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Introduction

What Is Empirical Social Research?

Most research methods textbooks start their discussion of research by describing the scientific method, with its focus on total objectivity, replicability, and highly structured procedures. There is, however, great debate among sociologists as to whether sociology is a science and even whether it is desirable to be so. Critical theorists, conflict theorists, feminist scholars, symbolic interactionists, ethnomethodologists, and postmodernists have all heavily criticized scientific approaches to studying society. Additionally, a good deal of sociological research is not, and does not aim to be, scientific. So if not all sociological research is scientific, then what differentiates it from common sense or mere opinion? There are three important characteristics that set research apart. First, social research is **systematic**; that is, the researcher develops a plan of action before beginning the research. Second, social research involves **data**, which are the pieces of information gathered from primary sources. This is what makes it **empirical**—based not on ideas or theory but on evidence from the real world. Third, social research involves **analysis**, meaning the researcher interprets the data and draws conclusions from them. Thus, writing what is typically called a "research paper" does not fit our definition of empirical research because doing so typically involves summarizing the analyses of other authors, not forming a new analysis based on collected data.

Why Is Research Important?

Sociologists consider research essential work, and most professional sociologists spend at least some of their time conducting it. Because it is empirical, systematic, involves the collection of data, and requires an analysis based on those data, many sociologists view research as the most valid form of knowledge on which to base social policy. Additionally, it can be used to test the accuracy of social theory, to document social trends, to make comparisons over time or across geographical regions, to inform people, to gain new insights about social phenomena, and to support arguments in debate.

But why should you, the sociology student, care about social research? After all, relatively few sociology majors become professional sociologists. In my experience, there are three main reasons why you should care about social research. First, research is powerful. By that I mean that to conduct research is to create new knowledge, and to engage in the production of knowledge is to exercise a form of power. In producing knowledge, you have the opportunity to influence what others know and think as well as the actions they may take. Research can also be a powerful tool for helping others to hear the voices and experiences of those who are often ignored or disregarded, for challenging stereotypes, and for correcting social myths. Until recently, this form of power has been exercised by relatively few people. Knowledge production has been (and continues to be) dominated by an upper-middle-class, mostly male, mostly white Anglo elite. Having a wider diversity of people contributing to the creation of new knowledge helps to democratize this form of power.

Second, research skills are in high demand. Virtually every organization, whether it is in the not-for-profit, business, government, or education sector, needs to evaluate and assess its performance, as well as to determine what unmet needs its clients have and how it can meet those needs. That means it needs people who are skilled in collecting the appropriate data, analyzing them, and presenting them in a way that can be understood by those who are not necessarily well schooled in research methods. In other words, in learning how to conduct social research, you are learning very valuable job skills. Even if you do not want to become a "researcher" per se, having research skills not only increases your value in the job market, it can help you do your job better. Say, for example, you are the assistant director of a homeless shelter. In order to apply for federal funding and private grants to expand the services your shelter provides, you need to document the following:

- The number of people using each of the services your shelter currently provides, and how often they use each service
- The demographic characteristics of your population, such as the number of women and children that you serve, or the number of people with mental illnesses
- The number of people helped by your organization who, after 1 year, have regular lodging and employment
- What services your clients need that are unavailable in your area
- The impact on your clients of the federal budget cuts to family planning centers

All of these data require that research be conducted. If you don't have the skills to do the work, you will have to pay someone else to do it, which will further reduce the amount of money that goes directly toward the services that your clients so desperately need. In short, research skills are not only important for those who want to be sociology professors or researchers, but for anyone wanting a leg up in a

highly competitive job market. Obviously, one course cannot make you an expert researcher. Certainly, to truly learn the skills of research you will need to take additional courses, read on your own, and/or learn the ropes through hands-on experience under the guidance of an experienced researcher. Nonetheless, even if you do not continue your studies in research methods, by the end of this course you will have learned the basics of research, which means you will have more knowledge than most people about conducting good research—and this can make you more marketable.

Third, knowing about social research, even if you never conduct any yourself, will make you a better *consumer* of social research. Research is used to do everything from endorse the newest weight-loss product to provide the basis for a political candidate's crime reduction plan. Some of this research is very sound, but there is also a lot of *bad,* even meaningless, research being conducted. By understanding how research should be conducted, and how it should not, you will be empowered to critically examine claims made by researchers and to determine for yourself whether the results are worth relying upon.

Methods of Data Collection

There are several different **research methods**—that is, ways to collect data. Here, I briefly describe each of the methods to give you a quick introduction, as a springboard to a more detailed discussion of these methods in subsequent chapters.

Surveys

Surveys involve asking people predesigned questions and, usually, asking them to choose from among the answer choices that you, the researcher, have provided. Their answers are turned into numeric codes so that statistics can be calculated from them. Surveys are designed to gather very specific yet standardized information from a lot of people and to get the same information from everyone surveyed. They are best used for studying social or demographic trends, cause and effect, attitudes, and simple behaviors.

Interviews

Interviews involve asking people questions that are open ended; that is, you haven't predetermined possible answer choices for them. Instead, they freely express themselves in answering your questions. The answers are not analyzed with statistics; instead, they are analyzed for their meaning and themes. The purpose of interviews is to better understand some aspect of the social world from the perspective of the research participants, to see the world as they see it, and to understand that perspective in great depth. Interviews yield very detailed information about the perspectives of only a small group of people. They are best used for studying what goes on in people's heads: their perceptions, interpretations, meanings, and experiences of the social world, as well as their motivations and feelings.

Focus Groups

Focus group research consists of gathering 5 to 12 people together for usually about two hours and asking them some questions on a particular topic in order to get their thoughts, reactions, feelings, and opinions. They are not just individual interviews done all at once; the unique feature of focus groups is that the group discussion creates a type of synergy among the group members, allowing the conversation to go in new directions and for participants to respond to one another in a way that enables them to think of and say things they wouldn't have thought of on their own. Focus groups are very good for generating new ideas, for finding out reactions to different versions of something (a plan, policy, etc.), for investigating topics on which there is very little information, and for understanding the perspectives of different groups of people in some depth.

Observation

Observation involves watching people to document their behavior. It is used to understand how people interact with one another and to find patterns in their behavior. It is particularly good for understanding behavior that the actors are unaware of or that they won't admit to. For example, observation could be used to document whether salespeople treat black and white customers differently. If we were to ask these salespeople in a survey or interview about their behavior, they may likely answer that they treat everyone the same. Observation is the only way to determine, however, whether their behavior actually matches up to this claim.

Ethnography

Sociologists borrowed the method of **ethnography** from anthropologists. It is a method that involves deeply immersing yourself in a culture or subculture to understand it (or some aspect of it). Ethnographers combine formal and informal interviewing, observation, and sometimes content analysis of documents (see below). Its purpose is to understand some aspect of a culture in great depth. It is good for studying the norms, values, and meanings of a culture or subculture.

Secondary Data Analysis

You conduct **secondary data analysis** when you use data that someone else has gathered, usually (though not always) through a survey, and then compute new statistics from the data, producing a new analysis. There are many sets of secondary data that are collected specifically for this purpose, and they generally have gathered a lot of information from a large, often representative, group of people. Secondary data analysis is popular because it allows you to investigate research interests that would have been too expensive or time-consuming had you needed to collect the data on your own.

Existing Statistics

Existing statistics are also based on the data that someone else has collected. Unlike secondary data analysis, however, in which you get the **raw data** (uncalculated) and compute the statistics yourself, with existing statistics you are working with statistics produced by someone else (rather than the raw data). Existing statistics are less likely to come from surveys and more likely to come from the data collection of government agencies. The Department of Education, for example, does not have to survey people in order to determine how many students are enrolled in California schools; these data are part of the department's bureaucratic record keeping. Sometimes you might use those statistics to produce new statistics. For instance, you might gather existing statistics on high school exit exam scores and school spending to determine how much money a state needs to spend on education in order for most students to reach a particular level of achievement on the exams. Other times, you might conduct a new analysis by bringing together statistics that have not previously been analyzed in relation to one another. For example, you might take the existing statistics on the number of violent offenses and property crimes, county unemployment rates, median home prices, school enrollment rates, and income statistics to investigate the relationship between socioeconomic conditions in an area and its crime rate. In order for the use of existing statistics to be considered research by our definition, however, you must do more than simply report the already existing statistics; you must produce a new analysis, even if you did not gather the data yourself.

Content Analysis

Content analysis involves gathering existing texts, images, songs, or other audiovisual products, such as videos or commercials, to analyze them for themes in their content, style, and form. Content analysis is often used to study pop culture, but it can also be used to study, for example, the values imparted in sex education curricula or the capitalist logic in the speeches of American presidents. Researchers conducting content analysis often strive to reveal both the obvious and the more subtle messages or ideas contained within the text or image.

Experiments

Experiments are what immediately come to mind for many people when they think of research methods. It is the method used in the natural sciences and one that gets a lot of visibility in the media. When you conduct an experiment, you take two or more groups and alter the conditions of all but one of those groups in a controlled way in order to understand the effect that each condition has on the group. The analysis is usually statistical. In sociology, it is typically used to understand behavior. Although popular among sociologists in the first two thirds of the 20th century, it is the least frequently used method in sociology today. Box 1.1 is a summary of the research methods described.

BOX 1.1

SUMMARY OF RESEARCH METHODS AND THEIR PURPOSES

Research Method	Description	Purpose
Surveys	Questions with predesigned answer choices	Gather standardized information from many people
Interviews	Open-ended questions answered with free expression	Understand participants' perspectives in great depth
Focus groups	Open-ended questions asked to small groups of people to stimulate discussion	Compare perspectives of different groups of people in some depth
Observation	Watching others' behavior	Document patterns of behavior and interaction
Ethnography	Deep immersion in a culture using interviewing, observation, and content analysis	Understand aspects of a culture
Content analysis	Analyzing existing texts or audiovisual artifacts	Reveal subtle messages contained within text
Secondary data analysis	Using data gathered by someone else and computing new statistics from them	Gather standardized information from many people; save time and money
Existing statistics	Using statistics calculated by someone else and combining them or computing new statistics from them to yield a new analysis	Use (usually) institutional data to understand social trends
Experiments	Altering conditions of two or more groups in a controlled way	Understand the effects of various conditions

CHECK YOUR UNDERSTANDING

Which research method would you choose to:

- Understand men's experiences of divorce?
- Compare differences in interaction patterns between male diners and female diners at restaurants?
- Gauge voters' reactions to a proposed new immigration law?
- Explain the relationship between the rate of unemployment and teen birth rates?
- Evaluate the effects of increases in student fees on students at your college or university?
- Understand a variety of perspectives on three different proposals for decreasing bullying in schools?

Quantitative and Qualitative Research

Tip: You can easily remember the difference between *quanti*tative and qualitative because statistics are *quanti*ties.

Some of the research methods above, like surveys and experiments, produce data that are analyzed using statistics. This research is called **quantitative** research. Other methods, like interviews and ethnography, avoid distilling the results down to numbers. Instead, they try to understand such things as meaning, norms, and lived experience in all their complexity, and their analysis remains word based. This research is called **qualitative** research. These two different types of research yield very different information, which also gets used in different ways. Each has its own logic, process, and aim. Each also has its own strengths and weaknesses. Quantitative research has long been popular because it seems more "scientific." Beginning in the 1960s, when computers began to enable researchers to analyze very large amounts of data quickly (rather than calculating it by hand) and to develop more sophisticated statistical techniques, quantitative research came to dominate the field. Even today, the most prestigious journals in sociology (including *American Sociological Review*, *American Journal of Sociology*, and *Social Psychology Quarterly*) still publish predominantly quantitative research. Many faculty at research universities prefer quantitative research because it can be conducted more quickly, which enables them to publish a larger number of articles (a primary criterion by which their performance and prestige are judged). Many research methods textbooks reflect the dominance of quantitative research methods by focusing on them, limiting their discussion of qualitative research to one or two chapters. Qualitative research has always been an important part of sociology, however, and its popularity has tended to ebb and flow. Currently, qualitative research is again gaining favor, and more qualitative research is being accepted into the most prestigious sociology journals. Additionally, a large number of books have recently been published about gathering and analyzing qualitative data, which not only reflects its rise in popularity but also encourages others to try conducting qualitative research. Sometimes people conduct both qualitative and quantitative work to answer a research question, in order to get both kinds of information; in fact, this is called using **mixed methods**, and is increasingly discussed as an ideal. To do this, however, you need to have both the time and resources to do each very well; otherwise, the information you gain may be less helpful than if you had concentrated on doing only one type alone. Box 1.2 summarizes which methods yield quantitative data and which qualitative data. It is important to learn the differences so that you can better understand the logic and process of each method.

BOX 1.2
QUANTITATIVE AND QUALITATIVE RESEARCH METHODS

Research Method	Quantitative	Qualitative	Notes
Survey	✓		
Secondary data analysis	✓		
Existing statistics	✓		
Experiments	✓		
Observation	✓	✓	*Usually qualitative but can be quantitative*
Content analysis	✓	✓	*Can be either, often combines both*
Interview		✓	
Ethnography		✓	
Focus groups		✓	

Basic and Applied Research

Research can also be classified as either basic or applied. **Basic research** (sometimes called "pure" research) is done to learn something new or to satisfy the researcher's curiosity, but does not have immediate practical uses. This is the type of research that most faculty conduct. The goal is to better understand some phenomenon, and perhaps somewhere down the road that understanding may have some implications for policy; the research itself, however, is not meant to change or propose policy. Unless you become a professor or professional researcher, however, you are more likely to conduct applied than basic research in your future careers. **Applied research** is used for immediate practical purposes, such as to identify unmet needs in a population, to find solutions to a problem, or to evaluate solutions. Usually applied research is not meant to be generalized to a large population but is kept local and specific. For example, if you are doing applied research for your school district, you will not be concerned with determining the effectiveness of tutorial centers generally, only about measuring the effectiveness of those in your specific district. In applied research (as opposed to basic), the goal is not just to understand a phenomenon, but to find and/or evaluate solutions to it. See Box 1.3 for examples of applied and basic research. Note that in each case, the applied research is being conducted as the basis for *making decisions* based on the research findings, as opposed to the basic research, which gives us knowledge but isn't meant to be used for decision-making purposes. Intention is important here—just because a researcher has some hope that someday in some small way their research may have an effect doesn't make it applied research; applied research is conducted *for the purpose of* gathering data to be used in decision making, while basic research may inform

BOX 1.3

EXAMPLES OF BASIC AND APPLIED RESEARCH TOPICS

Basic Research	Applied Research
Reasons for differences in choice of college major among various ethnicities	Evaluation of how time spent at the school's new tutorial center affects students' grades
Dating norms among college students	Ways to increase user satisfaction with your company's dating app
The effects of a college education on health in later life	Differences in test scores when using one teaching method versus another
Mental health issues caused or exacerbated by periods of homelessness	Reasons why some homeless youth in Green County are not using either of the two county assistance programs for which they are eligible
Likelihood of voters voting in favor of a particular ballot proposition	Effect of a proposed ad campaign on voters' opinions towards a particular ballot proposition

those decisions, but that is not their primary goal. Applied and basic research use the same research methods to collect their data, but there are some special considerations and issues that arise; therefore, throughout the chapters I discuss some of the issues you might face in using those research methods in an applied way.

The Components of Research

This book is organized so that each chapter covers one particular research method in its entirety, from the logic behind the method to collecting and analyzing the data. Every method has basic components in common, however. Regardless of the particular method you are using, for example, you will have to select who or what to include in your research (this is called *sampling*). Sometimes research methods books discuss these as stages in the research process. Because the order of the stages varies according to which method is being used, however, I conceive of these not as stages (which presumes a set order) but as components of research. Each research method draws on the same basic components, but how you approach these components (and the reasons behind these approaches) varies for each method. Thus, I will address each of these components *as it specifically pertains to that method*. First, however, I need to introduce you to each of these components so that you can then understand them in the context of each method.

Methodology

Many students, and even some professional sociologists, confuse *method* with *methodology*. A research method, as we have already learned, is a method of data collection, such as a survey, experiment, or interview. A **methodology** is a whole

philosophical perspective about how research should be conducted, the reasons it should be conducted, and how it should be used. Methodology is closely tied to theory, with different theoretical perspectives endorsing particular methodologies. Science is typically grounded in the **positivist** methodology, which is based on the principles of logic, objectivity, replicability, and highly structured processes. There are other methodologies, however, that are also commonly used in sociology, such as interpretivist methodology, feminist methodology, and critical methodology (sometimes called critical social science). Researchers are generally oriented toward a particular methodology because they agree with its philosophical views on research. They will tend to gravitate toward particular research topics and research methods based on their preferred methodology. Some methodologies are better at answering particular types of questions, however, and so sometimes researchers will vary the methodology they use, depending upon the particular research they are conducting and its purpose. For example, though my own research tends to be interpretivist, when I am conducting research for a nonprofit organization, I often use positivist methodology because having more scientific data will improve the nonprofit's chances of getting much-needed federal funding. The methodology you choose to use will ultimately affect every aspect of your research, from your research question to the way in which you collect your data and how you analyze them.

Theory

By **theory**, I mean ideas about some aspect of life that have been articulated as a clear set of propositions about the way that this aspect of life works or is structured. Symbolic interactionism, structural functionalism, conflict theory, social constructionism, postmodern theory, and feminist theory are all examples of broad theoretical frameworks that describe how things are, why, and what effect it has. Each examines different aspects of social life, with symbolic interactionism, for example, focusing on interaction and meaning, while conflict theory focuses on struggles for power and resources. Other theories are more narrow in scope and only try to explain a specific phenomenon. Social control theory, differential association theory, labeling theory, structural strain theory, and status frustration theory are all examples of theories that try to explain why people engage in deviant behavior. Both levels of theory—broad theoretical frameworks and phenomena-specific theories—are used in research, though often they are used in different ways.

Research is often used to test phenomena-specific theories to see how well the theories hold up in real life. For example, differential association theory basically argues that people are affected by the people around them, and those who spend time with other people who engage in deviant behavior are more likely to do so themselves. If you wanted to test this theory, you may conduct research that asks people on probation about the deviance engaged in by their friends, family, coworkers, and acquaintances. You might track them over the course of their probation, asking at regular intervals about how they spend their time and with whom, and any types of deviance those people may engage in. At the end of the study, you could test to see whether there is a difference in recidivism for those parolees who spend more time with people

who engage in certain types of deviant behavior compared to those who spend less or no time with people who engage in deviant behavior. If you found that, in fact, such differences exist, it would provide support for the theory. Although one study alone can't prove a theory true, multiple studies over time and across different populations can provide evidence that support the theory or that negate it, shedding light on its veracity and its potential limitations. Researchers who use research to test theories are more likely to do so using quantitative methods.

Researchers can also use broader theoretical frameworks as a lens through which to view and interpret data. If you were a symbolic interactionist, for example, you might specifically collect data on the meaning of political identities for people's sense of self. In conducting your analysis and interpreting the results, you may look for ways in which those meanings fluctuate depending on context. Although you are not setting out to test the symbolic interactionist idea that meaning is produced interactionally (and thus is fluid and changeable), you may nonetheless pay attention to any variation in meaning those political identities seem to have when the person is with family, in the workplace, or watching the news. You may want to use ideas in the theory to help you understand how and why these variations occur and what that might mean for a person's sense of self. Researchers who use theory to help interpret data are more likely to be doing so using qualitative methods.

Finally, we can use research to build theory. That is, we can collect data and start to find patterns in it. As we find the patterns and the connections between patterns, we may start to develop ideas about what is going on and why. We may even conduct additional studies to gather more data and see how the patterns are similar or different. The more data we collect, the more they can help us to develop and hone our ideas. These ideas may eventually become a theory. This type of research, in which we build theory out of the data, is almost always qualitative in nature, and the process is called conducting **grounded theory**, because the theory that is being constructed is grounded in the data.

Not all research uses theory. With applied research, for example, we aim to use the data to solve a problem or make a decision. Those problems and decisions are very practical and local, and most of the time applied researchers do not use theory to address those problems. With basic research, however, we are much more likely to use theory in one of the three ways mentioned above. Indeed, many researchers are highly critical of basic research that does *not* use theory in one of these ways. Using theory with basic research tends to make the research richer, more interesting, and more useful, in the opinion of many sociologists. Thus while theory is not *always* a component of research, I have included it here because using theory can help guide and improve your research, while also increasing its appeal and relevance to other sociologists. Theory can also direct you in *what* to research and why it's important.

Research Question

Most researchers begin with a research topic about which they are interested in learning more. You might become intrigued by a topic because of some experience

BOX 1.4
EXAMPLES OF RESEARCH TOPICS

- The effect of divorce on children
- Identity formation in transgender people
- Experiences of workplace discrimination among Chicanas
- Portrayal of male sexuality in popular music
- Attitudes about immigration
- Access to affordable health care
- Friendship among gang members
- Changes in marital satisfaction after the birth of children
- Experiences of the grieving process after losing a loved one
- The use of truths and lies in online dating
- The effects of restorative justice programs on victims
- Educational outcomes for DREAMERS

you have had or someone you know has had. You might want to know more about a topic because you believe it is a politically important one. Perhaps you learned about other research that interested you in the topic, so you are keen on learning more. Perhaps you have seen a movie or read a book that got you hooked. Maybe a current event makes you curious. Many sociologists choose their research topic based on how it might help them test a theory or because a theory has suggested that the topic is an important one to understand. There are many sources for inspiration, and the number of possible topics is infinite. Box 1.4 provides examples of research topics.

Tip: Regardless of which research method you use, you should never ask the people in your study your research question directly. This also means that you should never use the word "you" in a research question.

In order to turn your topic into a research project, you need to develop a research question about the topic. Your **research question** is the overall guiding question to which you are seeking an answer. It is intimately linked to your research method: Each research question can best be answered with a particular research method, and, conversely, each research method can only answer particular types of research questions. It is absolutely imperative that you use the appropriate research method to answer your research question, or your research will have little or no value (see Box 1.1).

The most important rule for writing research questions is that your question must be **answerable**. That is, it must be a question that can be answered with data, not a philosophical question whose answer is unknowable or based on personal values ("Is there a heaven?"; "Is capital punishment immoral?"; "Why do bad things happen to good people?"). Additionally, the question must be **feasible**: You must have adequate resources to conduct the research. The three most important feasibility considerations are time, money, and access. Research can be very time-consuming, and some research questions will require more of your time to answer than others. Research can also vary in how expensive it is: Large-scale surveys are very expensive, while content analysis can be quite cheap. You should write a question that you can

afford to research. And finally, some groups of people or information are very hard to access. People without an institutional connection (such as people who don't vote), people who guard their privacy (such as the Amish or celebrities), and people who are difficult to contact (such as those without telephones) are among the many groups that are difficult to access. In writing your research question, you need to be sure that you can gain access to the group that will help you answer your research question.

Your research question should be broad enough to cover all the various aspects of the topic that you want to investigate. A good research question is one that can't be answered with a yes/no response and is not answerable with one or two words. Finding out the answer to the question *Does gender affect voters' candidate choice for president?* is not nearly as interesting as learning in what ways it does or does not have an effect. Hence, better versions of this question include *How does gender affect voters' choice of candidate for president?* and *What is the relationship between gender and candidate choice for president?*

Additionally, research questions should include the unit of analysis in the question. A **unit of analysis** is the "who" or "what" that you are studying. In many cases, some kind of individual will be your unit of analysis. *Students, working mothers, restaurant servers,* and *people using the local homeless shelter* are all examples of individuals as the unit of analysis. With some research methods, your unit of analysis will be some type of group, a culture, or even a type of object rather than individuals. For example, in ethnography, the unit of analysis is often the subculture you immerse yourself in. When using existing statistics, your unit of analysis is likely to be cities, states, or nations. And in content analysis, your unit of analysis is going to be the audio, visual, or textual materials you want to analyze: letters, speeches, tweets, advertisements, or movies, for instance. You don't have to include every criteria required for participation in the study, but your reader should have a pretty good idea of who or what you will be gathering your information about from reading your research question. Additionally, the unit of analysis should always be phrased in the plural because you will never study just one participant.

Writing good research questions takes a lot of practice and patience. A research question should be written so that every word is clear, accurate, and says exactly what you mean. You should never have to include examples, explanations, or parentheses in a research question in order to make the question clear. The question should be concise and grammatically correct (remember that questions end in question marks!). It should represent the sum total of what you want to study: Unless you are conducting a large-scale research project, it's generally better to stay away from multiple research questions or subparts of research questions. Instead, broaden or reword your research question so that one single question covers all that you are researching.

Tip: Words like "can" and "could" don't belong in research questions because they turn the question into a hypothetical that can't be answered. For example, the research question "How could the problem of racism in the workplace be solved?" is unanswerable because it is asking something that hasn't happened yet and so can't be known. We can research people's opinions on what they think might work to solve this problem, but that's different from being able to find the actual solution to it.

Rarely does even an experienced researcher write a usable research question off the top of their head. You should spend time editing your research question so that it truly reflects what you want to know because your research question will be the guide for everything else you do in your research. Typically, a research question is not finalized until after a review of the literature has been conducted.

Hypothetically, your research question will be guided by the research method that you use. In other words, you would use whatever method is most appropriate for answering your particular research question. In reality, however, many sociologists tend to specialize in or prefer particular research methods, and so their research question is shaped by their method: They only write research questions that they know can be answered using their favorite method.

CHECK YOUR UNDERSTANDING

Practice writing and revising a research question on the topic of homelessness. Make sure it meets these criteria:

- It is answerable and feasible.
- It isn't answerable with a yes/no or one- or two-word answer.
- It covers all aspects of the topic you want to investigate without using subparts or multiple questions.
- It says exactly what you mean and doesn't need explanation.
- It is grammatically correct and ends in a question mark.

Then look at Box 1.1 and decide which would be the best research method to use to answer your research question.

Literature Review

To conduct a **literature review** means to search for and read prior studies that have been conducted on your topic. There are several important reasons for doing this. First, it helps you write your research question. If you conduct a review of the literature and find that 10 other people have already answered your research question very well, there is not much point to spending the time and money to do so again. Instead, you might focus your attention on a different aspect of the topic that hasn't been considered by other researchers or on new questions that arose from their research. Most research articles conclude by suggesting future directions for research, and these suggestions can be very helpful in writing your research question. Alternatively, you might decide to apply the same research question to a different group of people. For example, if you find that a lot of research has been conducted on how much and what type of housework married heterosexual men and women do, you might instead focus on how much and what type of housework each person in a gay or lesbian couple does and how that is negotiated. Then, comparing your research with the studies of heterosexual couples, you will learn more about the relationship between gender roles and the division of household labor in general.

You will also conduct a literature review in order to get background information for your topic and to build off others' research. In reviewing others' work on the same topic, you can learn, for example, what problems developed in their research and what the criticisms have been of that research so that you can try to avoid those traps yourself. You can also learn what issues were most important, which have been ignored or excluded from study, and what you might expect to find in your analysis. You would then use this information to write the best research question possible, as well as to design your research so that it's as good as it can be, given your resources.

Literature review also has another meaning. I've already described it as the process of searching for and reading existing research on the topic, and this is the typical way in which I will use the term in this text. But it's important that you be aware of the second meaning as well: A literature review is also the section of a written research report in which the author describes (and sometimes criticizes) this existing research. It is usually the first section of the report, but it is sometimes preceded by a more general introduction. It's usually quite easy to spot because it is full of citations. To write a literature review, then, means to write about prior research on the topic. This is considered an essential part of any academic publication of research because it not only puts your research in the context of the previous research for the reader, it gives credit to those whose ideas and research have informed your own. (See Appendix A for more details on how to search the literature and write a literature review.)

Ethics

We have already discussed the way in which conducting research is an exercise of power because it involves the creation of new knowledge. But it is powerful in another way as well: When you conduct research on a group of people, they surrender information about themselves to you, and you get to decide how that information will be used. That gives you a sort of power over them. Sometimes the information is quite personal; other times, it could be damaging to their jobs or their reputations. In all cases, you have a responsibility to conduct your research and analysis with the utmost attention to ethics.

There are many, many ethical issues that arise in the course of research, and we will address some of those in the following chapters. But for now I will just present you with the general guidelines and issues.

All research on human beings conducted by researchers at a university or a government organization, and sometimes research conducted through a private organization, must get approval from the institution's **Institutional Review Board (IRB)**, which has been charged with ensuring that researchers respect the rights of their research subjects/participants (and therefore is also sometimes called the **Human Subjects Committee**). Federal law dictates many of these requirements, though there are some differences in how each IRB has interpreted these laws. In all cases, however, if you are at such an organization, before you begin doing research on people, you must submit an application describing the research you will be undertaking, the people who will participate in the study, how these people will be

recruited to the study, the information that will be collected from them, the manner in which it will be collected, how it will be used, and the steps you are taking to protect the participants from any potential harm that might be caused by their participation in the study.

The federal laws that the IRBs are charged with enforcing cover several basic principles. First, the participants should be **fully informed** about the research, including any processes that they will undergo, and how the research will be used. Second, not only must they be fully informed, but after having received this information, they must give their **consent** to participate. They also have the right to withdraw their consent (stop participating) at any time. Third, they must be **protected from harm** due to their participation in the study. This means protecting their information so that it cannot be used against them and keeping their identities secret. It also means not causing undue stress or danger, either physical or emotional, during their participation in the research. Note that not all organizations have an IRB; for example, not-for-profit organizations and businesses that only occasionally conduct research usually will not have an IRB. If you are conducting research without the oversight or requirements of an IRB, it is still your responsibility to provide your participants with the same protections and to treat your participants and their information ethically at all times.

Sampling

To **sample** is to decide from whom (or from what) you will get your data and how you will choose those sources. It is called sampling because you are only getting information from a subset, *a sample*, of the whole population about which you are asking your research question. If your research question is about first-time parents of newborns, for example, you will only get information from some (not all) parents of newborns. Remember that your **sampling unit** (or unit of analysis) is the people or thing about which you will collect your data—in this case, the parents. Units of analysis are usually individuals, but they can also be organizations, regions, and countries—and, in the case of content analysis, they can be texts or images such as letters of correspondence, illustrations, or even graffiti in bathroom stalls. In each of these cases, in order to sample you would decide on the criteria each person (or country or organization or piece of graffiti) has to meet in order to have the possibility of being included in your study. Using the previous example, you may decide that you only want to include mothers or fathers (but not stepparents) over the age of 18 who have only one child 6 months of age or younger. Next, you would choose one of many **sampling methods**, which is the method by which you decide (in this case) which parents out of all those who meet those criteria will actually participate in the study. (Be sure to note that a *sampling method* is not the same as a *research method*.) You will also decide on a **sample size**—that is, how many people will ultimately be included. Sampling is of extreme importance because all of your data, and therefore your results, will be affected by which people are included and which are excluded from your study.

CHECK YOUR UNDERSTANDING

For the research question you wrote on homelessness, what is your sampling unit?

Conceptualizing and Operationalizing

Tip: Operationalizing is sometimes called measurement, especially in quantitative research.

When we collect data, we are necessarily investigating abstract concepts. Social class, self-esteem, stigma, immigration, and even race and gender can be defined differently, depending on who is doing the defining and for what purpose. The process of **conceptualizing** means developing a precise definition of the concept you are studying. This is closely linked to **operationalizing**, which means then figuring out how to capture the information that will help you tap into (or measure) that definition. For example, say you wanted to do a study of the amount of sexually explicit material that is shown on television. You would first need to define (conceptualize) the concept "sexually explicit." Will you include kissing? Hand holding? What about the image of two people in bed but just talking? Once you have decided exactly what your definition of "sexually explicit" will include, you need to operationalize it by deciding *how* you will measure the *amount* of sexually explicit material. Perhaps you will count the number of different times particular words are said or particular behaviors shown or discussed. But you might also want to include how long each discussion or behavior lasts. Operationalizing is often discussed as a purely quantitative phenomenon; however, qualitative researchers also conceptualize and operationalize, although they do so quite differently than do quantitative researchers. In both cases, however, you clarify the important concepts you are studying and turn them from abstractions to concrete definitions that are captured in some way.

Preparing for Data Collection

In defining the term *research,* I said that research is planned and systematic. The preparation for data collection involves designing the research plan and taking the necessary steps to be ready and able to collect your data in a systematic way. This usually involves deciding on the procedures you will take, pretesting to make sure those procedures will work the way you want them to, and making the necessary logistical arrangements to carry out your research.

Data Collection

These are the steps and procedures to gathering the information you want from your sample, following your research plan. If you are doing a survey, for example, it is the delivery of the survey to the participants, the instructions you give them, the

administration of the survey, and the follow-up you do with them. It also includes solving problems that arise during data collection.

Data Analysis

Data analysis is your interpretation of the information you get from your sample. The analytic procedures that you use will depend on your research question and the research method you have chosen. In all cases, however, you are looking for a variety of patterns in the data. Analysis means not only identifying these patterns, but also interpreting what they mean and their implications. As already mentioned, *quantitative* data analysis means computing statistics and then determining what those statistics mean and whether they are significant. This text will not teach you how to do actual statistical analyses, which are typically taught in a separate course. I will briefly discuss, however, some of the easiest types of statistical analysis, as it is hard to understand how best to design a research project if you don't know how you are going to analyze it. *Qualitative* data analysis generally involves looking for patterns in *what* information was provided and/or *how* that information was conveyed. Qualitative analysts look for the obvious patterns and more subtle patterns as well.

Steps for both quantitative and qualitative data analysis also include the steps you take to prepare the data for analysis. For example, if you record an interview, everything that is said on the recording is usually typed into a transcript, so that the researcher can analyze exactly what the participant has said.

Evaluating the Quality of Data and Analysis

Because research methods are grounded in different methodologies, involve different procedures, and provide different kinds of information, we must use different criteria for evaluating the quality of the research. It would make no sense to judge a fictional novel and a travel guide by the same criteria, as they are intended for entirely different purposes. The same is true with qualitative and quantitative research broadly and with each research method in particular. Each is good for providing particular types of information in particular ways, and no method can do everything. Thus, any single research project needs to be evaluated in that context and not criticized for failing to produce something the method itself is not designed to produce. That said, all research should be held to high standards appropriate to the method used.

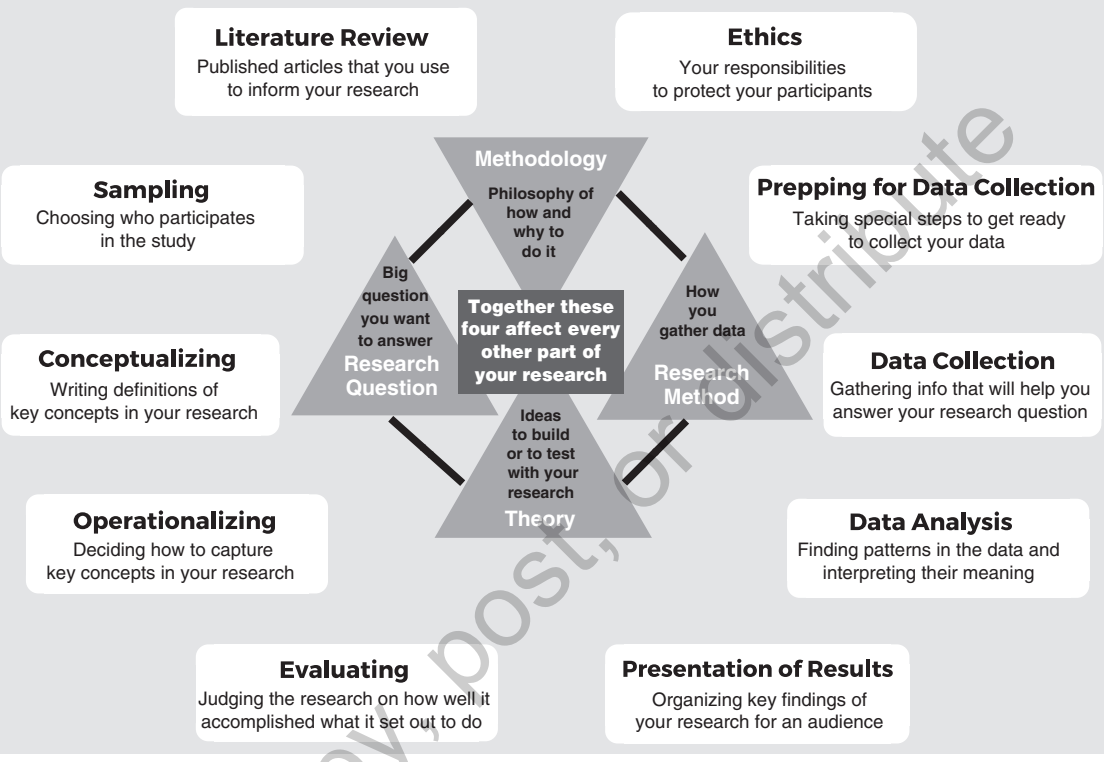
Conducting research with useful and meaningful results requires planning and extreme attention to detail. Sure, it may be quicker just to slap a research project together, but if the quality is poor, the information you glean from it will be of little use and you will have wasted not only your time but also valuable resources. You will take many steps to ensure the quality of your data. No data are perfect, however, because perfect data aren't feasible; you will have to make many choices that balance the resources you have available with the level of quality that you are willing to accept.

Presenting the Results

People generally don't go through all the work of conducting research only to do nothing with it. Researchers usually present their work to an audience in some

BOX 1.5

SUMMARY OF COMPONENTS OF RESEARCH



form. Sociology professors and some other social researchers present their research orally at conferences, in articles written for scholarly journals, or in the form of books. If you are conducting research for that homeless shelter you manage, you will present the research in written form to the organizations providing the funding for the shelter and possibly to the public in oral or visual form. If you are conducting research for your employer, you will present the research in oral, written, or visual form to your boss or a committee. Research results can be used to add knowledge, to assess and evaluate, to decide social policy, and to gain funding. None of that can happen, however, if you don't share what you have learned in your research.

Box 1.5 presents a summary of the components of research. Notice that the four components in the center (theory, methodology, research method, and research question) affect one another, but taken together, they also set the stage for the rest of your research project. They will affect every other component of the research, including how you carry out those tasks. These components thus start each of the following chapters. Make sure you pay attention to them because if you understand these foundations well, the rest will make logical sense and follow more easily.

Reading This Text

Learning about conducting research can be a difficult process. For many students, it's like learning an entirely new language; after all, you've already learned 41 new terms! My experience is that one of the ways that learning research methods can be less daunting for students is by teaching them to read and study for this class differently than they do their topical classes, like Sociology of Gender or Introduction to Sociology. In order to learn research methods, you need to both learn the new vocabulary words, of which there will be plenty more, and also understand how they fit together. Additionally, conducting research means making lots of decisions. There rarely is one right answer, and research is always a trade-off between feasibility and quality. You will be presented in this text with many of those decisions, along with the options for fulfilling them. In some cases, I have provided decision paths to help you determine how to make these decisions. Your job is to understand how each decision you make will impact your research, as well as how it will affect the other decisions you will subsequently have to make. Making flash cards, therefore, is not generally the most efficient way to study for this class because they tend to help you learn individual vocabulary words but do very little to help you understand the concepts in relation to one another. Instead, I recommend you either outline or diagram the chapters (depending on whether you are a verbal or visual learner) so that you have a holistic view of the research process. Additionally, after reading about each new concept introduced, you should stop and ask yourself, How would I use this in my research? Why? Is it optional or required? How will it impact my study?

I also can't impress upon you enough the importance of doing the Check Your Understanding exercises, even if they aren't assigned to you for class. If you want to save time studying, doing these exercises is one of the keys—it may take a few minutes to do each, but in the long run, it will cut down on study time because you will remember the information better. Reading is a somewhat passive task, and thus you will quickly forget much of the information you read. But the Check Your Understanding exercises require you to immediately apply what you have just read. In fact, I have placed them throughout the reading instead of at the end of each chapter because using the information *immediately* after reading it is the most efficient way for your brain to process the information and store it. Practicing what you have just read converts the information from being passively (and temporarily) stored in your memory to being used, an active task that creates new neural pathways that change the way that your brain stores the information, making it easier to recall and for longer periods of time. Additionally, it is a perfect way for you to identify where you are getting confused. I have tried to write this text in a clear, straightforward, somewhat casual manner so that it is easy to understand. Thus students often read a chapter and think, "Yep, I understood all that!" But understanding what someone is saying about doing something is different than actually *doing* the task yourself, and by doing, you will be able to pinpoint where exactly things become less clear for you, providing you an opportunity to ask questions and get clarity. And, perhaps not surprisingly, asking questions is also an active task that helps you to store and retain the information. All in all, it is worth the effort. I strongly recommend you give it a try.

Summary Points

In addition to all the new vocabulary you learned in this chapter, remember the following points as we begin a more in-depth look at each of the research methods:

- Research is different from common sense or opinion, but it is not necessarily "scientific."
- Each research method has a different purpose, and your research question must be matched with the appropriate research method.
- Quantitative and qualitative research differ in their approaches to collecting and analyzing the data. They yield very different information and for different purposes. Be sure you are clear on which research methods are quantitative and which are qualitative. Each can only be judged by its own standards.
- Research questions are essential to producing good research. Take your time with them, word them carefully, and make sure they can be answered with the research method you choose.
- Maintaining strong ethical standards in your research should be among your highest priorities in conducting research. Not to do so is not only unethical; it can also lead to sanctions from the university or the federal government.
- To best learn the information in these chapters, outline or diagram them. When reading the following chapters, make sure you understand the choices you will have to make in conducting your research, what your options are, and how each option will affect your study.

Key Terms

analysis 1
answerable 12
applied research 8
basic research 8
conceptualizing 17
consent 16
content analysis 5
data 1
data analysis 18
empirical 1
ethnography 4
existing statistics 5
experiments 5
feasible 12
focus group 4
fully informed 16
grounded theory 11
Human Subjects Committee 15
Institutional Review Board (IRB) 15
interviews 3
literature review 14
methodology 9
mixed methods 7
observation 4
operationalizing 17
positivist 10
protected from harm 16
qualitative 7
quantitative 7
raw data 5
research methods 3
research question 12
sample 16
sample size 16
sampling methods 16
sampling unit 16
secondary data analysis 4
surveys 3
systematic 1
theory 10
unit of analysis 13