Chapter 3

Action Research for Lifelong Learning

LEARNING OBJECTIVES

After reading this chapter, you should be able to

- Define action research and describe its origins.
- Contrast the different types of action research.
- Describe Lewin’s change theory.
- Describe Dewey’s approach to inquiry.
- Explain the Cycle of Action Research.
- Compare the strengths and weaknesses of action research.
- State a problem at your workplace that can be addressed via action research.

Visit the Student Study Site for an interactive concept map.
Defining Action Research

In Chapter 1 you learned that **action research** is focused on solving specific problems that local practitioners face in their schools and communities (Lewin, 1946; Stringer, 2013). Action research is a combination of research and action. It generates local knowledge, and it often results in changes in practices. Action research is used to try out new strategies and practices, and the researcher carefully measures and observes the outcomes and consequences of these actions.

You have the **action research attitude** when you take on the attitude of a practitioner and a researcher and you think about how you can improve your workplace, try new strategies, and determine the consequences. The idea is for you to identify problems you face and act in ways that can help “fix” those problems and observe whether your “fix” has worked. This attitude asks you to be both reflective and forward thinking and to be a good observer. If you become an action researcher, you can continually develop theories (your understandings, explanations, predictions), test your theory, and integrate your theory with practice. You should generate and test your theory but also inform your theory based on what you find in the published research literature. Action research starts with you and your

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**RESEARCH IN REAL LIFE** Solving a Problem at Your School

Constructive discipline for misbehaving school students is an important and often poorly addressed task that teachers and administrators face. Losen and Skiba (2010) reported, in *Suspended Education: Urban Middle Schools in Crisis*, that middle schools have recently increased their use of out-of-school suspension as a means to punish a host of offenses. Although out-of-school suspension may be needed in cases of serious misconduct, analysis of suspension data from 18 large school districts showed that out-of-school suspension is frequently used for nonviolent offenses. The data also revealed strong racial and gender differences in the use of out-of-school suspensions. African Americans were suspended at higher rates than other groups, and males were suspended at higher rates than females. In fact, in two districts, the suspension rate for African American males was greater than 50%. Unfortunately, out-of-school suspension brings several unwanted by-products. Suspended students miss instructional time, they often are left unsupervised during their time away from school, and they may feel that the school does not want them and does not care about them. These “by-products” are known predictors of greater school difficulties. Zero tolerance does not work very well. Principals who supported zero tolerance tended to make greater use of out-of-school suspension.

How does the local school you are most familiar with deal with disruptive students? When do school authorities use out-of-school suspension? Does the administration track the effectiveness of its procedures? Can you think of an innovative method that should be tried at your local school? Action research will prepare you to address these kinds of questions and help you think about how to conduct your own research study.
place of work, and it is used to address what you believe is important to address. The purpose of this chapter is to help you begin your journey toward becoming an “action researcher.”

**Origins of Action Research**

There is no perfect starting point for the origin or founding of action research, but almost all action research historians consider Kurt Lewin (1890–1947) to be the founder. This is because Lewin first coined the term *action research* and he practiced applied social research during the 1930s and 1940s until his untimely death in 1947. Kurt Lewin was also a great social psychologist. He is often considered the father of academic social psychology in the United States. Lewin tried to link theory with practice, and he spent his career attempting to solve social problems. He sometimes worked at the local level but attempted to move up to city, state, and national levels whenever possible. Lewin wanted to connect national problems with local problems. For example, racism, sexism, anti-Semitism, and poverty are both local and national problems.

Lewin emphasized that research and theory be connected and should lead to action, specifically social improvement. Throughout his career, Lewin emphasized the importance of connecting theory and practice and developing theories that work. According to his friend and colleague Dorwin Cartwright (1978), Lewin famously said, “There is nothing so practical as a good theory.” This quote has been reproduced in perhaps a hundred books because of its simplicity and its power to guide us. We all strive for practical theory.

When considering change in a community, in an organization (e.g., a school), or in a smaller place (e.g., in a classroom or even an individual), Lewin’s *force field theory* is helpful. According to this theory, where we are right now and what we routinely do in our lives tends not to change very much. Why? We are in what Lewin called a *quasi-stationary equilibrium* that is the result of multiple dynamic forces operating upon us. Put more simply, in our equilibrium state, the forces for change (*driving forces*) and the forces against change (*restraining forces*) are about equal. That’s why we don’t change much, and that’s why things don’t change much in our places of work, such as our schools and our classrooms.

Types of driving and restraining forces include (a) *physical forces* (e.g., physical abilities, school buildings, technology), (b) *psychological forces* (e.g., our desire for change or our resistance to personal change because of habit, personality, beliefs, or fear), (c) *group forces* (e.g., school cultures, community cultures, parental values and beliefs, social and group institutions, and social attitudes such as stereotypes of groups of people), and (d) *any other forces* that affect us (e.g., gravity!). You can conduct a *force field analysis* by identifying the forces that are pushing for change (e.g., vision for something better than the status quo, desire to try something new in your classroom) and identifying the forces that are resisting change in the status quo (e.g., politics, power, custom, tradition). In your current equilibrium state, you will probably find that these two sets of forces are about equal. So how can you change or produce change in others? Answer: Reduce resisting forces and increase driving forces. It sounds easy, but as you know, it’s not!

According to *Lewin’s change theory*, systematic change follows three phases: *unfreezing* (i.e., identifying and removing the resisting forces), *changing* (i.e., creating an unbalance of forces such that the driving forces are greater relative to the resisting forces, for example,
implementing your new classroom management system), and refreezing (i.e., reaching a new equilibrium state, e.g., making the new classroom management system the new and expected way of doing things). What do you think is the hardest: unfreezing, changing, or refreezing? It’s usually unfreezing (i.e., getting people to be open to new ways of doing things, realizing that their current beliefs and behaviors are problematic, and making the decision to act rather than being content with the status quo). Lewin’s change theory and force field concepts are combined into Lewin’s overall theory depicted in Figure 3.1.

![FIGURE 3.1  Lewin’s force field analysis and three stages of change. If you make it to stage 3, that becomes your new beginning point for future change.](chart)

Another major influence on action research, especially in education, was the work of John Dewey (1859–1952). Dewey was an educator, a philosopher, and a psychologist. His career spanned many decades, beginning in the 1880s and continuing until his death at age 92 in 1952. In the late 19th century, he critiqued stimulus-response (S-R) psychology that viewed human behavior as merely the result of stimuli and responses pairings (and punishment and reinforcement). Instead, Dewey in 1896 was the earliest advocate for S-O-R psychology. He inserted the thinking and acting organism (O) into the observed stimulus response relationship. In the early 20th century and continuing for many decades, S-R psychology became the dominant learning paradigm in education and psychology. It became known as behaviorism, and B. F. Skinner (1904–1990) was one of its most prolific advocates and theorists. As you probably know, cognitivism, constructivism, neuropsychology, and additional specialized paradigms have now been added to behaviorism as schools of thought in educational psychology. Today, we have many approaches to draw upon. Interestingly, however, there is a resurgence of interest in the works of John Dewey.

Dewey believed that the thinking human organism is always embedded in and part of a dynamic, local, and complex ecology. According to his transactional theory, we are not separate from our environments but are part of our environments. Our environments affect us and we affect our environments, continuously. Dewey argued that humans are adaptive...
organisms, continuously trying to improve their world. Dewey also was one of the original American philosophical pragmatists who said that humans (a) observe the consequences of our actions, (b) determine what works in what situations, and (c) act in ways to produce what we value and improve our world. Although Dewey was worried that many people had not been raised to think for themselves and to fully participate in a deliberative/thoughtful democracy, he believed that education was the cure. Our freedom increases and we become better citizens when education empowers us (and our students) to think intelligently. Dewey had great faith in the power of education to improve society.

Psychologically speaking, Dewey believed that people are problem solvers. As individuals, we will find ourselves in problematic situations and experience doubt. When we experience doubt, we start thinking and planning ways to act that will bring us into a more satisfactory condition of equilibrium between our beliefs and our environment. Very much like a scientist, we identify a problem, we think and hypothesize about likely outcomes of new actions, we act, we examine the consequences, and we continue this process until we get back to our normal and preferred state of equilibrium.

Dewey had great faith in the method of scientific experimentation that he thought had been successful in the mature/hard sciences (e.g., biology, physics, chemistry). Dewey talked about scientific experimentation often, but he brought it down to the level of daily life. He emphasized that every person can engage in experimentation in the workplace and in daily life (i.e., experiments were not just for scientists in universities). Dewey believed that all humans could be “intelligent” and that intelligent humans were active participants in their environments, trying new approaches to find what works and to make their schools, communities, and society better.

For Dewey, the scientific method was just another name for inquiry. Inquiry is something individuals have been doing since the beginning of time. They do it to move themselves from doubt toward belief—specifically toward beliefs that work. Because Dewey thought that each of us should try new approaches to problematic situations to determine what works better, he sometimes referred to himself as an instrumentalist. In philosophy, Dewey is one of the three classical American pragmatists (the other two are Charles Sanders Peirce and William James). Although Dewey was an instrumentalist for learning and meaning as tested in our actions (i.e., he wanted to learn what actions and meanings worked best in our experiences), he also viewed values as central to inquiry. For Dewey, our values always guide us, and we learn what values are most important in particular situations through inquiry. Dewey's pragmatism was a values-based pragmatism.

David Hildebrand (2008), a philosopher and Dewey scholar, has described Deweyan inquiry as following five phases. The phases are a slight simplification of Dewey's writings, but they are directly based on two books written by Dewey: (1) How We Think, published in 1933, and (2) Logic: The Theory of Inquiry, published in 1938(b). In case you didn't realize it, Dewey's writings were far ahead of his time. Many current concepts and approaches in education were suggested by Dewey almost 100 years ago! You can find many of his insights about education in his Democracy and Education (1916) and his Experience and Education (1938a). Dewey was 78 years old when he wrote Experience and Education. Here are Dewey's five phases of inquiry (paraphrased by Hildebrand):

1. An indeterminate situation in which a difficulty is felt—“Something's wrong . . .”
2. The institution of a problem; its location and definition—“The problem seems to be . . .”
(3) Hypothesis of a possible solution—“Maybe what I should do is . . .”

(4) Reasoning out of the bearings of the suggestion—“Doing that would mean . . .”

(5) Active experimental or observational testing of the hypothesis—“Let’s try this and see what happens . . .” (pp. 53–56)

One can move back and forth between phases as well as move through the phases linearly. Dewey emphasized that there is no end to the process of inquiry, and this is exactly the same emphasis that you will find in action research.

You might wonder whether, according to Dewey, “we obtain truth in educational research.” His answer was yes and no. According to Dewey, we obtain provisional or working truths that are always subject to updating and improvement. He believed that we do not find final, eternal, or universal truths (e.g., that a certain educational strategy works best in all places, situations, and times). For Dewey, what works in schools has a strong, bottom-up, and local flavor that emphasizes context. You work in a particular place—in a particular context—and, according to Dewey, you will need to continually determine what works there and try to improve it.

### REVIEW QUESTION

3.1 What are the roots and early vision from which action research emerged?

## BASIC SCIENTIFIC RESEARCH VERSUS ACTION RESEARCH

We have pointed out that action research is a combination of research and action. However, it also is helpful to contrast action research with more basic scientific research. Action research falls on the applied end of the basic-versus-applied research continuum described in Chapter 1. Furthermore, in basic or regular scientific research, the primary goal is to produce knowledge. Application of the knowledge is important, but the primary purpose is to produce scientific knowledge. Another goal of regular educational research is to find principles that work broadly, that generalize, and that can be used in multiple places. In contrast, action research has in common with qualitative research a focus on the local and the particular, rather than on the national and the general.

You learned in Chapter 2 that both quantitative research (focused on the general and on testing theories) and qualitative research (focused on the particular and on generating/developing theories) are important for education science. We believe that mixed methods research is especially important because it brings together the insights of both quantitative and qualitative research. We also believe that education will be served well by bringing together national and local experts, as well as both academic researchers and local practitioners. Our ideas are depicted in Figure 3.2. National education policy should emphasize that we help our students to think intelligently (in Dewey’s sense). This requires that we empower students to become lifelong thinkers and learners and contributors to their community and society.
In Figure 3.2, we show that the enterprise of education science needs both producers of general/theoretical knowledge and producers of local/particularistic knowledge (Johnson & Stefurak, 2013). On the one hand, the top-down arrow shows that local practice should be informed by academic research about best practices; translational research is important for this endeavor by translating scientific research into easily understood language and procedures of practice. On the other hand, the bottom-up arrow shows that “best practices” also should be informed by what practitioners find works well at the local level. Each of these two levels needs to learn from the other, sometimes collaboratively (e.g., when university researchers and local teacher researchers work together).

The model in Figure 3.2 is centered on the importance of values. A few key values that we recommend are the importance of learning from others, active listening, tolerance, diversity, and deliberative democracy. We further recommend the traditional and important quantitative research values of explanation and prediction and the qualitative research values of understanding local meanings. If national and local knowledge producers can work together, then, through many cycles or iterations of the model, educational science can become a learning system that operates in top-down and bottom-up directions and continually learns and improves.

**FIGURE 3.2** Circle of knowledge for the enterprise of education science

A key point here is that action research usually operates at the local (bottom) level in Figure 3.2. Action research looks for what works well in particular places and contexts. It helps teachers and practitioners to solve the problems they face, but this research should over time be disseminated to the more general level (e.g., universities, government, national and international journals) so that the local knowledge can be integrated into more general theory. This improved theory will incorporate what are called contextual
contingencies (or moderator variables as explained in Table 2.2 in Chapter 2 on page 38). In other words, this theory will show what can be done broadly but also when and how it might need to be adapted for it to work in particular situations.

Again, a key idea of action research is for you to conduct research in your place of work. When you find strategies and principles that work, you should share them with others in journals, professional associations, and universities. That's how local practice can inform broader practice and policy.

In the next section we introduce you to some different types of action research. You might select one type for your practice, or you can construct your own mixed type by selecting features from the different types. You might find that the type you like the most depends on your situational needs.

**Review Question**

3.2 What kind of knowledge does action research produce?

**Types of Action Research**

The types of AR we discuss now are not mutually exclusive. They do, however, have different emphases. We take a “mixed view” of action research. That is, we think it is fine for an action researcher to select from and mix the various types we discuss below. The AR types focus on slightly different kinds of research questions, and a complex research question might require a combination of AR types.

We view action research as a local form of research, producing local knowledge, but that knowledge can and should work its way up and inform the entire field of education. You should “dialogue” with the multiple types of AR discussed next, dialogue with multiple research approaches (discussed in the remainder of this book), and dialogue with any relevant person or literature that you believe will be helpful for your research study. Your research might focus on your classroom and professional development, but your work is part of a larger social ecological system. Others might be affected by your research, and they might be interested in your research results. Therefore, consider involving others through collaboration and participation.

The first specific type of action research is participatory action research (PAR), which emphasizes that multiple parties or stakeholders with an interest in the research topic and project must work together as a research team in conducting the action research study. You would be just one member in such a team and would have to relinquish some power. PAR is conducted by teachers, administrators, counselors, coaches, and other professionals to solve very specific problems. Sometimes PAR members collaborate with university-based researchers; when this is done, those researchers also must give up power. The strategy is to work in a complementary way such that each person contributes to the whole. Some examples are a principal studying teacher burnout and dissatisfaction in a local school context, a group of teachers studying classroom discipline problems in their classrooms, teachers and administrators studying the lack of parental involvement with their school’s PTA, and a teacher studying problems of a particular child in his or her classroom.
Participatory research breaks down the traditional distinction between objective researchers and their research subjects. Participatory research can vary in degree. In its full form, research participants frame and write the research questions, collect the data, analyze and interpret the data, and write reports or present the data in additional ways (presentations, meetings, word of mouth). If you want your research to be used by others, you need to take dissemination of results seriously and get the findings into the hands of everyone who has a stake in the results and is potentially interested. When participants are involved in a research study, they are likely to remember the results and share the results with others. A key point of participatory action research is involvement of participants in conduct of the research and its dissemination.

A published example of PAR is in an article titled “Seeking Renewal, Finding Community: Participatory Action Research in Teacher Education” by Draper et al. (2011). In this study, 11 education professors at Brigham Young University collaborated over 4 years by examining and attempting to improve their practices. They cycled many times through identifying problems, trying out possible solutions, observing and collecting data, reflecting on the results, and deciding what to do next. They reported that their sense of self changed (improved) over time, their views of their subject material changed, they engaged with their students and the community more, they improved their approach to teaching, and they changed their views about research. Participatory/collaborative research worked well for them. We were surprised that the professors did not more directly include student and community participants in their study, which would have increased the amount of participation. Nonetheless, they all shared their experiences, participated, gave each other equal power, dialogued with each other and with students and parents and community members, learned, and improved their practices.

Another type of action research is critical action research (CAR). CAR is similar to participatory action research, and the terms are sometimes used interchangeably. However, CAR places more emphasis on the political possibilities of action research and emphasizes the empowerment of those with little power in their communities and society. In education, one “father” of this kind of action research is Paulo Freire, who wrote the famous book titled Pedagogy of the Oppressed (1968/1970). Freire wanted to use education to free the disadvantaged from what he called oppression.

The word critical in critical action research signifies the addition of an ideological element to the research; it is a type of what we called, in Chapter 1, orientational research (see page 11). In addition to being participatory, as in PAR, CAR attempts to take an emancipatory stance, it strives for immediate social change, and it emphasizes increasing social justice (i.e., reduction of social inequalities resulting from societal norms such as sexism, racism, etc.). The key point is that CAR studies focus on reduction of inequality of income and wealth and/or reduction of some form of discrimination (gender, race, ethnicity, disability). CAR studies often include attempts at “consciousness raising” of the individuals and groups that have minimal power in society.

An example of CAR is a study by Lindsay Mack (2012) titled “Does Every Student Have a Voice? Critical Action Research on Equitable Classroom Participation Practices.” The study was conducted in a multicultural ESL (English as a second language) classroom, and one goal was to produce equal classroom participation by students regardless of their national, cultural, or linguistic group. The teacher had observed that her Asian students were quiet during class discussions, and her immediate goal was to increase their comfort and participation levels.
Lack of participation can also mean a lack of voice and power and a lack of social justice in the classroom. To determine the multiple causes of participation, the teacher started by having students fill out a questionnaire. Then the teacher interviewed students to learn their reasons and understand their perspectives. Her active intervention was to share these results and to put students in groups to discuss and make suggestions for change. From this activity, the teacher and her students constructed a new set of classroom policies. The teacher found initial positive results, but you can see that this study would naturally lead into another cycle of data collection to determine the effectiveness of the new policies. Action research tends to be cyclical or ongoing because as you reflect on your findings, you will usually want to plan another round of intervention and data collection.

One type of critical action research, which has many similarities with critical action research as just described, is feminist action research (FAR). The focus is on viewing the world through a feminist lens, eliminating binary (either/or) thinking, raising consciousness about women’s issues, and adding women’s voices to conversations that are typically controlled by white men. Ultimately, the goal is to improve the lives of women in society, including their psychological health, their cultural power, the prestige of their contributions to society, and their material wealth. Other kinds of critical action research focus on inequalities in society due to other individual/group characteristics, such as inequalities based on race, ethnicity, physical or mental disability, sexual orientation—you can add to this list as needed.

The next type of action research, action science (AS), was founded by Chris Argyris and Donald Schön. Its focus is on research in organizations. What makes AS different from other forms of action research (e.g., PAR, CAR) is that it (a) places more emphasis on traditional scientific rigor and (b) emphasizes that you try to make your organization a learning organization in which people work together and grow over time. Action science encourages rigorous experimentation, and it builds on Lewin’s idea that the best way to understand human behavior is to try to change it. You can think of action science as a science of practice.

In the words of Argyris, Putnam, and McLain Smith (1985):

Action science is centrally concerned with the practice of intervention. It is by reflecting on this practice that we hope to contribute to an understanding of how knowledge claims can be tested and justified in practice and of how such inquiry is similar to and different from mainstream science. (p. 35)

Action science researchers hope to build learning organizations. The concept of a learning organization came from Chris Argyris and Donald Schön (e.g., Argyris & Schön, 1978, 1996). If you are in a leadership role, you should attempt to build an organization whose members continually learn, develop, and grow. They together produce an organization as a whole that continually improves at what it does and continually adapts to its changing environment. The idea of a learning organization has been extended by Argyris’s student Peter Senge in The Fifth Discipline: The Art and Practice of the Learning Organization (Senge, 2006) and Schools That Learn: A Fifth Discipline Fieldbook for Educators, Parents, and Everyone Who Cares About Education (Senge et al., 2012). Here is the concept in the words of Senge (2006):

The tools and ideas presented in this book [The Fifth Discipline] are for destroying the illusion that the world is created of separate, unrelated forces. When we give up this illusion—we can then build “learning organizations,” where people continually expand their capacity to create...
the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together. (p. 3)

We encourage you to search the Internet and learn more (especially if you are in leadership) about a learning organization and its five major characteristics (Senge, 2006).1

Action scientists argue that to produce change in organizational members, we need to determine their espoused theory (i.e., individuals’ stated reasons for their actions) and especially their theory in use (i.e., individuals’ operative but often tacit or unconscious mental models that can be inferred from their actions). The former refers to what we say we do and the latter refers to what we actually do. We need to determine why people act as they do, including their conscious reasons, as well as their tacit mental models. Schön wrote entire books on how to become a reflective practitioner (Schön, 1983, 1987), which asks you to carefully reflect on your actions and what theory it expresses.

Action science also asks us to examine single-loop and double-loop learning within organizations. Single-loop learning focuses on finding an efficient solution to a small problem. This is good, but unfortunately it often leads to a short-term solution. Many interventions work for a while but ultimately fail because they do not solve the larger and deeper organizational problem. Double-loop learning critically examines and challenges our deep assumptions, values, realities, and reasons for actions and learns how the problem relates to the larger system. The deeper underlying causes are identified. Double-loop learning transforms us and our organization’s worldview and practice into a better, wiser, more-successful-in-the-long-run organization in which all members and the organization continually learn and grow. Ultimately, it is double-loop learning that leads to a learning organization.

The next type of action research is appreciative inquiry or AI (Cooperrider & Whitney, 2005; Cooperrider, Whitney, & Stavros, 2008). This type of research focuses on finding the best in ourselves and in others and working together to achieve a jointly constructed and shared purpose, vision, and goal. AI focuses on the positives rather than the negatives, based on the theory that this practice will bring out the best in everyone. Cooperrider, Whitney, and Stavros defined AI as

the cooperative search for the best in people, their organization, and the world around them. It involves the systematic discovery of what gives a system ‘life’ when the system is most effective and capable in economic, ecological, and human terms. (p. 433)

AI follows four phases (called the four Ds):

1. **Discovery**. You identify (via focus groups and interviews) and appreciate the strengths present in the organization and discover the organization’s potential.
2. **Dream**. A cross section of members meet and create a results-oriented vision for the organization; it is co-created, shared, revised, and agreed upon.
3. **Design**. Members collaborate and determine how the organization will need to be structured to achieve its vision.
4. **Destiny**. Members and teams creatively work together to enact the new design/structure and sustain its momentum over time.
The learning organization and AI are both transformative theories (attempting to transform organizations), but the former emphasizes continual learning and the later emphasizes building on its strengths. One day, you might conduct an AI study in your school or any other place that you spend much time. If you could do this in your school, it would make it a more positive working environment. For one example, see Calabrese et al. (2010).

The key point is that AI is the kind of action research in which you would collect your colleagues’ stories about what has worked well and form these together into a plan of action to create the kind of organization that you and your colleagues have dreamed about.

The last way of classifying action research in education is according to its scope. Action research can be individual, collaborative, or systemwide. In individual action research (or individual teacher AR or individual coach or counselor AR), the research question is decided by the individual researcher, and the research study is conducted by the individual researcher. In this case, an individual teacher might try a different classroom management approach in the classroom and observe the outcome. The immediate audience for this research is the individual who is addressing a problem she or he faces and wants to find a “better way” (e.g., Bourke, 2008; Capobianco & Lehman, 2006).

In collaborative action research, a team of researchers, usually bringing different but complementary strengths to the team, work together in developing the research questions and designing and conducting the research study. Each makes important contributions to the project. An example of this was the Draper et al. (2011) study examined earlier in this chapter.

In schoolwide or systemwide action research, the focus is on changing something large, such as an entire school or even an entire school district. For example, the entire faculty at one school might work together on identifying a problem and determining what actions will solve this system problem, or representatives from different schools might work together on solving a problem for the entire school system (e.g., Clark, Lee, Goodman, & Yaccò, 2008). Systemwide AR has the largest scope of the three types, collaborative AR has the second largest, and individual AR has the smallest scope. When you are starting your first action research study, you will probably want to act alone or work with a small team to solve a fairly small/local problem.

3.3 What one-sentence descriptor describes the emphasis of each of the kinds of action research discussed in this section of the chapter?

**THE CYCLE OF ACTION RESEARCH**

Figure 3.3 depicts the process of action research as a cycle of reflect, plan, act, and observe (RPAO). Depending on the situation, an action researcher might start at the reflection phase, another at the planning phase, another at the action phase, and yet others at the observation phase. It depends on where you are, and most of us go through this cycle many times. In other words, you can enter the cycle at any point. For example, acting (at your workplace), observing outcomes, reflecting, and planning are all fine starting points. This cyclical process is similar to Dewey’s idea that we need to learn and grow over our lifetime. He grounded his work in what he called a philosophy of experience.
Where are you in your experience? Regardless, you (and all of us) should strive to become what Schön called a reflective practitioner. We need to be self-reflective, we need to think about what we do and why, and we need to become intelligent observers of our actions and the outcomes. Not only is the action research cycle continuous, but you also can circle back to earlier phases within a cycle (e.g., cycle back and forth between reflection and planning or between observing and reflecting). When you finish a full cycle, you will typically enter into another cycle as you think about and try to improve on what you have already accomplished (or not accomplished). Many action research projects require multiple cycles in which you plan and try something small, observe and reflect (e.g., make a formative evaluation and adjust your theory), and then plan a new cycle of improvement. In education, we often call this process *lifelong learning*; in the business world, it is often called *continuous quality improvement*.

If you conduct an action research study, you will need to diagnose the specific problem you are facing and conduct a thorough literature review to see if a useful answer already exists that you can try out in your context/setting. You will then plan and carry out your own action research study (i.e., collect data to help answer your question) in your environment with your students or clients. The goal is to help solve your local problem. A key element, again, is for you to be a reflective practitioner—to continually reflect on your actions, outcomes, and any other factors. As a result of this reflection, at some point you will be ready to plan your own systematic study.

An example of a basic individual action research study is seen in Patricia Anguiano’s (2001) short article titled “A First-Year Teacher’s Plan to Reduce Misbehavior in the Classroom.” Patricia, a new third-grade teacher, realized that misbehavior was taking time away from instruction. She reviewed the literature and identified some strategies she should try.
The strategies she selected were eye contact, physical proximity to the student, “withitness,” and overlapping. (Withitness is a term used in education to refer to teacher awareness of what is happening in all places in the classroom at all times.) She developed four research questions: (1) What strategies are effective in reducing misbehavior during direct instruction? (2) What strategies are effective in reducing misbehavior during transitions? (3) What strategies are effective in reducing misbehavior during recess? (4) What are the most effective strategies overall? She collected pretest baseline data using (a) a survey of misbehavior the students self-reported and (b) teacher-recorded data on observed misbehaviors. During the intervention, she also kept a journal. After the intervention, she surveyed the students again. She found that misbehaviors had decreased and the students also noted the decrease. As misbehavior decreased, instruction time increased. This was a very small individual study, but it was a good start for Anguiano, who reported that she learned a lot about herself and how she could become a better teacher.

Now, let’s more closely examine the planning phase of the AR cycle. In this phase, you try to articulate what it is about your situation that needs improvement. What is inadequate? What do you want to know more about? What do you want to try to see if it works? You will need to translate your concern into research questions, identify a likely remedy, and write your action plan. What actions will change your situation? Remember to consult the research literature to see what has worked for others, seek advice from people who have been successful with the problem, and discuss ideas with your colleagues. Ask a critical friend to carefully observe your practice and make suggestions for improvement.

Two popular types of action research methods are exploratory/descriptive methods and experimental/intervention methods. You might even do both, starting with an exploratory/descriptive design in your first AR cycle and following up with an experimental/intervention AR cycle.

For example, you might plan to first conduct an exploratory/descriptive study (e.g., a needs assessment, a study of attitudes, a fact-finding investigation) to help you better understand your situation, its context, the people involved and their attitudes, and the characteristics of the social system. You could plan to conduct a survey of all the teachers in your grade or your subject area; you might also survey parents and students. You could include administrators for yet another perspective. You will learn a lot by examining multiple perspectives. The survey research study could be your first action research study. Plan it (plan), conduct it (act), examine the results (observe), and think about what the results mean and what you should do next (reflect).

After conducting your survey action research study, your reflection might suggest that you should plan an intervention. In this second AR cycle, you might construct a specific and answerable research question about what might improve your teaching or your curriculum. You could plan a small experiment or intervention in which you act in a new way and observe the consequences. Using Lewin’s change theory, you should identify the driving forces and the restraining forces. Also, think about how your actions will affect the people around you who are part of the larger social/school system.

A key outcome of the planning phase is writing down who does what and when they do it. (We call this a “who does what, when chart.”) You also must make sure the project members are trained so that they know how to conduct their activities. Before you act, think about what the outcomes might be; state your hypotheses. Plan to observe and measure attitudes and behavior before and after your experiment. Finally, make sure that your plan
is feasible and ethical. In action research, this is called your action plan; it’s your detailed plan of who does what when, and how they are to do it.

The next phase in the AR cycle (i.e., after planning) is the action phase. This could be a needs assessment or an exploratory and descriptive study of the different people and positions in your system. Or your action might be to conduct an experiment, like Anguiano’s described earlier. Trying new actions is important in action research. This key idea is articulated in Kurt Lewin’s famous principle of action that goes like this: If you want truly to understand something, try to change it. If you want to truly understand your classroom, your clients, your work situation, your school, or anything else, think about how you can change it and then try to change it. You will need to use measurement techniques and one of the research designs that we discuss later in this book to determine the effects of your action. When you conduct your experiment, stick to your plan and record any deviations. You are probably a beginning researcher. Therefore, you should start by conducting a small experiment or pilot study. Then you can recycle (through the action research cycle) to a larger and more rigorous research study.

Next in the AR cycle is the observe phase, when you determine what happens. That is, you should collect data through one or more of the major methods of data collection that we discuss in Chapters 7, 8, and 9 (i.e., tests, questionnaires, interviews, focus groups, observation, existing or constructed data). A key point to know now is that you will (a) collect quantitative data to measure what you are interested in studying and (b) collect qualitative data to help you understand the meanings of what takes place and to hear what your participants think in their own words. It is a good idea to use more than one source of evidence and use more than one method of data collection. Doing so will provide you with more complete information about your planned action and its impact. You need to measure and listen to different perspectives and different vantage points regarding your action. In addition to collecting data on what you expect to happen (i.e., your objectives or hypotheses), you should be on the lookout for any unanticipated outcomes; the father of modern evaluation, Michael Scriven, called this goal-free evaluation, which simply means to look for outcomes that were not included in your research or program objectives. In short, look for what you expected and what you did not expect. Often quantitative methods are used to examine the objectives, while qualitative methods are used to understand the objectives and outcomes in a deeper way and to explore for other unanticipated outcomes.

Following observation in the AR cycle is the reflection phase. You now think about your data and the results, make sense of them, and reflect on what they mean. What conclusions should you draw and, perhaps, what should be done next? Did your intervention work? What worked and what didn’t work? Consider the multiple perspectives. Can your intervention be improved so that it will work better next time? This is like the formative evaluation approach described in Chapter 1. What do you need to change in your theory or explanation? Revise your action theory as needed and consider testing your revised theory in another action research cycle. This is how continual theory development and theory testing operates in education science. You generate a theory, test it, revise it, test it again, and continually improve it.

After you conduct a few individual action research studies, you should shift into larger studies, such as a participatory study of your entire school. Action research is especially useful when you and many of your coworkers are all interested in conducting the research.
Collaboratively, you can brainstorm, learn from each other’s ideas and each other’s work, self-reflect with critical and creative eyes, and try to form an action research culture in your school. Most problems are not fully solved through a single research study. Many larger school districts have departments that are set up to facilitate and conduct research about their local schools. You might find that many teachers and administrators whom you know are familiar with action research.

The last key point in this section is that self-reflection is something that you should do throughout your career: Do it every day; do it from moment to moment. It will serve you well to become a reflective practitioner, regardless of your job. You should also be reflective in your other life activities. No matter what you do, learn to be reflective and try to become better. In short, try to become a lifelong learner.

**REVIEW QUESTION**

3.4 How does the action research cycle operate, and why is it a never-ending process?

**STRENGTHS AND WEAKNESSES OF ACTION RESEARCH**

We have presented action research as a positive activity, and it is. Perhaps its biggest strength is that it helps to produce lifelong learners who produce local knowledge that can be shared with the larger enterprise of education (see Figure 3.2 again). Here is a list of the major strengths of action research:

- Can be conducted by local practitioners.
- Produces lifelong learners.
- Integrates theory and practice.
- Is committed to democratic social change.
- Empowers practitioners to contribute to knowledge.
- Describes the complexities of local situations.
- Improves practice at the local level.

We would be remiss if we did not inform you about the major weaknesses of action research. Perhaps its biggest weakness is that it sometimes ignores more basic research literature and, oftentimes, relies on weaker methods and validity strategies than does regular scientific research. Here is a list of the major weaknesses of action research:

- Often involves a small-scale study that produces a limited and delimited amount of information and knowledge.
- Produces small-scale results that are difficult to generalize to different and larger contexts.
- Tends to have less scientific objectivity compared to regular education science.
- Is often based on weaker research designs, compared to regular education science.
- Does not lend itself to making strong general statements of cause and effect.
- Often lacks rigor in terms of traditional measurement and research validity criteria.
- Presents difficulties for institutional review boards (IRBs), which evaluate the ethical practice of the research, because multiple people might be involved and the researcher cannot foresee many possible actions because of the study’s fluid nature and continual development.
**Action Research Journaling**

Action research is an excellent way to develop the attitude of a researcher: It is what John Dewey hoped every teacher would do in his or her own life, and it is what Dewey hoped teachers would instill in their students’ minds and abilities. We recommend that you start working now on your reflective journal as you read the rest of this book. You will need to think about (i.e., reflect on) what you learn in each of the remaining chapters, and you should try to relate that material to your individual improvement and professional practice. To become a better practitioner and researcher, you will need to record your thinking/ reflections as you read this book in an action research journal. Stop at the drugstore on your way home from work today and purchase a notebook. This can become your systematic place to record your reflections about the book material, about who you are, about how you should go about your work, and—most importantly—about how you can become better at what you do. To facilitate your growth as a teacher, a coach, a counselor, or whatever, we will ask you in each of the remaining chapters to reflect on how the chapter material can help you to become an action researcher and lifelong learner. In short, the purpose of your action research journal is to help you to make the material relevant to your career and your life. As an aside, this also will help you on your tests, because it is through reflection that you will learn the material at a much deeper level! Try to relate the material to your life.

You have already read Chapters 1 and 2. Therefore, you need to catch up. Start now by reviewing and thinking about the material in Chapter 1. One key idea in Chapter 1, we believe, is that people like you can learn to think like a researcher. Action researchers are interested in science as a way to help their practice and contribute to the relevant research literature. Action researchers are “practical scientists.”

Here are some starting reflection questions for Chapter 1:

1. How might you start viewing science broadly as something that can be useful in your everyday life and professional practice (e.g., as an “action science”)?
2. What insights and questions did you have as you read Chapters 1 and 2? (If you didn’t have any, try to think of some now!)
3. What do education scientists do? What do education practitioners do? Why are they important for each other? Remember that action researchers attempt to connect science and practice.

It is also time to reflect on Chapter 2, to get caught up in your AR journal. Take a moment to look back and think about Chapter 2. Action researchers typically follow the mixed research paradigm because they like to select what works best from both qualitative and quantitative research. Answer these questions in your journal (realizing that over the semester, your answers might change):

1. What research paradigm(s) do you like to operate from (qualitative, quantitative, mixed)? Why?
2. What philosophical and practical assumptions do you think you tend to operate from?
   a. What do you mean by the word reality, and do you think that reality is singular (universal truths) or plural (particular domain specific truths)? (These are some of your ontological assumptions, that is, your assumptions about reality.)
b. Do you think there is one best way to gain knowledge or multiple ways, and what do you mean by “warranted or justified knowledge”? (These are some of your epistemological assumptions, that is, your assumptions about what knowledge is and when you can claim to have knowledge.)

c. What research methods discussed in Chapter 2 do you think might be useful for learning about your world? (This is one of your methodological assumptions, that is, your beliefs about what methods you prefer to use and believe are effective.)

We know this is deep stuff, but self-reflection can be a deep look into your “self.” Don’t be afraid; go for it.

Last, add some reflections to your journal about the material in this chapter. Here are some questions to get you started:

1. What are some benefits of taking an “action research attitude” about your work?
2. What do you think about the circle of knowledge shown in Figure 3.2? Specifically, consider the suggestion that education science needs to provide knowledge to the local level, but it also needs to listen to knowledge produced by people at the local level of practice.
3. What type of action research do you like and why?
4. If you were to conduct an action research study this semester, what are your initial thoughts about what you would do it on?

Here is a list of a few action research ideas to help you get started thinking about an action research project that you would like to conduct this semester or about a research study that you would like to propose to conduct:

- How can I increase my students’ intrinsic motivation to read?
- How can I increase my students’ self-efficacy for giving in-class presentations?
- How can I get students in social cliques (“insiders”) to care for and respect other students (“outsiders”)?
- What are teachers’ and administrators’ views of the characteristics of a “good teacher,” and how can these be merged?
- How can I get students to increase their care for and interaction with students who have special needs?
- How can I get my students more engaged in mathematics (or reading or history)?
- How can I tailor my class so that low- and high-achieving students are progressing?
- How can I increase parental participation in students’ homework?
- How can I increase staff participation in school activities?
- How can I improve the school culture at my school?
- What are students’, teachers’, parents’, and administrators’ views about the purposes of school, and how can I increase communication among these groups?

**Action Research in the Remaining Chapters of This Book**

In this book, we focus on how to conduct high-quality quantitative, qualitative, and mixed methods research that can be published in journals. We also hope to empower you to become
an action researcher in your day-to-day life! To facilitate your growth as a researcher, we include a short section at the end of each of the remaining chapters to help you relate to the chapter material in a meaningful way. Our goal is to make the material practical in your own life and workplace. In short, we hope to train you to think like a research scientist and like an action research scientist. Both of these approaches will be helpful in your career. Keeping an action research journal will help you to prepare better for your tests, because you will have thought more deeply and more practically about the material in each chapter.

**SUMMARY**

Action research is conducted by professionals (often in collaboration with others) to improve problem situations they face. Action research arose from the ideas, theories, and philosophy of Kurt Lewin and John Dewey. Lewin’s key ideas are found in his *force-field theory* (we are subject to driving and restraining forces) and his *change theory* (change is a three-stage process of unfreezing, changing, and refreezing). Dewey emphasized a scientific/experimenting form of *inquiry* and a *philosophy of experience* (we are embedded in local contexts and situations, and we must continually try to improve our situations through continual inquiry and personal growth throughout our lifetimes). We listed the five steps in Dewey’s process of inquiry, and we compared basic scientific research (focused on general knowledge) and action research (focused on local knowledge). Our circle of education science showed that both of these sources of knowledge need to “learn” from the other in a continuous feedback system.

We contrasted the following types or kinds of action research, with each having its own special emphasis: *participatory action research* (conducted in teams where everyone participates in the study), *critical action research* (emphasizes empowerment of the less advantaged in society), *feminist action research* (focused on providing a feminist lens), *action science* (focused on producing learning organizations), and *appreciative inquiry* (focused on identifying the strengths in an organization and producing an effort to work together for a shared purpose). We also distinguished action research by its scope; you can think of these types as following a continuum from more micro to more macro. They include *individual action research* (designed and conducted by an individual), *collaborative action research* (designed and conducted by a team), and *system or schoolwide action research* (designed, conducted, and focused on macro or large system changes).

The *cycle of action research* includes four phases: reflection, planning, acting, and observing. You can enter the cycle at any point, you can circle back to earlier phases within the overall cycle, and the end of a full cycle becomes the starting point for your next cycle as you continually focus on improvement.

Action research is a way of life, and we hope this chapter motivates and helps you to obtain the *action research attitude*—a commitment to continuous improvement in what you do and lifelong learning.

**KEY TERMS**

- action phase (p. 71)
- action plan (p. 71)
- action research (p. 58)
- action research attitude (p. 58)
- action research journal (p. 73)
- action science (p. 66)
- appreciative inquiry (p. 67)
- collaborative action research (p. 68)
- critical action research (p. 65)
- critical friend (p. 70)
- Deweyan inquiry (p. 61)
- double-loop learning (p. 67)
- driving forces (p. 59)
- espoused theory (p. 67)
- feminist action research (p. 66)
- force field analysis (p. 59)
- force field theory (p. 59)
- individual action research (p. 68)
- learning organization (p. 66)
- Lewin’s change theory (p. 59)
- observe phase (p. 71)
**DISCUSSION QUESTIONS**

1. What type of action research do you like the most and why?
2. What type of action research do you like the least and why?
3. What are some problems that you could address by conducting an action research study in your place of work?

**RESEARCH EXERCISES**

1. In the section above entitled “Action Research Journaling,” we provided some questions for you to answer about Chapter 1. Think about these and write your thoughts and answers in your action research journal.
2. In the section above entitled “Action Research Journaling,” we provided some questions for you to answer about Chapter 2. Think about these and write your thoughts and answers in your action research journal.
3. In the section above entitled “Action Research Journaling,” we provided some questions for you to answer about this chapter. Think about these and write your thoughts and answers in your action research journal.
4. Identify two action research studies published in journals that look interesting. What kind of AR study was it? How did the researchers conduct the AR study? What were the findings? Do you think their findings will be useful in a practical sense? How so?

**RELEVANT INTERNET SITES**

The following link has free copies (pdf files) of many of Dewey's books: [http://onlinebooks.library.upenn.edu](http://onlinebooks.library.upenn.edu). Just click on the “Authors” link under “Books Online,” type “John Dewey” in the “Author” box under “Search for a particular name,” and click “Search” to bring up a list of John Dewey’s works available online.

Action research and action learning for community and organizational change site: [http://www.aral.com.au](http://www.aral.com.au). This site is maintained by an internationally known action researcher (Bob Dick). It has many links and resources.

Teacher action research resources page: [http://gse.gmu.edu/research/tr/](http://gse.gmu.edu/research/tr/).

*Educational Action Research:* [http://www.tandfonline.com/toc/reac20/current#.UZqibLWsh8F](http://www.tandfonline.com/toc/reac20/current#.UZqibLWsh8F). This is a journal. You can browse the table of contents and receive an email message when each new issue is printed.

*Action Research:* [http://arj.sagepub.com](http://arj.sagepub.com). This is a journal published by SAGE. You can browse the table of contents and receive an email message when each new issue is printed.

Chapter 3: Action Research for Lifelong Learning

STUDENT STUDY SITE

Visit the Student Study Site at edge.sagepub.com/rbjohnson6e for these additional learning tools:

- Video links
- Self-quizzes
- eFlashcards
- Lecture Notes
- Full-text SAGE journal articles
- Interactive concept maps
- Web resources

RECOMMENDED READING


NOTE

1. These are the five principles or disciplines of a learning organization: (a) building shared vision (i.e., about where the organization is going, what it is committed to for all employees, and how it can become better in a changing environment), (b) mental models (i.e., our deep assumptions and pictures that affect how we act; members become focused on growth, improvement, and positive change), (c) personal mastery (i.e., where every individual becomes a continual learner, takes pride in good work, and adapts and grows with the organization), (d) team learning (i.e., individuals frequently collaborate and work on shared goals, vision, and outcomes), and (e) systems thinking (i.e., the organization is a complex, adaptive, learning system with many subsystems working together to produce a better future for all organization members). Systems thinking is the “fifth discipline” that Senge believed could integrate the other four disciplines into a working whole.