CHAPTER 11

Data Collection Methods

OBJECTIVES

After reading this chapter, students should be able to

- Briefly define observational research
- Describe the advantages and disadvantages of naturalistic and participant observation
- Describe the advantages and disadvantages of laboratory observation compared with naturalistic and participant observation
- Describe how survey research differs from observational research
- Describe the difference between a survey and a questionnaire
- Describe the advantages and disadvantages of face-to-face versus telephone interviews
- Describe the advantages and disadvantages of self-administered versus group-administered questionnaires
- Describe the advantages and disadvantages of mail-out versus Internet questionnaires
- Describe a focus group and indicate why a researcher might use this method
- Design a study to address a given research question

In the United States, certain families are given special television equipment so that their viewing habits can be monitored. These families provide what are known as the Nielsen ratings, and television program developers use these ratings to make decisions about which television programs will be continued and which will be dropped. Do you wonder how these decisions are made, exactly?
Have you ever wondered what the TV ad proclaiming that “8 out of 10 dentists prefer Crest” really means?
Have you ever wondered how Kinsey got the data he did in his study of sexual attitudes of men and women?
Well, the Nielsen people clearly have some sort of information about the popularity of TV shows. The Crest people must have some sort of information from dentists about their opinions about toothpaste. Did Kinsey really ask people such private questions?
Where does this information come from? How was it gathered? These are the questions we will address in this chapter.

The most obvious way to collect data is to just watch people and record their behavior, and indeed, this is the basis of observational research. Sometimes, though, it is difficult or impossible to actually observe the behavior we are really interested in; perhaps it only occurs under limited conditions, or perhaps it only occurs in private. In the same vein, if we are interested in attitudes or opinions of people, observing their overt behavior may tell us little or nothing about their real attitudes or opinions. Often, we find that we need to ask people questions—survey research. But how do we ask our questions? Should we ask them in person? Should we develop a questionnaire? Maybe the best way to answer our specific research question is to get a group (or groups) of people together and facilitate a discussion of our research topic—focus group research. Let’s look at each of these approaches in detail.

OBSERVATIONAL RESEARCH: OBSERVING THE BEHAVIOR OF INDIVIDUALS

Who doesn’t like to watch people from time to time? It’s interesting to watch people even if we are only passing the time while waiting for the bus. Our interest in watching people is the same as the researcher’s. We want to learn more about human behavior. In observational research, we study behavior by directly observing it. The distinction between research and casual people-watching is that research includes systematically recording behavior.

Observational methods can be used to collect data in both experimental and nonexperimental research. In this chapter, we are focusing on observational research as it is used in nonexperimental research. The independent variable, then, is not under the control of the investigator. We will look at three observational research methods: (1) naturalistic observation, (2) participant observation, and (3) observation in the laboratory.

Observing Behavior From the Outside: Naturalistic Observation

Naturalistic observation researchers might ask questions such as the following:

- What does a porpoise reared in a marine zoo do when released into the ocean?
- How does a special education reared student fare in a regular classroom?
- Who attends gun shows, and what do they do there?
As the name indicates, naturalistic observation involves making systematic observations of behavior in the environment where it occurs naturally. It is a favorite approach of ethologists, researchers who are interested in animal behavior in its natural setting. Probably the best-known ethologist is Jane Goodall, whose studies of the chimpanzee have spanned decades.

Naturalistic observation is used whenever we wish to study behavior as it naturally occurs and in a way that is as unobtrusive as possible. It is particularly well suited for studying behaviors that we fear would be altered or not occur at all if the participants knew they were being observed. The tendency for people to alter their behavior when they know they are being observed is called the reactivity effect. To demonstrate how people react to being observed, ask a friend to walk down the hall, and tell her you are interested in watching exactly how she carries herself as she walks. Did she alter her behavior? She was probably very self-conscious and felt that she was walking funny. This highlights one of the important features of naturalistic observation. You do not want your participants to be aware of your presence. You want to be unobtrusive in your record taking and inconspicuous in your presence.

Imagine that it’s Friday night and you are at the bar with your friends. You see someone across the room sitting at a table with friends. You are pretty sure that person is interested in you, so you decide to make contact. With the exception of physical appearance, you know nothing about this person, and she or he knows nothing about you. How do you know if the person you are interested in is interested in you? Should you just saunter right up to the table and use your best line? Will you be shot down in flames or accepted with enthusiasm?

One indicator of your potential paramour’s interest, which can be noticed from a distance, is body language. Does she occasionally glance at you? Does he smile? Does she blush just a little? Does he adjust his tie? Nonverbal behaviors such as these have been identified and studied in women, but do men engage in nonverbal behaviors that women can read from a distance? This is the general focus of Renninger, Wade, and Grammer (2004).

**The Research Problem.** Renninger et al. (2004) wanted to determine if men give off nonverbal signals prior to initiating contact with women. And they wondered whether men who are successful in these encounters exhibit behaviors that are different from those of men who are unsuccessful.

**Hypotheses.** The researchers hypothesized that men who are successful in making contact with women engage in nonverbal behaviors prior to contact that differ from the behaviors of men who are not successful.

**Selection of Participants.** Thirty-eight men were unobtrusively observed in three bars located in Pennsylvania. Men were randomly selected for observation. However, they had to be surrounded by 10 or more people, not sitting in a booth, and not accompanied by a woman. Participants were debriefed after exiting the bar, and all signed a consent form. (One wonders if the participants’ alcohol consumption may have influenced their decision...
to participate. Nevertheless, this project was given approval by an internal ethics review board.)

**The Variables.** The variables in this study were occurrences of specifically defined behaviors over the course of the 30-minute observation period. Based on previous research and their own preliminary observations, Renninger et al. (2004) created four main categories of behavior with 18 subcategories. The main categories were glancing behavior, physical space changes, gesturing, and touching. It is important to note that the observers were clear on all the behavioral definitions before the study started. You can imagine the difficulty in remaining inconspicuous if you had to keep referring to a list while trying to record ongoing behavior.

The outcome variable was the successful contact with a woman. This was a categorical variable, with success defined as the participant engaging a woman in conversation for 1 minute or longer. Those who did not establish contact for this duration were scored as unsuccessful.

**The Design.** Renninger et al. (2004) employed naturalistic observation. Given they were interested in how men behave in a courtship setting, it is unlikely their participants would behave in a natural way if observations took place in a laboratory setting. And it is equally unlikely the men would act naturally if they knew they were being watched. Consequently, observations were made in a bar, and the participants were unaware they were being studied. Two observers were positioned in remote locations and made audio recordings of their observations. Two observers were used so that measures of interrater reliability could be calculated for the various behaviors. Also, one of the observers was blind to the research hypothesis as a guard against research bias in the recordings.

From a group of people in the bar, a focal man was chosen at random, and behaviors were observed for 30 minutes. If within the observation period, the man made contact with a woman, he was scored (pun intended) as a success; otherwise, he was recorded as unsuccessful. Observers then waited for another group of individuals and again selected a single man.

**The Statistical Analysis.** Both descriptive and inferential statistics were used in this study. The descriptive statistics included the mean frequency of each behavior during the 30-minute observation periods averaged across all the men who were successful and those who were unsuccessful.

For inferential statistics, Renninger et al. (2004) used a one-way ANOVA to make comparisons between the men who were successful and those who were unsuccessful in making contact with a woman.

**The Results.** Of the 38 men included in the statistical analysis, 11 made contact, and 27 did not. Some of the differences between the successful and unsuccessful men are shown in Figure 11.1. ANOVA was used to test for statistical significance between the successful and unsuccessful groups of men. All these data are presented as frequency of the behavior observed within 30-minute observation periods.
The main differences between successful and unsuccessful men were as follows: Successful men made short, direct glances at the women more frequently, $F(1, 37) = 24.22$, $p < .001$. They made more space-maximizing movements, $F(1, 37) = 16.59$, $p < .001$. They made more nonreciprocal physical contact with other men, $F(1, 37) = 8.62$, $p < .006$, and made fewer closed-body movements, $F(1, 37) = 14.30$, $p < .001$.

The Conclusions. The researchers concluded that there are differences in nonverbal behavior between men who are successful at making contact with women in a bar and those who are not. Successful men make large movements that maximize their space, they glance at the woman more frequently, they touch their male friends more often, and they avoid making movements close to their body.

Now, before you men start practicing these behaviors, we should remind you of the limitations of nonexperimental research. You cannot make strong causal inferences. Just knowing these are the behaviors that successful men engage in does not mean that they will work for you. Why not? Well, these may be common behaviors of friendly, outgoing, cheerful men—men who are fun to be around. These behaviors may be indicators that women use to judge you from a distance. Engaging in these behaviors may or may not work for you. Moreover, just because this study shows a relationship between the nonverbal behaviors and successful contact does not mean that one leads to the other. It could be that men with these mannerisms just happen to also be the men most likely to approach...
women at a bar (and engage them for a minute or longer). To test the causal hypothesis that these nonverbal behaviors increase your chances of successful contact with women, you would need to conduct an experiment. You would need to independently assign men (of all types) to behave as the successful and unsuccessful men did in this study and observe the outcome. Furthermore, to our male readers—once you have made contact, you will have to rely on your verbal behavior as well. Good luck!

A strength of naturalistic observation is high external validity. There is nothing artificial about this research; it occurs in the real world. Of course, this is also a disadvantage because the real world does not operate on your schedule. In naturalistic observation, we do not influence the environment, and as a consequence, we may have to wait a long time for the behavior to occur. Also, studying the behavior where it occurs and when it occurs means that you must go to the natural setting; at times, that may be inconvenient (who wants to sit in a bar night after night observing men?).

Sometimes we are interested in behavior that may not be observable by a third party. We must experience the behaviors ourselves. This is the idea behind participant observation.

**Observing Behavior From the Inside: Participant Observation**

**Participant observation** researchers might ask questions such as the following:

- What goes on in cults?
- What happens in AA (Alcoholics Anonymous) meetings?
- What is life like in Olympic villages?

Research using participant observation is often qualitative. Instead of counting the frequency of behaviors in a given time, rich narratives are written about the experiences of the observed and the observer. Here, the researchers enter the world of the people they are interested in studying and maintain field notes chronicling their observations. These may include verbatim quotations, closely recalled quotations, or general recollections.

This type of research has the advantage of introducing us to the world of others. For example, Erving Goffman (1961) described the inner world of mental hospitals by working in institutions and making observations. Important in its own right, qualitative information that is discovered in this type of research can be valuable in giving direction for quantitative researchers about what variables are important.

Obviously, this type of research requires that you gain entrance to the group you are trying to study. This may be very easy or almost impossible depending on the group. Similarly, it may also be very safe or very dangerous depending on the group.

Since the Internet invaded our lives in the 1990s, the World Wide Web has become an essential source for gathering and sharing information. Chat rooms, blogs, Twitter, Facebook, and MySpace are part of the daily lives of many people. A natural consequence of the opportunity to interact with others online is the existence of an increasing number of places where people "gather" to discuss mutual concerns. These virtual communities...
provide a wealth of opportunities for researchers. Brotsky and Giles (2007) became "participants" in online groups for people with eating disorders as a means to better understand how these people think and behave.

**Research Problem.** Brotsky and Giles (2007) investigated online "pro-ana" (pro-anorexia) support groups. *Pro-ana* is a term typically used by people who promote anorexia nervosa as a lifestyle choice rather than an eating disorder. But organizations who call themselves pro-ana vary in important ways. Although most claim they are nonjudgmental organizations whose goal is to provide a place for people with eating disorders to talk about their problems and provide support for those who want help, some deny that anorexia is an illness at all! (We are in full accord with the medical/psychological community that anorexia nervosa and bulimia nervosa are mental disorders and individuals suffering from these disorders, if not treated, are at risk for serious physical illness and even death.)

Brotksy and Giles (2007) decided to create a bogus personal profile to gain acceptance into the pro-ana online community. They hoped that by pretending to be a group member they would be able to gather all sorts of information about how the group worked. This then was a covert participant observational study. The ethical use of the Internet by researchers is not well controlled or understood. We will take a moment to discuss some of the ethical challenges that Brotsky and Giles had to address in this study.

**Internet Research Ethics.** Because Brotsky and Giles (2007) joined the pro-ana groups using a bogus profile of a "woman with anorexia," they misled the group members. This was deceptive. Moreover, the researchers decided not to obtain informed consent from the users of the pro-ana community websites because they believed that the results would be unreliable and perhaps even nonexistent if the users knew what they were trying to find out.

According to the APA guidelines for ethical research, research may only be conducted if the benefits of the study outweigh the potential negative effects. In this study, the loss of self-determination of the participants in the study and the loss of trust between researcher and participant were potential negative effects. The researchers believed that the findings obtained from their study would help professionals better understand the beliefs and difficulties of individuals who suffer from an eating disorder.

The last ethical concern was the well-being of the researcher who regularly communicated with the pro-ana community. This concern was quite real because the researcher, who posed as a member of the community, spent a great deal of time interacting with other members and may have, over time, been negatively influenced by these interactions. To deal with this potential problem, a support group was formed to help the "bogus" member keep focused on the task and avoid these sorts of problems.

**Selection of Participants.** Brotsky, the researcher who created a personal profile to gain acceptance into the pro-ana community, did so over a 2-month period. She became a member of 23 different groups across 12 websites and acquired information via instant messenger, dialogues, and e-mail. In total, Brotsky acquired 339 pages of information from 356 individuals.
In participant observation, researchers acquire information from individuals called key informants. This kind of research is not often conducted covertly over the Internet because researchers usually want to observe and communicate face-to-face with their key informants. Brotsky and Giles (2007) believed that they had gathered enough information via online communication methods to answer their research questions.

**The Research Questions.** Two of the questions that Brotsky and Giles (2007) hoped to answer were these:

- What do members believe are benefits of belonging to the community?
- What do the members know and believe to be true about eating disorders?

The researchers also examined the degree of acceptance or rejection of the term *pro-ana* in the online communities because of negative stigma attached to the eating disorder.

**The Design.** To understand the dynamics of the pro-ana online community, Brotsky and Giles (2007) chose to use covert participant observation. The researchers could have used other data collection methods to acquire information about the pro-ana community; however, covert participation was time efficient, and they were able to collect a great deal of information quickly and easily.

**The Analysis.** Brotsky, the participant observer in this study, collected 38 instant messenger dialogues and 339 pages of information for analysis. She posted comments to the sites that she hoped would invite responses from members about their perceptions about anorexia and eating disorders in general.

**The Results.** Brotsky and Giles (2007) found that support was a primary reason members gave for being part of the online community. Most of the individuals with eating disorders commented about support, saying they had very little support from family and friends. During a dialogue with one of the members, Brotsky discovered that the member used to go to pro-eating-disorder websites for tips, but now, she or he mainly went to get support and to give support to others in positive ways.

Brotsky noted that when she told the members of the community, near the end of the study, that she was going to seek treatment, the community supported her decision even though many members were against the idea. So it appears that one of the benefits of belonging to the community is the support it provides.

Brotsky and Giles (2007) also examined statements from members about support from family and friends, that is, off-line support. They learned that many of the members had very little support outside of the online community. Many members of the community indicated that family members, especially parents, were very critical. One member said that the first thing the mother said after returning from a trip was “Wow shorty, look how big you’ve gotten.” Another member reported that her dad called her a piggy in front of three friends during supper; she only weighed 115 pounds!
To obtain information about what the members believed about eating disorders, the researchers asked if anorexia and bulimia were "lifestyles, disorders, diseases, or all three?" As you can imagine, the responses varied greatly. Some members completely denied it was a lifestyle at all, whereas others believed it was some combination of the three. The researchers included excerpts from the dialogues as examples. We include two here.

One member said anorexia "is a disease, and a disorder. But it is not a lifestyle. Whoever claims an Eating Disorder as a lifestyle, agh! It makes me wanna cry" (Brotsky & Giles, 2007, p. 102).

Another said, "The [eating disorder] became a lifestyle as it became my life" (Brotsky & Giles, 2007, p. 102).

For the most part, the community members answered the researchers’ questions thoughtfully and pleasantly; however, some of the users in the community were very critical and even offensive. For example, on one occasion when Brotsky was asking questions in a chat room, two members became a bit verbally abusive. The confrontation escalated and eventually Brotsky was not permitted to rejoin the site.

The Conclusions. The fear that pro-ana websites promote eating disorders as lifestyle alternatives may be unfounded. Brotsky and Giles (2007) did not find many sites giving tips on how best to starve and purge and urging frequent body mass index comparisons. Rather, they found that many members rely on the pro-ana community for the support they need and do not find elsewhere.

Like naturalistic observation, participant observation has high external validity. You are making observations in the real world, not in an artificial setting, and so it cannot be claimed that your observations do not apply to the real world. However, there are obvious limits to our ability to generalize from this research.

The goal of naturalistic observation is to try to remain hidden, or at least unobtrusive, while you observe. Participant observation takes the opposite approach, where you actually join in the action. This has the advantage that you can experience the same environmental conditions as your participants. You will be able to describe your subjective experiences as well as the experiences of others. Another advantage is that you can collect information on factors that may not be overtly observable. Both through your own experiences and by listening to the experiences of others, you can address areas of interest that include people’s opinions, attitudes, and emotions as well as their overt behavior. In addition, once accepted by the group, you may be privy to information that group members would not share with researchers carrying clipboards and tape recorders. You will be able to collect information that would otherwise be kept secret.

Subjectivity is a major advantage of participant observation, and it is also a major disadvantage. Although an important strength of participant observation is that you can subjectively experience the world of those you are studying, at some point you must be able to maintain (or regain) your objectivity. You are a researcher, and it is expected that you will not misrepresent or bias your observations as a result of your experiences. Something that may help you in your quest for objectivity is that, unlike the people you study, you are going to eventually leave the group and situation. They will not.

Participant observation studies can take a lot of time. Brotsky spent many hours online. Participant observation can also be dangerous. You must consider the risks to your safety.
This may not be an issue if you are studying librarians, for example, well-known for their pacifist leanings, but it certainly could be if you were studying serial killers. This leads us to another issue, that of entrance into a group. Do you have the qualifications to become a participant? Joining the online group was reasonably easy for Brotsky. What if she wanted to join a real motorcycle club? How about a pro-Nazi group?

There are important ethical issues that need to be considered in this type of research. If you are planning to enter a formal institution, you may need permission from high-level staff. This may be a formality, or it may be impossible, depending on the institution. You must protect the anonymity of your informants. Changing the names of the people and the venues can help. But there are instances when this may not be sufficient, when people may be recognized. This could lead to a loss of employment, social harm, or even physical harm. The responsibility lies with you to see that your contacts are protected.

Finally, like the other methods in this chapter, this is nonexperimental research, and so you must be careful in drawing inferences. You cannot make strong causal inferences from this research. The research can certainly suggest possible causal relationships, but these remain, to some extent, speculative until supported by experimental research.

**Observing Behavior in a Controlled Setting: Laboratory Observation**

Laboratory observation researchers might ask questions such as the following:

- How do people respond to someone in apparent distress?
- Do children mimic aggressive models?
- When given a choice, do girls and boys cooperate or compete in a game?

Conducting observational research in a natural setting is not always the best approach. If you are interested in a behavior that only occurs under specific conditions, you may be waiting a long, long time. However, in the laboratory, we can create the situations we need. In Chapter 7, we discussed the field experiment where an independent variable(s) is manipulated by the researcher in a natural setting. That approach provides the power of the true experiment to determine cause and effect in a natural setting. We can make causal inferences because the researcher controls the independent variable, and we have increased external validity because the research takes place in the real world. Here, we take a different approach by bringing observational, nonexperimental research into the laboratory. We make a trade-off between external validity and level of control. In bringing our observational research into the laboratory, we lose some external validity, but we gain control over the situation so that we can create the conditions necessary for our study.

Cast your mind back to when you were 10 years old. You are playing with your best friend when a new kid comes along and wants to join in. What do you do? Can you remember the phrase “Two is company, three’s a crowd”? We hope that you would happily invite the newcomer, but sadly, that doesn’t always happen. Sometimes children exclude others from their play by things they say and the way they act, as Underwood, Scott, Galperin, Bjornstad, and Sexton (2004) found.
The Research Problem. Underwood et al. (2004) were interested in the behaviors that children use to exclude a newcomer. Their research on social exclusion provides a good example of observational research in the laboratory. Although the research contained both true independent variables (manipulated by the researchers) and participant variables (the gender of the child), we will focus on the description of behavior and the relationships between the measured variables.

Hypotheses. The researchers were interested in determining the types of behaviors children use to exclude a newcomer. The behaviors they specified included social exclusion, verbal aggression, verbal assertion, and exclusionary gestures. One of their hypotheses was that girls would engage in social exclusion in a more polite and less direct way than boys.

Selection of Participants. Children in Grades 4, 6, and 8 were recruited from five elementary and two junior high schools. The researchers had teachers send home parental request letters. If consent was given, the child was contacted by telephone and asked to identify his or her three closest friends. If a close friend had also given consent, the pair was scheduled to participate. The study ran over two summers and included 175 play sessions. The final number of participants was 292, or 146 pairs or dyads.

The Variables. Gender of the child was the participant variable, and the frequency of each observed behavior was measured.

The Design. Underwood et al. (2004) were interested in the types of behaviors children display to exclude a newcomer from their activity. If you wanted to observe this behavior in the natural setting, you might have to watch children for a very long time. Consequently, they chose to stage an artificial situation in a laboratory that was scripted to facilitate this type of response. The children were studied in groups of three. Two were the participants who were good friends, and the third was a child actor of the same gender and age, trained to behave in a belligerent manner. The children were given a tour of the laboratory prior to the study so that they were aware that their behavior was being videotaped. They were reminded of their rights as research participants throughout the study and, particularly because deception was used, they were fully debriefed at the end.

The procedure involved having the children play the game “Pictionary.” The children played for a while, but following a cue from the researchers, the actor began acting in a provocative manner by criticizing, boasting, being bossy, and being a poor game player.

Recording of behaviors was done from the videotape by a number of research assistants (six one year and four the second year). Instead of recording all events, they chose to code behaviors in 10-second intervals. To guard against researcher bias, the coders were blind to the research hypotheses. Reliability estimates were calculated for each behavior category, and all were high.

The Statistical Analysis. Both descriptive and inferential statistics were used in this study. The descriptive statistics included the mean frequency of each behavior reported separately for girls and boys. For inferential statistics, ANOVA was used to assess gender differences for each behavior.
### Table 11.1 Mean Frequencies of Verbal and Gestural Responses During the Actor Provoking, by Gender

<table>
<thead>
<tr>
<th>Type of Behavior</th>
<th>Girls (n = 74 Dyads)</th>
<th>Boys (n = 72 Dyads)</th>
<th>F(1, 139)</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal responses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social exclusion</td>
<td>1.49</td>
<td>2.39</td>
<td>4.78*</td>
<td>.03</td>
</tr>
<tr>
<td>Verbal aggression</td>
<td>4.14</td>
<td>11.85</td>
<td>10.29**</td>
<td>.48</td>
</tr>
<tr>
<td>Verbal assertion</td>
<td>0.86</td>
<td>5.14</td>
<td>8.18**</td>
<td>.15</td>
</tr>
<tr>
<td>Gestures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social exclusion</td>
<td>17.28</td>
<td>12.15</td>
<td>11.98***</td>
<td>.08</td>
</tr>
</tbody>
</table>

**Source:** Underwood et al. (2004).

*p < .05; **p < .01; ***p < .001.

**The Results.** Some of the descriptive and inferential statistics from Underwood et al. (2004) are shown in Table 11.1. Data from each pair of children were combined as the units of analysis. This was necessary because one of the assumptions of ANOVA is that the units of measure are independent. This was clearly not the case in this study because the children were acting together in the same situation.

When the actor was absent, girls and boys did not differ in their frequency of social exclusion. Indeed, there were no differences among any of the behavior categories. When the provoking actor was present, there were still no gender differences in overall rates of social exclusion, but there were subtle differences between boys and girls in their expression of social exclusion. Girls were more likely to express social exclusion through gestures such as hostile glares, rolling of eyes, tossing of hair, and turning away in disgust. Boys, on the other hand, showed social exclusion through verbal responses, which included gossiping, planning to exclude the other, and so on. But take a look at the means and the effect sizes ($\eta^2 = \frac{SS_{effect}}{(SS_{effect} + SS_{error})}$! These are not large differences, They are statistically significant, but they are small.

However, more impressive differences were observed in rates of verbal aggression and, to a lesser extent, verbal assertion. In both behaviors, boys showed significantly (in both senses of the word) higher rates. Statements of “verbal aggression include[d] mockery, sarcasm, and openly critical comments” and “verbal assertion included saying ‘shhhi’! to the actor, telling the actor to stop cheating or to stop bragging, or disputing the actor’s comments” (Underwood et al., 2004, p. 1545).

**The Conclusions.** The researchers concluded that girls are not more socially exclusive than boys but that boys and girls employ different techniques when they engage in social exclusion. Girls are more likely to use nonverbal behaviors such as making mean faces. Boys tend to use verbal behaviors of social exclusion as well as verbal aggression. The authors remind us that all the children were aware that they were being videotaped and
were probably trying to be on their best and most polite behavior. In that regard, it may be that the girls engaged in subtle facial gestures in an attempt to socially exclude without being detected. Perhaps this is an artifact of the laboratory; on the other hand, it is equally possible that this is the case in the real world too. As parents, we know that social exclusion is painful for children, and as the authors conclude, “A better understanding of the social process involved in girls’ and boys’ social aggression could guide the development of interventions that are sensitive, focused, and effective in helping more children refrain from breaking each other’s hearts” (Underwood et al., 2004, p. 1553).

When we observe behavior in the laboratory, we can create the conditions necessary to make the behavior occur. As would be the case in the example above, we might have to wait a long time to observe an occurrence of social exclusion in the real world. Certainly, the behavior occurs, but will you be there watching when it does? This strength also produces the main weakness of this research. The artificiality of the laboratory may influence the way in which the participants behave. Of course, we cannot determine to what extent the laboratory setting will influence behavior, but the possibility is there. As a result, our research may (or may not) lack external validity. In other words, our findings may be as artificial as our setting.

In Underwood et al.’s (2004) research, for example, the children knew they were being videotaped and may have tried to be as polite as possible to the new child. Indeed, the authors point out that this may be why the gender differences (though statistically significant) were so small. Of course, it is equally possible that this is exactly how boys and girls behave in the real world. After all, in the real world, a parent or a teacher might be watching them play.

ADVANTAGES AND DISADVANTAGES OF OBSERVATIONAL RESEARCH

In all types of observational research, it is important to form clear definitions of the behaviors you are interested in observing. These definitions may be based on previous research or pilot observations. They could be done before the data are collected, as was the case in the courtship example. Or they may be formed after the observations are made after careful reading of field notes.

Reliability of the behavioral coding can be calculated only if you have more than one observer or coder. In the research on courtship behavior and social exclusion, calculations of reliability were included. Obviously, you want your reliability estimates to be as high as possible, and in the study of men’s behavior in bars, behavioral categories with reliability estimates less than .5 were excluded.

How you observe behavior in these types of studies really depends on the nature of your research. In the social exclusion study, observations were made from videotapes. Then, after the fact, observers coded behavior in 10-second intervals. By deciding to code in time intervals, the researchers could be assured that coders were observing the same behaviors. On the other hand, the behavior of men in the bar was coded and audio recorded as the events occurred. This requires that you be well practiced in coding the behaviors before you go out in the field. And in the case of the bar study, the observers sat with someone so they did not appear to be talking to themselves.
In observational research conducted outside the laboratory, you might think that you do not have to be concerned with ethical issues. However, it does not matter where the research is conducted; the researcher must be accountable for any harm to the participants. Whether the research is participant research, naturalistic, or laboratory, steps can and must be taken to guard the rights of those involved. For more discussion on ethics in research, see Chapter 3.

Observational research is often time-consuming and requires observers who are trained to carefully record behavioral observations. The objective is to observe the behavior as it occurs. Many research problems involve attitudes or opinions, things that are not readily observed. In such cases, a survey might be the best approach.

**CONCEPTUAL EXERCISE 11A**

A young researcher is curious about the claim of her female friend that auto repair shops rip off women more than men. She decides to observe the behavior of auto mechanics in a selection of shops in her city. She obtains permission from the owners to observe the goings-on for several weeks. She records comments by the mechanics about the car problems, being careful to note whether the car was brought in by a woman or a man, and she notes the cost of each repair. Being a cautious young researcher, she sits in a far corner and never makes comments to anyone in the shops. At the end of her study, she finds no difference between the average cost of repairs and no obvious difference in the kinds of comments the mechanics make about cars brought in by women or men. What do you have to say about her intention to write in her report that auto mechanics do not discriminate in any way between men and women?

**SURVEY RESEARCH: ASKING PEOPLE QUESTIONS ABOUT THEIR BEHAVIOR**

Survey researchers might ask questions such as the following:

- How do people feel about corporal punishment in schools?
- Should prisons be rehabilitative or punitive?
- How do Canadians feel about the lobby to legalize gay marriage?

"When I was in England, I experimented with marijuana a time or two, and I didn’t like it. I didn’t inhale, and I never tried it again." These are the famous words of Bill Clinton during his 1992 presidential campaign. Bob Dole ran a number of television advertisements that highlighted this statement, but Clinton won the election. Could that be because many Americans have experimented with this drug at least once in their life? Indeed, many
political leaders (e.g., Jean Chrétien, former prime minister of Canada) believe that possession of marijuana should not be a criminal offense.

Is marijuana use widespread? How many people have tried it? Have you tried it?

**FYI**

Questionnaires can be used in nonexperimental and experimental research. Questionnaires are often discussed in the context of nonexperimental research, where the goal is to describe some characteristic of the people who are surveyed. And we will discuss questionnaire construction in this chapter because questionnaires are often used in surveys. However, we want to make it clear that they can also be used to measure the effects of a manipulated independent variable in an experiment. For example, we might be interested in how attitudes toward smoking are influenced by watching a television commercial featuring an emotionally charged testimonial by a cancer patient. We can randomly assign participants to watch either the cancer commercial or an equally emotional commercial about famine victims. Following our treatment conditions, we could give all participants a questionnaire to assess their attitudes on smoking. In this case, we are using a questionnaire in an experiment.

By its very definition as a discipline, psychology is the study of human behavior. In the previous section, we looked at observation techniques as ways of understanding behavior. In other words, we discussed understanding behavior by watching it. Now, we will discuss, instead of observing behavior, how to ask people about their behavior. Besides assessing self-reported behavior, we can use surveys to measure people's opinions and attitudes, variables that may be difficult or impossible to observe directly.

To venture out and ask people about their behavior, attitudes, and opinions seems simple, but often novice researchers discover that the apparent simplicity of this approach is deceptive. Not for a minute would any of us consider it simple to develop a new intelligence scale or a new measure of brain activity. Yet we might be quite pleased with the survey we developed on the back of a napkin while we ate dinner. The major problem with survey research is that it appears to be a simple and easy endeavor. Of course, brain surgery is simple too if you are not too concerned about whether the patient lives or dies. And survey research is simple too, unless you are worried about whether or not you will find an answer to your research question.

Success in any research endeavor begins with careful planning. And survey research is no exception. We must consider what we will ask, how we will word the questions, and how we will administer the surveys. We have to decide whom we will ask and how many. And so that we don't put the cart too far in front of the horse, we must also plan how the data will be analyzed. We do not want to be in the unfortunate situation where we have collected a lot of survey data only to find that there is no way to analyze them.
Defining Your Research Question

A practice that improved the baseball swing of one of the authors of this book was to always keep his eye on the ball. This is sound advice in research as well. From start to finish, your research question or hypothesis must guide you. Perhaps we want to determine how many people have tried marijuana. We may want to limit the scope of the research to young people, high school students, or university students. We may not want to limit our focus to just marijuana; we might want to include other drugs, and we might also want to relate the use of such drugs to levels of alcohol use. At this early planning stage, we have to decide if we are satisfied with just describing drug use or if perhaps we might want to test a number of hypotheses. Perhaps there are psychological or social factors that predispose people to try drugs. Conversely, there may be factors that influence youth to avoid drugs. If so, we may wish to go beyond a description of drug use and analyze relationships between variables. At this stage, it may be that we are not sure of our purpose. It is important to spend some time thinking about it before moving on, because if you are not sure of your purpose, the next step will be extremely difficult.

How Will You Ask Your Questions?

The terms survey and questionnaire are paired so often that it is easy to start using them interchangeably. However, they are not synonymous. Survey refers to the action of collecting information, whereas a questionnaire is a list of questions that are asked when you are collecting the information. The distinction is important because the form of your questionnaire will be very different depending on how you do the survey. For example, you could conduct a telephone survey where you call your fellow students and ask them a few questions such as their age, their major, how often they drink alcohol, and, when they do, how much. If you have a written list of questions to ask, and that seems like a reasonable thing to do, then you are conducting a survey, but you are not using a questionnaire. Your list of questions would be considered a structured interview schedule. The major difference between an interview schedule and a questionnaire is that a trained interviewer will read a schedule, but your respondent reads a questionnaire.

At this stage, you need to determine the kinds of information you need and the best method of obtaining that information. You will also need to consider who your respondents are. Specifically, can they read or can they follow written instructions? For example, if your respondents are young children, then it is unlikely that a self-administered questionnaire (SAQ) will be the method of choice. It is not impossible to design a child-friendly questionnaire, but an interview may work better. The choice you make will depend on many factors. The best method may be the cheapest, the fastest, or the most reliable. Your decision will have to involve a weighing of these factors. Because the type of questions you ask will depend on whether you are asking them over the telephone or having someone read the questions, you must decide how you will administer the survey before you can write the questions. As you may have guessed, there are advantages and disadvantages to each survey method. Time, money, literacy, and respondent honesty are all factors that need to be considered when making the choice.
Interviews

Interviewing can be very expensive and time-consuming, and it requires trained interviewers. However, an interview gives us that human contact that we can use to develop a relationship with our respondents. This relationship may be particularly important if we are interested in exploring sensitive topics. However, this rapport can be a double-edged sword. It can work to our advantage by allowing probing questions as a result of a particular response. But it can also work against us if we consciously or unconsciously influence the respondent to answer in a particular way.

Face-to-Face Interview

One way to conduct a survey is to just walk up to a potential respondent and ask your questions. You may have experienced this approach in shopping malls. Someone approaches you and says, “Good afternoon; my name is Alison and I’m conducting a survey for Mattel. The survey takes only 5 minutes. Would you care to participate?” As a researcher, you hope that the person will agree. You may run into problems of sampling bias if only a small minority of the people you approach agree to participate. Well, do you participate? Can you spare 5 minutes?

If you are interested in obtaining information about consumer opinions or attitudes, it makes a lot of sense to ask people shopping (and consuming) at a mall. Generally, if the population you want to study is available at a particular location (e.g., mall, airport, emergency waiting room) and your questions do not take more than about 5 minutes, then the simplest approach is to go to where your group is and interview them in person. On the other hand, if your interview takes more time, you may have to arrange for the respondents to meet you somewhere.

Although you do not need to have respondents complete an informed consent form before they answer your questions, you still need to consider the ethics of consent. As a researcher, you must consider what your respondents will need to know before they decide if they want to answer your questions. It is good practice to be honest with your potential respondents and tell them who the survey is for and how long it will take. This way, if they agree to participate, they are giving their informed consent, and it makes it more likely that once they start, they will continue to the end.

Advantages and Disadvantages of Face-to-Face Interviews

One advantage of the face-to-face interview (FTFI) is that you gather information directly from the people you are interested in. For example, if you want to find out what university students think about drugs, simply position yourself on campus and ask them. This works very well if the population you are interested in is regularly available in a particular location. Be aware, though, that your sample may be biased depending on where you position yourself on campus. You may get very different results if you ask students in the library rather than the campus pub. It is important to consider specifically where you will approach respondents, and it may be best to gather data from a number of locations. For more information on sampling and ensuring that your sample is representative, see Chapter 6.
Another advantage of the FTIF is that you can explore complex issues that do not lend themselves to multiple-choice answers. Particularly, in early stages of research, you may not know what the important questions are: in this case, it is useful to ask probing questions. Probing questions are open-ended questions that permit the whole range of possible responses. For example, following a question with the query, “Is there anything else?” or “Why is that?” might yield useful information. But be careful that your probing does not influence your data. It is easy to use these probe questions to lead the respondent in one direction or another, so it is very important that the probes be neutral. It may also be a good idea to script the probe questions beforehand to guard against bias.

A disadvantage of FTIFs is that they can be very time-consuming. For example, if your interview takes 5 minutes, you will be able to conduct only 12 interviews in 1 hour (and that is in an ideal world, not the real world). To solve this problem, you must hire many interviewers, which leads to another disadvantage—they can be very expensive.

A potential drawback to an FTIF is that people may not feel comfortable discussing personal or embarrassing topics. Although it is possible to establish good rapport with the respondent, it is unlikely that anyone will feel comfortable revealing intimate information to a stranger (and those who do, may not be representative of the population). Imagine asking people detailed questions about their sex lives!

Durant and Carey (2000) investigated whether young women would give different responses to questions asked in an FTIF compared with a self-administered questionnaire (SAQ). Participants kept a diary for 8 weeks where they recorded their sexual- and health-related behaviors. To ensure anonymity, participants used code names of their own choosing. The diaries consisted of recipe cards that the women deposited weekly in a secure drop box. On the cards, they recorded their activities over the week and their code name. Of the women recruited from an introductory psychology course, only those who were sexually active continued. These women were randomly assigned to retrospective measures of their sexual activity either with an FTIF or by completing an SAQ. A discrepancy score was calculated for each behavior by subtracting the frequency reported retrospectively (interview or questionnaire) from the diary data. Given that the participants were aware that their reporting could be checked against their diaries, it is not surprising that there was a high level of agreement between the diaries and the retrospective reports. But even given this limitation, Durant and Carey found that, at least for some behaviors, the SAQ produced more accurate responses than the FTIF. Actually, as the authors note, it is surprising that they found any difference between the FTIF and the SAQ for the following reasons. First, the participants were assured anonymity in both conditions. Second, well-educated women are more comfortable responding to questions about sexuality than women recruited from community outreach programs. Third, the interviewers were well trained in sexual behavior interviewing. All these factors should have worked against finding a difference between the modes of survey, but still, an advantage for SAQ was found.

The fact that some people are hesitant to discuss embarrassing topics is one problem with the FTIF. Another is social desirability. This is the tendency for people to respond in a manner that makes them appear better than they are. In other words, in an FTIF, people may engage in response management by answering in ways that may not be totally honest but that make them look good. Consider our example of drug use in high schools:
An FTFI might be disastrous. Imagine asking Grade 10 students whether they had ever smoked marijuana. Do you think they would answer truthfully? Do you think they might alter their response if their teacher was hanging about? How about if a parent was there or if you asked them while they were standing with a group of friends? Clearly, it is important to consider how people will react to your questions and also under exactly what conditions you will conduct your interviews. Indeed, it may be the case that your topic is too embarrassing to ask in an FTFI, and perhaps a more anonymous approach is better.

Grieving the death of a loved one is a difficult process under any circumstances, but perhaps it is even more traumatic when the loved one dies unexpectedly in a natural disaster. What are some ways that the bereaved find closure after losing someone so suddenly? That was the question that Norwegian researchers, Kristensen, Tønnessen, Weisæth, and Heir (2012), hoped to answer when they conducted their research on the bereaved visiting the site of death.

**The Research Problem.** Kristensen et al. (2012) wanted to know why grieving individuals visited the site of death following a natural disaster and what they experienced after the visit. They focused their research on the relatives of bereaved Norwegian tourists who lost loved ones during the 2004 Southeast Asian Tsunami. Some of their research goals were to determine the importance of making the trip to the death site and to evaluate whether those who visited the death site differed in mental health symptoms from those who did not.

**The Hypothesis.** This was a descriptive study designed to gather information about the bereaved visiting the site of death and the results of that visit, and although no hypothesis was offered, we can speculate that the researchers expected the participants to have positive results after the visit, consistent with past research (Singh & Raphael; Winje & Ulvik, as cited in Kristensen et al., 2012).

**Selection of Participants.** The sample included individuals who, during the 2004 Southeast Asian Tsunami, lost one or more first-degree family members (i.e., siblings, children, parents, or spouses). There were 130 participants (63 male, 67 female) who agreed to participate in this study. The researchers included bereaved individuals who were directly affected by the tsunami: those who were there when it occurred. They also included individuals who were indirectly affected by the storm: those who were in Norway or another country during the tsunami.

**Procedure.** A self-report questionnaire was mailed out followed by an FTFI conducted in participants’ homes from March to November of 2007. One hundred and eleven people, out of 130 total participants, agreed to the optional in-depth interview. Maladaptive grief symptoms were assessed using the ICG (Inventory of Complicated Grief; Prigerson et al., as cited in Kristensen et al., 2012) consisting of 19 items using a 5-point scale. PTSD (posttraumatic stress disorder) symptoms were measured with the IES-R (Impact of Event Scale–Revised; Weiss & Marmar, as cited in Kristensen et al., 2012), which consists of 22
items. Last, general psychological distress during the 2 weeks prior to data collection was measured using the GHQ-12 (General Health Questionnaire-12; Goldberg & Hiller, as cited in Kristensen et al., 2012). The GHQ-12 is a 12-item questionnaire on a 4-point scale.

**The Design.** The design was cross-sectional, given that the researchers studied a cross section of age groups at one point in time, and information was gathered using self-report questionnaires and semistructured interviews.

**The Statistical Analysis.** The statistics reported in this research included means, standard deviations, and percentages.

**The Results.** Some of the descriptive statistics from Kristensen et al. (2012) are listed in Table 11.2.

<table>
<thead>
<tr>
<th>TABLE 11.2 Descriptive Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Characteristic</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Disaster exposure</td>
</tr>
<tr>
<td>Direct</td>
</tr>
<tr>
<td>Not direct</td>
</tr>
<tr>
<td><strong>Self-Report Questionnaire</strong></td>
</tr>
<tr>
<td>ICG</td>
</tr>
<tr>
<td>IES-R</td>
</tr>
<tr>
<td>GHQ-12</td>
</tr>
</tbody>
</table>

* * p < .05.

A statistically significantly greater percentage (30.1%) of directly exposed individuals had visited the disaster site themselves compared with the one participant who had not (5.9%). The results from the self-report questionnaires showed that the majority of participants, 68.1% (n = 77), viewed visiting the site of death as very important to them, and 23.9% (n = 27) stated that it was fairly important. The main reason participants gave for visiting the site of death was to gain a better understanding of what took place (61%). The second most frequent response (21%) was to feel a sense of closeness to the deceased loved ones.

There were no significant differences between the responses to the self-report questionnaires of those who visited the site of death and those who did not. Higher scores (more than 25) on the Inventory of Complicated Grief are considered high risk for clinical care. As you can see, both groups scored, on average, higher than 25, but there was no
significant difference between their results ($p = .56$). The results of the IES-R reveal that those who had visited the site reported fewer PTSD symptoms than those who had not, although this was not a significant difference. That being said, Kristensen et al. (2012) reported that there was a single item on the ICG that revealed a significant difference. The not directly exposed individuals who had not visited the site ($M = 2.25$) had more difficulty accepting the loss compared with the visitors ($M = 1.56, p < .05$). Both groups, on average, scored higher than 26 points, which means that the event certainly affected both groups with those who did not visit the death site affected a bit more ($p = .086$). Last, higher average scores, which can range from 0 to 36, on the GHQ-12 indicate more health problems. Because both groups, on average, scored in the moderate range, one can infer a moderate number of health problems for both groups.

The Conclusions. Kristensen et al. (2012) discovered that the majority of participants visited the site of death, and those who did said it was beneficial for them. A better understanding of the tragedy was cited as the major outcome of the visit. Participants reported they felt less guilt over being unable to help save their loved ones after making amends during the visit. Additionally, making peace with and feeling close to their loved ones at the death site helped the visitors feel more at ease about the tragedy. The researchers concluded that visiting the site of death appears to offer numerous benefits to the bereaved and should be explored in future.

FTFIs have some real advantages, but they are labor-intensive, and as such, there are practical limitations in terms of the number of people who can be included. In addition, it is very difficult to include people who are not in the immediate vicinity of the researchers. One way around this problem is to conduct the interview over the telephone.

Telephone Interview

Survey by telephone is your best choice if your research question requires interviewing a large number of respondents who are spread over a large geographical area. Although this approach can be expensive and does require trained interviewers, it will certainly be cheaper and faster than conducting FTFIs. Of course, the interview itself will take the same amount of time, but contacting your respondents can be much faster. Rather than chasing after people, you can let your fingers do the walking.

Telephone interviews must be shorter than FTFIs. In an FTFI, it is unlikely that your respondent will get up and leave partway through, but if your telephone questions run too long, watch out. It is probably best to keep your interview to about 10 minutes. This is certainly an important consideration and restricts the type of research question that can be adequately investigated by telephone.

If you are doing research on a specific population, such as physicians, for example, you might be able to obtain a list of telephone numbers through an organization. However, large-scale population studies may require specific samples, and often, these lists are purchased from survey sampling companies.

Often data are coded and entered into a computer directly by the telephone interviewer. Computer-aided telephone interview programs display the interview questions on the screen for the interviewer and permit direct entry of each response. These programs also
provide probe questions on-screen and branch to questions that follow as a consequence of a certain response. These programs can certainly reduce training time for interviewers.

**Advantages and Disadvantages of Telephone Interviews**

The most important advantage of the telephone interview is that you do not have to be in the same location as the respondent. This means that your interviewers have no travel time, and you can interview people from across a wide area.

FTFIs allow us to select the specific individuals we are interested in, but this is not always the case with the telephone interview. Indeed, a major disadvantage of telephone interviews is related to selection bias. Early telephone studies were flawed because not everyone had a telephone listing; today, selection bias results from people screening their calls with answering machines or call display.

To ensure that someone will be home when you call, the dinner hour is used as the prime time for data collection. However, with the increasing number of telephone solicitors interrupting our dinner, a market has emerged for devices that block automatic dialer calls. Indeed, you can now purchase a telephone accessory that has a button that you press and hang up. The device then sends an automatic message saying that you do not take these types of calls and to remove this number from the caller's list.

If you watched much of the Olympic Games, as we did, you probably noticed that the competition can be very stressful for some athletes. Have you ever wondered what psychological factors contribute to the success of Olympic athletes? Wann (2012) from Murray State University in Kentucky did, and he decided to conduct a telephone interview to shed some light on this area.

**The Research Problem.** Athletes undergo extensive training and preparation to perform successfully in their sport. Those who become masters of their sport are invited to compete in the Olympic Games. Although physical prowess and skill are major contributors to an Olympians' success, the psychological state of an athlete is just as important. Wann (2012) centered his research on this topic and conducted telephone interviews with former and current Olympic athletes from 13 countries. He was interested in the psychology of success and divided this area into four main themes:

- **Fan Support:** Wann (2012) included questions about acknowledging fan support and the effect of this support on an athlete’s performance and confidence.
- **Home Field Advantage:** Olympians were asked if they believed in home field advantage and, if so, which strategies they used when they had or did not have the advantage.
- **Pre-Event Rituals:** Participants who took part in pre-event rituals were asked to provide details about them.
- **Perceived Attributes That Led to Athletic Success:** Olympians were asked what they thought contributed to their successful performance. This theme was narrowed down into two parts: (1) the attributes Olympic athletes determined to be related to success and (2) the correlation, if any, between their perceptions and their athletic success.
**The Hypothesis.** This was a study designed to gather information about the psychology of competition, and, as such, no hypotheses were offered.

**Selection of Participants.** Wann (2012) selected current and former Olympians from both summer and winter games \((N = 325; 60\% \text{ men and } 40\% \text{ women})\). These Olympians were from 13 different countries (Australia, Brazil, Canada, France, Germany, Japan, Mexico, New Zealand, Poland, Russia, Spain, the United Kingdom, and the United States; \(n = 25\) per country). Nearly all \((97\%)\) of the participants were between the ages of 20 and 59.

**The Measured Variables.** The four main themes listed above were explored in telephone interviews and online surveys that consisted of 19 items. Some questions were open-ended and others were Likert scale items.

**The Design.** This is not a true experiment; rather, it is descriptive research. The primary data collection method was a telephone interview.

**The Statistical Analysis.** Percentages were reported for most responses. Additionally, \(z\) tests for proportions were conducted for selected items.

**The Results.** Regarding fan support, 81\% of the participants believed fan support was important, and 71\% of the sample believed that fan support increased their chances of winning. Interestingly enough, only 52\% of Olympians from the United States thought that fan support increased their chances of winning. The Australian, Brazilian, French, and U.K. Olympians had significantly different opinions about the importance of fan support than the U.S. Olympians (all \(zs > 2.09\); all \(ps < .05\)). (We don’t include a \(z\) test for proportions in our review of statistics in Chapter 13, but a chi-square goodness-of-fit test will provide approximately the same result.)

The home field advantage was the next theme explored; 60\% of participants believed in the home field advantage. Olympians from Australia and Japan were significantly more likely to agree that there is a home field advantage than athletes from France, Germany, and Poland (all \(zs > 2.31\); all \(ps < .05\)). The most common strategy used by believers to overcome the home field advantage of the opponents, endorsed by 61\% of participants, was to “focus more intensely.”

Wann (2012) found that 48\% of participants reported engaging in pre-event rituals. The most common activity was a warm-up routine (13\%) followed by wearing specific clothes or jewelry (11\%) and then visualization (10\%). If unable to complete their pre-event activity, 41\% of participants felt unprepared, whereas 32\% indicated that this had no effect on their performance.

Last, Olympians were asked about the attributes that help them perform successfully. “Drive or ambition” (29\%) was the most commonly chosen attribute followed by “determination” (20\%), “confidence” (15\%), “focus” (11\%), and “natural talent” (8\%). Additionally, 64\% of participants agreed with the statement “If I feel like I look good, I play good” with only 16\% disagreeing. Olympians from Australia and Brazil were significantly more likely to agree with this statement than Olympians from the United States \((z = 3.68, p < .01)\).
The Conclusions. There were three patterns that Wann (2012) outlined as the most worthy of further research. The Olympians in this study clearly viewed their fans as a significant part of their support network, based on links between fan support on both performance and confidence. Next, confidence appears to be the trait of utmost importance to these athletes. Looking at the responses across all four themes, confidence could arguably be the unifying theme of the study. Finally, differences in responses across countries were expected due to cultural differences in behavior and preparation. Wann notes that cross-cultural differences are important factors for researchers to consider when trying to understand athletic performance, especially at the Olympic level of competition.

Telephone surveys allow us to contact a lot of people over a large geographic area. But they do require trained interviewers, and they do take time. Another way to gather a lot of data from a lot of people is to give them questionnaires and let them respond at their convenience.

**CONCEPTUAL EXERCISE 11B**

For his master's thesis, Mark has decided to conduct a survey about teachers' views of administrative interference in curriculum decisions. Some of the questions he wants to ask are a bit sensitive, so he is torn between an FTFI and a telephone interview. What is your advice?

Questionnaires

**Self-Administered Questionnaires**

Self-administered questionnaires, as the name implies, are survey questions that are read and answered by the respondent with little or no direct contact with the researcher. Relative to the interview, SAQs have two major advantages: They are cheaper and faster. Another advantage that was mentioned earlier is that SAQs give respondents a stronger feeling of anonymity than the interview methods or focus groups (which we will look at later). If your research question can be answered by an SAQ, then it is probably your best choice. Of course, there are limitations to SAQs. Because respondents complete a questionnaire on their own, they must be able to read and follow instructions. For the respondent, this requires literacy, and for the researcher, this means that the questionnaire must be well written.

If you decide to use SAQs to survey, your next decision is how to distribute and collect them. If it is possible to gather your respondents into groups (e.g., students in classrooms), then group administration is probably your best option. However, if your respondents are
not available in groups, you could mail your questionnaires. Another option is to post your questionnaire on the Internet and invite people to complete it online.

**Group-Administered Questionnaires**

This survey method requires that you send people out to distribute and collect the questionnaire, and as mentioned above, it only works if your respondents can be brought together into groups. If we were interested in drug use by high school students, a group-administered questionnaire is the most reasonable approach. Our participants are already grouped for us in their classrooms, so we have only to select the classrooms and administer the questionnaires.

Do your parents worry about how much time you spend online? Do they nag you about how young people don’t read books anymore? Jordan, Trentacoste, Henderson, Manganello, and Fishbein (2007) decided to survey young people to find out what they really are doing in their spare time.

**The Research Problem.** Jordan et al. (2007) were interested in how teens interact with or use media in their everyday lives. They administered a group questionnaire to students attending the regular academic year and to students attending summer school. The researchers wanted to know how much time young people spend in activities that involve media. They also wondered whether students spent more or less time on these activities on weekends versus school days.

**The Objectives.** Jordan et al. (2007) did not have any expectations about what they might find. Rather, they conducted this study in order to obtain information about teen media use and to evaluate the effectiveness of group-administered questionnaires when addressing this particular research problem.

**Selection of Participants.** One hundred and ninety-one students (aged 12–19 years) attending local schools in Pennsylvania participated in the study. Seventy-six percent of the group questionnaires were administered during the school year; the remaining 24% were administered during the summer. Each student who completed the study was given a movie pass and $10.

**The Measured Variables.** Part of the questionnaire focused on time spent in various activities. The students indicated the amount of time they spent per week (in minutes) doing the following activities: watching television, reading magazines, listening to music, playing video games, and/or being online.

**The Design.** This was a descriptive study of the use of media by youth. The data collection method was a group-administered questionnaire. The researchers grouped the information they collected into three categories: (1) type of medium (TV, reading, music, video games, online), (2) day of the week (school days or weekends), and (3) season (regular school or summer school).
### Table 11.3
Minutes per Week in Each Activity: Means (Standard Deviations)

<table>
<thead>
<tr>
<th>Medium</th>
<th>M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Television</td>
<td>1448.85 (931.09)</td>
</tr>
<tr>
<td>Online</td>
<td>534.49 (553.23)</td>
</tr>
<tr>
<td>Magazines</td>
<td>197.65 (238.18)</td>
</tr>
<tr>
<td>Video games</td>
<td>533.67 (683.84)</td>
</tr>
<tr>
<td>Music</td>
<td>1279.94 (1107.30)</td>
</tr>
</tbody>
</table>

*Source: Adapted from Jordan et al. (2007).*

**Statistical Analysis.** The researchers used a three-way ANOVA to analyze the results.

**The Results.** Some of the descriptive statistics for type of medium are listed in Table 11.3. The researchers reported two significant main effects, two significant 2-way interactions, and one significant 3-way interaction.

**The Main Effects.** The main effect of type of medium was significant, $F(4, 480) = 58.68$, $p < .001$. Students spent significantly more time watching TV and listening to music than they spent online, $ps < .05$. They spent significantly more time online and playing video games than they did reading magazines, $ps < .05$. The comparisons of TV with music and online with video games were not significant.

The main effect of day of the week was also significant, $F(1, 120) = 8.24$, $p < .005$. The students spent more time engaged in these activities on weekends than they did during the school week, $F(1, 120) = 8.24$, $p < .005$.

The researchers found no significant difference between overall media use during the school year versus the summer months, $F(1, 120) = .084$, $p = .772$.

**The Interaction Effects.** Main effects should be interpreted in light of any interaction effects. Although Jordan et al. (2007) reported two significant 2-way interactions and a significant 3-way interaction, we do not find that these effects change the interpretation of the main effects. We suspect that the findings of significance for these interaction effects were primarily a result of the very large sample sizes used in the analysis.

**The Conclusions.** Jordan et al. (2007) conducted this study as a precursor to a 3-year longitudinal study. They wanted to get an idea about the amount of time students spend in various activities during weekdays versus weekends and during the regular school year versus the summer school season. Some of the preliminary findings were that students spend more time watching TV and listening to music than they do playing video games or reading magazines. The researchers speculated about the relationships among type of
activity, time of the year, and day of the week, but again, because this was an exploratory study, those speculations are just speculations.

**Mail-Out Questionnaires**

**Mail-out questionnaires** are a quick and economical method for distributing your questionnaire to a large number of people spread over a large area. They also have the advantage of giving respondents a confident feeling of confidentiality and anonymity. People may feel more at ease answering personal questions in their own home and at their own pace. Sounds like the perfect method—why not use mail surveys all the time? Mail surveys are very popular; in fact, you have probably received one yourself, or perhaps one was sent to your house (it may not have been specifically addressed to you). Did you complete it? Did you return it? These two questions address the main problem with mail surveys—a problem of response rate. There is a further problem in that, as a researcher, you do not have control over who completes the questionnaire. You must rely on the recipient to read your cover letter and follow the instructions you have included.

If you received a mail survey, completed it, and returned it, congratulations! Congratulations because you are in the minority. Although the response rate for a group-administered questionnaire may be close to 100%, you can expect that only 10% to 20% of your mail surveys will be returned. For example, the Alberta government conducted a large-scale mail survey of all households in the province and got a response rate of only 12%.

This is a serious problem. Not only does it increase the cost (you may have to print and distribute five times the number of surveys that you need), but it directly casts doubt on the validity of your survey. Who are these respondents? Those who respond are likely the people for whom the questionnaire is most salient, people who feel strongly about the issues addressed in your study, or people who may have an axe to grind. Are these people truly representative of the entire group to whom the questionnaire was mailed? There is really no way to know, and because of this, certain measures must be taken to maximize the response rate. In the appendix are some suggestions for ways of increasing response rates to mail-out surveys.

Today, most people have access to the Internet. In the next section, we will look at research using the Internet, a method that promises to be easier and faster than other survey procedures.

**CONCEPTUAL EXERCISE 11C**

Clair, an undergraduate student in psychology, mailed a questionnaire asking undergraduate students to report their feelings about the recent decision by their university to increase tuition fees the following year by 10%. She discovered that the students were incensed about this decision. What cautions would you give to Clair before she reports that the students as a whole object vigorously to the decision of the university?
Internet Questionnaires

We discussed the problem of anonymity earlier in this chapter. Respondents may be more willing to answer honestly when they feel confident that they remain anonymous. Internet questionnaires provide a strong feeling of anonymity.

Posting your questionnaire on the Internet means no paper, and it saves having to pay someone to enter the responses into a computer. Another advantage of using the Internet to gather your data is that you can target special groups. For example, if you were interested in issues related to animal rights, you could post your questionnaire on an animal welfare website. This way, you are reaching those people who are interested in the topic.

Internet questionnaire research has many of the same problems as other questionnaire research. People who cannot be reached by telephone will not be included in a telephone survey. Similarly, people who do not use the Internet will not be included in an Internet survey. Social desirability and other kinds of response bias must be considered in any kind of interview or survey research. But Internet research has special problems. For example, the government of Alberta conducted a survey asking how it should direct government spending. It sent 1,163,055 questionnaires to households across the province and asked for a mailed response. It got a low response rate of 12%, but it also invited people to respond at its website. The response it got on the Internet survey was almost as high as the paper version: 114,000 for the Internet compared with 144,000 by mail. Wonderful, except it had to carefully screen the Internet submissions. Here is the problem. Let's say you want the government to increase funding of postsecondary education. You think that perhaps the government should remove tuition for university and college and make it free. So you and all your friends go to the website and complete as many surveys as you can. Your plan is to flood the government with surveys that support your view. It sounds like a good plan, but the researchers had already considered this problem. To guard against you and your friends (or special interest groups) trying to manipulate the outcome of the survey, they checked all Internet submissions that came from the same Internet provider and were received at a similar time. If the responses were identical and the submission time was consecutive, only two responses were accepted. With these rules, they excluded only 478 Internet submissions. Multiple submissions can also occur with paper surveys, and they also excluded 310 paper submissions that they thought were suspicious.

As we mentioned above, the response rate for Internet surveys is similar to that for mail-out surveys, and it is not great. In a recent study, Atkeson, Adams, Bryant, Zilberman, and Saunders (2011) used voter lists from Colorado and New Mexico to compare Internet and mail-out surveys and a combination of the two. More than 2,000 people were contacted by mail and invited to respond to a survey either online or they could request a paper copy to be mailed to them. Confidentiality was assured in a cover letter, but potential respondents were given an ID number to enter the survey so their names could be cross-referenced off the sampling frame. The researchers found that the response rate was similar and low for both survey methods, and this was despite their diligence in sending three reminder postcards. When they compared the data from both response methods, they found no difference. However, they did note that Internet responders tended to be wealthier, younger, and better educated. But, in other cases, representativeness can be a problem. Imagine posting your questionnaire to a social media website such as Facebook. Are your Facebook friends...
representative of the population of interest? Perhaps, but be aware that where you post the questionnaire may influence your data, and this sampling bias might affect the external validity of your study. Consider, for example, a research presentation from one of our classes where a student reported data on human sexual behavior that we thought sounded suspicious. We asked where the student got these data, and the student said that he got the data from a condom manufacturer’s website. We wondered who would answer a survey at a condom website. Do you think the data can be trusted? On the other hand, if you are interested in surveying students or employees or any group that has an e-mail list, then you have a readymade sampling frame, and you can use probability sampling and almost guarantee a representative sample.

Applications such as SurveyMonkey and Google Docs make it easy to create beautifully formatted online questionnaires. Moreover, as home Internet becomes more common, this method may become an important method of survey research.

**General Guidelines for Writing Survey Questions**

The wording of your questions is important for all types of surveys, whether interview or questionnaire. Before we discuss writing the questions, we emphasize that the most important step you can take to ensure that your questions are asking what you intend them to ask is to pretest your items. Do this by recruiting some volunteers to read and answer your questions while you monitor them to note any problems that might arise. If they are uncertain about what you are asking or how to answer, it is best to catch it before you begin your research. After the pretest, it is a good idea to do a pilot study. A pilot study is conducted in exactly the same way as your research project but with a limited number of respondents. The pilot study gives you one last chance to catch problems that you missed in pretesting.

The following are important points to consider when you start writing your questions:

- **Keep your questions short and simple:** This is not a place to practice your literary flamboyance. You want to be sure that your participants clearly understand your questions. For example, “Would you be inclined to the practice of locating electronic gaming machines in local drinking establishments?” can be simplified to “Are you in favor of placing video lottery terminals in local bars?”

- **Avoid using and in your questions:** This is related to the first point on keeping your questions simple. You want to be sure that you are measuring no more than one dimension with each question. For example, the statement “I prefer working with colleagues who are pleasant and competitive” is measuring attitudes on two dimensions. Break this item into two separate statements.

- **Do not use biased wording in your questions:** For example, no one will agree to the statement “I support the killing of innocent Iraqis.” But you may find agreement with the statement “I support the war in Iraq.”

- **Be sure you avoid using double negatives:** This may seem obvious, but we have seen instances of less obvious negation-type survey items. For example, in 1998, our
city held a plebiscite to decide whether video lottery terminals should be removed. The question was "Are you in favor of Bylaw No. 1853 which says, City Council requests the Government of Alberta through the Alberta Liquor and Gaming Commission to remove Video Lottery Terminals from the city of Edmonton?" If you wanted to vote against video lottery terminals (VLT) and you were prepared to vote NO to VLTs, you had better be careful because a NO meant YES to VLTs. On the same issue, another region had a much better question: "Should the Province of New Brunswick continue to permit the legal and regulated operation of video gaming devices (commonly known as video lottery terminals or VLTs)?"

Type of Questions

Questions can be of two types: (1) open-ended or (2) forced choice. Open-ended questions are items that simply have a blank space for the response. They allow the respondents to answer in any way they wish (provided you have given enough space). Open-ended questions are the best choice if you are not sure how people will answer a question or if you are looking for diverse responses. A disadvantage of open-ended questions is that they may be difficult to analyze. Usually, content analysis is used to identify recurring themes in the responses and then count the frequency of each theme. This provides a measure of the prevalence of each response. On the other hand, you may be more interested in the unique and creative responses than in the most common. Either way, open-ended questions require a lot of reading, which can be time-consuming and costly. It should be noted that software is available that can automatically analyze open-ended responses (e.g., SPSS Text Analysis for Surveys), and there is also software that can scan written responses (e.g., SPSS mrScan).

Forced-choice or closed-ended questions are items that include response categories. This makes them easier to analyze and easier to answer because you have already created the response categories. The only problem with forced-choice items is that you must be sure that the response choices include all the possible responses people can make. You do not want to frustrate your respondents by not providing a category for their response. You also need to provide clear instructions that only one response may be selected. A common practice is to include an OTHER category. If you decide to include OTHER as a category, be sure to leave a blank for people to enter their response. But be warned, if too many people select OTHER, you have essentially created an open-ended question, and you will have to analyze it as an open-ended question.

General Rules for Self-Administered Questionnaires

If you are conducting a survey with questionnaires, it is very important that it look professional. Take the time to format the final questionnaires so they are easy to read and organized in a way that is easy to follow.

If your questionnaire is being mailed, you should include a cover letter with sufficient information for your participants to decide whether or not to participate. Similar to the informed consent form discussed in Chapter 3, your letter should describe the purpose of the study, who is doing the research, and what will be done with the information. Include also an estimate of how long the survey will take and provide contact information in case
the respondent has any questions. You should also indicate that participation is voluntary and, if the information is to be shared, how you will keep the respondent’s information confidential.

Your questionnaire should have a clear organization so that your respondent does not get lost filling it out. Place simple demographic questions at the beginning where people expect them to appear. When asking age, your respondents may be more comfortable reporting their date of birth than their age in years. People may also be sensitive about questions of income, so instead of asking people to specify an amount, provide income ranges from which they can select.

For the rest of your questionnaire, try to organize the questions by topic. You do not want to annoy your respondent with questions that jump from one topic to another.

Often questionnaires contain branching questions (e.g., if you have a dog, then proceed to Question 15). Try to arrange your questions to keep branching to a minimum, but when branching is necessary, make it easy for your respondent by using boxes or arrows such as the following:

Have you played a video lottery terminal within the past year?
Yes □
No □
If yes, have you enjoyed your experience?
Yes □
No □

There are many different ways to format a question on a survey. Let’s say you want to measure people’s attitudes toward premarital sex. You could ask a simple yes/no question.

Are you in favor of premarital sex?
Yes □
No □

Or you could use a Likert-type scale, where the question is phrased as a statement.

Indicate on a scale of 1 to 7 your opinion of the following statement:

I think premarital sex is good for a couple.

1 2 3 4 5 6 7
Strongly disagree Disagree Somewhat disagree Neither agree Somewhat agree Strongly agree

For more details on measurement and scales, see Chapter 5. Let’s turn to yet another way to find answers to your research questions.
OBSERVING GROUP BEHAVIOR: THE FOCUS GROUP

Focus group research is conducted by recording the discussion of a small group of people. Think of it as a structured interview with 12 people. Typically, questionnaires are completed, and a moderator/facilitator gives a presentation on the topic. By asking questions and directing the conversation, the facilitator can probe for answers and explore relevant lines of conversation. Unlike an interview, where the discourse is between the interviewer and interviewee, in a focus group, the moderator can fade into the background and let the discussion develop on its own. Focus groups often result in lively and fast-paced banter, and they are usually recorded so the content of the discussion can be analyzed later. The discourse is analyzed with qualitative techniques that involve identifying relevant themes and examining how they are interrelated.

The purpose of focus group research is not to investigate the prevalence of opinion but instead to identify and explore variables that are relevant to the research question. Often, the research is used as a starting point for questionnaire development and quantitative research. In addition, focus groups are often used in marketing to test advertising campaigns.

Focus group researchers might ask questions such as the following:

- What are the service needs and experiences of persons with traumatic brain injury?
- How can we reduce the student dropout rate?
- What are good strategies for health care professionals to use when reporting injuries from child abuse?

Focus groups are like an interview except the participants can interact and generate ideas from one another. This can give you information that you might miss from interviewing people one at a time. In a focus group, someone may respond to a question, and spontaneously, others may agree or disagree, but the discussion that follows can produce important information.

The dynamic nature of focus groups can also lead to problems. It is possible to have a few assertive or aggressive participants take over the discussion. If they control the discussion, you may never hear the views of the less assertive. A facilitator must be skilled in mediating these situations so that everyone gets a chance to talk.

Let's look at an example of how focus groups were used to explore issues related to the quality of life of people living in group homes in Staten Island, New York.

The Research Problem. The primary mandate for group-home providers is to provide a good quality of life for their residents. Holburn, Cea, Coull, and Goode (2008) were interested in the opinions held by various stakeholder groups about factors that affect quality of life of group-home residents with developmental disabilities. By stakeholders, we mean people who had a stake in the success of the group home. Stakeholders include the residents in the home, the family members of the residents, the group-home staff members, and the group-home residence managers.
The Hypotheses. Holburn et al. (2008) suspected that the various stakeholder groups might have different opinions and/or different numbers of comments about what was “working well” and “what needed improvement” in the group-home environment. They thought that opinions about “what is working” might differ among the stakeholder groups, and they also thought that opinions about “what needed improvement” might differ among the groups.

Selection of Participants. One hundred and nineteen adults associated with 85 of the 125 group homes in Staten Island, New York, took part in the various focus groups. Thirty-three group-home residents with developmental disabilities, 26 family members, 35 residential staff members, and 25 residence managers participated in the study.

The Design. The researchers decided to conduct a focus group for each type of stakeholder. The composition of each group was as follows:

- Residents focus group: facilitator and group-home residents
- Family members focus group: facilitator and family members
- Staff focus group: facilitator and staff members
- Manager focus group: facilitator and residence managers

During the 3-hour sessions, the facilitators encouraged discussion of five topics: (1) family issues, (2) rights/choices, (3) staff issues, (4) training/supervision, and (5) programs/activities. The discussions were recorded on audiotape.

The Statistical Analysis. The researchers used chi-square to test their hypotheses.

The Results. One hypothesis was that the overall number of comments about “what is working well” and “what needs improvement” would differ among the five categories of quality of life. And, as Figure 11.2 illustrates and the chi-square analysis supports, this was the case, $\chi^2(4, N = 119) = 109, p < .001$.

As you can see, most of the comments about areas needing improvement involved staff issues and training/supervision. Let's look at this category more closely to see how the various groups felt about staff issues. Figure 11.3 shows the number of comments about staff issues by focus group. It seems that all four groups agreed that staff issues needed improvement.

Another hypothesis was that the number of opinions among the groups might differ between the two categories, and this hypothesis was supported, $\chi^2(3, N = 119) = 11.4, p < .01$. As you can see by examining Figure 11.3, participants in the family, staff, and managers focus groups made many more comments about things that needed improvement than they did about things that were working well.

The Conclusions. As the researchers note in their discussion, this was a preliminary study of the many issues faced by people living in a group-home environment and those providing the care. When researchers are just beginning to explore an area, focus groups
FIGURE 11.2 Number of Comments by Quality-of-Life Category

![Bar chart showing number of comments by category (Family Issues, Staff Issues, Training/Supervision, Prog/Act) for Needs Improvement and Working Well categories.]

Source: Adapted from Holburn et al. (2008).

can be helpful. The data provided by focus groups, however, are complex and often difficult to interpret. We chose only a small part of the data to present to you here. From those data, Holburn et al. (2008) concluded that staff members, managers, residents, and their family members seem to agree that staff issues, including training and supervision, are areas that need to be improved.

CHAPTER SUMMARY

In observational research, the researcher is mainly concerned with making systematic observations of behavior. Naturalistic observation involves making systematic observations
of behavior in the environment where it occurs naturally. This method has high external
validity because observations are made in the natural setting, and it also limits reactivity
because observations can be made unobtrusively. Sometimes it may be impossible to
observe a behavior without becoming participants ourselves; in this case, we conduct
participant observations. Unfortunately, some behaviors may only occur in specific
situations or under certain conditions. In those cases, we may want to create those
conditions by conducting laboratory observations. In the laboratory, we may be trading off
some external validity by bringing our research into the artificial environment of the
laboratory, but this may be worth the cost by permitting the observation of behavior that
might otherwise be impossible.

Observational research is well suited for studies of overt behavior, but sometimes it may
be preferable to ask people about their behaviors by conducting a survey. Surveys involve
asking people questions, either verbally, as in an interview, or in writing, by having them
complete a questionnaire. Besides measuring self-reported behavior, surveys permit us to
ask respondents about their attitudes and opinions. Face-to-face interviews (FTFIs) are time-
consuming and expensive but permit the development of rapport between the interviewer
and respondent that may be necessary for exploring sensitive research topics. Telephone
interviews permit surveys of large geographical areas without wasting time on travel, but
they must be relatively short.
Another approach to surveying is to ask people to complete a questionnaire. **Group-administered questionnaires** allow rapid data collection and a very high response rate but are only useful if the respondents can be found in groups (such as students in classrooms). **Mail-out questionnaires** are used to survey people over a large geographical area. They can be relatively economical but suffer from low response rates. **Internet questionnaires** are economical and are useful for surveys of specific populations (e.g., people visiting a website).

**Focus groups** could be described as FTFs of a small group of people. They are often used to measure attitudes, opinions, or self-reported behavior of select groups (e.g., attitudes of young people on the use of condoms). Focus groups have the advantage of revealing information that may not surface in FTFs. This is a result of the dynamics of the groups. Although this is an advantage of focus group research, it may also be a disadvantage (e.g., if a few forceful members dominate the discussion).

## CHAPTER RESOURCES

### ANSWERS TO CONCEPTUAL EXERCISES

**Conceptual Exercise 11A**

The concern here is reactivity. Because the researcher is visible to the workers and clearly collecting data about their behavior, there is a high probability that the mechanics, knowing that they are being observed, will behave differently than they would in normal circumstances. Our researcher might have considered a more unobtrusive way of gathering her data. Or she might have considered participant observation.

**Conceptual Exercise 11B**

The simple answer is that Mark should survey his teachers by telephone. They might be more likely to give Mark honest answers to his questions on the telephone.

**Conceptual Exercise 11C**

The students who took the time to respond to this mail-out questionnaire may be those who have strong feelings. As a result, the sample that Clair is using to infer the attitude of the student body at large may be biased.

### FAQ

**Q1:** Isn’t it almost impossible to guard against reactivity?

**A1:** Reactivity occurs when people alter their behavior as a reaction to being measured. This is the main advantage of naturalistic observation. The hope is that your observations will not be noticed by those being observed, and thus, you avoid the problem of reactivity.
Q2: How can you guard against bias when doing observational research? Won’t you just see what you want to see?

A2: Bias can be controlled by clearly defining your behaviors before making observations. It is also a good idea to keep your observers “blind” to the research hypothesis and to use more than one observer so you can calculate measures of interobserver agreement.

Q3: Can a researcher rely too much on qualitative data or quantitative data? Is there a balance?

A3: It is probably not an issue of reliance on one type of data over another, but rather that some research questions are better suited to quantitative and others to qualitative data analysis. It is not a matter of achieving a balance but rather the appropriate use of different approaches.

Q4: People’s words and actions aren’t always the same. Given this, how can we be sure that self-reported behavior is a valid indicator of true behavior?

A4: Self-reported behavior may not be a valid indicator of people’s true behavior, and as such, we must always be cautious in our interpretation of self-reports.

Q5: How can you be sure that people are answering questions honestly?

A5: Again, as in Question 4, we must be cautious in interpreting our research. You can include questions more than once in a survey to check that people are at least consistent in their responses. Of course, this may only indicate a good liar.

Q6: Wouldn’t an introductory statement on a questionnaire immediately create a bias in the responses?

A6: The introductory statement should provide the potential participant with enough information to make a decision to participate, but it does not have to reveal the research hypothesis. You should be able to write an informative introduction without biasing the participant.

Q7: In observational research, do you always know what behaviors to observe before you begin?

A7: Usually, you do make clear definitions of what is, and what is not, the behavior of interest. However, these definitions should be based on a review of the literature or some pilot research. If, once in the field, you find that your definitions are not adequate, it is probably best to stop and make changes before continuing.

Q8: In participant observation, isn’t there a risk that your observations will not be objective? After all, you are a participant.

A8: This is a real concern because one of the advantages of participant observation is that you can become a member of the group and relate your subjective experiences but report them in an objective manner. A useful safeguard is to have others, who have not been participants, read and critique your observations. They may be in a better position to objectively challenge your observations and force you to be objective about your observations.

CHAPTER EXERCISES

1. What is the difference between naturalistic observation and participant observation?
2. What are the advantages and disadvantages of laboratory observation studies?
3. What are some of the problems with conducting participant observation research?
4. For what type of research question would laboratory observation be preferred to naturalistic observation?
5. What is the distinction between a survey and a questionnaire?
6. What advantages do interviews have over questionnaires?
7. What are the advantages and disadvantages of mailed questionnaires?
8. What advantages do group-administered questionnaires have over mailed questionnaires?
9. You have a short questionnaire, and you want to survey people across a wide area. What approach is best?
10. What are the advantages and disadvantages of open-ended questions?
11. How are focus groups and interviews similar? How are they different?

CHAPTER PROJECTS

1. Provide an example research question for each research approach listed below. For each example, include an explanation of why you think this is the best approach: naturalistic observation, participant observation, and laboratory observation.

2. You are interested in the experiences of people living on the street. Discuss the advantages and disadvantages of the various approaches presented in this chapter as they relate to answering your research question.

3. Conduct a literature search to find an example of research employing each of the approaches described in this chapter. For each example, discuss the advantages of the design and the feasibility of using a different research method.

4. Search the Internet for an example of an Internet questionnaire. Evaluate the effectiveness of this questionnaire.

APPENDIX: WAYS TO INCREASE RESPONSE RATES TO MAIL-OUT SURVEYS

NOTE: We do not have empirical data to support our suggestions. We gathered them from other writers and researchers.

- Hand address and stamp your envelopes. If your house is like ours, you probably receive your share of junk mail. We have all become experts in identifying junk mail before we even open the envelope. The computer-generated label and the metered postage are usually good indicators. It is much more likely that a hand-addressed envelope with a real stamp will be noticed. It was important enough for someone (a real human being) to address and mail to your house, so it’s probably important enough to complete and return.
- Include a good cover letter. This may be your only contact with the respondent, so make sure the letter is clear, concise, and persuasive. For more on the cover letter, see the section on general rules for SAQs.
- Include a self-addressed stamped envelope. Only the most motivated respondents will go to the trouble of providing their own envelope and postage.
• Paying your respondents can increase your response rate. Research has found that including $1.00 in cash with a statement thanking respondents for their time can increase your response rate (Whiteman, Langenberg, Kjerulff, McCarter, & Flaws, 2003). It is hard to believe that such a small amount would make a difference, but it probably reflects the operation of the principle of reciprocity. If you give people something, they feel they must reciprocate.

• Send a reminder out about a week after you have received your first bunch of questionnaires. This will remind those who have not returned their surveys and thank those who have. Be sure to include a telephone number if a questionnaire needs to be resent.

A NC I L LA R I E S

Visit the companion website at www.sagepub.com/evans3e for these additional learning resources:

• Self-quizzes
• SAGE Journal Articles
• Video and Audio Links
• Additional Web Resources