Chapter 1. Introducing the Three Steps of Action Research: A Tool for Complex Times and Situations

Action research (AR) and its counterpart, **participatory action research (PAR),** are powerful tools for people in business, nonprofits, and public administration who seek to create change in complex situations for the sake of sustainable improvement. In this chapter, we introduce the process, discuss why it is important, and explain how you might use it and what strategies you can employ to ensure your success.

We write this book making a few assumptions about you, our reader: Probably you are or have recently been in graduate school. You are an early to midcareer professional in business, nonprofit, or public administration. You are more than likely taking a class that requires this book, but it may be that you saw it on the bookshelf or while surfing a bookseller's website and decided to purchase it. You may be intending to work as a lone researcher (with support from the outside such as faculty and other students) or with a team (PAR) as you complete the AR process, and throughout, we will discuss both options.

Because AR and PAR solve complex problems and complexity describes much of our world, it makes sense that we have seen a rise in its use. Similar in

I believe quite simply that the small company of the future will be as much a research organization as it is a manufacturing company.
—Edwin Herbert Land

many ways to strategic planning, this process should seem familiar, yet many planning sessions often do not end with solid results measured over time. When we add the rigor of research, it becomes powerful. There are two reasons for this:

1. It transforms you, the researcher, as you grow in understanding of the issue(s) you study (Cunliffe, 2004, 2005; James, 2005, 2006a, 2009; Schön, 1983, 1987).

2. Data-driven decisions have increased power to influence stakeholders, and AR Research protocols insist that you gather data.

This chapter will address several questions:

- What is AR, and where did it come from?

- What are other methodologies that are similar to AR?

- What are the steps in the AR process?

- How does AR **methodology** use quantitative, qualitative, and mixed methods?

- Why is AR a methodology for complex times?

- How can I ensure success? Study failure!

We end each section with questions designed to help you drill deeper into the concepts in the reading, using this question mark to signal your reflection.

Reflective Questions

- ✦ What strategic planning efforts have you been involved with?
- ✦ What were the outcomes of those plans?

What Is Action Research, and Where Did It Come From?

AR is, in the most basic sense, a type of research that creates and measures change in a cyclical manner with the intention of overall positive growth throughout the process. This type of research is generally conducted in a collaborative manner by an individual person or team of people who are interested not only in studying a particular problem but also in creating solutions. When a team-based approach is used, this is generally referred to as PAR, and the stakeholders involved all share equally in the democratic research process. Although some collaboration is needed in all AR projects, a single researcher can go through the research process alone if chosen. Either approach has the aim of supporting actions that lead to satisfactory results for all those involved. Researchers and stakeholders define a problem, collect relevant information about the problem, take action, measure it using various research methods, and finally interpret the results. These steps, which are discussed in more detail later in this chapter and throughout the book, are continuously repeated to create the AR process. The desired end result of AR is always focused on positive change and solutions to benefit all those involved.

The history of AR and its ultimate origins are often debated in the literature; however, most agree that Kurt Lewin was one of the founding fathers of this research methodology. Lewin, a social psychologist, fled Nazi Germany for the United States during World War II. He went on to conduct various research projects, which were all aimed at creating some sort of social

If you want truly to understand something, try to change it.
—Kurt Lewin

change. Lewin's research was different from typical social research because it went against the idea of the researcher as an objective outsider who merely observes and records. His vision included the active participation of the researcher with the aim of achieving a particular goal. Lewin also believed in the inclusion of a variety of everyday people as practitioners, and his research was conducted in real-life situations. However, as noted by Greenwood and Levin (2007), Lewin's original view of AR as a short-term intervention was limiting, and eventually the focus of AR moved toward a more continuous and long-term process. In spite of this change, Lewin's work is commonly referred to as the basis of modern AR.

Bradbury, Mirvis, Neilsen, and Pamore (2008) continue this discussion of Lewin's early work with his students in manufacturing. They point out that, in 1948, Coch and French showed that participation in AR experiments proved to be a "unique means to reduce resistance to change" (in Reason & Bradbury, 2008, p. 78). In times of frequent and often dramatic change (such as the kind faced around the world today), AR has proven itself time and again to help alleviate the stress by engaging the mind in discovery of new ideas, data gathering about actions taken, and reflecting by the practitioners involved.

What Are Other Methodologies That Are Similar to Action Research?

Academia is not known for its easy adoption of new ideas. Thus, AR, **action science (AS),** and all their participatory *cousins* (variations or similar

methodologies built on similar premises) were born over the last 50 years and more and have struggled to prove their legitimacy. During this time, different champions rose to defend action in research (Reason & Bradbury, 2008). Many of these saw what they did as distinct and called it by a different name. We will discuss several of the well-known and emerging AR cousins: AS, PAR, community-based participatory research (CBPR), action learning (AL), appreciative inquiry (AI), living theory, and participatory action leadership action research (PALAR). They follow similar processes for work, but each has a slightly different outlook. Remember, this is not intended to offer enough detail for you as a researcher to use only these materials on which to build the theoretical base for your work. If one resonates with you, you will want to use part of your discovery time looking into it. As with all cousins, there are similarities and differences in outlook, specifics of the cyclic nature of the methodology, and philosophical direction for each.

Action Science

The work of Chris Argyris (1990, 2002a, 2002b) is closely linked to AS in the organizational development world. His best-known work may be that on defensiveness in organizations, and thus AS is aimed at helping an organization grow past toxic behaviors. AS is currently supported by an active network on http://www.actionscience.com/ (Network, 2011), which states:

> Action science is a strategy for designing situations that foster effective stewardship of any type of organization. It is a framework for learning how to be more effective in

A student wanted to bring change to the way the union and management in his organization dealt with personal family leave. He used AR to learn more about the options, discuss the issues with key personnel, and propose options. The final outcome at the end of a 10-week class was that the stakeholders were meeting to discuss the issues.

groups. It aims to help individuals, groups, and organizations to develop a readiness and ability to change to meet the needs of an often changing environment.

To help individuals in groups to learn how to overcome barriers to organizational change, action science does not simply focus on improving the participants' problem-solving or decision-making skills. It also does not look only at making incremental changes (e.g., identifying opportunities; finding, correcting, reducing, or eliminating threats) in the external environment. Without eschewing these concerns, action science focuses on looking inward, learning new frameworks, and establishing new routines.

Friedman and Rogers (2008) conceptualize the process in the following way. First, using a community of inquiry (a community of practice focused on using the scientific practices of building theory and then testing them), they develop theories of action. These are causal theories about why we do the things we do, and in them, we make assumptions that our behavior is driven at least to some extent by our ideals. Frames are designed that elaborate on the logic or make sense of the circumstances we are studying—then we test the frame. In other words, by objectifying the ideas, actions and drives into a hypothetical frame, we can "balance advocacy with inquiry" (p. 255). *Advocacy* is defined as advancing our ideas about the situation, and inquiry is our test of those ideas.

Because AS has been used actively as a methodology for more than 50 years, it too has developed cousins

or offshoots. Key in these are action design, learning pathways, debriefing with good judgment, and learning from success. Two other major streams of actionable theories have their bases in AS. Argyris (1990, 2002a, 2002b), as an example, developed deep understanding on the ways and means in which defensiveness plays into our frames of behavior.

In the field of organizational development, **sensemaking** has grown in recent years to encompass and expand upon many of these ideas, with the work of Weick (1969, 1979, 1995, 2001, 2009) standing out. Similar to working with frames, "sensemaking involves the ongoing retrospective development of plausible images that rationalize what people are doing" (Weick, Sutcliffe, & Obstfeld, 2005). Beyond Weick's writing, you will find additional readings included at the end of each chapter. Several are examples of similar issues as AR practitioners work with knowledge development in organizations.

Participatory Action Research

PAR brings the power of diverse voices to bear on the issue under study and will be discussed throughout this book because AR often branches into PAR issues that are suited to group or team exploration or where the voice of all stakeholders is needed in a more democratizing, egalitarian format. PAR has within its structure the likelihood of transformation and emancipation as researchers and participatory partners question reality as currently experienced with an eye on how to improve it. These elements arise in business, nonprofit, or public administration

**Knowledge is always gained through action and for action. From this starting point, to question the validity of social knowledge is to question, not how to develop a reflective science about action, but how to develop genuinely well-informed action—how to conduct an action science.
—Bill Torbert**

as researchers work in cross-cultural or international teams, confronting the differences of viewpoints among participants.

Herr and Anderson (2005) point out that the philosophical belief in development through inclusion of people who normally would be seen as being served (the clients, the lower classes, or the customers, depending on your context) rather than as managers, designers, or researchers was largely galvanized in the United States by the work of Paolo Friere. In his *Pedagogy of the Oppressed,* Friere (2000) developed the theme of individuals becoming truly human through their inquiry and cooperation to pursue the best in life and for their worlds.

Participatory work revolutionized research starting in the 1970s (Herr & Anderson, 2005). However it is employed, facilitating PAR means that you, as researcher, are one voice among equals in the team that conducts the research. You may come up against or struggle with issues of community empowerment, policy change, or the development of sustainable assets or capacities. All are issues about which strong opinions emerge.

During the 1980s and 1990s, the federal grant structure for nonprofits working with at-risk populations and the disabled insisted that the voices in collaborative work include a democratic representation of the stakeholders, including clients. For your study, you will have to decide the depth and practicality of how you will engage your constituents or clients,

how much time your project can devote to gathering desperate voices, and how you will report your **findings** so that others may have access to disagree.

Challenges within PAR are that, strictly speaking, all voices need to agree on the analysis and results at the end of the project and have consensus on what will be published or how. For any researcher wanting to include diverse points of view and work as a group, but for whom publishing considerations may need to held in abeyance, we suggest calling it AR and having an advisory team of diverse voices with whom you interact as with equals.

Community-Based Participatory Research

Starting in the 1970s, practitioners in education, health care, and public administration began to question when and to what extent they should involve the people who would be subject to the ideas of research in the research process.

Used primarily to address disparities between research and action in health, welfare, and environmental issues, **community-based participatory research (CBPR)** brings community stakeholders into the discussion of how to reach constituents with healthful messages and to help change their behavior. As a participatory research, CBPR is a very close cousin to PAR, with groups of citizens acting as equal partners with research scientists. This builds on the model within public administration for citizens to be asked to sit in on panels or review boards and take a full step further. With CBPR,

they become active researchers with equal rights with the rest of the team. Widely sponsored by various National Institutes of Health initiatives, in a recent report on CBPR, they say:

> CBPR is a collaborative research approach that is designed to ensure and establish structures for participation by communities affected by the issue being studied, representatives of organizations, and researchers in all aspects of the research process to improve health and well-being through taking action, including social change. The goal is improving health and well-being of members of the community, however defined for a given research project, by means of taking actions that bring about intended change and minimize negative consequences of such change. (Viswanathan, et al., 2004)

Hughes (2008) adds to the discussion of AR in health care, which is not exclusively CBPR, by pointing out things that are, in our view, similar to when and how we adopt AR in any circumstance. He lists six reasons that people would adopt one of these methodologies:

- belief that employment of the methodology will be helpful

- the requirement that research tie to past literature or research

- increased levels of communication and knowledge about your organization

- time required to share ideas and opinions with your peers and perhaps your clients

- the development of data on which to base future plans

- growth in economic efficiencies

He goes on to discuss the relevance for these methods in complex situations, such as health care (but we would expand this discussion to any organizational arena and education). Because complexity science has taught us to look at large numbers of autonomous agents or situations, each adapting to stimuli in their personal contexts, yet who play off of each other as part of the greater system, practitioners require methodology that is likewise flexible in order to capture overarching patterns as well as specifics. Hughes makes a good case that it is the insider nature of most AR (see more in Chapter 2) that allows a greater potential for understanding both the wider organizational patterns and the specific contexts that drive complex change.

Action Learning

Action learning (AL) sits somewhere in the middle of the theoretical spectrum between AR and AI, although others would argue with us that this analogy is soft and that the continuum of philosophies that drive these methodological ideas is not straightforward. Still, we mention it here due to its historical significance as a link between individual and organizational learning, particularly relevant in today's world of "learning organizations." Since the advent of postmodernistic ideas and critical theories, AL has grown in its push to critically analyze the learning within a situation through the use of protocols that enhance inquiry (Pedler & Burgoyne, 2008).

This call for critical analysis will be addressed again in Chapter 8 as we develop a call to action for those working with these methodologies.

There is a variety of AL: **action learning action research (ALAR)**. An interesting format, researchers manage the project while they study it (Coghlan & Coughlan, 2006; Greenwood & Levin, 2007).

Appreciative Inquiry

Developed by David Cooperrider and Sursh Srivastva in the 1980s, **appreciative inquiry** is based on the idea that whatever you measure will grow; therefore, if you want an organization to grow in a positive light, you should measure what is already positive and set up actions to increase those things. Cooperrider and Whitney (2005) say:

> Appreciative Inquiry is about the co-evolutionary search for the best in people, their organizations, and the relevant world around them. In its broadest focus, it involves systematic discovery of what gives "life" to a living system when it is most alive, most effective, and most constructively capable in economic, ecological, and human terms. AI involves, in a central way, the art and practice of asking questions that strengthen a system's capacity to apprehend, anticipate, and heighten positive potential. It centrally involves the mobilization of inquiry through the crafting of the "unconditional positive question" often involving hundreds or sometimes thousands of people.

AI is systematized into the five Ds: define, discover, dream, design, destiny. In the definition stage,

A student wanted to look into stress in the workplace and determine what could be done at his company. The discovery section led him to the ethical issues of treating people as objects. He measured the similarities between responses to his survey in the United States and abroad and concluded that these issues are international in scope.

people come to an awareness that change is needed, then during discovery, they talk about when the organization is at its best. The dream section is similar to brainstorming in a strategic planning session, with everyone envisioning the best for the organization. Design teams are then empowered to help bring back practical steps to achieve those dreams, and finally, in the destiny step, those designs are placed in action.

In Reason and Bradbury (2008), Zandee and Cooperrider (2008) overview their two decades of AI work by pointing out these benefits to an AI approach, saying it "illuminates the miracle of life . . . questions attributes taken for granted . . . envisions new potential . . . creates knowledge embedded in relationships . . . and enables just and sustainable co-existence" (pp. 193–195). Ludema and Fry (2008) go on to say it has created a "positive revolution in change" (p. 281).

Living Theory

Living theory is a theoretical construct of Jack Whitehead and Jean McNiff (2006), and all their students and people they have worked with over the years. It suggests that the highest form of our work is toward our ideals and that AR practice, run in an infinite number of cycles and throughout our lifetimes, increases our natural transformation into practitioners who live those ideals. Living theory is primarily applied to educational practice, but we feel that people involved in business, non-profits, and public administration will benefit from these ideas as well.

I do not separate my scientific inquiry from my life. For me it is really a quest for life, to understand life and to create what I call living knowledge—knowledge which is valid for the people with whom I work and for myself.
—Marja-Liisa Swantz

Reflective Questions

- ✦ Can you see both the similarities and differences across the variety of AR and its close counterparts?
- ✦ Given the issue you want to face and on which you wish to develop positive change, is there any one particular type of AR that you might want to look into more?

Participatory Action Learning and Action Research

Being developed by Ortun Zuber-Skerritt (2011), who is perhaps best known for her work on AR as professional development, PALAR merges the "importance of self-directed learning and development to the very diverse constituencies in the fields of action research, and leadership and organization development." PALAR emphasizes new integrated concepts of AL, PAR, and the basic tenets of AR. With its discussion focused on leadership, PALAR is

> actively creative, innovative, collaborative, shared and self-developed in partnership with others. It involves taking responsibility for, not control over, people through networking, and orchestrating human energy towards a holistic vision and an outcome that best serves the common interest. A good PALAR process is one in which action leadership can emerge from anywhere in the group; and leaders and followers are often changing places if all are to learn. Action leaders are passionate; they inspire, and help an idea to cascade to other people like a spark taking flame, as depicted in the ancient Chinese saying that launches this chapter: "A single spark can start a prairie fire." (Zuber-Skerritt, 2011, 7)

What Are the Steps in the Action Research Process?

We anticipate that upper most in your mind right now is, "What will I be doing?"

It all starts with a question you want to answer that relates to a problem you want to solve. This problem

may develop in any number of ways from your environment. For instance, you may have clients or constituents who need answers, a new law may create new requirements for the way you do business, budget cuts may be affecting your operation or staff morale, and the future may seem uncertain. Whether in business, nonprofit organizations, or public administration offices, what we do is influenced by the greater context in which we work.

This is what makes AR significantly different from other forms of research. In most methodologies, you start with a question you want to answer—here, you have questions, but your burning desire is to make a difference to the situation as well as measure it. Because our ideas of what we want to accomplish are also determined by our individual contexts and worldviews, AR forces us to be inclusive of other ways of thinking and acting through its requirement on an initial discovery process. Finally, you will discover that the actions you take evolve quickly because of AR's requirement to measure outcomes and adjust during the process.

Throughout this book, you will find that we assist you through highlighting examples of student work in action. For the purpose of this early section, we will use the story of one of our students. He managed small, rural health clinics and was concerned about increasing the level of safety compliance.

The diagram in Figure 1.1 draws out the three steps he took. AR developed with the conceptualization of the process in four steps. Over years of facilitating
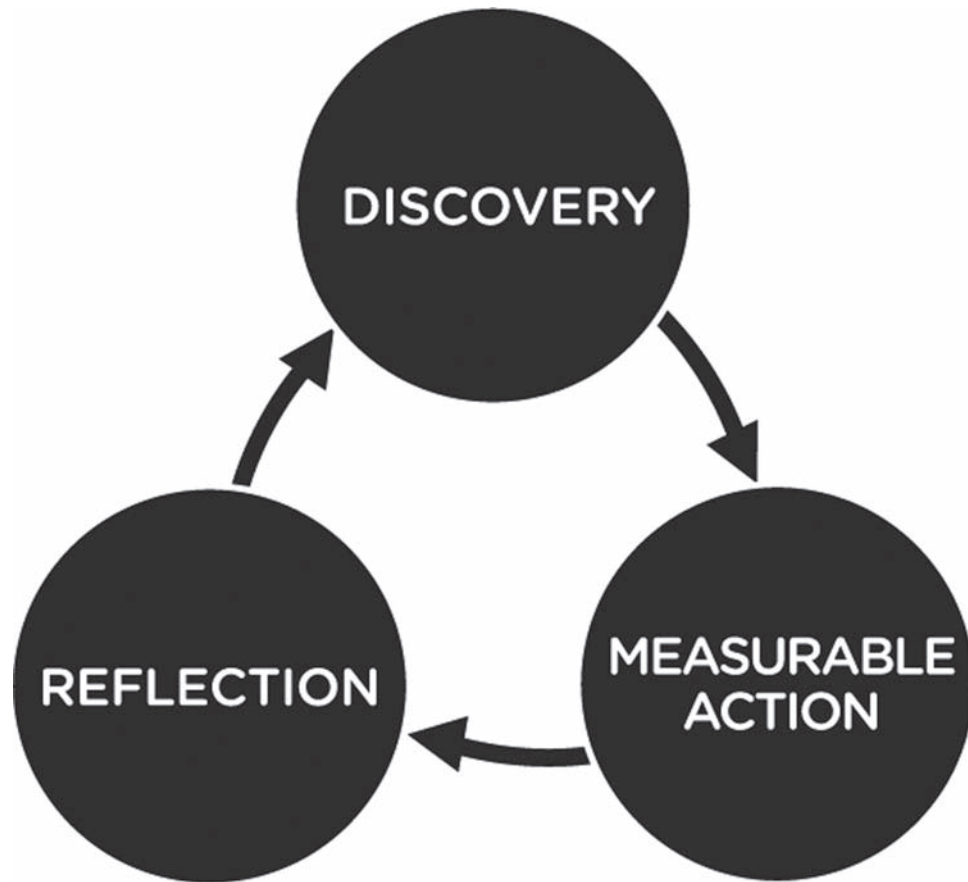
Alan Bucknam | Notchcode | 2011

Figure 1.1

the process, it became clear to us that people broke down in two major ways: Either they never moved from data gathering (took no real actions), or they did not adequately measure the actions they did take. For this reason, we reformatted the steps, merging two of them into what we now call *measurable action*. As shown in Figure 1.1, we suggest you conceptualize AR cycles in three steps:

Action Research for Business, Nonprofit, and
Public Administration

Discovery

First, you have to discover what is true now then investigate what others have done about the problem you wish to improve when in similar circumstances. For instance, you might look into data your company has collected, or you might search on the web or talk with colleagues in different parts of the world looking for success stories about people who completed the changes you are seeking.

Our student was involved with a team using PAR. In their discovery process, they did three things:

a. They investigated the areas in which they fell short of the standards for safety (this required looking at what we call archival data—back reports from safety officials).

b. They researched on the web how others had been successful in turning the same issues around in their practices.

c. They diligently watched what was going on to be able to better classify where the real problems lay.

They asked themselves who was more responsible: new hires who might not understand the procedures or older employees who might have fallen into lazy habits, or perhaps a mixture.

From discovery, you (with AR) or your team (with PAR) will go on to decide what steps you might take toward your goal. You will also have to discover what research methodologies and methods you can use to measure the outcomes of those actions—this is Step 2.

Somewhere, something incredible is waiting to be known.
—Carl Sagan

Measurable Action

This step has evolved in our teaching from two (first action then measurement) to one. When conceptualized as measurable action, we find beginning researchers are less inclined to run right into taking an action step without seriously considering how they will measure the outcomes of their actions. Evaluation techniques have a lot to teach us here as they insist that we first gather baseline data from which we can measure change. We will say more about the links between evaluation and measurement in Chapter 3.

In our example from the rural health agency, the PAR team found that, rather than a human resource issue as they thought, it appeared that people were most likely to forget the use of sterile latex gloves in certain areas of the clinic, thus diminishing their procedure versus use-of-glove ratio. They decided to see if the use of signs to remind people of the need for safety would help.

First, they had to establish baseline data. This resulted in their asking everyone to log their activities in the room (giving them the number of activities), and from that data, they could compare the number of tests being run versus the number of used gloves. The result was X. Would putting up signs help everyone remember to wear gloves? They continued to monitor the use of the room against the number of gloves—things improved, but did not reach 100%.

In their next team meeting, they convened with their data to reflect on their first cycle of research.

Reflection

This is the third step. It is said that the importance of being a reflective practitioner in any field makes

A student manager in a fire department looked into how to improve morale and efficiency within his department. Using PAR, he discovered that some shifts had lower morale than others, thus allowing him to isolate conditions. A major outcome included increased team solidarity and plans to implement future trainings.

Action Research for Business, Nonprofit, and Public Administration

the difference between evolving to become an expert or staying as a moderately good practitioner. Involved in the reflection step in AR is an implied willingness to delve deeply into both what is working and what is not working in your research process.

Our rural health team looked at the data and saw improvement but not as much as they would have liked. They needed everyone to participate 100% in safety standards. It was not a failure; they did not need to start over, but they did need to build on this success. In their reflection, they noticed that the signs had also impacted employee attitudes, calling attention to their focus on the health and safety of everyone. They asked themselves how they could build on this beginning. That led them into their next discovery cycle, but we will leave them there for now.

A full discussion of these steps, with examples of success and failures within each, is in Chapter 3.

How Does Action Research Methodology Use Quantitative, Qualitative, and Mixed Methods?

Merriam-Webster defines *methodology* as "a particular procedure or set of procedures," while the same source defines *methods* as "a systematic procedure or mode of inquiry or a systematic plan." AR is a methodology, a set of procedures, and we typically use qualitative and quantitative methods to measure the results of our actions. As businesspeople, nonprofit managers, or public servants, we might

Reflective Question

✦ What questions do you have about the specifics of the AR cycle that remain unanswered?

be able to employ AR with less-than-rigorous measurement or methods. However, once we step into the academic world, we need to also meet those standards.

Chapter 4 examines methodologies in more depth, but as we have found that beginning student researchers often get lost in the terminology, a little overview is appropriate here. Building upon the definitions of *Merriam-Webster,* AR as a methodology gives you both the process of your work and its theoretical basis as research. This strength comes from its history, the thousands of researchers who have preceded you, and the academic rigor to which AR has been subjected, to stand out as a methodology that can be considered viable. You need to understand AR well enough to discuss it in the methodology section of your proposal and your final paper. You need to understand its process (the three steps as we employ them) and how each step relates to your work.

> **Follow effective action with quiet reflection. From the quiet reflection will come even more effective action.**
> *—Peter F. Drucker*

Let's start with how you reason issues through. We induce (use inductive reasoning or logic) to construct an idea out of parts. AR is inductive, and this means that we use qualitative data collection methods most of the time, but not exclusively. Inductive reasoning allows us to deepen our understanding of our lived experience, apply the expanded view to new contexts, and study the results, always building on our base of knowledge as we grow. Deductive reasoning attempts to show that a conclusion follows (is sound) from a set of hypotheses. Quantitative methods are used here.

Deductive studies ask that if something is true, than can we also not deduce these other factors to be true also? Many AR studies have reasons to employ both types of reasoning.

You will employ either qualitative, quantitative, or mixed methods as you measure the distance from your baseline toward your desired outcome. Qualitative methods ask people questions and elicit data from them in the form of words. Quantitative methods ask questions that are translated into numbers, and those numbers are analyzed using statistical means. Mixed methods use the qualitative and quantitative to reinforce or repudiate data collected perhaps over a period of time. Generally, qualitative methods are good for small populations as you gain a lot of information from a few people and can drill deep into the human factors in the subject you are studying. Quantitative methods are needed when studying a large population across a specific range of variables. On a practical level, qualitative research is easier to implement but takes a long time to analyze. Quantitative research takes longer to specifically design and test the instrument, but once the data is collected, it can be organized and analyzed using statistical tools and software in a relatively short time. To do mixed methods well, you need to understand the challenges of both methods and what it takes to overcome these concerns.

AR and PAR are usually concerned with organizational development, community empowerment, or issues of policy change, but in your role as the

It takes a trained and discerning researcher to keep the goal in sight, and to detect evidence of the creeping progress toward it.
—John C. Polanyi

Table 1.1

	Action Research	Participatory Action Research	Pure Knowledge Research
Role of Researcher	Project manager—Learning and implementing new ideas or solutions	Equal part of a group that is studying and improving practice	In charge—collecting and analyzing data.
Application	Development of new solutions to issues, professional development	Developing, applying, and testing new processes, procedures, or contextual relationships	Developing new knowledge

researcher, the specifics of the application may be different and are decidedly different within your role when conducting standard research. Because these intricacies can seem somewhat confusing, we offer Table 1.1.

Creswell (2009) reminds us that the methods we choose all are intricately dependent upon the **purpose** of our research. Because AR's purpose is to make a difference in some aspect of life, as a researcher, you would ordinarily include qualitative methods. At the same time, there may be the need to double check or triangulate what you think you learned from interviews or focus groups by checking with the wider population. In this case, you may decide to develop the survey and ask a broader population of people to either verify or dispute their initial understanding.

Chapter 4 reviews the methods we have seen student researchers employ most often, the basics of

Reflective Questions

✦ You may find yourself naturally drawn to gathering data in one or another particular manner—do your ideas fit the general discussion of when you might use either qualitative or quantitative methods as described above?

Action Research for Business, Nonprofit, and Public Administration

qualitative coding, as well as a few common issues and practices with quantitative methods.

Why Is Action Research a Methodology for Complex Times?

The last two decades have seen an increase in people's understanding of complexity. Coming from the Latin word *complexus*, or entwined, complexity is much like threads in a Celtic knot, where by looking, it becomes difficult if not impossible to say where one stops and another begins. In a scientific sense, it may be defined as properties that make a situation or set of relationships difficult to discuss accurately, even when given almost complete information about its component parts and their interrelatedness.

This greater understanding of how many realms in our lives are complex has led to significant impacts for both research and strategic outcomes. Much research is conducted in laboratories because they can limit the number of variables impacting the outcomes of their studies. Life comes with unlimited variables and therefore is complex, especially when we choose to vary some aspect of it in order to build sustainable, long-term change. We argue that AR is perfect for practitioners making these types of changes (and data from around the world backs us up) because it sets a holding environment through which to manage change. *Holding environment* is the phrase used by Heifetz (2000) to address the fact that formal leaders in authority need to set a space where others can do their work, relieving some of the entwined aspects of

> **[We] become reflective researchers in situations of uncertainty, instability, uniqueness, and conflict.**
> *—Donald Schön*

the work to allow for focus on the issue, or the complex issues become daunting. Our previous research (James, 2005, 2006a) has shown that AR and PAR create just such a holding environment.

Was the rural health team facing a complex problem? Were a number of situations and motivations entwined to create what might look like a simple problem of people not reacting properly to health and safety regulations? How many reasons would people have for avoiding the proper use of gloves in the clinic? What influence did the working relationships within the office, the budget for materials, the management practices, and so on, have on this issue? Perhaps the employees:

- Had not received training.

- Were tired and forgetful.

- Did not eat lunch and were thinking more about being hungry (or any other complaint) than about safety.

- Conveyed the attitude that health and safety regulations did not matter.

- Were upset by budget cuts, and low morale influenced them to cut corners at work.

- Were out of gloves and chose not to go get more (perhaps they needed test results in a hurry).

- Were engaged in conversations that took their attention away from safety.

Each of these problems would have a different potential solution. We hope that this demonstrates how even a seemingly simple question may have complex issues that need to be faced before it is solved. We will tease out issues of complexity throughout the book.

Complex situations cause people to shut down as they are afraid of the difficulties of facing them. Say you wanted to solve world hunger, where would you start? How convinced would you be of your ability to create meaningful change? Similarly (and to use problems we have seen students tackle), employees faced with budget crises, risk management directors trying to stop unsafe practices, program managers trying to bring success to inner-city kids, public administration offices working to improve policy on human trafficking or human resource issues, people interested in making a workplace more friendly to diverse populations, or doctoral students trying to decide on their dissertation topics, all are complex problems. It follows then that part of why this methodology is important is the very human reason that it makes us feel more secure when we tackle the seemingly impossible task of change in complex situations.

How Can I Ensure Success? Study Failure!

Success means that you have achieved the goals or outcomes you set for your project. Depending on your context, these may range from a definite organizational change to a smaller beginning

Reflective Questions

✦ What situation are you considering for this research, and what positive change would you hope to make?

✦ Can you list the ways in which complexities may influence working on this issue?

implementation of a new process or perhaps answering a question about procedures. Before we talk about success, we should know a little about failure. Two sources of failure spring to mind: power issues within the organization (discussed in Chapter 5) or people who don't want to or are unable to change. Argyris (2002a) discusses people who don't change in terms of defensive reasoning and *the doom loop*. The high expectations people have of themselves and their fear and lack of understanding about failure lead them to react defensively when challenged by change. These reactions are characterized by lack of data, vague responses, and general avoidance. The way out, as Argyris saw it, was through reflexive double loop learning—in other words, we need to be trained in new reasoning skills, ones that objectively look at data and reflect on it to derive meaning. This is very similar to the AR process.

The topic of failure and how we avoid it or learn from it are threads throughout this book. Because of the multiple cycles in AR and its reflective portion, we hope to find the failures early and correct them.

Dietrich Dorner's (1996) work in cognitive behavior involved teams of people working with planning games (computer simulations) in the 1980s. His subjects included economists, managers, and designers who worked in a simulated environment where they manage the fate of a South African tribe. The tribe had a finite number of people, water, crops, and cattle. Their purpose was to increase the

quality of life for the people. What consistently happened instead was that entire tribes died out. Dorner's work shows us the common threads of rational thought that consistently lead to failure. He points out that "failure does not strike like a bolt from the blue; it develops gradually according to its own logic" (p. 10).

We introduce failure in this chapter with a short discussion on a few of Dorner's findings and how AR and PAR help individuals overcome their likelihood due to the requirements of each step in the process.

1. Dorner's teams suffered from "failure to anticipate side effects and long-term repercussions" (p. 15). AR's cycle-by-cycle review of what is transpiring in a long-term process makes this far less likely. PAR makes use of a team structure, where many people can address the potential of each action long term. For instance, with the rural health example, a team member pointed out studies indicating that the effectiveness of signage is relatively short term. The signs become part of the background and are forgotten.

2. "The participants established their modus operandi in the first few sessions and did not alter it much later" (p .17). Because AR is a multicycle research process, there is continuous readjustment. The forced reflective cycle encourages the consideration of changes to heighten results.

A student investigated best practices for minority business leaders in an economic downturn. She developed a measurement tool and began to survey businesses as to how they adapt and survive. The results were inspirational to her entire PAR team, surviving to help them keep a positive outlook.

Reflective Questions

✦ Think about situations you were involved in or know of where outcomes were less than expected—do aspects of them fit Dorner's findings?

✦ What steps does Dorner's work suggest in order for you to ensure the success of your AR?

3. "Helplessness generates cynicism" (p. 18) with the implication here that decisions made from a cynical point of view tend to be reactionary rather than growth producing. AR is an inherently optimistic research methodology based on belief in creating and measuring positive change.

4. Finally and perhaps most importantly, Dorner found that failure stems from, "over involvement in projects which blind line managers to the emerging needs and changes within the situation" (p. 18). Because PAR requires consistent focus on the issue at hand, the tendency to be distracted by other things within the organization is lessened. This is part of the holding environment that was discussed in the last section.

Dorner's work is important not only in that it shows the reasons people frequently fail in complex situations but also because part of his work helps us understand what people do that increases the likelihood of avoiding failure.

Throughout the book, we will come back to Dorner and the implications of his work on our discussion of PAR.

We hope that this brief discussion of the AR process has made you anxious to get started. But, before actual actions can take place or meetings can happen, we need to discuss the ethics of research

and (if you are considering PAR) what to think of in building a participatory team.

Conclusion

This chapter has introduced AR and discussed the steps in the cycle. Hopefully, we have whetted your appetite and given you some ideas for projects that you might want to undertake. In the next two chapters, we focus on your proposal and your application to an internal review board (IRB) and give you a more detailed explanation with stories of how the three steps go together in your research.

Take Action

So, where do you go from here? We suggest you start by writing a list of possible topics for your AR. To do that, think in terms of what situations in your life you would like to help change. Depending on the requirement of your university, these might be situations in your business, nonprofit, or public administration office. Equally, they might be situations in your community or home life. We have seen graduate students undertake excellent AR on a variety of topics both personal and professional.

Additional Readings

Bate, P. (2000). Synthesizing research and practice: Using the action research approach in health care settings. *Social Policy & Administration, 34*(4), 478–493.