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PART ONE

An Introduction to Educational Research

Consider research your personal journey. It will be challenging but also exciting. Pack along for your journey a toolkit. In chapter 1 you will be introduced to the basic supplies. In your pack, place a solid understanding of “research.” Also include a map—the six steps in the process of conducting research. Realize that on this journey you need to respect people and the places you visit. Enjoy the process using your natural skills such as the ability to solve puzzles, use library resources, and write. After learning the process of research, decide on which of two major paths—quantitative or qualitative research—you will follow. Each is viable, and, in the end, you may choose to incorporate both, but as you begin a study consider one of the paths for your research journey.

Let us begin.

The Process of Conducting Research Using Quantitative and Qualitative Approaches

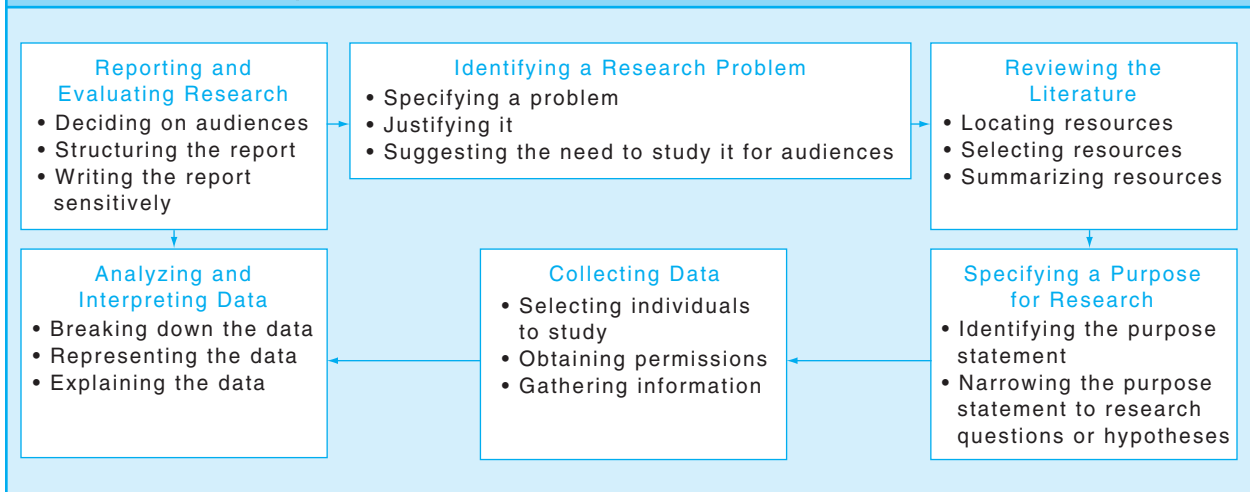
What is research? Research is a process in which you engage in a small set of logical steps. In this chapter, we define research, discuss why it is important, advance six steps for conducting research, and identify how you can conduct research ethically by employing skills that you already have. You can approach research in two ways—through a quantitative study or a qualitative study—depending on the type of problem you need to research. Your choice of one of these approaches will shape the procedures you use in each of the six steps of research. In this chapter, we explore the many ways these two approaches are similar and different.

By the end of this chapter, you should be able to:

- ◆ Define and describe the importance of educational research.
- ◆ Describe the six steps in the process of research.
- ◆ Identify the characteristics of quantitative and qualitative research in the six steps.
- ◆ Identify the type of research designs associated with quantitative and qualitative research.
- ◆ Discuss important ethical issues in conducting research.
- ◆ Recognize skills needed to design and conduct research.

To begin, consider Maria, a teacher with 10 years of experience, who teaches English at a mid-sized metropolitan high school. Lately, a number of incidents in the school district have involved students possessing weapons:

- ◆ A teacher found a 10th grader hiding a knife in his locker.
- ◆ A 12th-grade student threatened another student, telling him “he wouldn’t see the light of day” unless he stopped harassing her.
- ◆ At a nearby high school, a student pointed a handgun at another student outside the school.

FIGURE 1.2**The Research Process Cycle**

Identifying a Research Problem

You begin a research study by identifying a topic to study—typically an issue or problem in education that needs to be resolved. **Identifying a research problem** consists of specifying an issue to study, developing a justification for studying it, and suggesting the importance of the study for select audiences that will read the report. By specifying a “problem,” you limit the subject matter and focus attention on a specific aspect of study. Consider the following “problems,” each of which merits research:

- ◆ Teens are not learning how to connect to others in their communities
- ◆ Teenage smoking will lead to many premature deaths

These needs, issues, or controversies arise out of an educational need expressed by teachers, schools, policy makers, or researchers, and we refer to them as *research problems*. You will state them in introductory sections of a research report and provide a rationale for their importance. In a formal sense, these problems are part of a larger written section called the “statement of the problem,” and this section includes the topic, the problem, a justification for the problem, and the importance of studying it for specific audiences such as teachers, administrators, or researchers.

Let’s examine Maria’s research to see how she will specify her study’s research problem.

Maria plans to study school violence and weapon possession in schools. She starts with a problem: escalating weapon possession among students in high schools. She needs to justify the problem by providing evidence about the importance of this problem and documenting how her study will provide new insight into the problem.

In her research, Marie will need to identify and justify the research problem that she is studying.

Reviewing the Literature

It is important to know who has studied the research problem you plan to examine. You may fear that you will initiate and conduct a study that merely replicates prior research.