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Someone hands you a sheet of paper full of questions. The first reads: “I would like to learn your opinion of the Neuman research methods textbook. Would you say it is (a) well organized, (b) adequately organized, or (c) poorly organized?” You probably would not be shocked by this. It is a kind of survey, and most of us are accustomed to surveys by the time we reach adulthood.

The survey is the most widely used social science data-gathering technique. In fact, it might be too popular. Many people say, “Do a survey,” to get information when they should ask, “What is the most appropriate way to get good data for this issue?” Widespread public familiarity with the survey technique and the ease of conducting a survey can be a drawback. Despite their wide use and popularity, without care, a survey can easily yield misleading results. Surveys can provide us with accurate, reliable, and valid data, but to do this they require serious effort and thought. Surveys have many uses and take many forms—phone interviews, Internet opinion polls, and paper questionnaires. All forms rely on the principles of the professional social research survey. In this chapter, you learn about survey research, as well as its limitations.

WHEN TO USE A SURVEY

Survey research developed within the positivist approach to social science. Following principles of positivism, survey research rests on the assumption that social reality is made up of stable, objective facts. Also, we can precisely measure features of social reality to convert it into quantitative data and then use statistics on the data to test causal relationships that exist in social reality.

To conduct a survey, you ask many people (called *respondents*) about their beliefs, opinions, characteristics, and past or present behavior. Surveys are appropriate when your

research question is about self-reported beliefs or behaviors. If your variables can be measured by having people answer questions, then the survey is a good choice. It is usually more efficient to ask about many things at one time in a survey. You can measure many variables (often with multiple indicators) and test several hypotheses in a single survey.

Although the categories overlap, you can ask the following aspects of social life 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 kind 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 today?
3. *Characteristics.* Are you 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, shrink, 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?

Be careful about using surveys to ask directly about explanations of social events or actions, the “why?” questions (e.g., Why do you think crime occurs?). Asking people directly does not always get a true reason or actual cause. Respondents are not always aware of the causal factors that shape beliefs or behavior. The “why?”

question is appropriate, however, if you want to discover a respondent's subjective understanding or the informal theory he or she uses. Knowing how people think is useful, but do not confuse a respondent's informal theory about what is occurring with the social science task of developing a causal theory that builds on the broad base of knowledge that is in the scientific literature.

An important limitation of the survey method is that its data is only about what a person or organization says. What a person says may differ from what he or she truly does or thinks. Pager and Quillian (2005) shed light on this issue when they compared telephone survey responses from Milwaukee-area employers about their willingness to hire ex-offenders of different races with an "audit." In the audit, a trained pair of young males with specific characteristics applied for 350 job openings. Employers agreed to hire 34 percent of White and 14 percent of Black applicants. The applicants had identical job experience and credentials and no criminal records. The same employers agreed to hire 17 percent of Whites and 5 percent of Blacks with identical job experience, credentials, and criminal records for illegal drug use. They conducted a phone survey of employers a few months later. Pager and Quillian found far more employers expressed a willingness to hire an ex-offender (67 percent). The data showed no differences in the offender's race in the telephone survey. Also, certain types of employers said they were more willing to hire an ex-offender, but in the audit all types of employers acted the same. The authors said, "Survey responses have very little connection to the actual behaviors exhibited by these employers" (p. 367).

THE LOGIC OF SURVEY RESEARCH

What Is a Survey?

When you conduct a survey, survey questions are measures of variables, and all respondents answer the same questions. You can use the answers to test multiple hypotheses and to

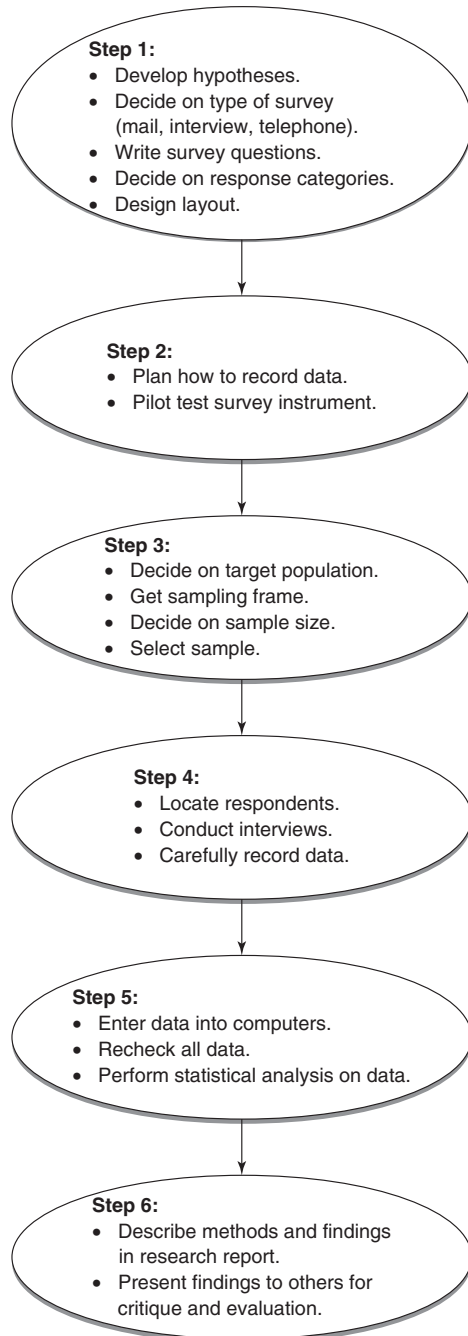
infer temporal order from questions about past behavior, experiences, or characteristics. For example, years of schooling or a respondent's race are prior to current attitudes. You can measure an association among variables with statistical techniques. Going back to the criteria for demonstrating causality, this gives you temporal order and associations. You also need to think of alternative explanations when planning a survey and measure variables that represent alternative explanations (i.e., control variables). Later, you can use statistics to examine their effects and to rule out alternative explanations. Survey research is often called *correlational*. This is because survey research has control variables instead of experimental controls. Control variables are substitutes for the control that experimenters have over a physical setting and events as they establish the temporal order of variables and rule out alternative explanations to establish a causal relationship. In survey research, you logically determine the temporal order of variables and examine the associations or correlations among variables, but to rule out alternative explanations you use control variables and examine the statistical relations among them.

Steps in Conducting a Survey

To conduct survey research, you follow a deductive approach to research. This means starting with a theoretical or applied research problem and ending with empirical measures and data analysis. Once you decide that the survey is an appropriate method, follow the steps outlined in Figure 1.

In the first phase, you develop an instrument—a survey questionnaire or interview schedule—that you use to measure variables. In a *questionnaire*, the respondents read the questions themselves and mark answers themselves. In an *interview schedule*, an interviewer reads questions to the respondent and then records the respondent's responses. To simplify the discussion, I will use only the term *questionnaires*.

FIGURE 1 Steps in the Process of Survey Research



To conduct a survey, you first conceptualize and operationalize all your variables as survey questions. You will want to write and rewrite questions for clarity and completeness. In addition, you must organize questions on the questionnaire based on the research question, the respondents, and the type of survey. (The types of surveys are discussed later.)

As you prepare a questionnaire, think ahead to how you will record and organize data for analysis. You should pilot-test the questionnaire with a small set of respondents similar to those in the final survey. If you use other people as interviewers, you must train them with the questionnaire. In the pilot-test you will ask respondents whether the questions were clear and explore their interpretations to see whether your intended meaning in the questions was clear. You draw a sample during this phase.

After the planning phase, you are ready to collect the data. This phase is usually shorter than the planning phase. You locate sampled respondents in person, by telephone, by mail, or on the Internet. You provide respondents with information and instructions on completing the questionnaire or interview. The questions follow. At this stage, it is a simple stimulus-response or question-answer pattern. You must accurately record answers or responses immediately. After all respondents completed the questionnaire and you have thanked them, you should organize the data and prepare them for statistical analysis.

Survey research can be simple and cheap or complex and expensive. A survey with 10 questions distributed by hand or completed online by 60 people is simple and cheap. A moderate-sized survey (e.g., 25 questions for 500 people contacted by phone) requires you to coordinate various people and several steps. A large-scale national sample (500 questions, 2,000 people interviewed face-to-face) involves a multimillion-dollar operation conducted by large professional organizations. In all cases, the administration of survey research requires excellent organization and accurate record keeping. You must

keep track of each question, respondent, and questionnaire, and if you use interviewers, each interviewer as well.

In all surveys, you want to assign each sampled respondent an identification number that also appears on the questionnaire. You then can check each completed questionnaire against a list of sampled respondents. Next, you review responses on individual questionnaires, store original questionnaires, and transfer data from questionnaires into an electronic format for statistical analysis. Meticulous bookkeeping and labeling are essential. Otherwise, you may find that a lot of time, effort, and valuable data have been lost through sloppiness.

CONSTRUCTING THE QUESTIONNAIRE

Principles of Good Question Writing

The survey questions measure variables, with some variables measured by multiple questions. Instead of only considering each question in isolation, try to think of all the questions together in a survey. A good questionnaire forms an integrated whole. You want to weave questions together in a questionnaire so they flow smoothly. In addition to the survey questions, a questionnaire has introductory statements and instructions to add comfort and clarity and to reduce potential errors.

Three principles for writing effective survey questions are keep it clear, keep it simple, and keep the respondent's perspective in mind. Good survey questions can provide valid and reliable measures of variables. They also help respondents feel that they understand the question and that their answers are meaningful. Questions that fail to align with a respondent's viewpoint or ones that respondents find confusing will not be good measures of variables and may not produce valid, reliable data. Exercise extra care in writing questions if the respondents are very heterogeneous or

if they are from different life situations than your own.

As you write survey questions you face a dilemma. On the one hand, each respondent should read or hear exactly the same question. This ensures that all respondents are answering the same query, and allows you to merge all respondent data together. On the other hand, if respondents have diverse backgrounds or frames of reference, the exact same question may not be equally clear, relevant, and meaningful to all of them. In short, identical question wording does not equal identical meaning among all people. Yet, if you tailor question wording to each respondent, you cannot pool all data and easily make comparisons. If different respondents are answering different questions, you cannot know whether the question wording or the differences among respondents account for the variation in answers that are your data.

Question writing is more of an art than a science. It takes skill, practice, patience, and creativity. You can see the principles of question writing in the following 12 things you should try to avoid when writing survey questions. The list does not include every possible error, only the more frequent problems.

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*, psychologists about the *Oedipus complex*. Slang is a kind of jargon within a subculture—for example, the homeless talk about a *snowbird* and skiers about a *hotdog*. Also avoid abbreviations. *NATO* usually means North Atlantic Treaty Organization, but for a respondent, it might mean something else (National Auto Tourist Organization, Native Alaskan Trade Orbit, or North African Tea Office). You should avoid slang and jargon unless you are surveying a specialized population. Try to target the vocabulary and grammar to the respondents sampled. For the public, this is the language used on television or in the newspaper (about an eighth-grade reading vocabulary).

2. *Avoid ambiguity, confusion, and vagueness.* Ambiguity and vagueness plague most question writers. It is easy to make implicit assumptions without thinking of the respondents, and this often causes problems. For example, the question, “What is your income?” could mean weekly, monthly, or annual; family or personal; before taxes or after taxes; for this year or last year; from salary or from all sources. The confusion causes inconsistencies in how different respondents assign meaning to and answer the question. If you want before-tax annual family income for last year, you should explicitly ask for it.¹

Another source of ambiguity is the use of indefinite words or response categories. For example, an answer to the question, “Do you jog regularly? Yes _____ No _____,” hinges on the meaning of the word *regularly*. Some respondents may define *regularly* as every day, others as once a week. To reduce respondent confusion and get more information, you should be specific—ask whether a person jogs “about once a day,” “a few times a week,” “once a week,” and so on. (See Example Box 1 on improving questions.)

As a general rule, to avoid ambiguous questions you must first think seriously about what



EXAMPLE BOX

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?	The 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?

	Responses to Question		Percentage Asking for Clarification	
	Original	Revision	Original	Revision
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: Adapted from Fowler (1992).

Lloyd Jackson Fowler, Jr., ‘How Unclear Terms Affect Survey Data.’ *Public Opinion Quarterly*, (1992) 56(2): 218–231. Reprinted with permission.

you want to measure and then consider the circumstances of respondents. For example, if you want to ask about a respondent's employment, do you want information on the 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?

3. *Avoid emotional language.* Words have implicit connotative as well as explicit denotative meanings. Words with strong emotional connotations can color how respondents hear and answer survey questions. You want to use neutral language. Avoid words with emotional "baggage" because respondents may react to the emotionally laden words rather than to the issue. For example, the question, "What do you think about a policy to pay murderous terrorists who threaten to steal the freedoms of peace-loving people?" is full of emotional words (*murderous, freedoms, steal, and peace*).

4. *Avoid prestige bias.* Titles or positions in society (e.g., president, expert, etc.) carry prestige or status. Issues linked to people with high social status can color how respondents hear and answer survey questions. Avoid associating a statement with a prestigious person or group. Respondents may answer on the basis of their feelings toward the prestigious person or group rather than addressing the issue. For example, you ask, "Most doctors believe that cigarette smoke causes lung disease for non-smoking people near a smoker. Do you feel secondhand cigarette smoke is a health hazard?" People who want to agree with doctors are more likely to see it as a health hazard. Likewise, if you ask, "Do you support the Joint Chiefs of Staff's recent actions in Somalia?" Respondents who have never heard of Somalia or know nothing of the actions will answer based on how they feel about the Joint Chiefs of Staff.

5. *Avoid double-barreled questions.* Make each question about one and only one topic. A **double-barreled question** consists of two or more questions joined together. It makes a

respondent's answer ambiguous. For example, you ask, "Does this company have pension and dental insurance benefits?" The respondent at a company with dental insurance benefits only, but no pension, could answer either yes or no. The response has an ambiguous meaning. If you want to ask about the joint occurrence of two things—for example, a company with both pension benefits and dental insurance—it is best to ask two separate questions, making each question about a single issue. You can always examine the answers of the two questions later to see whether the respondent works at a company with both, neither, or only pensions or only dental insurance.

6. *Do not confuse beliefs with reality.* This is similar to the warning about "why?" questions mentioned earlier. Do not confuse what a respondent believes with what you, as the researcher, want to measure. A respondent may think that a relationship exists between two variables. Yet, such a belief is not an empirical measurement of variables in a relationship. For example, you want to find out if students rate teachers higher if the teacher tells jokes in class. The two variables are "teacher tells jokes" and "rating the teacher." The *wrong* way to approach the issue is to ask students, "Do you rate a teacher higher if the teacher tells many jokes?" This question measures whether or not students *believe* that they rate teachers based on joke telling; it does not measure the empirical relationship. The *correct* way is to ask two separate questions: "How do you rate this teacher?" and "How many jokes does the teacher tell in class?" Then you can examine answers to the two questions to determine whether they are associated. People's beliefs about a relationship among variables are distinct from actual empirical relationships. People may be aware of a relationship and accurately assess it, or they may hold false beliefs about a relationship.

7. *Avoid leading questions.* Try to help respondents feel that all responses are legitimate. Do not let them become aware of an answer that you expect or want. A *leading* (or *loaded*)

question is one that leads the respondent to choose 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. You can state loaded questions to elicit either a positive or negative answer. For example, “Should the mayor spend even more tax money trying to keep the streets in top shape?” would lead respondents to disagree. The question, “Should the mayor fix the pot-holed, dangerous streets in our city?” is loaded for agreement.

8. *Avoid asking questions that are beyond respondents’ capabilities.* Asking something that few respondents know about will frustrate them and yield poor-quality responses. Respondents cannot always recall past details and may not know specific factual information. For example, asking an adult, “How did you feel about your brother when you were 6 years old?” is probably worthless. Asking respondents to make a choice about something they know nothing about (e.g., a technical issue in foreign affairs or an internal policy of an organization) may result in an answer, but one that is unreliable and meaningless. When many respondents are unlikely to know about an issue, use a full-filter question form (to be discussed).

Always try to phrase questions in the terms in which respondents think. For example, few respondents will be able to answer, “How many gallons of gasoline did you buy last year?” Yet, respondents may be able to answer a question about gasoline purchases for a typical week. You can then take that answer and multiply by 52 to estimate their annual purchases.²

9. *Avoid false premises.* Do not begin a question with a premise with which respondents may not agree, and then ask them about choices regarding it. Respondents who disagree with the premise will become frustrated and they will not know how to answer. For example, the question, “The post office is open too many hours. Do you want it to open four hours later or close four hours earlier each day?” leaves

those to either oppose the premise or oppose both alternatives without a meaningful choice. A better question explicitly asks the respondent to assume a premise is true, then asks for a preference. For example, “Assuming the post office must reduce its operating hours, which would you find more convenient, opening four hours later or closing four hours earlier each day?” Answers to a hypothetical situation are not very reliable, but being explicit will reduce respondent frustration.

10. *Avoid asking about intentions in the distant future.* If you ask people about what they might do under hypothetical circumstances far in the future, you are probably wasting your time. Survey questions are poor predictors of behaviors far removed from a person’s current situation or in the distant future. An example would be a question such as, “Suppose a new grocery store opened down the road in three years. Would you shop there?” It is best to ask about current or recent attitudes and behavior. Respondents answer specific, concrete questions that relate to their current or recent experiences more reliably than they do about hypothetical situations beyond their immediate experiences.

11. *Avoid double negatives.* Double negatives in ordinary language are grammatically incorrect and confusing. For example, “I ain’t got no job” logically means that the respondent does have a job, but the second negative is used in this way for emphasis. Such blatant errors are rare, but more subtle forms of the double negative are also confusing. They arise when respondents are asked to agree or disagree with a statement. For example, respondents who *disagree* with the statement, “Students should not be required to take a comprehensive exam to graduate” are logically stating a double negative because they *disagree* with *not* doing something.

12. *Avoid overlapping or unbalanced response categories.* Make response categories or choices

mutually exclusive, exhaustive, and balanced. *Mutually exclusive* means that response categories do not overlap. Overlapping categories that are numerical ranges (e.g., 5–10, 10–20, 20–30) can be easily corrected (e.g., 5–9, 10–19, 20–29). The ambiguous verbal choice is another type of overlapping response category—for example, “Are you satisfied with your job or are there things you don’t like about it?” *Exhaustive* means that every respondent has a choice—a place to go. For example, asking respondents, “Are you working or unemployed?” leaves out respondents who are not working but do not consider themselves unemployed (e.g., full-time homemakers, people on vacation, students, people with disabilities, retired people, etc.).

Keep response categories *balanced*. A case of unbalanced choices is the question, “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?” Researchers can balance responses by offering bipolar opposites. It is easy to see that the terms *honesty* and *dishonesty* have different meanings and connotations. Asking respondents to rate whether a mayor is highly, somewhat, or not very *honest* is not the same as asking them to rate the mayor’s level of *dishonesty*. Unless there is a specific purpose for doing otherwise, it is better to offer respondents equal polar opposites at each end of a continuum.³ For example, “Do you think the mayor is: very honest, somewhat honest, neither honest nor dishonest, somewhat dishonest, or very dishonest?” (see Table 1).

Aiding Respondent Recall

Often you will ask respondents to recall a past event or behavior, such as how many days did you watch television in the past three weeks? Or, when was the last time you saw a medical doctor? Recalling events accurately requires

more time and effort than the five seconds that respondents typically take to answer survey questions. Also, a person’s ability to recall accurately declines over time. Studies in hospitalization and crime victimization show that while most respondents can recall significant events that occurred in recent weeks, half are inaccurate a year later. Memory is affected by many factors—the topic, events occurring simultaneously and subsequently, the significance of an event for a person, situational conditions (question wording and interview style), and the respondent’s need to have internal consistency.

The complexity of respondent recall does not mean that you cannot ask about past events; rather, you need to customize questions and interpret results cautiously. One technique is to provide respondents with special instructions and extra thinking time. You may also want to provide aids to respondent recall, such as a fixed time frame or location references. Rather than ask, “How often did you attend a sports event last winter?” you can ask, “I want to know how many sports events you attended last winter. Let’s go month by month. Think back to December. Did you attend any live sports events for which you paid admission in December? Now, think back to January. Did you attend any sports events in January?”

Types of Questions and Response Categories

Threatening Questions. At times, you may want to ask about sensitive issues, ones that respondents may feel uncomfortable answering, or ones that can undermine their presentation of self. These include questions about sexual behavior, drug or alcohol use, mental health problems, abuse of a child or intimate other person, or deviant behavior. Respondents may be reluctant to answer the questions at all, or to answer them completely and truthfully. If you wish to ask such questions, it requires great

TABLE 1 Summary of Survey Question Writing Pitfalls

Things to Avoid	Not Good	A Possible Improvement
1. Jargon, slang, abbreviations	Did you drown in brew until you were totally blasted last night?	Last night, about how much beer did you drink?
2. 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?
3. Emotional language	“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?
4. Prestige bias		Very Important Somewhat Important Neither Important or Unimportant Somewhat Unimportant Not Important At All
5. 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?
6. Beliefs as real	Do you think more educated people smoke less?	What is your education level? Do you smoke cigarettes?
7. 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?
8. 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?
9. False premises	When did you stop beating your girl/boyfriend?	Have you ever slapped, punched, or hit your girl/boyfriend?
10. 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?
11. 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?
12. 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 me in May 1998 by the National Republican Congressional Committee. It is also a double-barreled question.

care and you must be extra cautious about the results⁴ (see Table 2).

Threatening questions are part of a larger issue of self-presentation and ego protection. Respondents usually want to try to present a favorable image of themselves to other people. They may be ashamed, embarrassed, or afraid to give truthful answers. They may find it emotionally painful to confront their own actions honestly, let alone admit them to someone else. They may underreport or self-censor reports of behavior or attitudes they wish to hide or that they believe violate social norms. One study (Tourangeau, Groves, and Redline 2010) suggests people who feel threatened are less likely to participate in surveys and if they do, to answer accurately. People also overreport positive behaviors or generally accepted beliefs (social desirability bias is discussed later).

People tend to 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) (see Table 3).

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 Bradburn and Sudman (1980:68).

TABLE 3 Over- (+) and Underreporting (–) Behavior on Surveys

	Percentage Distorted or Erroneous Answers		
	Face to Face	Phone	Self-Administered
<i>Low Threat/Normative</i>			
Registered to vote	+15	+17	+12
Voted in primary	+39	+31	+36
Have own library card	+19	+21	+18
<i>High Threat</i>			
Bankruptcy	–32	–29	–32
Drunk driving	–47	–46	–54

Source: Adapted from Bradburn and Sudman (1980:8).

Several survey techniques help increase getting truthful answers to threatening questions. Some techniques involve the context and wording of the question itself. You should ask potentially threatening questions only after a warm-up, when an interviewer has developed rapport and trust with the respondents, and respondents have been told that the interviewer wants honest answers. You can phrase the threatening question in an “enhanced way” by providing a context that makes it easier for respondents to give honest answers. For example, the following enhanced question was asked of heterosexual males: “In past surveys, many men have reported that at some point in their lives they had some type of sexual experience with another male. This could have happened before adolescence, during adolescence, or as an adult. Have you ever had sex with a male at some point in your life?” In contrast, a standard form of the question would have asked, “Have you ever had sex with another male?” Males who feel embarrassed or uncomfortable about reporting that they have engaged in same-sex sexual activity are more likely to answer the enhanced version of the question. Another technique is to embed a semi-threatening response within a set of more serious or threatening responses. This may make it seem less deviant or unusual. For example, you want to learn about whether respondents ever shoplifted. They might hesitate to admit shoplifting if you ask about it first, but answer if it appears after being asked four or five other questions about crimes such as armed robbery or burglary. They may answer to shoplifting honestly because it appears less serious, and therefore less threatening, in the context of other questions about more serious criminal behavior.

Socially Desirable Questions. *Social desirability bias* is when respondents distort answers to make their reports conform to social norms. People tend to overreport being cultured (i.e., reading, attending high-culture events), giving

money to charity, having a good marriage, loving their children, and so forth. For example, one-third of people who reported in a survey that they gave money to a local charity really did not. Because a norm says that one should vote in elections, many people report voting when they did not. In the United States, people 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 say they voted when they actually did not.

As with threatening questions, you can reduce social desirability bias by phrasing questions in ways that make norm conformity or violation appear to be less objectionable and present a wide range of behavior as acceptable. You can also offer multiple-response categories that give respondents “face-saving” alternatives.

Knowledge Questions. Studies suggest that a large majority of the public cannot correctly answer elementary geography questions, identify major national leaders, or recognize important political documents (e.g., the Declaration of Independence). At times, you may want to learn whether respondents know about an issue or topic. However, knowledge questions can be threatening because respondents do not want to appear ignorant.

In addition, surveys about opinions can get a more accurate picture by first asking about factual information because people may offer opinions based on inaccurate factual knowledge. For example, overall taxes may have gone down but when asked, people have a false belief that the taxes have gone up. This happened in 2010. Survey data showed that after 95 percent of Americans had received a tax cut from the federal government, 24 percent reported that their taxes had increased, 53 percent said taxes stayed the same, and 12 percent said that taxes decreased. Many people expressed political opinions based on a belief that their taxes

had gone up, but were doing so based on false information.⁵ Of course, people behave based on perceptions, even when those perceptions are inaccurate but survey questions help to reveal whether the perceptions that guide people's behavior are based on accurate or false knowledge.

Respondents do not always accurately answer simple knowledge questions, such as asking the number of people living in a household. In some households, a marginal person—the boyfriend who left for a week, the adult daughter who left after an argument about her pregnancy, or the uncle who walked out after a dispute over money—may be reported as not living in a household, but he or she may not have another permanent residence and considered him- or herself to live there.⁶ The inaccuracy is not due to ignorance but different perceptions of the situation. You ask John, a 45-year-old male, how many people are in his household, and he reports four people (John, his wife Sarah, son Jason, and daughter Emily). Then you talk to Emily, who says Julie also lives there and there are five people in the household. You find Julie (a 20-year-old) and ask her. She says she lives at home with John, Sarah, Jason, and Emily most of the time, but gets into frequent fights with her parents then moves in temporarily with several male or female friends. In her view, there are five people in the household.

It is a very good idea to pilot-test questions to check that questions are at an appropriate level of difficulty. Little is gained if 99 percent of respondents cannot answer the question. In addition, you may consider rewording knowledge questions so that respondents feel more comfortable saying they do not know the answer—for example, “How much, if anything, have you heard about. . . .”

Skip or Contingency Questions. You want to avoid asking questions that are irrelevant for a respondent. Yet, some questions apply only to specific respondents. A *contingency*

question is a two- (or more) part question. The answer to the first part of the question determines which of two different questions a respondent next receives. Contingency questions select respondents for whom a second question is relevant. Sometimes they are called *screen* or *skip questions*. On the basis of the answer to the first question, the respondent or an interviewer goes to another question or skips certain questions (see Example Box 2). Contingency questions are a very valuable type of question that may not be utilized as much as they should be.

Open versus Closed Questions

Debates over advantages and disadvantages of open versus closed questions in survey research have raged for many years. An *open-ended*

2

EXAMPLE BOX

Contingency Question Example

1. Did you complete an internship as part of your major?
 - Yes _____ (GO TO QUESTION 2)
 - No _____ (CONTINUE TO a)
 - a. What are your plans immediately after graduating?
 - ___ (1) Further schooling (e.g., law school, graduate school)
 - ___ (2) Military service
 - ___ (3) Employment (go to b below)
 - ___ (4) Other (please specify, e.g., travel, raise a child) _____
 - b. Have you previously worked for the same employer prior to graduating?
 - ___ Yes
 - ___ No

NOW GO TO QUESTION 2

(unstructured, free-response) question asks a question (e.g., “What is your favorite television program?”) to which respondents can give any answer. A **closed-ended (structured, fixed-response) question** both asks a question and gives the respondent fixed responses from which to choose (e.g., “Is the president doing a very good, good, fair, or poor job, in your opinion?”).

Each form has advantages and disadvantages (see Expansion Box 1). The crucial issue is not which form is best. Rather, it is under what conditions is a form most appropriate. Your choice to use an open- or closed-ended question will depend on the purpose and the practical limitations of a study. The demands of using open-ended questions, with interviewers writing verbatim answers or respondents providing elaborate answers that you must decipher and code in a time-consuming manner, often make them impractical.

Most large-scale surveys have closed-ended questions because they are quicker and easier for both respondents and researchers. Yet something important could be lost when an individual’s beliefs and feelings are forced into a few fixed-answer categories. To learn how a respondent thinks, to discover what is really important to him or her, or to get an answer to a question with many possible answers (e.g., age), open questions may be best. At the same time, threatening or sensitive topics (e.g., sexual behavior, liquor consumption) may be more accurately measured with closed questions.

You can reduce disadvantages of a question form 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) with closed-ended questions can reveal a respondent’s reasoning.

Having interviewers periodically use probes to ask about a respondent’s thinking is a good way to check whether respondents understand

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 shape the respondent’s answers or force answers when a respondent does not have an opinion or information. Yet, flexible or conversational interviewing in which interviewers use many probes can improve accuracy on questions about complex issues on which respondents do not clearly understand basic terms or about which they have difficulty expressing their thoughts. For example, to the question, “Did you do any work for money last week?” a respondent might hesitate then reply, “Yes.” Then the interviewer probes, “Could you tell me exactly what work you did?” The respondent replies, “On Tuesday and Wednesday, I spent a couple 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 was only to get reports of regular employment, the probe has revealed a misunderstanding. You may 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 that you did not include. Open-ended questions are especially valuable in early or exploratory stages of research. For large-scale surveys, you can use open questions in pilot-tests, and then develop closed-question responses from the answers respondents give to the open questions.

As you write closed questions you must make many decisions. How many response choices should be given? Should the questions have a middle or neutral choice? What should be the order of responses? What types of response choices should be used? How will the direction of a response be measured? Answers to these questions are not easy. For example, two response choices are too few, but more than five response choices are rarely effective. You want to measure meaningful distinctions and not collapse them. More specific responses

Closed versus Open Questions**Advantages of Closed**

- It is 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 question 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.
- Unanticipated findings can be discovered.
- 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 people 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.
- A greater 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.

yield more information, but too many specifics create confusion. For example, if you rephrase 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?”, you will obtain more information and give the respondent more choices.

Nonattitudes and the Middle Positions. Survey researchers have debated whether to include choices for neutral, middle, and nonattitudes (e.g., “not sure,” “don’t know,” or “no opinion”).⁷ You can make two types of errors: accepting a middle choice or “nonattitude” response when respondents actually hold a

nonneutral opinion, or forcing respondents to choose a position on an issue when they have no opinion about it.

Many people fear that respondents will pick the nonattitude answer to evade making a choice. Yet, it is usually best to offer a nonattitude choice in a survey. Many people express opinions on fictitious issues, objects, and events. By offering a nonattitude (middle or no opinion) choice, you can identify the people holding middle positions or those without opinions.

Three kinds of attitude questions can help you with the issue of nonattitudes: standard-format, quasi-filter, and full-filter questions (see Example Box 3). In the **standard-format question**, you do not offer a “don’t know” choice; a

3 EXAMPLE BOX
Standard-Format, Quasi-Filter, and Full-Filter Questions

Standard Format

Here is a question about an other 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 an other 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 an other 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? If yes, do you agree or disagree?

Example of Results from Different Question Forms

	Standard Form (%)	Quasi-Filter (%)	Full Filter (%)
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 (1981:116–125). Standard format is from Fall 1978; quasi- and full-filter are from February 1977.

respondent must volunteer it. In a *quasi-filter question*, you offer respondents a “don’t know” alternative. A *full-filter question* is a special type of contingency question. You first ask respondents whether they have an opinion, then you ask for the opinion of those who stated that they have an opinion.

Many respondents will answer a question if a “no opinion” choice is missing, even if they actually have no opinion. The same people will select “don’t know” when it is offered, or if asked state that they do not have an opinion. Such respondents are called *floaters*—they “float” from giving a response to not knowing. The responses of such people are greatly affected by minor wording changes, so you want to screen them out by using quasi-filter or full-filter questions. Filtered questions do not eliminate all answers to nonexistent issues, but they reduce the problem.

Agree/Disagree, Rankings, or Ratings? If you want to measure values and attitudes, you might ask about the kind of responses to offer.⁸ Should questionnaire items make a statement and then 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 items (e.g., from most favored to least favored)?

Current research suggests you should offer respondents explicit alternatives. For example, instead of asking, “Do you agree or disagree with the statement, ‘Men are better suited to . . . ?’”, instead ask, “Do you think men are better suited, women are better suited, or both are equally suited?” Less well-educated respondents are more likely to agree with a statement, whereas forced-choice alternatives encourage thought and avoid the *response set* bias—a tendency of some respondents to agree and not really decide.

You create bias if question wording gives the respondents a reason for choosing one

alternative over others. For example, you ask respondents whether they support or oppose a law on energy conservation. The results may change if respondents are asked, “Do you support the law or do you oppose it because the law would be difficult to enforce?” instead of simply asking, “Do you support or oppose the law?”

It is usually better to ask respondents to choose among alternatives by ranking instead of rating items along an imaginary continuum. This is because respondents can rate several items equally high, but will place them in a hierarchy if asked to rank them.⁹

For example, you ask about the most important public issue among a list of seven issues. Respondents rate crime, environment, taxes, and unemployment as important issues, and rate immigration, transportation, and the deficit as not important. However, if asked respondents to rank items, they say unemployment is the most important issue followed by environment, crime, taxes, transportation, immigration, and the deficit in that order. By having the respondents rank issues, you get more information.

Wording Issues

You face two wording issues in surveys. The first, discussed earlier, is to use simple vocabulary and grammar to minimize respondent confusion. Many respondents are confused about the meanings of words or their connotations. For example, respondents were asked whether they thought television news was impartial. It was found that large numbers of respondents had ignored the word *impartial*—a term the middle-class, educated researchers assumed everyone knew. Less than half the respondents had interpreted the word as intended with its proper meaning. Over one-fourth ignored it or had no idea of its meaning. Others gave it unusual meanings, and one-tenth thought it was directly opposite to its true meaning.

The second issue involves how specific words or phrases can influence respondents.

This is trickier because you do not always know in advance whether a word or phrase affects responses. The well-documented difference between *forbid* and *not allow* illustrates the wording issue. Both terms have the same meaning, but many more people say they will “not allow” something than “forbid” it. In general, less well-educated respondents are most influenced by minor wording differences. Sometimes a word has strong connotations or triggers an emotional reaction. 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.” During the 1970s and 1980s, hostile rhetoric by U.S. politicians and mass media modified the connotation of the word *welfare* to create a strong negative response (lazy people, wasteful and expensive programs, etc.). Smith suggested avoiding the term because it had become emotionally loaded.

In summary, you need to be vigilant when writing survey questions. Respondents may interpret the meaning of specific words or a question differently than intended, introducing bias into the survey. Some **wording effects** (e.g., the difference between *forbid* and *not allow*) have been around for decades, but other wording effects may appear at any time.¹⁰

Questionnaire Design Issues

Length of Survey or Questionnaire. How long should your questionnaire be or an interview last? The advantage of long questionnaires or interviews is that they are more cost effective. The cost for extra questions—once you have sampled and contacted a respondent—is small. There is no absolute proper length. The length depends on the survey format (to be discussed) and on the respondent’s characteristics. A 5-minute telephone interview is rarely a problem and may be extended to 20 minutes. A few researchers stretched this to beyond 30 minutes. Mail questionnaires are more variable. A short (three- or four-page) questionnaire is

appropriate for the general population. Some researchers have had success with questionnaires as long as 10 pages (about 100 items) with the general public, but responses drop significantly for longer questionnaires. For highly educated respondents and a salient topic, you might be able to use a 15-page questionnaire. Face-to-face interviews lasting an hour are not uncommon. In special situations, face-to-face interviews as long as three hours have been conducted.

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

Organization of Questionnaire. In general, you want to sequence questions to minimize the discomfort and confusion of respondents. 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 feel comfortable about the questionnaire. Avoid asking many boring background questions or threatening questions first. Organize questions into common topics. Mixing questions on different topics causes confusion. Orient respondents by placing questions on the same topic together and introduce the section with a short introductory 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 highly threatening questions, and always end with a “thank you.”

Order Effects. The order in which you present questions might influence respondent answers. 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.¹¹ For example, support for an unmarried woman having an abortion rises if the question is preceded by a question about

abortion being acceptable when a fetus has serious defects, but not when the question is by itself or before a question about fetus defects. A classic example of order effects is presented in Example Box 4.

Respondents may not perceive each survey item as isolated and separate. They respond to survey questions based on the set of issues and their order of presentation. A previous question can influence later ones in two ways: through content (i.e., the substantive issue) and through the respondent’s response.

Respondents often interpret a question based on the question or issue that immediately preceded it. For example, you ask a student respondent, “Do you support greater educational contributions for university education?” If this question came after questions about payments by students or their families, such as, “How much do you think the average U.S. college student pays in tuition and fees?”, the respondents may interpret “contribution” in the question to mean what students are to

pay. If you ask the same question after ones about nonstudent support for education, such as “What percent of public university operations do you think are provided by government grants and aid?”, the respondents are likely to interpret the question to be about increasing government aid.

Answers to a previous question can also influence how a respondent interprets a question. This is because having already answered what is understood as one part an issue, the respondent assumes no overlap. For example, you ask a respondent who is married, “How is your spouse’s health?” You next ask, “How is your family’s health?” Most respondents will assume that the second question refers to family members other than the spouse (e.g., children, parents, other relatives) because they have already answered about the spouse. Now imagine you asked the same two questions but in the opposite order. This time the respondent would assume the question “How is your family’s health?” includes the spouse.¹²

4

EXAMPLE BOX
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 American newspaper reporters come in and send back to America the news as they see it?”

Heard First	Percentage Saying Yes	
	Yes to #1 (Communist Reporter)	Yes to #2 (American Reporter)
#1	54%	75%
#2	64%	82%

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

Source: Adapted from Schuman and Presser (1981:29).

Context Effects. In addition to the immediately preceding question or answer, respondents can be influenced by the context of several surrounding questions. As a practical matter, for the same topic you want to use a **funnel sequence** of questions—that is, ask more general questions before specific ones (e.g., ask about health in general before asking about specific diseases).

Sudman, Bradburn, and Schwarz (1996:90–91) showed the context effect by asking how much a respondent followed politics in three ways. 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 what the respondent’s elected representative recently did, the percentage who said they did not follow nearly doubled, going to 39 percent. Apparently, the knowledge question about the elected representative caused many respondents to 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. Thus, the context made a difference.

Entire topics can create a context. Let us say you want to ask about three topics: child care, future schooling, and employment. The order of the topics might influence later ones. Perhaps the questions about child care influences how a respondent answers about schooling questions. Perhaps after answering questions about child care, the respondent began to think about difficulties managing child care. Because the respondent has child-care difficulties in mind when you next ask about future schooling, the respondent reports lower expectations of future schooling than if the schooling questions had come first.

If you want to see whether there are context effects, you can divide the number of

respondents in half and give a random half of the respondents the topics in one order and the other half in the alternative order. You then can examine the results to see whether question order mattered. If question order effects are found, which order tells you what the respondents really think? The answer is that you cannot know for sure.

Several years ago, a class of my students conducted a telephone survey on two topics: concern about crime and attitudes toward a new anti-drunk-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 by topic order. I found that respondents who were asked about the drunk-driving law first expressed less fear about crime than did those who were asked about crime first. Likewise, they were more supportive of the drunk-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 they were asked about crime in general and thought about violent crime, drunk driving may have appeared to be a less important issue. By contrast, after they were asked about drunk driving and thought about drunk driving as a crime, they may have expressed less concern about crime in general.

Context effects should remind you to always keep the respondent’s point of view in mind and strive for unambiguous, clear meaning in survey questions. The more ambiguous a question’s meaning, the stronger the context effects can be. Respondents will draw on the context as they interpret survey questions. Previous topics, past questions, or the question a respondent just heard can produce a context effect.

Format and Layout. You need to decide two format or layout issues: the overall physical layout of the questionnaire and the format of questions and responses.

Questionnaire Layout. Layout is important, whether your questionnaire is for an interviewer or for the respondent. You want questionnaires to be clear, neat, and very easy to follow. A professional appearance with high-quality graphics, space between questions, and good layout improves accuracy and completeness and helps the questionnaire flow.

Give each question a number and put identifying information (e.g., name of organization) on questionnaires. Never cram questions together or create a confusing appearance. Saving money on printing may ultimately cost you more in terms of lower validity due to a lower response rate or of confusion of interviewers and respondents. For interviews, make a *cover sheet* or face sheet for each interview for administrative use. On it put the time and date of the interview, the name of the interviewer, the respondent identification number, and the interviewer's comments and observations. Include interviewer instructions on the questionnaire and print instructions in a different style from the questions for the respondent. This is so an interviewer can easily distinguish between the questions for respondents and instructions.

Layout is especially critical for self-administered, mail, and online questionnaires. This is because there is no friendly interviewer to interact with the respondent. Instead, you want the questionnaire's appearance to persuade and motivate a respondent. In mail surveys, include a polite, professional cover letter on letterhead stationery. It should identify the researcher and offer 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. Always end with "Thank you for your participation." In online surveys, it is best not to clutter a screen but place one or a few questions on each, with an easily identifiable "continue" or "next" button. Having a graphic indicator of how far the respondent is through the entire survey, such as a clock or chart, or a numerical indicator (5 of 15

questions, or 30% complete) helps respondents who are completing a Web survey. Offering a final open-ended comment box as well as a thank you is good practice on Web surveys. The general rule is you want to leave respondents with a positive feeling about the survey and a sense that you value their participation.

Question design matters. One study of college students asked how many hours they studied per day. Some students saw five answer choices ranging from 0.5 hour to more than 2.5 hours; others saw five answer choices ranging from less than 2.5 hours to more than 4.5 hours. Of students who saw the first set, 77 percent said they studied under 2.5 hours versus 31 percent of those receiving the second set. When the mail questionnaire and telephone interview were compared, 58 percent of students hearing the first set said under 2.5 hours, but there was no change among those hearing the second set. More than differences in response categories were involved, because when students were asked about hours of television watching per day with similar response categories, then the alternative response categories made no difference. What can we learn from this? Respondents without clear answers will rely on questionnaire response categories for guidance. Formats to answer that are more anonymous tend to yield more honest responses.¹³

Question Format. Survey researchers decide on a format for questions and responses. Should respondents circle responses, check boxes, fill in dots, or put an \times on a blank line? The basic principle is to make responses 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 Example Box 5). As mentioned before, use arrows and instructions for contingency questions. Visual aids are helpful. For example, thermometer-like drawings help respondents when you ask about how warm or cool they feel toward someone. A *matrix question* (or grid question) is a compact way to present a series of questions using

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EXAMPLE BOX

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="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I learned a lot in this class.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The tests are very easy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The teacher tells many jokes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The teacher is organized.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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 Time, Some of Time, Rarely, Never
- More Likely, Less Likely, No Difference
- Very Interested, Interested, Not Interested

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. Have you ever refused to participate in a survey or left many questionnaire items blank? The failure to get a valid response from every sampled respondent weakens a survey. Every day people are asked to respond

to many requests from charities, marketing firms, candidate polls, and so forth. Asking for a person's time and attention to a survey can be burdensome. Charities and marketing firms tend to get low response rates, whereas government organizations get much higher cooperation rates. Nonresponse can be a major problem for survey research because if a high proportion of the sampled respondents do not

respond, researchers may not be able to generalize results, especially if those who do not respond differ from those who do respond.

Public cooperation in survey research has declined over the past 30 years across many countries, with The Netherlands having the highest refusal rate, and with refusal rates as high as 30 percent in the United States.¹⁴ There is both a growing group of “hard core” refusing people and a general decline in participation because many people feel there are too many surveys. Other reasons for refusal include a fear of crime and strangers, a more hectic lifestyle, a loss of privacy, and a rising distrust of authority or government. The misuse of the survey to sell products or persuade people, poorly designed questionnaires, and inadequate explanations of surveys to respondents also increase refusals for legitimate surveys.

You can improve rates by careful respondent screening, better sample-frame definition, and multilingual interviewers. Refusals decrease if respondents receive a letter in advance of an interview that includes the offer to reschedule an interview. Other ways to procure responses include offering small incentives (i.e., small gifts), 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, etc.). For interviews, you can increase response by having alternative interviewers (i.e., different demographic characteristics, age, race, gender, or ethnicity), using alternative interview methods (i.e., phone vs. face to face), or accepting an alternative respondent in the same household.

A critical area of nonresponse or refusal to participate occurs with the initial contact between an interviewer and a respondent. In a face-to-face or telephone interview, it is important to overcome hesitation or resistance and to reassure respondents. For mail or Web surveys, many researchers have used small incentives (e.g., a one-dollar bill, a gift card, or a contribution to

a charity). It appears that prepaid incentives can increase respondent cooperation and they do not appear to have negative effects on survey composition or future participation. A huge literature exists on how to increase response rates for mail surveys with many details varied (e.g., postage stamp vs. prepaid postage, colored paper, etc.) (see Expansion Box 2). Heberlein and Baumgartner (1978, 1981) reported 71 factors that can

EXPANSION BOX

2

Ten Ways to Increase Mail Questionnaire Response

1. Address the questionnaire to 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 and easy to read, with 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, etc.) get a better response.
10. Include a small monetary inducement (\$1) if possible.

affect mail questionnaire response rates. However, the tactics that increase response rates in paper surveys may not directly translate to Web surveys.¹⁵ In general, mail surveys have higher response rates than Web surveys. More highly educated and younger respondents favor Web surveys over mail surveys compared to other respondents, and follow-up reminders are not as effective in Web surveys compared to mail surveys (see Shih and Fan, 2008).

TYPES OF SURVEYS: ADVANTAGES AND DISADVANTAGES

Mail and Self-Administered Questionnaires

Advantages. You can give questionnaires directly to respondents or mail them to respondents who read instructions and questions, then record their answers. This type of survey is inexpensive, and is easy for a single researcher to conduct. With mail you can send questionnaires to a wide geographical area at a low cost. The respondent can complete the questionnaire when it is convenient and can check personal records if necessary. Mail questionnaires also offer anonymity and avoid interviewer bias. They can be effective, and response rates may be sufficient if you have an educated target population with a strong interest in the topic or the survey organization.

Disadvantages. Since many people do not complete and return questionnaires, the biggest problem with mail questionnaires is a low response rate. Most questionnaires are returned within two weeks, but others trickle in up to two months later. You can raise response rates by sending nonrespondents several reminder letters, but this adds to the time and cost of data collection. Also, you have no control over the conditions under which a mail questionnaire is completed. You do not know whether

the questionnaire has been completed during a drinking party by a dozen laughing people or by an earnest respondent. Also, no one is present to clarify questions or to probe for more information when respondents give incomplete answers. It is possible that someone other than the sampled respondent (e.g., spouse, new resident, etc.) completed the questionnaire. Also different respondents can complete the questionnaire weeks apart or answer questions in a different order than what you intended. Incomplete questionnaires can also be a serious problem.

The mail questionnaire format limits the kinds of questions that you can use. Questions requiring visual aids (e.g., look at this picture and tell me what you see), open-ended questions, many contingency questions, and complex questions do poorly in mail questionnaires. Likewise, mail questionnaires are ill suited for the illiterate or near-illiterate, or those who do not read the dominant language (e.g., English). Questionnaires mailed to illiterate respondents are not likely to be returned; if they are completed and returned, the questions may be misunderstood, making the answers meaningless (see Table 4).

Web Surveys

Access to the Internet and e-mail has become widespread in the twenty-first century. Only 3 percent of the U.S. population had e-mail in 1994, but by 2010, 75 percent or more of the population in Canada, Germany, Japan, South Korea, the United Kingdom, and the United States had Internet connections (internetworldstats.com/top20.htm, downloaded February 15, 2011).

Advantages. Web-based surveys over the Internet or by e-mail are fast and inexpensive. They allow flexible design and can use visual images, or even audio or video in some Internet versions. Despite great flexibility, the basic principles for question writing and for paper questionnaire design generally apply.

TABLE 4 Types of Surveys and Their Features

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

Disadvantages. Web surveys have three areas of concern: coverage, privacy and verification, and design issues. The first concern involves sampling and unequal Internet access or use. Despite high coverage rates, older, less-educated, low-income, and more rural people often lack good Internet access. In addition, many people have multiple e-mail addresses. This limits using email addresses for sampling purposes. Self-selection is a potential problem with Web surveys. For example, a

marketing department could get very distorted results of the population of new car buyers. Perhaps half of the new car buyers for a model are over age 55, but 75 percent of respondents to a Web survey are under age 32 and only 8 percent are over age 55. Not only would the results be distorted by age but the relatively small percentage of over-55 respondents may not be representative of all over-55 potential new car buyers (e.g., they may be higher income or more educated).

A second concern is protecting respondent privacy and confidentiality. When possible, data should be encrypted and only secure websites used. It is best to remove nonessential respondent identification or linking information. It is also best to verify respondents and ensure that only the sampled respondent participate and do so only once. This may involve a system such as giving each respondent a unique PIN number to access the questionnaire.

A third concern involves the complexity of questionnaire design. Clear, simple design is best. It is also wise to check and verify the compatibility of Web software and hardware combinations. Web survey design is still improving, but it is best to provide screen-by-screen questions and make an entire question visible on the screen at one time in a consistent format. Simple check boxes or drop-down boxes for answer choices are best. Progress indicators such as a clock or chart appear to be very helpful. You want to keep the visual appearance of a screen consistent with easy readability. Provide clear instructions for all computer actions (e.g., use of drop-down screens) and simple “click here” instructions wherever possible. Also, make it easy for respondents to move back and forth across questions. Pretesting to avoid technical glitches is important when using a dedicated server. If the Web survey has many users, it may be necessary to use a dedicated server and obtain sufficient broadband to handle the demand.¹⁶

Telephone Interviews

Advantages. The telephone interview is a popular survey method because almost the entire population can be reached by telephone. The process is straightforward: an interviewer calls a respondent (usually at home), asks questions, and records answers. You can sample respondents from lists, telephone directories, or random digit dialing, and can quickly reach many people across long

distances. A staff of interviewers can interview 1,500 respondents across a nation within a few days and, with several callbacks, get acceptable response rates (e.g., 80 percent). Although this method is more expensive than a mail questionnaire, the telephone interview is flexible. It has most of the strengths of face-to-face interviews but for about half the cost. Interviewers control the sequence of questions and can use some probes. A specific respondent is chosen and is likely to answer all the questions alone. You know when the questions were answered and can use contingency questions effectively, especially with computer-assisted telephone interviewing (CATI) (discussed later in this chapter).

Disadvantages. Higher cost and limited interview length are among the disadvantages of telephone interviews. In addition, respondents without a telephone are impossible to reach. The use of an interviewer reduces anonymity and introduces potential interviewer bias. Open-ended questions are difficult to use, and questions requiring visual aids are impossible. Interviewers can only note serious disruptions (e.g., background noise) and respondent tone of voice (e.g., anger or flippancy) or hesitancy.

Changing telephone technologies affects survey research by phone. Caller ID has been around since the mid-1980s and has gained in popularity. By 2006, over one-half of U.S. households had caller ID. There are few differences in willingness to participate in a survey between caller ID subscribers and non-caller ID users. Studies suggest that respondents with Caller ID are more likely to answer a recognized, legitimate survey organization than “unknown” or “out of area” types of identification. Caller ID can be an advantage to survey organizations if the name of the survey organization is well known.

People increasingly use cell phones instead of landline phones. Sampling cell phone numbers is possible, but it is more difficult, more

costly, and has lower rates of survey participation than landline phones. Also the demographic characteristics of cell phone users differ from landline users, with lower income and younger people relying exclusively on cell phones more than middle-income people or older adults. For some topics, it appears that the landline versus cell phone difference is not important, but it may be for other survey topics.¹⁷

Face-to-Face Interviews

Advantages. Face-to-face interviews have the highest response rates and permit the longest questionnaires. Interviewers also can observe the surroundings and can use nonverbal communication and visual aids. Well-trained interviewers can ask all types of questions, can ask complex 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 appearance, tone of voice, question wording, and so forth of the interviewer may affect the respondent. In addition, interviewer supervision is less than for telephone interviews, which supervisors monitor by listening in.¹⁸

INTERVIEWING

The Role of the Interviewer

Interviews are used to gather information and occur in many settings. Survey research interviewing is a specialized kind of interviewing. As with most interviewing, the goal is to obtain accurate information from another person.¹⁹

The survey interview is a special type of social relationship. Like other social relationships, it involves social roles, norms, and expectations.

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

An important problem for interviewers is that respondents are often not familiar with the survey respondents' role. As a result, the respondents substitute another role that may affect their responses. Some believe the interview is an intimate conversation or therapy session. Some see it as a bureaucratic exercise in completing forms. Some view it as a citizen referendum on policy choices. Some view it as a testing situation. Some consider it a form of deceit in which interviewers are trying to trick or entrap respondents. Even in a well-designed, professional survey, follow-up research found that only about half the respondents understand questions exactly as intended by researchers. Respondents reinterpreted questions to make them applicable to their idiosyncratic, personal situations or to make them easy to answer.²⁰

The interviewer's role is a difficult one. Often an interviewer will explain the nature of survey research or give hints about social roles in an interview. The interviewer must obtain cooperation and build rapport, yet remain neutral and objective. The interviewer encroaches on a respondent's time and privacy for information that may not directly benefit the respondent. An interviewer tries to reduce feelings of embarrassment, fear, and suspicion by a respondent so the respondent can feel comfortable revealing information. Good interviewers constantly monitor the pace and direction of the social interaction as well as the content of answers and the behavior of respondents.

The survey interviewer is nonjudgmental and does not reveal personal opinions, verbally or nonverbally (e.g., by a look of shock). If a

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 a 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 also 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).

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." Likewise, 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. He or she helps respondents feel that they can give any truthful answer.

You might ask, "If the survey interviewer must be neutral and objective, why not use a robot or machine?" Machine interviewing has not been successful because it lacks the human warmth, sense of trust, and rapport that an interviewer creates. 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 in locating the

correct respondent, 15 percent in traveling, and 10 percent in studying survey materials and dealing with administrative and recording details.²¹

Stages of an Interview

The survey research interview proceeds through several stages. It begins with an introduction and entry. The interviewer gets in the door, shows authorization, and reassures and secures cooperation from the respondent. He or she is 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 can explain why the specific respondent is interviewed and not a substitute.

The main part of the interview consists of asking questions and recording answers. The interviewer uses the exact wording on the questionnaire—no added or omitted words and no rephrasing. He or she asks all applicable questions in order, without returning to or skipping questions unless the directions specify this. 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, where interviewers just mark the correct box. For open-ended questions, the interviewer’s job is more difficult. He or she listens carefully, must have legible handwriting, and must record what is said verbatim without correcting grammar or slang. More important, the interviewer never summarizes or paraphrases. This 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 probes. A *probe* is 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.²²

There are many types of probes. A three- to five-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. He or she can ask a neutral question, such as, “Any other reasons?” “Can you tell me more about that?” “How do you mean?” “Could you explain more for me?” (see Example Box 6).

The last stage is the exit. This is when the interviewer thanks the respondent and leaves. He or she then goes to a quiet, private place to edit the questionnaire and record other details such as the date, time, and place of the interview; a thumbnail sketch of the respondent and interview situation; 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 four 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 music video”). The interviewer also records personal feelings and anything that was suspected (e.g., “Respondent became nervous and fidgeted when questioned about his marriage”).

Training Interviewers

For a small, simple study you can conduct the interviews yourself. However, a large-scale survey requires hiring multiple interviewers. Few people appreciate the difficulty of the interviewer’s job. A professional-quality interview requires the careful selection of interviewers and extensive training. As with

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EXAMPLE BOX

Examples 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.

any employment situation, adequate pay and good supervision are essential for consistent high-quality performance. Unfortunately, professional interviewing has not always paid well or provided regular employment. In the past, interviewers were largely drawn from a pool of middle-age women willing to accept irregular part-time work.

Good interviewers are pleasant, honest, accurate, mature, responsible, moderately intelligent, stable, and motivated. They have a non-threatening appearance, have experience with many different types of people, and possess poise and tact. Researchers may consider interviewers' physical appearance, age, race, sex, languages spoken, and even the sound of their voice.

It is fairly common for a professional interviewer to receive a week-long training course.

The course includes 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.

The importance of carefully selecting and training interviewers was evident during the 2004 U.S. presidential election. Exit polls are quick, very short surveys conducted outside a polling place for people immediately after they voted. On Election Day of 2004 exit polls showed candidate John Kerry well ahead, but after final votes were counted he lost to his opponent, George W. Bush. A major cause of

the mistake was that the research organization, paid \$10 million by six major news organizations to conduct the exit polls, had hired many young, inexperienced interviewers and gave them only minimal training. Younger voters tended to support Kerry, whereas older voters tended to support Bush. The interviewers were less successful in gaining cooperation from older voters and felt more comfortable handing the questionnaire to someone of a similar age. As a result, exit poll participants did not reflect the composition of all voters and poll results showed greater support for Kerry than actually existed among all voters.²³

Although interviewers work alone, in most large studies with many interviewers there is also an interviewer supervisor. Supervisors are familiar with the area, assist with problems, oversee the interviewers, and ensure that work is completed on time. For telephone interviewing, this includes helping with calls, checking when interviewers arrive and leave, and monitoring 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. They 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

You need to proscribe specific interviewer behavior to reduce bias. This goes beyond having interviewers read each question exactly as worded. Ideally, a particular interviewer's behavior has no effect on how a respondent answers, and responses do not differ from what they would be if asked by any other interviewer. 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 Example Box 7). Proper interviewer behavior and exact question reading may be difficult, but the issue is larger.

The social setting in which the interview occurs can affect answers, including the presence of other people. For example, students answer differently depending on whether they are asked questions at home or at school. In general, you do not want others present because they may affect respondent answers. It may not always make a difference, however, especially if the others are small children.²⁴

An interviewer's visible characteristics, including age, race, and gender, can influence interviews and respondent answers. This is especially true 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.²⁵ 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.²⁶ You will want to note the race and gender of both interviewers and respondents.

Computer-Assisted Telephone Interviewing

Advances in computer technology and lower computer prices have enabled professional survey research organizations to install *computer-assisted telephone interviewing (CATI)* systems.²⁷ With CATI, the interviewer sits in front of a computer and makes calls. Wearing a headset and microphone, the interviewer reads the questions from a computer screen that have

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EXAMPLE BOX

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

Interviewer	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 Hyman (1975:115, 163).

been selected for the specific respondent who is called. The interviewer listens then enters the answer via the keyboard. Once he or she enters an answer, the computer shows the next question on the screen.

Computer-assisted telephone interviewing speeds interviewing and reduces interviewer errors. It also eliminates the separate step of entering information into a computer and speeds data processing. Of course, CATI requires an investment in computer equipment and some knowledge of computers. The CATI system is valuable for contingency questions because the computer can show the questions appropriate for a specific respondent; interviewers do not have to turn pages looking for the next question. In addition, the computer can check an answer immediately after the interviewer enters it. For example, if

an interviewer enters an answer that is impossible or clearly an error (e.g., an *H* instead of an *M* for “Male”), the computer will request another answer. Innovations with computers and Web surveys also help to gather data on sensitive issues (see Expansion Box 3).

Several companies have developed software programs for personal computers that help develop questionnaires and analyze survey data. They provide guides for writing questions, recording responses, analyzing data, and producing reports. The programs may speed the more mechanical aspects of survey research—such as typing questionnaires, organizing layout, and recording responses—but they cannot substitute for a good understanding of the survey method or an appreciation of its limitations. The researcher must still clearly conceptualize variables, prepare well-worded questions, design the

3

EXPANSION BOX

Computer-Aided Surveys and Sensitive Topics

The questioning format influences how respondents answer questions about sensitive topics. Formats that permit the greatest respondent anonymity, such as a self-administered questionnaire or the web survey, are more likely to elicit honest responses than ones that require interaction with another person, such as in a face-to-face interview or telephone interview. One of a series of computer-based technological innovations is called *computer-assisted self-administered interviews (CASAI)*. It appears to improve respondent comfort and honesty in answering questions on sensitive topics. In CASAI, respondents are “interviewed” with questions that are asked on a computer screen or heard over earphones. The respondents answer by moving a computer mouse or entering information using a computer keyboard. Even when a researcher is present in the same room, the respondent is semi-insulated from human contact and appears to feel comfortable answering questions about sensitive issues.

sequence and forms of questions and responses, and pilot-test questionnaires. Communicating unambiguously with respondents and eliciting credible responses remain the most important parts of survey research.

It is wise to ask others to review your questionnaire before using it in a survey. One recent study (Olson, 2010) found that having a group of experienced survey researchers review a questionnaire helped identify possible weaknesses and improved the final survey.

THE ETHICAL SURVEY

A major ethical issue in survey research is the invasion of privacy. You may intrude into a respondent’s privacy by asking about intimate actions and personal beliefs. People have a right to privacy. Respondents decide when and

to whom to reveal personal information. They are likely to provide such information when you ask for it in a comfortable context that includes mutual respect and trust. It is most likely when respondents believe you have a legitimate research purpose that requires serious answers. It is also most likely when they believe their answers will remain confidential. As a social researcher, you should treat all respondents with dignity and do what you can to reduce anxiety or discomfort. You are also responsible for protecting the confidentiality of data.

A second issue involves voluntary participation by respondents. Respondents agree to answer questions and can refuse to participate at any time. They give “informed consent” to participate in research either formally or informally. You depend on respondents’ voluntary cooperation, so researchers need to ask well-developed questions in a sensitive way and be very sensitive to confidentiality.

A third ethical issue is the exploitation of surveys and pseudosurveys. Because of its popularity, some people have used surveys to mislead others. A *pseudosurvey* is when someone who has little or no real interest in learning information from a respondent uses the survey format to try to persuade someone to do something. Charlatans use the guise of conducting a survey to invade privacy, gain entry into homes, or “suggle” (sell in the guise of a survey). I personally experienced a type of pseudosurvey known as a “suppression poll” in an election campaign. In this situation, an unknown survey organization telephoned potential voters and asked whether the voter supported a given candidate. If the voter supported the candidate, the interviewer next 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, etc.). 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 for that candidate. Although such polling is illegal, no one has been prosecuted for using this campaign tactic.

Another ethical issue is when people misuse survey results or use poorly designed or purposely rigged surveys. Why does this occur? People may demand answers from surveys that surveys cannot provide and not understand a survey's limitations. Those who design and prepare surveys may lack sufficient training to conduct a legitimate survey. Unfortunately, policy decisions are sometimes made based on careless or poorly designed surveys. They often result in waste or human hardship. This is why legitimate researchers conducting methodologically rigorous survey research are important.

The media report more surveys than other types of social research, yet sloppy reporting of survey results permits abuse.²⁸ Few people reading survey results may appreciate it, but researchers should include details about the survey (see Expansion Box 4) to reduce the misuse of survey research and increase questions about surveys that lack such information. Survey researchers urge the media to include such information, but it is rarely included. Over 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.²⁹ Currently, there are no quality-control standards to regulate the opinion polls or surveys reported in the U.S. media.

Since the late 1940s, professional researchers have made unsuccessful attempts to require adequate samples, interviewer training and supervision, satisfactory questionnaire design, public availability of results, and controls on the integrity of survey organizations.³⁰ Unfortunately, the media report both biased, misleading survey results and rigorous, professional survey results with little distinction. It is not surprising that the public becomes confused and distrusts surveys.

4

EXPANSION BOX

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, housewives in Singapore)
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 organizations that sponsored the survey (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

CONCLUSION

In this chapter, you learned about survey research. You also learned some principles of writing good survey questions. There are many things to avoid and to include when you write survey questions. You learned about the advantages and disadvantages of four types of survey research: mail, web, telephone interviews, and face-to-face interviews. You saw that interviewing, especially face-to-face interviewing, can be difficult.

This chapter focused on survey research, but you can 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.

Although you try to minimize errors, survey data may contain them. Survey errors 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 existence of errors discourage you from using the survey method, however. Instead, learn to be very careful when designing survey research and be cautious about generalizing from the results of surveys.

Key Terms

closed-ended question
 computer-assisted telephone interviewing (CATI)
 context effect
 contingency question
 cover sheet
 double-barreled question
 floaters
 full-filter question
 funnel sequence
 interview schedule
 matrix question
 open-ended question
 order effects
 partially open question
 prestige bias
 probe
 quasi-filter question
 response set
 social desirability bias
 standard-format question
 threatening questions
 wording effects

Endnotes

1. Sudman and Bradburn (1983:39) suggested 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 of traditional carbonated sodas can answer the question easily. Other respondents must implicitly address the following questions to answer the question as it was asked: (a) What time period is involved—the past month, the past year, the last 10 years? (b) What conditions count—at home, at restaurants, at sporting events? (c) Buying for oneself alone or for other family members? (d) What is a “soft drink”? Do lemonade, iced tea, mineral water, or fruit juices count? (e) Does “usually” mean a brand purchased as 51 percent or more of all soft drink purchases, or the brand purchased more frequently than any other? Respondents rarely stop and ask for clarification; they make assumptions about what the researcher means.

2. See Dykema and Schaeffer (2000) and Sudman et al. (1996:197–226).
3. See Ostrom and Gannon (1996).
4. 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.
5. See CBS News, cbsnews.com/8301-503544_162-6201911-503544.html, downloaded February 14, 2011. Also see Cooper, Michael. “From Obama, the Tax Cut Nobody Heard Of,” *New York Times*, October 18, 2010.
6. See Martin (1999) and Tourangeau et al. (1997).
7. 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), and Sudman and Bradburn (1983:140–141).
8. The disagree/agree versus specific alternatives debate can be found in Bradburn and Sudman (1988:149–151), Converse and Presser (1986:38–39), and Schuman and Presser (1981:179–223).
9. The ranking versus ratings issue is discussed in Alwin and Krosnick (1985) and Krosnick and Alwin (1988). Also see Backstrom and Hursh-Cesar (1981:132–134) and Sudman and

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- Bradburn (1983:156–165) for formats of asking rating and ranking questions.
10. See Foddy (1993) and Presser (1990).
 11. Studies by Krosnick (1992) and 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.
 12. This example comes from Strack (1992).
 13. For a discussion, see Couper et al. (1998), de Heer (1999), Keeter et al. (2000), Sudman and Bradburn (1983:11), Tourangeau and Ye (2009), and “Surveys Proliferate, but Answers Dwindle,” *New York Times*, October 5, 1990, p. 1. Smith (1995) and Sudman (1976:114–116) also discuss refusal rates.
 14. See Dillman 2000:32–39 for more details.
 15. Bailey (1987:153–168), Church (1993), Dillman (1978, 1983), Fox, Crask, and Kim (1988), Goyder (1982), Heberlein and Baumgartner (1978, 1981), Hubbard and Little (1988), Jones (1979), Porter and Whitcomb (2009), and Willimack, Schuman, Pennell, and Lepkowski (1995) discuss increasing return rates in surveys.
 16. See Couper (2008) for an overview on designing Web surveys. Also see Kreuter, Presser, and Tourangeau (2008) on social desirability in Web surveys.
 17. On cell phones and survey research, see Blumberg and Luke (2007), Keeter (2006), Keeter, Kennedy, Clark, Tompson, and Mokrzycki (2007), Link, Battaglia, Frankel, Osborn, and Mokdad (2007), and Tucker, Brick, and Meekins (2007). See Callegaro, McCutcheon, and Ludwig (2010) on Caller ID.
 18. For a comparison among types 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).
 19. For more on survey research interviewing, see Brenner, Brown, and Canter (1985), Cannell and Kahn (1968), Converse and Schuman (1974), Dijkstra and van der Zouwen (1982), Foddy (1993), Gorden (1980), Hyman (1975), and Moser and Kalton (1972:270–302).
 20. See Turner and Martin (1984:262–269, 282).
 21. From Moser and Kalton (1972:273).
 22. The use of probes is discussed in Backstrom and Hursh-Cesar (1981:266–273), Gorden (1980:368–390), and Hyman (1975:236–241).
 23. Report by Steinberg, Jacques. “Study Cites Human Failings in Election Day Poll System,” *New York Times*, January 20, 2005.
 24. See Bradburn and Sudman (1980), Pollner and Adams (1997), and Zane and Matsoukas (1979).
 25. The race or ethnicity of interviewers is discussed in Anderson, Silver, and Abramson (1988), Bradburn (1983), Cotter, Cohen, and Coulter (1982), Davis (1997), Finkel, Guterbock, and Borg (1991), Gorden (1980:168–172), Reese, Danielson, Shoemaker, Chang, and Hsu (1986), Schaffer (1980), Schuman and Converse (1971), and Weeks and Moore (1981).
 26. See Catania et al. (1996) and Kane and MacAulay (1993).
 27. CATI is discussed in Bailey (1987:201–202), Bradburn and Sudman (1988:100–101), Frey (1983:24–25, 143–149), Groves and Kahn (1979:226), Groves and Mathiowetz (1984), and Karweit and Meyers (1983).
 28. On reporting survey results in the media, see Channels (1993) and MacKeun (1984).
 29. See Singer (1988).
 30. From Turner and Martin (1984:62).