

A **dependent variable** is a variable that is affected or influenced by another variable. Researchers observe dependent variables to determine the effect of their intervention (manipulation) (Gravetter & Wallnau, 2013). An **intervening variable** (also called a *moderator* or *mediator*) is a variable that can mediate the effect of the independent variable on the dependent variable. Here is an example:



In the preceding statement, *zero-tolerance bullying policies* comprise the independent variable and the *rate of bullying incidents* is the dependent variable (which can change over time). The independent variable affects the dependent variable. The presence of zero-tolerance bullying policies *affects* the rate of bullying incidents.

In research practice, one must also be cognizant of **extraneous variables** that are not under investigation but may impact the data. You can attempt to account for some extraneous variables; for example, the impact of the survey administrators on respondents can be nullified by training them to behave and dress similarly. There are also those you can't account for, such as a respondent rushing through a survey because he/she has a stomachache. Finally, in some studies you may also have **covariates**, which are variables for which you control. For example, if you are conducting research to compare the performance of public high school and private high school students on their SATS, you would also need to control for race and gender, which we know impact these scores.

Because in quantitative research it is typical to measure variables, you need to create an **operational definition** for each variable in your study. Let's say you're conducting a study on "body image among middle-aged women." You begin with the abstract concept *body image*. You then break it down into two categories—variables—"positive body image" and "negative body image," based on previous literature. Using previous research to determine what is known, you create an operational definition for both "positive body image" and "negative body image." What exactly do those variables mean in your study? How, precisely, are you defining the terms? What are the dimensions of "negative body image"? For example, previous literature may indicate the following dimensions of "negative body image":

- Dissatisfaction with weight
- Dissatisfaction with facial features
- Dissatisfaction with overall physical appearance
- Preoccupation with physical appearance

You then construct questions to assess each dimension of "negative body image." Those questions are your **indicators**. Let's say questions 5–10 measure "dissatisfaction with weight" (one dimension of "negative body image," according to your operational definition). If a respondent gets a combined score of  $x$  or higher

on those questions, it indicates the presence of that dimension of “negative body image.”



## REVIEW STOP 2

1. A research purpose statement specifically states the \_\_\_\_\_.
  - a. Research purpose statements generally include some combination of what (each as applicable)?
2. The research purpose statement “Our primary purpose is to work collaboratively with nurses, doctors, nutritionists, and people with diabetes and their loved ones to develop, implement, and evaluate a food management and at-home health program that addresses the needs and concerns of all stakeholders” is likely from a project involving which of the five approaches to research?
3. An independent variable is one that \_\_\_\_\_.
4. In the following statement, identify the independent variable and the dependent variable? “Safe sex educational programs in secondary school reduce the rate of unplanned pregnancy.”

 Go to the end of the chapter to check your answers.

## Hypotheses

A hypothesis is a statement predicting how variables relate to each other and that can be tested through research. Hypotheses are typically used in **experimental and quasi-experimental designs and survey research**. Let’s say that the independent variable is *A*, the dependent variable is *B*, and if at play, the intervening variable is *C*. In abstract terms, then, a hypothesis might state that *A* causes *B*, or *A* is related to *B*, or *A* causes changes in *B* when *C* is present, or *A* causes no change in *B*. A hypothesis is therefore designed to test or measure the relationship between variables.

Let’s take this example out of abstractions such as *A*, *B*, and *C* and return to the bullying example earlier.

- Zero-tolerance policies is the independent variable.
- The rate of bullying is the dependent variable.
- Increased teacher presence is the intervening variable.

Here are a couple of hypotheses one could investigate in the same study:

- *Hypothesis 1:* Zero-tolerance bullying policies in school reduce the rate of bullying incidents.
- *Hypothesis 2:* Zero-tolerance bullying policies in school reduce the rate of bullying incidents when there is also increased presence of teachers in hallways, cafeterias, and playgrounds as a part of enforcing the policy.

There are two primary kinds of hypothesis statements—null and alternative (Fallon, 2016)—and there are two kinds of alternative hypotheses—nondirectional and directional. Therefore, in total there are really three primary kinds of hypotheses (see Table 3.2).

A **null hypothesis** predicts that there is no significant difference between two groups with respect to the variable being tested. You write a null hypothesis as follows:

There is no significant difference between group 1 and group 2  
with respect to X.

A **directional hypothesis** relies on prior research to make a prediction that there is a specific difference between two groups with respect to the variable being tested. You write a directional hypothesis as follows:

Group 1 experiences higher rates of X than group 2.

Finally, a **nondirectional hypothesis** predicts a difference between two groups with respect to the variable being tested but does not predict what that specific difference will be. You write a nondirectional hypothesis as follows:

There is a difference between group 1 and group 2 with respect to X.

Here is an example from a published study. Weuve et al. (2014) conducted a cross-sectional online survey to study workplace bullying (WPB) among athletic trainers (ATs) in college settings. They state their first two hypotheses as follows (p. 697):

“H1: Female ATs experience more WPB than male ATs.”  
“H2: Male bullies will be more common than female bullies.”

**TABLE 3.2. Kinds of Hypotheses**

Null hypothesis	Predicts no significant difference between two groups with respect to the variable being tested
Directional hypothesis	Predicts a specific difference between two groups with respect to the variable being tested
Nondirectional hypothesis	Predicts a difference between two groups with respect to the variable being tested but not what the difference will be

These are examples of directional hypotheses. Let's take the first hypothesis and reconstruct it to illustrate the three kinds of hypotheses:

- *Null hypothesis*: There is no significant difference in how much WPB female ATs and male ATs experience.
- *Directional hypothesis*: Female ATs experience more WPB than male ATs.
- *Nondirectional hypothesis*: There is a difference in how much WPB female ATs and male ATs experience.

Remember, not all research projects include a hypothesis. Typically, a research project will have a research purpose statement and a hypothesis *or* a research purpose statement and research questions.

## Research Questions

Research questions are the central questions that guide a research project. They are the questions you seek to answer or explore. Once you have developed your research purpose statement, which details your objectives, you can develop questions that will help you achieve those objectives. The questions must be **researchable**. In other words, these are questions that can be directly answered through the research. You will ultimately design a project that is well suited for addressing the research purpose and answering the research questions.

There is no set rule for how many research questions you can ask in a study. Typically, there are anywhere from one to three primary research questions. There may be additional more focused, secondary questions attached to the primary questions, aimed at narrowing down the focus. Primary questions are the main questions the research seeks to answer, and secondary questions may address components of those primary questions. Here's an example:

- *Research Question 1 (primary question)*: How do students describe the impact of the zero-tolerance bullying policy in their school?
- *Research Question 1a (secondary)*: Do students feel safer because of the policy?
- *Research Question 1b (secondary)*: Are students more likely to report bullying they experience or witness?

The preceding example shows the primary aim of the study is for students to describe the impact of these policies, and the secondary questions are aimed at assisting that primary goal. You want to avoid creating such a long laundry list of questions that the study becomes unmanageable, and instead create a focused set of central questions.

Your approach to research design impacts question construction. What you are able to ask and the language used to write the research questions are dependent

on whether the study is quantitative, qualitative, mixed methods, arts-based, or community-based participatory.

### Quantitative Research Questions

In quantitative research you might be using hypotheses instead of research questions (although even when hypotheses are used, they are often preceded by a primary research question). If you are creating research questions, they contain the same components as a hypothesis statement would. However, instead of creating a statement that predicts a certain relationship among variables that you will test, you create a question or series of questions to answer. Quantitative research questions are generally **deductive**. They focus on the variables under investigation and how they relate to each other, how they affect different groups, or how they might be defined. Quantitative questions rely on **directional language**. They often use words such as *cause, effect, determine, influence, relate, associate, and correlate*.

### Qualitative Research Questions

Qualitative research questions are generally **inductive**, which means they are open-ended. As researchers typically seek to build understanding about the phenomenon under inquiry without a firm set of predictions in place, research questions allow for a great deal of latitude. Accordingly, qualitative research questions often begin with words such as *what* or *how*. Qualitative questions rely on **nondirectional language**. They often use words and phrases such as *explore, describe, illuminate, unearth, unpack, generate, build meaning, and seek to understand*.

### Mixed Methods Research Questions

Mixed method studies involve three kinds of questions: quantitative, qualitative, and mixed methods. In this research approach, it is vital to present an **integrated set of research questions** (Brannen & O'Connell, 2015; Yin, 2006). First, there should be some combination of quantitative and qualitative hypotheses and/or questions. A mixed methods study may have one or more hypotheses, which are quantitative in nature, as well as one or more qualitative research questions. Or, a mixed methods study may have one or more quantitative questions and one or more qualitative questions. Additionally, it is advisable to also include at least one mixed methods question. Consult the preceding sections for how to write the quantitative and qualitative research questions. The mixed methods research question directly addresses the mixed methods nature of the study. The mixed methods research question may ask something about what is learned by combining the quantitative and qualitative data, or it may ask something about how the mixed methods design aided the research project. To summarize, mixed methods questions may look like the following (which shows only a bare minimum, as there may be more than one of any kind of question):

Quantitative question, qualitative question, mixed methods question

Or

Quantitative hypothesis, qualitative question, mixed methods question

Mixed methods questions rely on **relational language**. They often use words and phrases such as *synergistic, integration, connection, comprehensive, fuller understanding, and better understanding*.

#### *Arts-Based Research Questions*

ABR questions are generally **inductive, emergent, and generative**, which means they are open to the process itself. Arts-based questions often emphasize experiential knowledge, artistic practice or expression, and an emergent inquiry process. They typically use words and phrases such as *explore, create, play, emerge, express, trouble, subvert, generate, inquiry, stimulate, illuminate, unearth, yield, and seek to understand*.

#### *Community-Based Participatory Research Questions*

CBPR projects may use any combination of quantitative, qualitative, mixed methods, and arts-based practices. Therefore, the design of specific questions is linked to the approach employed within a particular study. With that said, CBPR questions are generally **inductive, change oriented, and inclusive**. This means that they are open-ended, with an aim toward social action, and they account for the perspectives of multiple stakeholders. Due to their inductive nature, research questions often begin with words such as *what or how* (but this is not always the case). Further, these approaches are participatory and power sensitive. Research questions often use words and phrases such as *co-create, collaborate, participatory, empower, emancipate, promote, foster, describe, and seek to understand from the perspective of various stakeholders*.

### **Putting It Together**

Let's take the topic of bullying that was used as an example throughout this chapter to start putting the pieces together. Let's say you're interested in studying anti-bullying programming in middle school (we'll call it anti-bullying program *x*). Here are some examples of how you might develop your purpose statement and hypotheses or research questions from each of the five approaches. Take note of the kind of language used as well as the focus of each study. Keywords are circled in each research purpose statement in order to highlight language differences.

## EXAMPLE 1: QUANTITATIVE

The purpose of this study is to examine the prevalence of bullying in middle school with and without anti-bullying program x in order to determine the effect of program x on the rates of bullying in middle school.

- *Hypothesis 1:* The rates of bullying in middle school will be lower in middle schools that implement anti-bullying program x.
- *Hypothesis 2:* Students will be more likely to report bullying they experience or witness after participating in program x.

## EXAMPLE 2: QUALITATIVE

The aim of this study is to understand and describe middle school students' perspectives on anti-bullying program x.

- *Research question 1:* What kinds of bullying did students experience or witness before program x?
- *Research question 2:* What did students think of program x and why?
- *Research question 3:* How, if at all, do students think program x has affected bullying in their school?

## EXAMPLE 3: MIXED METHODS

The purpose of this study is to describe and evaluate the effect of anti-bullying program x on bullying in middle school using a mixed methods approach.

- *Quantitative research question:* What effect does anti-bullying program x have on the prevalence of bullying in middle school?
- *Qualitative research question:* How do students describe their experiences with bullying before and after anti-bullying program x?
- *Mixed methods research question:* How does the mixed methods design of the study contribute to our understanding of the effect of anti-bullying program x and the nature of that effect?

## EXAMPLE 4: ARTS-BASED

The goal of this inquiry is to unearth how middle school students explore bullying at their school and their experience with anti-bullying program x through the techniques of play building and students' creation of performance vignettes that express their experiences.

- *Research question 1:* How do students use the tools of play building to illustrate their experiences with bullying and with anti-bullying program x?
- *Research question 2:* What themes emerge in the student-created vignettes?
- *Research question 3:* How do students describe their experience with the play building practice? Are there positive outcomes, such as feelings of empowerment?

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**EXAMPLE 5: COMMUNITY-BASED PARTICIPATORY RESEARCH**

The goal of this study is to work collaboratively with relevant stakeholders, including middle school students, teachers, school personnel, and parents/guardians, to evaluate anti-bullying program x, amend the program accordingly based on insights learned, and implement the revised program in order to promote anti-bullying culture in a middle school.

- Research question 1: What strengths and weaknesses of anti-bullying program x do different stakeholders identify?
- Research question 2: How can we strengthen anti-bullying program x based on the needs of various stakeholders?
- Research question 3: How can we implement the revised anti-bullying program with the necessary buy-in from different stakeholders in order to positively change school culture?

There are advantages associated with each approach, as they allow us to focus on different dimensions of the same topic, garner different kinds of data, and address a host of research questions. Research done from each of these approaches has the potential to contribute to our understanding of this topic. And remember, these are just examples. There are innumerable possibilities for what any of these projects might actually look like.

**REVIEW STOP 3**

1. A hypothesis is a statement predicting \_\_\_\_\_.
2. What are the three primary kinds of hypotheses?
3. "Women who work in service industries experience higher rates of sexual harassment than men who work in service industries." The preceding is which kind of hypothesis?
4. Define research questions.
5. Identify the three kinds of questions mixed methods studies include.
  - a. The three questions in mixed methods research should be \_\_\_\_\_.

Go to the end of the chapter to check your answers.

**Sampling**

Sampling addresses the questions "Who or what is in your study? Where are you getting your data or content?" Typically, discussions of sampling center around *who* is in your study—the subjects, respondents, participants, or collaborators;

however, in studies that involve the use of nonliving data (e.g., content analysis of text or images), it is a question of *what* is in your study.

Whether you realize it or not, you have already been exposed to the idea of sampling in daily life. For example, consider the many political polls you have seen on television that say things like 60% of Americans are in favor of some particular social policy, or 60% of Americans support the president and think he is doing a good job, or 60% of voters feel strongly about question 1 on the ballot. Certainly you know they did not poll every single American. It would be impossible. Instead, they came up with a sample of Americans that is intended to *represent* the general population. To do so, they engaged in a process of sampling.

If you are thinking about a research project you might undertake, then you already may be thinking about who will be in your study. For example, if you are interested in studying under-age drinking in college, you won't be able to study every single college student, so you will have to come up with a smaller group to study. You may start by narrowing down your sampling pool to your campus and then find additional ways to narrow the final sample. Likewise, if you are interested in learning about the qualities that draw some college students to social activism, you won't be able to study all college students, so you will need to narrow down your field. You may start by narrowing it down to two local colleges and the students who participate in a particular formal club or activism program at their school. Depending on the nature of your study, you may narrow down the participants even further. I return to these examples in this section.

**Sampling** is the process by which you select a number of individual cases from a larger population. The first thing you need to do is determine the elements in your study. An **element** is the kind of person, group, or nonliving item in which you are interested (sometimes the word *unit* or *case* is used). Next you have to identify the population. A **population** is a group of elements about which you might later make claims. For example, if you are interested in exploring the qualities that draw some college students to social activism, the element in your study is *individual college students involved in social activism*. The population you might later make claims about is *all college students who engage in social activism*. Once you have identified the element you are interested in and the population, you will need to determine the study population (sometimes called the *sampling frame*). The **study population** is the group of elements from which you actually draw your sample. So if the population you are interested in is "all college students who engage in social activism," clearly it would be impossible to draw a sample from that population, which is not only large but diffuse. Therefore, you create a study population. Your study population may consist of all students at two identified local colleges who are engaged in a specific club or program after school. You then draw a sample from the study population. A **sample** is the number of individual cases that you ultimately draw and from which/whom you generate data.

How do you determine what the sample size should be? How many individual cases do you need? Sample size varies dramatically, from studies involving a single case to those involving thousands. Guiding questions to determine what size is appropriate are:

- How many cases do you need to answer your research questions or hypotheses?
- What resources do you have available (monetary and time)?
- What research method or methods are you using?
  - What are the corresponding norms when using that particular method?

Quantitative research favors larger sample sizes. For example, in survey research, accuracy increases with larger samples. However, you must also consider the additional costs often associated with larger samples. There are sample size calculators available online that can be used to determine the ideal sample size for a particular study (e.g., <http://surveysystem.com>, <http://fluidsurveys.com>, or just Google *sample size calculator* for options). You need a few values to plug in:

- **Population size:** The total number of elements in the population about which you will later make claims. You can approximate this number if you aren't certain.
- **Confidence level:** Expressed as a percentage, this value tells you how confident you can be in your results. Researchers use 90%, 95%, or 99%. It is standard practice to use 95%, which is what I recommend.
- **Margin of error or confidence interval:** All surveys have error. This number, expressed as a percent, indicates how much error you are willing to accept. It is standard practice to use 5%, which is what I recommend (this indicates that the survey results will be accurate within a plus or minus 5% range).

Qualitative and arts-based approaches favor smaller sample sizes. There are no hard-and-fast rules for sample sizes. It is a question of how many data are needed to address your questions. Researchers need to provide a rationale or justification of the sample as sufficient to meet the research purpose (Roller & Lavrakas, 2015). In some projects, a single case may be all that is needed (e.g., in some oral history or autoethnography projects), whereas in other cases you may need 20 or more participants (e.g., in some focus group projects).

Methods that are employed in natural settings such as ethnography/field research and some instances of CBPR rarely have predetermined sample sizes. Sample size is based on how many people in those environments elect to participate. The same can be true in quantitative field experiments in which a predetermined period of time is allotted for the study observations, but you can't predict how many people will end up participating (field experiments are reviewed in the next chapter).

In interview or focus group studies, one generally begins planning sample size upfront, although again, there are no rigid guidelines. Consider this advice for interview studies: "Interview as many subjects as necessary to find out what you need to know" (Kvale & Brinkmann, 2008, p. 113). Although researchers have proposed some very loose guidelines (e.g., Svend Brinkmann [2013] suggests that qualitative interview studies typically have no more than 15 participants), these guidelines are somewhat erroneous, as each study will differ. Margaret Roller and

Paul J. Lavrakas note that sample size should be considered during two phases of the research process in interview studies: research design and data collection (their suggestions can be applied to other forms of qualitative research, including ethnography and content analysis). During research design, Roller and Lavrakas (2015, p. 73) suggest considering four factors:

1. The breadth, depth, and nature of the research topic or issue.
2. The heterogeneity or homogeneity of the population of interest.
3. The level of analysis and interpretation required to meet research objectives.
4. Practical parameters such as the availability of and access to interviewees, budget for financial resources, time constraints, as well as travel and other logistics associated with conducting face-to-face interviews.

In addition to the aforementioned considerations, it is also important to avoid generating unnecessary data. During data collection, you revisit the question of sample size. You don't need "more" simply for the sake of more. *Valuable data contribute to new learning*. When additional data do not yield additional insights, you have reached the **saturation point**. Once you have reached this point, you risk inundation and redundancy from additional data (Coffey, 1999). Theoretical saturation occurs when you select a small group of participants within a population from whom to collect data, and then select another group from the population and learn nothing new from the additional participants (Agar, 1996). Qualitative researchers employing grounded theory with any method often use "saturation" to determine when to stop data collection (Robson, 2011; Roller & Lavrakas, 2015). Grounded theory involves cycles of collecting and analyzing data in order to adapt to new learning (elaborated in Chapter 5).

There are numerous ways that you might go about drawing a sample. All sampling procedures fit into two umbrella categories: probability sampling and purposive sampling. These general categories of sampling have different strengths and thus are appropriate in different kinds of projects, based on your goals.

### Probability Sampling

Probability sampling relies on probability theory and involves the use of any strategy in which samples are selected in a way that every element in the population has a known and nonzero chance of being selected. This means that the chance that each element in the population will be included in the sample can be statistically determined, and the chance of inclusion, no matter how small, will be a number above zero. Each element has some chance of inclusion.

Probability sampling strategies are typically used in quantitative research, and may also be used in the quantitative phase of mixed methods research.<sup>1</sup> These samples are useful when researchers want to **generalize** their findings to a larger population. The results of studies that rely on probability sampling are typically **statistical** in nature. The following subsections describe the main types of probability sampling strategies.

### *Simple Random Sampling (SRS)*

This is a sampling strategy in which every element in the study population has an equal chance of being selected.

### *Systematic Sampling*

This is a sampling strategy in which the first element in the study population is selected randomly and then every  $k$ th element, after the first element, is selected. For example, if your study population is an activism club membership list comprised of students at multiple colleges, you may randomly select student #18 on the list. Then, if you decide that  $k = 5$ , you would select every fifth student on the list after 18 (so 23, 28, 33, and so on, until you reach the end of the list).

### *Cluster Sampling*

This is a multistage sampling strategy. First, preexisting clusters are randomly selected from a population. Next, elements in each cluster are sampled (in some cases, all elements in each cluster are included in the sample). For example, if your population is all college students who participate in activism clubs, you might get a list of all the universities in the Northeast with such clubs. Then you would randomly select several of those schools—each serving as a cluster—and the students in activism clubs at those schools would comprise your sample.

### *Stratified Random Sampling*

This is a sampling strategy in which elements in the study population are divided into two or more groups based on a shared characteristic (these groups are called *strata*). Then you conduct simple random, systematic, or cluster sampling on each strata. For example, if you want to compare student activism across gender, you might divide the elements into three categories: male, female, and transgender. Or you could compare student activism across class year, dividing elements into four categories: freshman, sophomore, junior, and senior.

### **Purposeful Sampling**

Purposeful sampling (also called *purposive* or *judgment sampling*) is based on the premise that seeking out the best cases for the study produces the best data, and research results are a direct result of the cases sampled (Patton, 2015). This is a strategic approach to sampling in which “information-rich cases” are sought out in order to best address the research purpose and questions (Morse, 2010; Patton, 2015, p. 264). Sampling is a central feature of research design when purposeful strategies are used because the better the participants are positioned in relation to the topic, the richer the data will be (Morse, 2010; Patton, 2015).

Purposeful sampling strategies are typically used in qualitative, ABR, and

CBPR projects. These strategies may also be used in the qualitative phase of mixed methods research. Qualitative, arts-based, and community-based researchers are often after **in-depth understanding** from a small sample and therefore rely on some form of purposeful sampling procedure (Hesse-Biber & Leavy, 2011). Research findings may later be **transferred** from one case to another on the basis of **fittingness** (similarity between the cases) (Lincoln & Guba, 2000). In other words, when cases are similar, we can make inferences about one case based on findings in another.

According to Michael Quinn Patton (2015), there are 40 types of purposeful samples (not all of which can be discussed here), which he groups into eight categories (pp. 264–272):

1. Single significant case
2. Comparison-focused sampling
3. Group characteristics sampling
4. Theory-focused and concept sampling
5. Instrumental-use multiple case sampling
6. Sequential and emergence-driven sampling strategies during fieldwork
7. Analytically focused sampling
8. Mixed, stratified, and nested sampling strategies

Here I review a few of the most commonly used purposeful sampling strategies. (For a full discussion of these categories and all 40 sampling types, see Patton, 2015.)

### *Snowball Sampling*

Also called *chain sampling*, this is a sampling strategy in which one case organically leads to another (Babbie, 2013; Patton, 2015). In Patton's (2015) framework this is a form of sequential and emergence-driven sampling typically used in fieldwork. For instance, participants may suggest additional participants they think could provide important data for the project.

### *Exemplar of the Phenomenon of Interest*

This is a sampling strategy in which a single significant case is selected because it can provide a wealth of rich data that speak directly to the research purpose and questions (Patton, 2015, p. 266). For example, in 1998 I conducted an oral history project about anorexia nervosa and body image with a college student. I conducted the oral history interviews with one woman, given the pseudonym Claire, because she exhibited all of the “classic” issues associated with anorexia in college-age women, was an eager participant, and could provide rich data to illuminate the topic.

### *Homogeneous Sampling*

This is a sampling strategy in which cases are sought out because they share a common characteristic (Patton, 2015). For example, another approach to my study on anorexia nervosa and body image would be to seek out several participants who are the same age, gender, and race (all key factors in the literature on eating disorders). A variation on this method is *heterogeneity sampling* (a strategy in which cases are sought because they differ on key characteristics) (Patton, 2015).



### **REVIEW STOP 4**

1. \_\_\_\_\_ is the process by which a researcher selects a number of individual cases from a larger population.
2. When collecting additional data does not yield additional insights, you have reached the \_\_\_\_\_.
3. What are the two umbrella categories under which all sampling procedures fit?
  - a. Explain the premise of each of these two approaches
4. Simple random sampling (SRS) is a sampling strategy in which \_\_\_\_\_.
5. Snowball sampling is a sampling strategy in which \_\_\_\_\_.

Go to the end of the chapter to check your answers.

### **Conclusion**

This chapter has reviewed some basic research design issues, including topic selection, literature reviews, research purpose statements, hypotheses and research questions, and sampling. The design issues reviewed in this chapter, and how they come together to form the basis for a research project, are elaborated in Chapters 4–8. In the following chapters, each of the five major approaches to research design are reviewed in-depth, including guidance on how to design a research proposal or plan.



### **REVIEW STOP ANSWER KEY**

#### **Review Stop 1**

1. if researchable; significance, value, or worth; personal inventory/preparedness; existing research on topic