

CHAPTER 7



Taking and Measuring Action

The reader may wonder why the second step in the PAR process, taking action, is left to the seventh chapter of the book! It is usual for PAR teams to take few or very small actions during their first cycle of research, especially when they are involved in a systemic change process and need to hold off on taking action until the situation has been completely studied. Therefore, the first cycle is usually dedicated to diagnosing the situation, measuring the exact status quo, and reflecting on the complexities involved in the issue. During this initial stage, the teams of educators and community members also update research skills, interview people who are affected by the systems that need change, and learn to code and analyze qualitative data.

In our experience, the action in the PAR cycle creates both excitement and anxiety. There are two traps to watch out for, each causing either “underaction” or “overaction.” PAR practitioners may either become absorbed with the research methods and learning new information (and research their topic exhaustively for the year) or they take actions prematurely, without considering the measurement of the actions (which leads to less than stellar results).

How do PAR practitioners move from diagnosis to determination of the course of action? This chapter discusses the process of deciding what actions are appropriate. We introduce three continuums of outcomes on which actions usually fall. Real stories follow to illustrate types of actions taken by educators who employ the PAR process. To prepare practitioners for the challenges they may face during a complex change process, Section 2 covers the challenges faced by inertia and defensive reactions. As shown in Figure 7.1, Sections 1 and 2 focus

126 Participatory Action Research for Educational Leadership

entirely on the second PAR step, that of action. The logic model is reintroduced in Section 3, with a discussion of measurement of actions.



REFLECTIVE QUESTIONS

- Remember a time in your life or that of someone you know well that you distinguish as a period of rapid growth. What characteristics come to mind?
- When entangled in solving a problem, how do you know what actions to take?
- What strategies or steps guide your actions throughout a time of change?

SECTION 1: HOW TO KNOW WHAT ACTIONS TO TAKE

At any given time, the most appropriate course of action for each study is guided by the determined purpose of a particular study and the data that have been collected. Actions taken must logically lead toward the final purpose of the study. What did the researchers wish to ultimately accomplish: improved educational practice or whole-school systemic reform? Data, reflections, and the understanding gained from the first steps in the process also steer decisions about what actions to take.

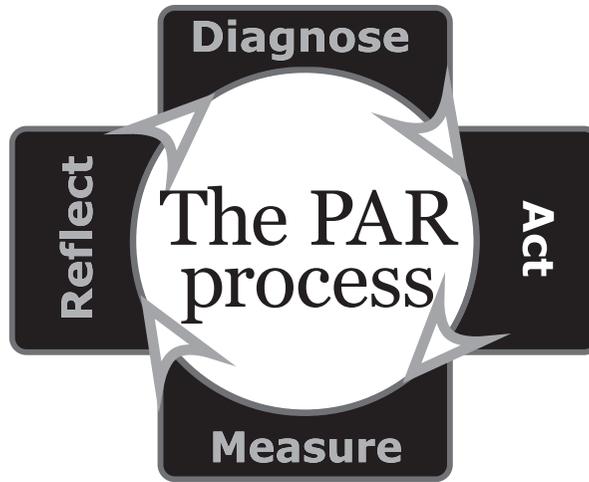
The guidelines for action are as follows:

- Design action to change the situation under study in a positive manner.
- Take small steps.
- Be certain the steps are completely under your control.
- Plan how you will measure each step before you proceed.

Three continuums of positive outcomes of action follow. These give novice PAR researchers a frame of reference for the actions they choose to implement.

Three Continuums of Action

PAR produces positive outcomes in a variety of settings. Results generate discussion within PAR and AR literature about the types of outcomes practitioners work to attain and the methodology proven efficacious in measurement (Hollingsworth, 1997; Noffke & Stevenson, 1995). Kemmis and Wilkinson (1998,



Questions to be addressed	Previous studies	Variables elements to be measured	Local measurements	Form of analysis
What have others done when wanting to improve reading comprehension?	(Harvey & Goudvis, 2000) (Keene & Zimmermann, 1997)	Strategic thinking Strategic reading Bridges Synthesis Visualization /Sensory Images Inference	Teacher observation Student writing Tapes of lessons Art work with students explaining	Qualitative coding

Figure 7.1 Chapter 7, Sections 1 and 2's Stage of the PAR Process

128 Participatory Action Research for Educational Leadership

as cited in Woolhouse, 2005) discuss PAR as “that which aims to help people investigate reality in order to change it” (p. 30), thereby creating new realities. Across the literature, outcomes resulting from PAR actions fall along three tangential continuums: emancipatory to professional, individual to the organizational development, and personal to political. While we will not discuss the third type at length, we believe (along with Noffke & Brennan, 1997) that all actions taken by individuals are ultimately as political as actions taken to effect the broader political environment.

The Continuum of Actions From Emancipatory to Professional Development

Educators may have a burning desire to save the world, or they may simply want to improve the educational practices in their sphere of influence. Both are appropriate motivations for the PAR process. The *Encarta Dictionary* (n.d.) defines *emancipation* as setting someone free from restrictions. Used in the context of the PAR process, the definition is most often applied to outcomes from practitioners whose actions produced social justice for underserved populations (Hollingsworth, 1997; Smith, Willms, & Johnson, 1997). We believe, however, that the personal emancipation of practitioners who enthusiastically take charge of their lives and work is equally important and valid. Examples of emancipatory outcomes caused by local community members who participated in both research and action teams include the following:

- The development of adult literacy in Brazil in the 1960s, tying literacy of the peasant class to political activism (Freire, 1986).
- A teacher and her students in Santa Ana, California, who recruited community-based organizations in PAR projects to bring about change in their community, ultimately making great strides in pedestrian safety (Wolk, 2001).
- Educators in Gambia studying the reasons girls were not attending primary school, ultimately leading women to start a communal farm from which the produce sales helped to pay for the school costs of girls (World Bank Participation Sourcebook, 1996).

Rosas (1997) reports on a project with educators in Mexico that is both emancipatory and develops professional expertise of educators. Her case study discusses teachers working together in cross-district groups on four types of improvement: academic, community-school relations, teacher-parent relations,

and the development of values. She concludes that the importance of the project was to allow teachers to see themselves as creators of school reform.

PAR has deep roots as a method of professional development for educators. A list of 300+ studies done in Madison, Wisconsin, for instance, included topics from *A* such as “Assessment and learning styles” (Brodhagen, 1994) to *W* on “The use of workshops to improve writing skills” (Blessing, 1996). The continuum of outcomes varies from those for gifted and talented students (Houghton, 2003) to changes in educational practices in schools that serve homeless and highly mobile students (James, 2006b).

Our bias is that “it is all good.” When people become more involved in their lives, become passionate about what they can accomplish, and set out to make changes, the world improves. In this outlook, we agree with a remark attributed to Margaret Mead: “Never believe that a few caring people can’t change the world. For, indeed, that’s all who ever have.”

The Continuum From the Individual to the Organizational

The conversation related to the appropriateness of personal practice research versus broader “scientific” study holds broad implications for the development of education, only some of which will be touched on here. Is research valid when individual educators grow in their subjective understanding of their world and their influence in it? Or do PAR practitioners need to worry about whether and to what extent their work develops the field of education? Educators at Bath University believe individual research is sufficient and have developed the theoretic basis for this personalized research, known as “living theory” (Whitehead & McNiff, 2006). Jean McNiff and colleagues (1996) point out that “in action research there is an emphasis on your deliberate intention to intervene in your own practice to bring about improvement. This concern needs to be stated in a special way. Action research questions should be of the type: How can *I* improve . . . ? because action research should be about your action, not the action of others” (p. 17).

At the other end of the continuum, Tomal (2005) emphasizes an organizational development view about PAR methodology. He describes a whole-school project that takes on a typical strategic planning tone more than a project characterized as personalized research or “living theory.” Coghlan and Brannick (2001), who work in the field of industry, facilitate projects that are aimed to increase organizational efficiencies, similar to the whole-school project depicted in Tomal’s book.

Individual growth need not be mutually exclusive from organizational development. It is our recommendation that all PAR practitioners address the way in which their personalities affect the outcomes of their studies, and vice versa,

130 Participatory Action Research for Educational Leadership

within their reflective journals. A question worth asking is “To what extent do my personal preferences influence the way in which the issues under study have developed?” These data provide a window of opportunity for personal growth that may result in actions that, in turn, augment the organizational issues contained within the study.

Examples of PAR to Foster School Improvement

The following cases are true, culled from a number of public sources, attaching personal, place, and school names where they were available. These stories are merely a snapshot of the extensive international work done both by people in individual practice (AR) and as part of a group (PAR). They tell of actions that are professionally or personally emancipatory, falling on the continuum between individual to organizational in their significance. Finally, by reading between the lines, they express the difficulties researchers have in measuring the outcomes of their actions.

Some of the following stories may elicit a response similar to “But I work on improving my practice in much the same way, and I don’t call it action research!” Educators are by nature somewhat reflective and somewhat critical—consistently striving to improve their practice. PAR does not change any of these characteristics but rather enhances them. As Stevenson (1995) points out, “Action research has the same intent. It seeks not to replace what practitioners normally do, but to enhance the way they do it by helping them work through the problems they encounter” (p. 197).

Teachers or Support Staff in a Classroom or Whole-School Setting

A social worker in Akira Toki Middle School in the Madison (Wisconsin) Metropolitan School District studied what she could do to increase staff buy-in for a schoolwide bullying and harassment prevention project (Rabenstine, 2002). Rabenstine used AR as a methodology to uncover staff attitudes about bullying and harassment. Part of her study was to produce trainings to support staff who would eventually implement a selected bullying and harassment prevention curriculum. Rabenstine surveyed staff prior to receiving training materials about the new curriculum. Following the training, each teacher partnered with another staff person to cofacilitate student lessons throughout the spring semester. At the end of the school year, pre-/posttest results showed a 20% rise in understanding the necessity to focus on bullying and the ability to handle bullying incidents. Results also showed a near 100% agreement, which leads staff to believe that, in

the end, their intervention would save instructional time and improve overall safety in the school. Six primary schools clustered around Victoria, Australia, representing diverse physical environments, partnered with a local university to improve science education in their schools (Gough & Sharpley, 2005). The authors condensed the experiences of these schools to six case studies using coordinators' journals, observations, and interviews with both teachers and students as data. In summary, their results showed consistent emancipatory-level improvements in attitudes from teachers about the science curriculum. These changes were engendered because the project (a) increased motivation for learning science in students when it became personally meaningful and they studied their local environments, (b) involved students as researchers, and (c) engaged students in positive environmental outcomes to improve their local environments. The authors conclude that the PAR process stimulated effective teaching and learning in science as well as offering a space through which environmental education emerged.

PAR studies exert broader influence within a school than might first be obvious (Clements & Chao, 2004). A teacher and a literacy coach worked together to increase the degree to which homeless and highly mobile children felt welcome in Westminster Elementary School in Westminster, Colorado. By holding a voluntary Lunch Bunch meeting three times a week, they not only increased school bonding for educationally disadvantaged students but also exposed students' general perception of lack of safety in their school. Data confirmed the issue through a schoolwide assessment. As a result, faculty and PTA provided support to transform the atmosphere. Final data showed a significant change in the development of welcoming school culture.

In response to a poor UNESCO report on the quality of mixed grade-level classrooms on the island of Cyprus, the island's ministry of education centered its attention on these classrooms. To better use local knowledge in their efforts to bring about school improvement (Fullan, 2001a, 2001b), they focused this project on modifying practices to include a teacher-as-researcher model, known as collaborative AR (Angelides, Evangelou, & Leigh, 2005). Two teachers and an academic collaborated, ultimately using reflective journals as data. Teachers' individual practices became more objective about their impact on the curriculum and relationships with parents (Angelides et al., 2005; Wenger, 1998).

Principals

A principal intern at Thoreau Elementary School in Madison, Wisconsin, used PAR methodology to connect her mentoring assistance with an area of concern relevant to the classroom teachers, that of adequate time for curriculum planning

132 Participatory Action Research for Educational Leadership

(Watson-Peterson, 2000). Finding great disparity in the varied use of planning time by grade-level teachers, Watson-Peterson used survey, midyear assessment, and observational data to negotiate the tension created when administration raised schoolwide issues that cut into teacher planning times. While no particular actions were conclusive, she ends with admonitions for school administrators to be aware of and keep all-school issues to schoolwide venues and grade-level issues to that smaller group of teachers, thus saving everyone's time.

Elizabeth Soffer (1995) studied her disciplinary practice as a principal in 1990, when the seriousness of behavioral incidents sharply increased. In the first round of research, she examined how staff perceived her discipline practices, reflected on whether and to what extent she agreed with those perceptions, and proceeded to examine the literature. During her first action cycle, Soffer designed forms to track the consistency and persistency of her discipline actions. She introduced elements of self-responsibility into her disciplinary process and changed the administration of consequences. In her final cycles, the principal focused on the few boys whose behavior was consistently difficult.

Whole Schools or School Districts

Tomal (2005) reports on a schoolwide PAR effort at an elementary school in northeast Illinois. The broad study design worked to overcome low teacher and staff morale, conflict, mediocre student test scores, disciplinary problems, budgetary concerns, and inadequate instructional programs. The project initially looked at general strengths and weaknesses in the school. Specific assessments measured curriculum, safety, communications, morale, technology, facilities and transportation, student centeredness and performance, leadership, and community involvement. PAR teams developed in several areas: multiculturalism, facilities, student achievement, school improvement, parent and community relations, safety, human resources and organizational development, and technology. An action plan emerged that was then implemented and measured. Short-term effects included an increase in student test scores in basic reading comprehension and math skills, improved efficiency in several organizational areas, and improved morale.

Madison Metropolitan School District, as cited in a 1998 report, had evidence of almost 300 staff who conducted research on their own practices (Caro-Bruce & Zeichner, 1998). This program accepts proposals during the spring semester for the following school year in which the research will be conducted. PAR participants choose research topics to fit their current professional concerns. Teachers receive release time and supplies. Their projects receive greater recognition in their local school/community forums through reports at meetings or local television coverage. Caro-Bruce and Zeichner point out that the program

has influenced the way the research participants see themselves and their practice. They report increased confidence, analytical processing, collegial involvement, and group learning that accelerated the individual projects. Caro-Bruce and Zeichner conclude that, while the greatest influences from the PAR projects were on individual and classroom practice, that data also show positive professional growth on school culture as a whole.

REFLECTIVE QUESTION

- Reflect on any change effort with which you or someone you know well has been involved. What challenges did the promoters of the change face?



SECTION 2: EFFORTS AT CHANGE

It should be mentioned that not all PAR action steps proceed smoothly. Change is difficult in educational institutions, many of which have layers of institutional history to overcome before new modes of practice can be embraced. This section briefly discusses the challenges of inertia and defensive behavior—providing two methods that may help PAR practitioners address these issues.

The Challenge of Inertia

Usually, educators' actions are consistent with their beliefs about what is best for students. Each educator's position can be placed on a continuum of belief about any topic. For instance, is it better for children to have tightly structured disciplined environments or open, nurturing environments? Because educators are already acting in a way believed to be good for students, schools can become deeply entrenched in current patterns and procedures. Change may require battling a state of inertia, and facilitators must appeal to underlying belief systems while demonstrating that results will be measureable in improved student outcomes. Sagor (2000) reports that the introduction of data pointing to a need for improvement creates the necessary discomfort or **cognitive dissonance** and will propel people to reevaluate their actions. Cognitive dissonance is defined as a condition of conflict or anxiety resulting from inconsistency between one's beliefs and one's actions.

Inertia may be a valuable asset to a PAR study if viewed from the perspective of inquiry. Why are some educators or community members resisting changes? Perhaps they sense a concern with the implementation plan but have lacked the

134 Participatory Action Research for Educational Leadership

opportunity to express their perspectives. Although combating inertia may appear troublesome to practitioners who are convinced of the efficacy of their solutions, we recommend using the inertia to decelerate the process of change, allowing the implementation plan to include even the most conservative ideas. This slower process may ultimately result in an improved iteration of the research questions and greater focus of a study.

In Figure 7.2, the forces between change and inertia are stable and the situation is stuck at the status quo.

PAR practitioners can use the concept of cognitive dissonance to propel change by employing a tool derived from the work of Lewin (1951). “Force field analysis” allows educators to plan actions that aim to tip the balance between forces that create change and individual and organizational inertia. To achieve change toward a goal or vision, three steps are required:

First, the proponents of the change need to mobilize the driving forces to break through the restraining forces. This includes the broadcast of data pointing to the tension between the ideal and the status quo, or discussing the fact that the behaviors seen are not as widespread as imagined (Braxton & Caboni, 2005).

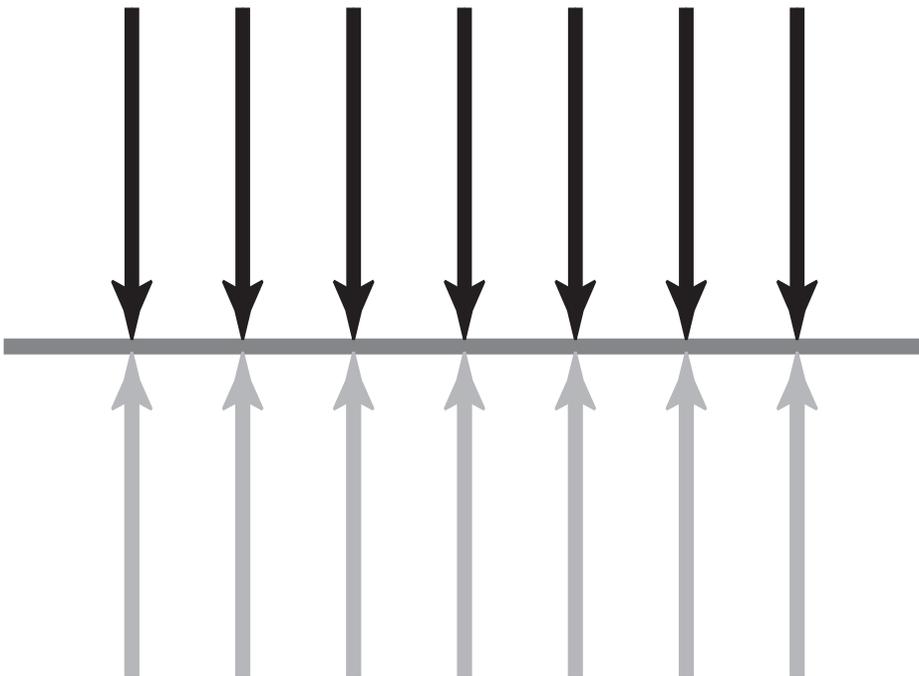


Figure 7.2 Section 2 Forces Between Change and Inertia

SOURCE: Alan Bucknam/Notchcode Creative, 2005.

Second, a series of imbalances are introduced to the situation to enable the change to take place. In PAR these imbalances are data and actions. This is shown in Figure 7.3.

Third, once the changes move forward, are measured, and demonstrate efficacy for students, policies and other stabilizing influences are established to stabilize the situation at an improved level.

In his book *The Tipping Point: How Little Things Can Make a Big Difference*, Gladwell (2002) points out that many types of circumstances and various roles of people aid the creation of the imbalance that will destroy inertia. The PAR team is a natural environment through which educators can work with their communities to mobilize the positive influence of community leaders toward shifting public opinion, connecting the work of the team with broader resources, and broadcasting its success so that it is adapted by others.

AR texts address the issue of moving past inertia with slightly different viewpoints that are worth consideration. Sagor's (2000) strategies use the mechanics of program development to suggest that PAR practitioners can accomplish this tipping mechanism by (a) presenting the data; (b) establishing a pilot

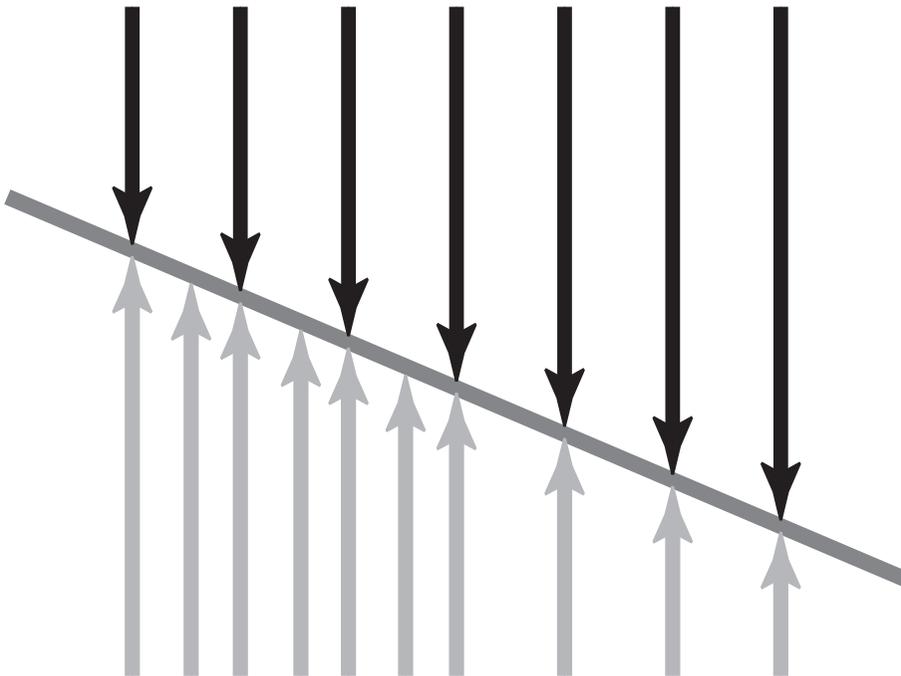


Figure 7.3 Tipping Diagram

SOURCE: Alan Bucknam/Notchcode Creative, 2005.

136 Participatory Action Research for Educational Leadership

program; and/or establishing competing pilot programs; (c) using the research as educational specifications to define, understand, and brainstorm new alternatives; and (d) proofing new action proposals. On the other hand, Calhoun (1994) believes that the tipping is best guided by the value-driven question, "Should we act differently? If yes, how?" (p. 89). These questions drive the initial data collection after which PAR practitioners are instructed to ask, "Knowing what we know now, should we act differently?" Calhoun notes that inertia often comes in the form of focusing on collecting data rather than moving to action.

We believe the PAR process itself mobilizes a holding environment through which educators can manage their unease during systemic change. Since the field of education is one in a current state of flux, this holding environment mitigates distress. PAR teams who experience resistance due to inertia and defensive mechanisms from school and community members may consider inviting these individuals to participate on the PAR teams. Conservative points of view can benefit a study, and major detractors for an initiative can transform into the strongest advocates when engaged from inside the process.

Defensive Behaviors

Cognitive dissonance may not be enough to push human behavior in a new direction. Frequently, change is seen as a threat to power and authority, and this increases the likelihood that PAR practitioners will encounter defensive reactions, both within themselves and from others. As practitioners have ideas about which they feel strongly, the PAR process enables them to unfreeze, surface, change, and refreeze their ideas or mental models. Adept practitioners understand that during these moments when they believe a situation to be "wrong," they may be operating upon the assumption that everyone shares their perceptions about the situation. Therefore, to cull out diverse and multiple perspectives related to the issue, further investigation is required.

Overcoming defensive behaviors is discussed by Argyris, Putnam, and Smith (1985) in their treatise on action science. They suggest that a method in creating action is confronting that which does not want to move. Confronting is a process by which social actors are forced to confront themselves and others explicitly by pointing out (and inquiring into) defensive reactions while analyzing the consequences of giving in to them. Argyris and colleagues point out that while not all defensive reactions have negative consequences, many are the cause of groups that cycle endlessly between conflicting demands. Greenwood

and Levin (1998) counter this by suggesting that PAR studies are successful when they confront opposition and resolve conflicts.

Argyris and Schön (1974) and later Senge (1994) work with the ideas of defensive behavior in the creation of what they call the **ladder of inference**, which is a problem-solving strategy in systems thinking (adopted here to discuss choices made with data) used to help understand the development of inferences. Shown below in Figure 7.4, this model describes potential escalation of defensive mechanisms. PAR practitioners can use the tool to analyze how thoughts, assumptions, beliefs, and actions may be based first on data but quickly evolve (or de-evolve) into something originally not intended. This devolution creates the defensive behaviors that Argyris and colleagues (1985) and later Greenwood and Levin (1998) suggest need to be confronted. PAR presents an excellent format with which to confront defensive behaviors due to its reliance on the first rungs of the ladder: observation and data.

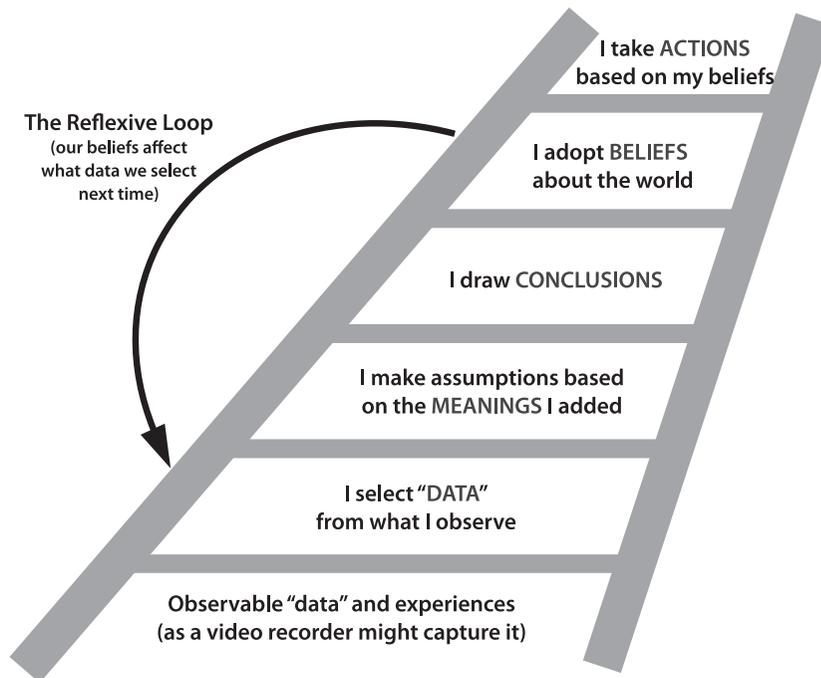


Figure 7.4 The Ladder of Inference

SOURCE: Alan Bucknam/Notchcode Creative, 2006. Adapted from Argyris & Schön (1974) and Senge (1994).

Task 7.1: Analyzing Force Fields and Defensive Behaviors

The purpose of this task is to aid PAR practitioners in confronting their own inertia and defensive reaction through reflective note taking. This task can be done easily by either individuals or groups.

Procedure

On a piece of paper draw a diagram similar to the first one in this chapter shown in miniature here.

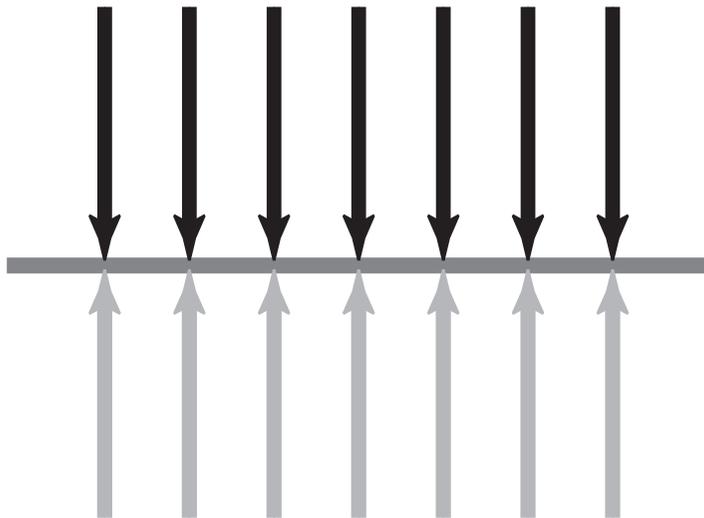


Figure 7.5 Task 1 Forces Between Change and Inertia

SOURCE: Alan Bucknam/Notchcode Creative, 2006.

1. List the forces that work for change in the situation under study by the PAR group and those that work against it.
2. Brainstorm other data, communication systems, or actions that can be added to create a tipping point that propels change to occur.
3. List the major stakeholders, including yourself.
4. Reflect on the areas of action or change in personal and institutional behaviors that are likely to cause defensive behaviors.
5. List possible underlying motivations and ideals for education that can be enlisted to ease defensive behavior.

6. Note which motivations may be driven by an assumption. Do data exist that challenge the assumption?
7. Brainstorm ways to confront potential defensive mechanisms both in yourself and in others.

REFLECTIVE QUESTIONS

- Imagine an action that you wish to take to improve upon the educational situation you are studying. What measurements do you readily have that express the status quo?
- What components of the current situation should change because of the actions you intend to implement?
- What additional measurements will be needed before, during, and after the implementation to demonstrate outcomes?

SECTION 3: MEASUREMENT

We conclude this chapter on action by discussing the measurement of short-term actions and change. For this discussion, we move to the wisdom developed in the past 30 years in the field of program evaluation, particularly evaluation designed for use in the social sciences. Two considerations bear discussion: formative versus summative work, and determining the focus of the evaluation.

PAR practitioners decide upon how their actions will be measured before they act, and then they implement research methods to capture pertinent data from which they analyze outcomes. As shown in Figure 7.6, Section 3 corresponds to the act and measurements steps when PAR practitioners focus on measurement during and after each action they implement to create the desired change.

Formative Evaluation

There are two recognized types of evaluations: formative and summative. The first, **formative**, contains a variety of ways in which practitioners measure short-term results *with the purpose of making course corrections while the program continues*. **Summative evaluation**, on the other hand, measures outcomes close to or at the end of the project. For our purposes, measuring the results of any individual action cycle within a PAR project falls under the heading of formative



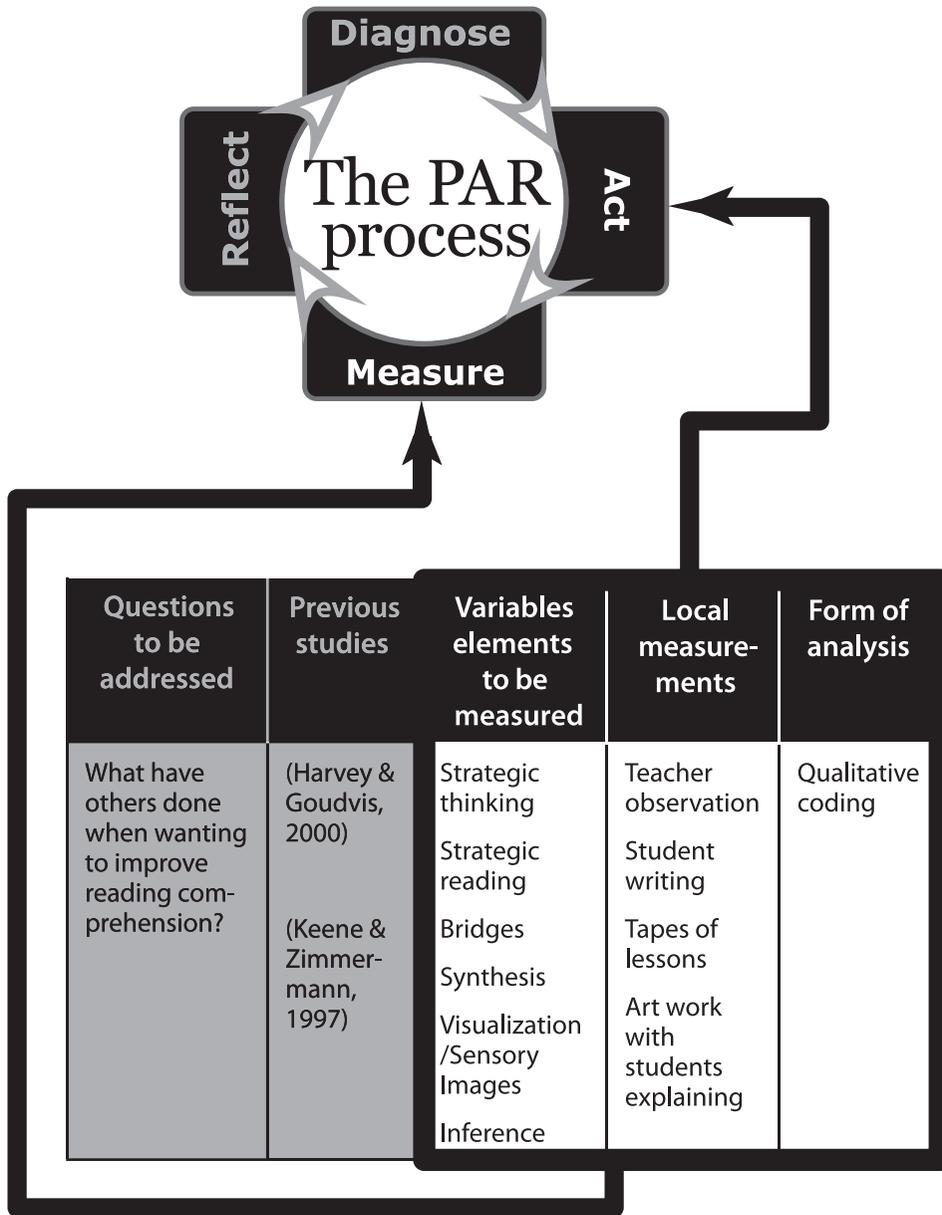


Figure 7.6 Chapter 7, Section 3's Stage of the PAR Process

evaluation. This is theoretically important because this type of evaluation acknowledges the PAR practitioners' understanding that the outcomes they measure may or may not remain valid at the end of the project and that outcomes from each successive cycle will be used to suggest new directions for future work (Fitz-Gibbon & Morris, 1987; Herman, Morris, & Fitz-Gibbon, 1987).

Focus and Responsiveness

There are two standards for program evaluation: focus and responsiveness. Focus refers to considerations that drive the researchers' approach, the questions they ask, and the people of whom they ask questions (Stecher, Davis, & Morris, 1987). Focus covers the variables and local measurements sections of the logic model and sets the standard that local measurement of short-term outcomes of action cycles should be "goal oriented" (p. 27). By this we mean that the focus of the evaluation of an action is to determine whether and to what extent the actions aided the PAR practitioners in addressing the issue they are studying. As an example, Principal Soffer, whose study on disciplinary consequences was discussed in Section 1, examined whether the actions she took diminished the numbers of students being sent to her office after each cycle of actions.

The second standard focuses evaluation of short-term outcomes in a way that is responsive. Stecher and colleagues (1987) define "responsive" as that which is "guided by the belief that the only meaningful evaluation is one that seeks to understand an issue from the multiple points of view of all the people who have a stake" (p. 36) in its outcome. The participatory nature of PAR conveys the belief that education is served best by the inclusion of all the voices of local concern. Consequently, a responsive focus would dictate that research practitioners employ qualitative measures as they seek to understand the reality of the people involved in both delivering and receiving project actions.

Determining Variables With Which to Measure Short-Term Outcomes

The PAR team first decides what short-term outcomes will result from their actions. These outcomes need to be measured against the goals of the action and the purpose for the study as a whole, using variables derived from previous research when possible (Fiester, 2001; Fitz-Gibbon & Morris, 1987; Herman

142 Participatory Action Research for Educational Leadership

et al., 1987). We suggest the following steps in determining which local measures to use:

1. Separate the actions into multiple lines of cause and effect. In the Soffer example, she increased the number of staff on the playground to decrease the number of behavior incidents. Therefore, she could measure the behavior before, midway, and after a few weeks to note whether and to what extent there had been improvements.
2. Note potential mismatch between desired outcome and the action(s) taken and revise variables accordingly.
3. Use the PAR team to brainstorm imaginative yet credible ways to detect both student-level and organizational goals. Note all variables that might change during the implementation of new actions and decide whether and to what extent they relate directly to the purpose of the project and should be included in measuring the effect of the change.
4. Match measurements to the purpose of the project.
5. Focus data collection methods on outcomes that are observable and can be gauged using local measures.

Measuring the outcomes of actions in PAR is similar to measuring the outcomes of feasibility studies in other types of evaluation (Herman et al., 1987). For instance, a PAR group may have in mind multiple actions that they believe will address the challenges they are studying. First, they decide which actions to implement and measure. Then they divide the work among them, testing their ideas with a limited amount of the school population. By restricting the work to a smaller population, they quickly gather preliminary data with which to inform the next reflective and diagnostic PAR steps.

Measuring Outcome Steps

PAR practitioners should be wary not to derive too much meaning from any specific short-term outcome. For instance, the first step for students to turn in homework is to have the knowledge of the importance to complete the homework. Knowing about homework and its importance, however, does not necessarily mean that students will change their behaviors.

In the **stages of change model**, behavior change does not happen in one step. People tend to progress through different stages on their way to successful change and progress at their own rate. The model describes a person's growth from

awareness to taking action. These stages help to illustrate possible areas for measurement. Referring to the work about changing addictive behaviors (Prochaska, Norcross, & DiClemente, 1994), social scientists widely agree that change can be viewed along a continuum. At one end is “no knowledge of a situation or the desire to take action,” and at the other is “full knowledge of the situation with successful outcomes of sustained actions over time.” The scale established by the stages of change outlines specific, measurable steps using interview, focus group, or self-report survey data. Though it may not characterize every educational program, it can be massaged as a guideline for growth.

Precontemplation: at this stage the stakeholders (teachers, students, etc.) either do not have the knowledge or the intention to take action. No action is expected within the next 6 months.

Contemplation: the stakeholders feel they have the knowledge they need and they intend to take action within the next 6 months.

Preparation: the stakeholders intend to take action within the next 30 days, and some measurable, behavioral steps have been taken in this direction.

Action: Beginning measurable outcomes have been achieved. An example at this stage would be a student whose work shows progress but has not yet increased significantly, such as a grade level of growth.

Maintenance: the equivalent of this stage in education would be the successful completion of the actions as designed, or academic attainment equal to anticipated grade level, for more than 6 months, and so on.

Termination: The PAR practitioners possess full knowledge of the issue and feel that they sufficiently advanced the educational practice in their school while solving the problem researched throughout the study. The team is completely confident that there is little chance of reoccurrence.

Once a PAR team has decided upon the variables that measure the actions and logically lead to the desired improvements, they implement standard research practices to capture evidence. A final checklist, as an overview from previous chapters, reminds them to

- Simplify all data collection methods whenever possible.
- Create flexible procedures that take the culture and relative sophistication of the school population in mind.

144 Participatory Action Research for Educational Leadership

- Build a multilevel flow of communication throughout the project between teachers, students, parents, and administrators.
- Ensure confidentiality to all participants.
- Document the full stories of people as much as possible.
- Record changes resulting from actions taken in various cycles.
- Develop communication feedback loops throughout the process.
- Determine the scale against which to evaluate success.



CONCLUSION

In PAR and AR literature, three continuums of action are discussed. The continuums from emancipatory actions to professional development, from the individual to the organizational growth, and from the personal to the political all provide rich theoretical material for discussion. Multiple examples of successful PAR projects undertaken by teachers, groups of teachers, principals, entire schools, and school districts illustrate advancements in local educational practices. While PAR research studies vary as to the amount of data that support results, the participants engaged in these projects consistently agree that it is the action cycle that makes it worth their personal investment of time and energy (James, 2006b).

Taking action necessarily promotes change. In turn, the change is likely to create reactions. The two most common challenges when promoting change are inertia and defensive reactions. Two methods discussed in Section 2—force field analysis and the ladder of inference—were developed as means with which to discuss issues of organizational development (Argyris et al., 1985; Schön, 1983; Senge, 1994). PAR practitioners can implement both methods as a way to understand and plan around the forces that ultimately could impede the outcome of their work.

Measuring each action cycle has much in common with formative evaluation practices. PAR practitioners focus on measuring whether and to what extent actions contributed to the positive resolution of an educational issue and the extent to which all stakeholders are responding to the changes involved. Short-term measures will not determine conclusively if the actions are successful in helping the PAR team meet their goals. Nevertheless, it is useful to measure each action against a predetermined scale of possibility. The scale derived from the stages of change introduced in 1994 by Prochaska, Norcross, and DiClemente may provide a system to measure early action cycles as participants learn about the change, determine to take action, test the modification, and decide to adopt it.