Reynolds (1982:48–57), and Weisberg (2005:311–324). The use of informed consent is discussed in Singer and Frankel (1982) and in Sobal (1984).

77. On reporting survey results in the media, see Channels (1993) and MacKeun (1984).

78. See Singer (1988).

79. From Turner and Martin (1984:62).