This chapter is about the construction and administration of structured interviews. In a structured interview, every respondent or informant is exposed to the same stimuli. The most familiar kind of structured interview is the questionnaire. A questionnaire may be self-administered or it may be administered over the phone or in person, but in all cases the questions posed to respondents are the same.

The stimuli in a structured interview may be straightforward questions or complex scales, as in a questionnaire. The stimuli may also be carefully constructed vignettes, lists, clips of actual music or video, a set of photographs, a table full of physical artifacts, or a garden full of plants. The idea is to control the input that triggers each person’s responses so that the output can be reliably compared. If you walk 50 employees through an automobile assembly plant and ask each of them to name 30 kinds of machines, you’ve done a piece of structured interviewing.

I’ll cover two broad categories here of methods for structured interviewing: questionnaires and a range of methods used in cultural domain analysis. We begin with questionnaires and survey research. I review some of the important lessons concerning the wording of questions, the format of questionnaires, the management of survey projects, and the maximizing of response rates. (Refer to Chapter 6 again for more discussion of response effects.)

**Questionnaires and Survey Research**

Survey research is a major industry in all the industrialized countries of the world. Japan developed a survey research industry soon after World War II. (See Passin [1951] for a discussion of this fascinating story.) India, South Korea, Jamaica, Greece, Mexico, and many other countries have since developed their own survey research capabilities, either in universities, in the private sector, or in both (and see Box 7.1).

In the United States, the top 50 market research companies employed over 50,000 people in 1996, including at least 5,000 professional social scientists. Those companies had revenues of $5.5 billion (Honomicii 1997). Add the international corporations, like Gallup and Roper, that conduct public opinion polls; add the federal and state survey research agencies; and add university-based survey bureaus (like the National Opinion Research Center at the University of Chicago, the Institute for Social Research at the University of Michigan, and the Social Research Center at the University of Illinois).

The industry began its modern development in the mid-1930s when quota sampling was first applied to voting behavior studies and to determining the characteristics of listeners to various radio programs, readers of various magazines, and purchasers of various products. Then, as now, survey research helped advertisers target their messages more profitably.

Studies of American soldiers in World War II provided massive opportunities for social scien-
Box 7.1
Survey Research in Non-Western Societies

Is survey research really feasible everywhere? Perhaps not everywhere, but it's a more widely used method than you might think, and has been for a long time. Gordon Streib did survey research among the Navajo in 1950 and had only a 2% refusal rate. Streib says that this was because the Navajo were able to put his role as a survey researcher into meaningful perspective. The Navajo had, of course, been studied by many anthropologists, but when Streib (a sociologist) began his survey they said to him, “We wondered what you were doing around here. Now we know that you have a job to do like other people” (Streib, personal communication; see also Streib 1952).

In the 1950s, Strycos (1955, 1960:377) did a five-island study of fertility patterns in the Caribbean. Across the world, refusal to be interviewed is linked to the perceived threat of the questions being asked, the length of the interview, and the education level of the respondents (respondents with low education refuse more often). Strycos’s face-to-face survey took from 1.5 to 6 hours and contained sensitive questions about sexual experiences in and out of marriage—and his respondents had much less education than typical American and British respondents. Typical refusal rates for face-to-face interviews in the U.S. and Britain run between 5% and 20%, but Strycos got a 2% refusal rate.

Ari Nave (1997) recently studied ethnic identity in Mauritius. Nave used a combination of face-to-face, mailed, and telephone interviews to get a representative sample (see the section When to Use What, page 237 in this chapter, for details). Akhtar (1996) used a multistage, stratified random sample of 3,500 households in Karachi, Pakistan, to study the differential school drop-out rate of boys and girls.

tists to refine their skills in taking samples and in collecting and analyzing survey data (Stouffer 1947-50). The continued need for consumer behavior data in the private sector and the developing need by government agencies for information about various “target populations” (poor people, African Americans, Hispanics, users of public housing, users of private health care, etc.) have stimulated the growth of the survey research industry.

FACE-TO-FACE, SELF-ADMINISTERED, AND TELEPHONE INTERVIEWS

There are three methods for collecting survey questionnaire data: personal, face-to-face interviews; self-administered questionnaires; and telephone interviews. Self-administered questionnaires are usually mailed to respondents, but they may also be dropped off and picked up later or they may be given to people in a group all at once. Self-administered questionnaires can also be programmed into a computer.

Each of the data-collection methods has its own advantages and disadvantages. There is no conclusive evidence that one method of administering questionnaires is better, overall, than the others. Your choice of a method will depend on
your own calculus of things like cost, convenience, and the nature of the questions you are asking.

Personal, Face-to-Face Interviews

*Face-to-face administration of questionnaires* offers some important advantages, but it has some important disadvantages as well.

**Advantages of Face-to-Face Interviews**

1. They can be used with people who could not otherwise provide information—respondents who are illiterate, blind, bedridden, or very old, for example.

2. If a respondent doesn’t understand a question in a personal interview, you can fill in, and, if you sense that the respondent is not answering fully, you can probe for more complete data.

   Carry a notebook that tells you exactly how to respond when people ask you to clarify an unfamiliar term. If you use more than one interviewer, be sure each of them carries a copy of the same notebook. Good interview schedules are pre-tested to eliminate terms that are unfamiliar to intended respondents. Still, there is always someone who asks, “What do you mean by ‘income?’” or “How much is ‘a lot?’”

3. You can use several different data-collection techniques with the same respondent in a face-to-face survey interview. Part of the interview can consist of open-ended questions; another part may require the use of visual aids, such as graphs or cue cards; and in still another, you might hand the respondent a self-administered questionnaire booklet and stand by to help clarify potentially ambiguous items. This is a useful technique for asking really sensitive questions in a face-to-face interview.

4. Personal interviews at home can be much longer than telephone or self-administered questionnaires. An hour-long personal interview is relatively easy, and even two- and three-hour interviews are common. It is next to impossible to get respondents to devote two hours to filling out a questionnaire that shows up in the mail, unless you are prepared to pay well for their time, and it requires exceptional skill to keep a telephone interview going for more than 20 minutes, unless respondents are personally interested in the topic.

   Note, though, that street-intercept or mall-intercept interviews, while face to face, usually have to be very quick. (See Chapter 5, on sampling, for more on street-intercept and mall-intercept surveys.)

5. Face-to-face respondents get one question at a time and can’t flip through the questionnaire to see what’s coming. If you design an interview to start with general questions (how people feel about using new technologies at work, for example) and move on to specific questions (how people feel about using a particular new technology), then you really don’t want people flipping ahead.

6. With face-to-face interviews you know who answers the questions.

**Disadvantages of Face-to-Face Interviews**

1. They are intrusive and reactive. It takes a lot of skill to administer a questionnaire without
subtly telling the respondent how you hope he or she will answer your questions. Other methods of administration of questionnaires may be impersonal, but that's not necessarily bad. Furthermore, the problem of reactivity increases when more than one interviewer is involved in a project.

2. Personal interviews are costly in both time and money. In addition to the time spent in interviewing people, locating respondents in a representative sample may require going back several times. In urban research especially, count on making up to a half dozen callbacks to get the really hard-to-find respondents.

By the way, it's really important to keep going back to those hard-to-get interviews. Survey researchers sometimes use the sampling by convenient replacement technique, which just means going next door or down the block and picking up a replacement for an interviewee who happens not to be home when you show up. This keeps the sample size honest, but as I mentioned in Chapter 5, it can produce some deadly bias. This is because, as you replace nonresponders with conveniently available respondents, you tend to homogenize your sample and make it less and less representative of all the variation in the population you're studying.

3. The experience of fieldworking anthropologists is that the number of people whom individual researchers can contact personally in a year, without any research assistants, is around 200. Of course, that's if you are working in the kind of place that anthropologists often go—places where transport is a problem. Sociologists working in major cities in Europe or North America can do more, but it gets really, really tough to maintain a consistent, positive attitude long before you get to the 200th interview. With mailed and telephone questionnaires you can survey thousands of respondents.

4. Personal interview surveys conducted by lone researchers over a long period of time run the risk of being overtaken by events. A war breaks out, a volcano erupts, or the government decides to cancel elections and imprison the opposition. It sounds dramatic, but these sorts of things are actually quite common across the world. Far less dramatic events can make the responses of the last 100 people you interview radically different from those of the first 100 to the same questions. If you conduct a questionnaire survey over a long period of time in the field, it is a good idea to reinterview your first few respondents and check the stability (reliability) of their reports.

Self-Administered Questionnaires

Self-administered questionnaires also have some clear advantages and disadvantages.

Advantages of Self-Administered Questionnaires

1. Mailed questionnaires put the post office to work for you in finding respondents. If you cannot use the mail (because sampling frames are unavailable, because you cannot expect people to respond, or because you happen to be in a country where mail service is unreliable), you can use cluster and area sampling (see Chapter 5), combined with the drop and collect technique. This involves leaving a questionnaire with a respondent and going back later to pick it up. In either case, self-administered questionnaires allow a single researcher to gather data from a large, representative sample of respondents, at relatively low cost per datum.
Here is a list of things that people say they'd like to see in their high school. For each item, check how you feel this high school is doing.

<table>
<thead>
<tr>
<th></th>
<th>WELL</th>
<th>OK</th>
<th>POORLY</th>
<th>DON'T KNOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. High quality instruction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Good pay for teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Good mix of sports and academics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Preparation for college entrance exams</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Safety</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Music program</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Good text books</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 7.1 A Battery Item in a Questionnaire (batteries can consist of many items)

2. All respondents get the same questions with a self-administered questionnaire. There is no worry about interviewer bias.

3. You can ask more complex questions with a self-administered questionnaire than you can in a personal interview. Questions that involve a long list of response categories, or that require a lot of background data are hard to follow orally, but are often challenging to respondents if worded right.

4. You can ask long batteries of otherwise boring questions on self-administered questionnaires that you just couldn’t get away with in a personal interview. Look at Figure 7.1. Imagine trying to ask someone to sit still while you recited, say, 30 items and asked for their response.

5. Response effects are absent in self-administered questionnaires that arrive by mail. Questions about sexual behavior (including family planning) and scales that measure attitudes toward women or men or members of particular ethnic/racial groups are particularly susceptible to response effects based on variation in gender, age, race, or ethnicity. The perceived sexual orientation of the interviewer, for example, affects how supportive respondents are of homosexuality (Kemph and Kasser 1996).

Respondents may be more willing to report socially undesirable behaviors and traits in self-administered questionnaires (and in telephone interviews) than they are in face-to-face interviews. They aren’t trying to impress interviewers, and anonymity gives people a sense of security, which produces more reports of things like pre-marital sexual experiences, constipation, arrest records, alcohol dependency, interpersonal violence, and so on (Hochstum 1967; Bradburn 1983).
This does not mean that more reporting of behavior means more accurate reporting. We know better than that now. But, as I've said before, more is usually better than less. If Chicanos report spending 12 hours per week in conversation with their families at home, while Anglos (as White, non-Hispanic Americans are known in the American Southwest) report spending 4 hours, I wouldn't want to bet that Chicanos really spend 12 hours, on average, or that Anglos really spend 4 hours, on average, talking to their families. But I'd find the fact that Chicanos reported spending three times as much time talking with their families pretty interesting.

**More reporting of behavior does not always mean more accurate reporting.**

6. Self-administered questionnaires can be programmed into a computer, or even given automatically by e-mail. (You may see this called CAI in the social research literature, for computer-assisted interviewing.) Respondents take quickly to this format—it's used a lot in market research—and often find it to be a lot of fun. Fun is good because it cuts down on fatigue. Fatigue is bad because it sends respondents into robot mode and they stop thinking about their answers (O'Brien and Dugdale 1978; Barnes et al. 1995).

In 1988, I ran a computer-based interview study as part of an ongoing project to estimate the size of uncountable populations. One member of our team, Christopher McCarty, programmed a laptop to ask respondents in Mexico City and Jacksonville, Florida, about their acquaintanceship networks. (Actually, “laptop” is not quite the right word for the computer we used. In those days, a portable computer was one that fit under an airline seat—just barely. They were known as lug-ables.) Those respondents said they enjoyed the experience. “Wow, this is like some kind of computer game,” one respondent said.

In some cases, computer-based interviews may produce more honest answers about sensitive topics than do traditional paper-and-pencil tasks. Peterson et al. (1996) randomly assigned two groups of 57 Swedish Army veterans to fill out the Beck's Depression Inventory (Beck et al. 1961). One group used the pencil-and-paper version, while the other used a computer-based version. Those who used the computer-based version had significantly higher mean scores on sensitive questions about depression.

**Disadvantages of Self-Administered Questionnaires**

Despite these advantages, there are some hefty disadvantages to self-administered questionnaires.

1. You have no control over how people interpret questions on a self-administered instrument. There is always the danger that, no matter how much background work you do, no matter how hard you try to produce culturally correct questions, respondents will be forced into making culturally inappropriate choices in closed-ended questionnaires.

2. If you are not working in a highly industrialized nation, or if you are not prepared to use Dillman's total design method (discussed below), you are likely to see response rates of 20%-30% from mailed questionnaires. It is entirely reasonable to analyze the data statistically and to offer conclusions about the correlations among variables among those who responded to your survey. But response rates like these are unacceptable for drawing conclusions about larger populations.
3. Even if a questionnaire is returned, you can’t be sure that the respondent who received it is the person who filled it out.

4. Mailed questionnaires are prone to serious sampling problems. Sampling frames of addresses are almost always flawed, sometimes very badly. For example, if you use a phone book to select a sample, you miss all those people who don’t have phones or who choose not to list their numbers. Face-to-face administration of questionnaires is often based on an area cluster sample, with random selection of households within each cluster. This is a much more powerful sampling design than most mailed questionnaire surveys can muster.

5. In some cases, you may want a respondent to answer a question without the respondent knowing what’s coming next. This is impossible in a self-administered questionnaire.

6. Self-administered questionnaires are simply not useful for studying nonliterate or illiterate populations, or for studying people who can’t see. Some new technologies, like voice recognition software, are coming along that will address this problem.

Telephone Interviews

It wasn’t too long ago that telephone surveys were considered a poor substitute for face-to-face surveys, but this has changed completely in recent years (Taylor 1997). In fact, **telephone interviewing** has become the most widely used method of gathering survey data across the industrialized nations of the world where so many households have their own phones.

Administering questionnaires by phone has some very important advantages.

**Advantages of Telephone Interviews**

1. Research has shown that, in the United States at least, answers to many different kinds of questions asked over the phone are as valid as those to questions asked in person or through the mail (Dillman 1978).

2. Phone interviews have the impersonal quality of self-administered questionnaires and the personal quality of face-to-face interviews. Hence, telephone surveys are unintimidating (like self-administered questionnaires), but allow interviewers to probe or to answer questions dealing with ambiguity of items (like personal interviews).

3. Telephone interviewing is inexpensive and convenient to conduct. It’s not without effort, though. Professional survey organizations routinely do at least three callbacks to numbers that don’t answer, and many survey researchers insist on 10 callbacks to make sure that they get an unbiased sample. As it is, in most telephone surveys, you can expect 30%-40% refusals. You can also expect nearly 100% sample completion, because it’s relatively easy to replace refusers with people who will cooperate, but remember to keep track of the refusal rate and to make an extra effort to get at least some of the refusers to respond so you can test whether cooperators are a biased sample.

4. Using **random digit dialing** (RDD), you can reach almost everyone who has a phone. In the U.S., that means you can reach almost everybody. One recent survey found that 28% of completed interviews using RDD were with people who had unlisted phone numbers (Taylor 1997:424). There are huge regional differences, though, in the availability of telephones (see below, in the...
section on the disadvantages of telephone interviewing).

5. Unless you do all your own interviewing, interviewer bias is an ever-present problem in survey research. It is relatively easy to monitor the quality of telephone interviewers' work by having them come to a central place to conduct their operation. (If you don't monitor the performance of telephone interviewers, though, you invite cheating. See below.)

6. There is no reaction to the appearance of the interviewer in telephone surveys, although respondents do react to accents and speech patterns of interviewers. Oskenberg et al. (1986) found that telephone interviewers who had the lowest refusal rates had higher-pitched, louder, and clearer voices. And, as with all types of interviews, there are gender-of-interviewer and race-of-interviewer effects in telephone interviews, too. Respondents try to figure out the race or ethnicity of the interviewer and then tailor responses accordingly.

In the National Black Election Study, 872 African Americans were polled before and after the 1984 presidential election. Since interviewers were assigned randomly to respondents, some people were interviewed by a White person before the election and an African American after the election. And vice versa: Some people were interviewed by an African American before the election and a White person on the second wave.

Darren Davis (1997) looked at data from this natural experiment. When African American interviewers in the preelection polls were replaced by White interviewers in the postelection surveys, African Americans were more likely to say that Blacks don't have the power to change things, that Black people can't make a difference in local or national elections, that Black people cannot form their own political party, and that Whites are not responsible for keeping Blacks down—very powerful evidence of a race-of-interviewer effect.

7. Telephone interviewing is safe: You can talk on the phone to people who live in urban neighborhoods where many professional interviewers (most of whom are women) would prefer not to go. Telephones also get you past doormen and other people who run interference for the rich.

Disadvantages of Telephone Interviewing

The disadvantages of telephone surveys are obvious.

1. If you are doing research in Haiti or Bolivia or elsewhere in the developing world, telephone surveys are out of the question, except for some urban centers, and then only if your research is about relatively well-off people. Nave (1997) was able to combine telephone and door-to-door interviewing with mailed questionnaires to study the rate of intermarriage across ethnic groups in Mauritius (see Box 7.1).

Even in highly industrialized nations, not everyone has a telephone. About 94% of all households in the United States have telephones. This makes national surveys a cinch to do and highly reliable. But the distribution of telephones is uneven, which makes some local surveys impossible to do by phone.

In Westchester County, New York, for example, the median per capita income is over $35,000 per year and over 98% of all households have phones. The 2% of households that don't have phones in Westchester County are rental properties. In Coconino County, Arizona, the median per capita income is less than $15,000 per year and about 75% of all housing units—owner-occupied and rentals alike—have phones. Be very certain about the demographics of the area you're thinking of studying before deciding on a tele-
Phone survey. If having a telephone is associated with having a certain amount of income and/or membership in an ethnic group, as it is in Coconino County, Arizona, then a telephone interview of that population will produce statistically ungeneralizable results.

2. Telephone interviews must be relatively short, or people will hang up. There is some evidence that once people agree to give you their time in a telephone interview, you can keep them on the line for a remarkably long time (up to an hour) by developing special "phone personality" traits. Generally, however, you should not plan a telephone interview that lasts for more than 20 minutes.

3. And finally, this: It has long been known that, in an unknown percentage of occasions, hired interviewers willfully produce inaccurate data. When an interviewer who is paid by the completed interview finds a respondent not at home, the temptation is to fill in the interview and get on to the next respondent. This saves a lot of calling back and introduces garbage into the data.

Unless there is continual monitoring, it's particularly easy for interviewers to cheat in telephone surveys—from failing to probe, to interviewing unqualified respondents, to fabricating an item response, and even to fabricating whole interviews. Kiecker and Nelson (1996) hired 33 survey research companies to do eight interviews each, ostensibly as "mop-up" for a larger national market survey. The eight respondents were plants—graduate students of drama, for whom this must have been quite a gig—and were the same eight for each of the surveys. Of the 33 interviewers studied, 10 fabricated an entire interview, 32 fabricated at least one item response, and all 33 failed to record responses verbatim.

The technology of telephone interviewing has become very sophisticated. Computer-assisted telephone interviewing (CATI) makes it harder to do things like ask questions out of order, but a determined cheater on your interviewing team can do a lot of damage. The good news is that once you eliminate cheating (with monitoring), the main thing left that can go wrong is inconsistency in the way interviewers ask questions. Unstructured and structured interviews each have their own advantages, but for structured interviews to yield reliable results, they have to be really, really structured. That is, the questions have to be read verbatim so that every respondent is exposed to the same stimulus.

Repeated verbatim readings of questions is boring to do and boring to listen to. When respondents (inevitably) get restless, it's tempting to vary the wording to make the interview process seem less mechanical. This turns out to be a bigger problem in face-to-face interviews (where interviewers are generally working alone, without any monitoring) than in telephone interviews. Presser and Zhao (1992) monitored 40 trained telephone interviewers at the Maryland Survey Research Center. For the 5,619 questions monitored, interviewers read the questions exactly as worded on the survey 91% of the time. Training works.

Still, no matter how much you train interviewers... Johnstone et al. (1992) studied 48 telephone interviews done entirely by women and found that female respondents elicited more sympathy while male respondents elicited more joking. Men, say Johnstone et al., may be less comfortable than women are with being interviewed by women and wind up trying to subvert the interview by turning it into teasing or banter.

Sampling for telephone surveys is also aided by computer. There are companies that sell telephone numbers for surveys. The numbers are chosen to represent businesses or residences and to represent the varying saturation of phone service in different calling areas.

Even the best sample of phone numbers, though, may not be enough to keep you out of