CHAPTER 8

Cycles of PAR

The Power of the Iterative Process

The power of the PAR process lies in its iterative cycles, because implementing multiple cycles causes people to advance beyond knowledge gain to understand the issues they face.

PAR is distinguished from other strands of research by its multiple cycles of diagnosis, action, measurement, and reflection in the context of organizational change (Coghlan & Brannick, 2001; Coghlan & Coughlan, 2003; Dick, 1998a, 1998b).

"To my mind the *cyclic* nature of action research is part of its special strengths . . . to be both *flexible* and *rigorous*" (Dick, 1998b; emphasis added).

Cycles "allow the integration of the conscious and deliberate thinking and knowing of reflection with the less conscious and deliberate knowing and thinking of action" (Dick, 1998b, p. 1).

Educational leadership employs these cycles to build discernment and become well armed to create change.

As shown in Figure 8.1, this chapter focuses attention on the second, third, or fourth cycle of PAR, where the team of practitioners move into multiple layers of their logic model.

The spirit of PAR, and therefore of the content of this chapter, is captured in Figure 8.2, which demonstrates the increasing energy and multiple outcomes created through continued study.
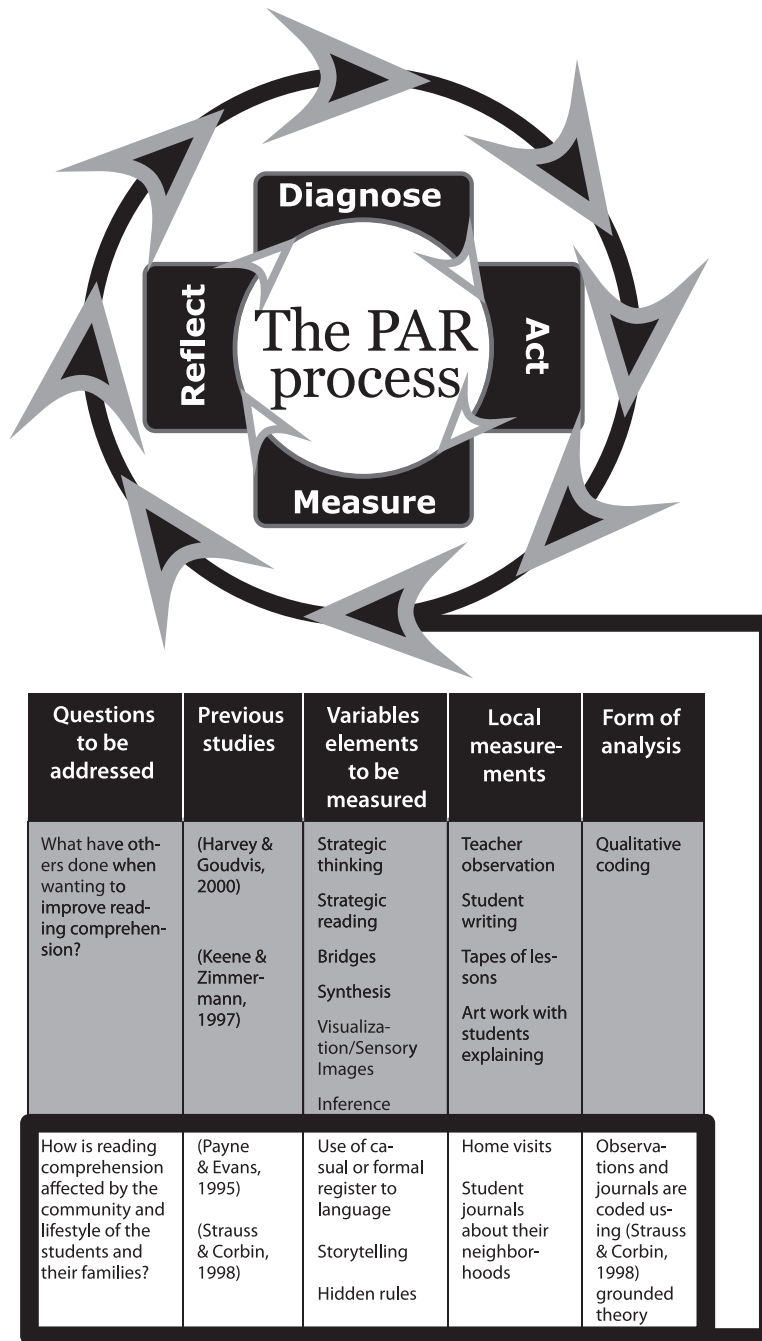
Questions to be addressed	Previous studies	Variables elements to be measured	Local measure-ments	Form of analysis
What have others done when wanting to improve reading comprehension?	(Harvey & Goudvis, 2000) (Keene & Zimmermann, 1997)	Strategic thinking Strategic reading Bridges Synthesis Visualization/Sensory Images Inference	Teacher observation Student writing Tapes of lessons Art work with students explaining	Qualitative coding
How is reading comprehension affected by the community and lifestyle of the students and their families?	(Payne & Evans, 1995) (Strauss & Corbin, 1998)	Use of casual or formal register to language Storytelling Hidden rules	Home visits Student journals about their neighborhoods	Observations and journals are coded using (Strauss & Corbin, 1998) grounded theory

Figure 8.1   Chapter 8's Stage of the PAR Process
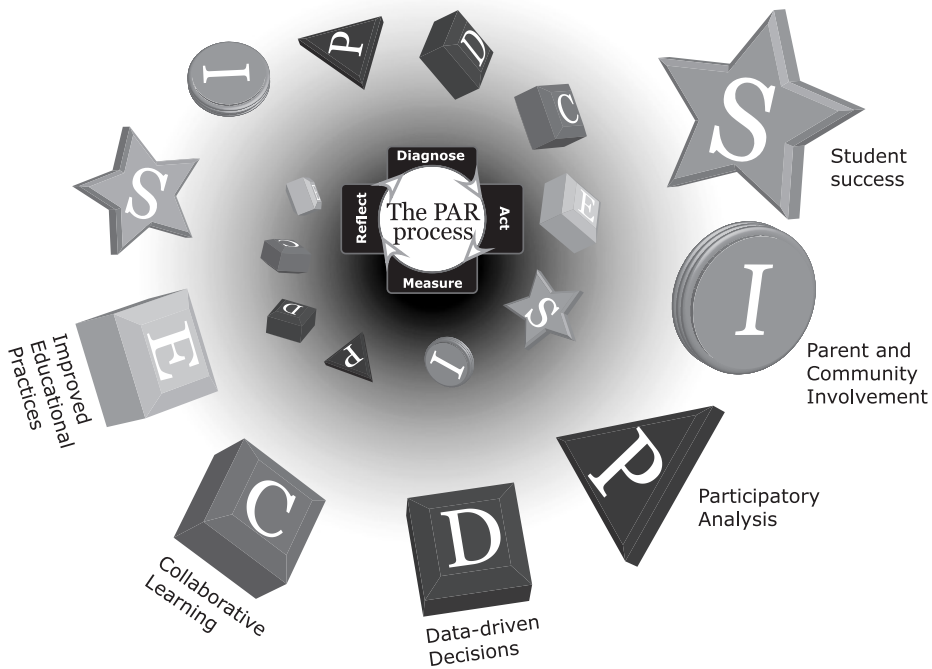
Figure 8.2   Cycles of PAR

SOURCE: Alan Bucknam/Notchcode Creative, 2005.

Through multiple iterations that ideas and actions mature, McTaggart (1997) points out:

> PAR starts small by working on minor changes which individuals can manage and control, and working towards more extensive patterns of change. These might include critiques of ideas of institutions which might lead to ideas for the general reform of projects, programs or system-wide policies and practices. (p. 4)

The most important aspect of the cycles to research is the manner in which they increase rigor by forcing the practitioner to build on evidence gathered in previous iterations (Kock, McQueen, & Scott, 1997). These

authors conclude that the strength of data collection and analysis over multiple cycles of PAR increases rigor because "disconfirmatory evidence in further iterations" aid practitioners in correcting distortions created by personal assumptions, historical memory, and so on (p. 2). For example, a small-town principal, interviewing parents, found that part of their appreciation of the school lay in how well they perceived their children to be doing. Teachers of the same children reported that they were behind. The distance between parent and teacher understanding created a future round of research to uncover methods to bridge the gap (Pflug & Watson, 2004). PAR cycles allow projects to be both flexible and rigorous. The iterative process, combining research and reflection, allows educators to understand their topics and the systemic mechanisms that position them to create sustainable change.

REFLECTIVE QUESTIONS

- In your experience, when does change proceed in a linear fashion and when is it more likely to be complex or messy?
- What types of issues or challenges cause strategic plans to go awry?

SECTION 1: MESSY CYCLES

While the initial presentation of the four steps in a single cycle of PAR methodology may have suggested to practitioners to expect their research studies to progress in even, linear cycles, it is rare for the process to be orderly. Figure 8.3 describes the many other permutations that are frequently part of PAR cycles. For instance, PAR processes may actually start at a juncture between steps. In a similar fashion, especially in later rounds of research, practitioners tend to go back and forth between diagnosis and action until the implementation of new ideas is concrete enough to measure.

An overview of practitioners writing about their cycles of research shows little consensus about how educators access and move through cycles. Some documents present each step in a predefined educational strategy as a cycle (Loerke & Oberg, 1997), while in other writing the second cycle is not planned until the first is finished, using each cycle to build on knowledge developed in the previous cycle (Soffer, 1995). These adaptations and permutations are to be expected (Dick, 1998b; Kemmis & McTaggart, 1988; McTaggart, 1989), and we have seen both strategies lead to successful student-level outcomes. If an
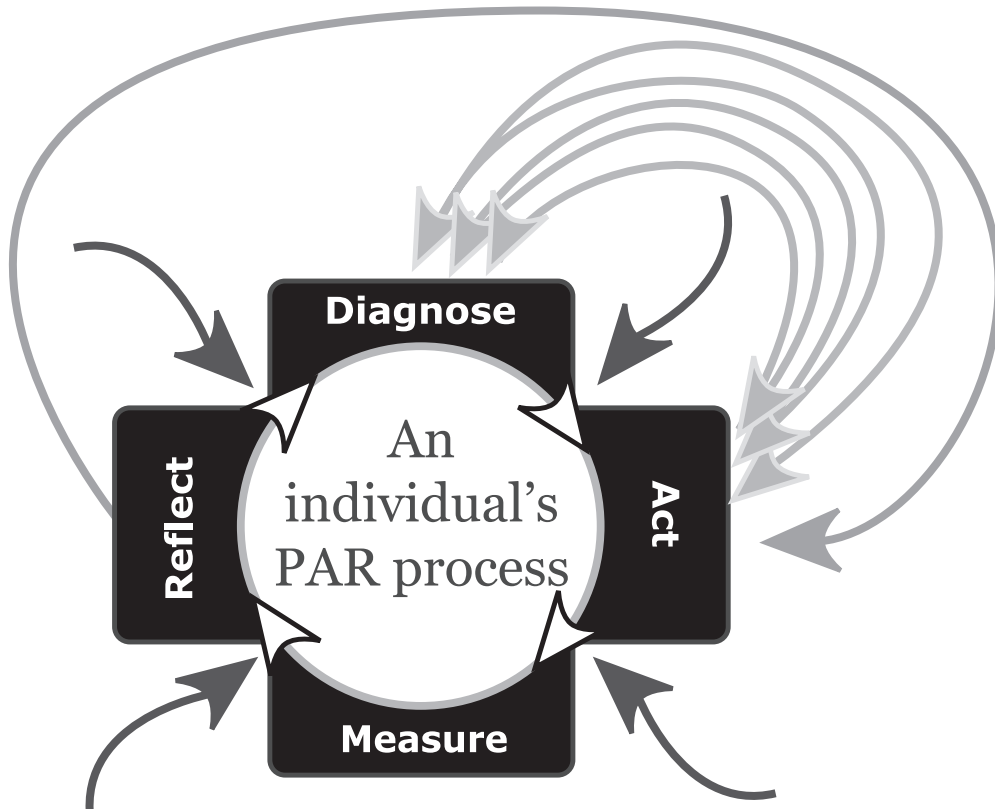
Figure 8.3   Messy Cycles

SOURCE: Alan Bucknam/Notchcode Creative, 2005.

educational strategy is predetermined, the PAR team must maintain a willingness to be flexible and change directions if and when discordant evidence emerges. It is equally important that group process be maintained and the entire partici-patory team agree to the logic of steps as they move forward. The following four points provide useful guideposts to ensure the work of PAR practitioners remains on target.

1. Focus on the overarching purpose(s) of the project.

2. Build the synergistic process of the PAR team.

3. Involve the stakeholders and constituency whenever possible.

4. Listen carefully.

150   Participatory Action Research for Educational Leadership

REFLECTIVE QUESTIONS

- Think of a time when you learned a new skill. What part did repetition play in that process?
- What new kinds of awareness develop with repetition?
- How do these ideas apply to your PAR process so far?

SECTION 2: ITERATIVE GROWTH

The PAR steps shown in our familiar figure evolve through multiple iterations (see Figure 8.4).

Diagnosis

Diagnosis is generally made up of two parts: raising questions and collecting data. While Hughes and William (2001) believe that the questions raised become "less fuzzy" or change with time and greater understanding, it has been our experience that an equal portion of educators have strong driving questions
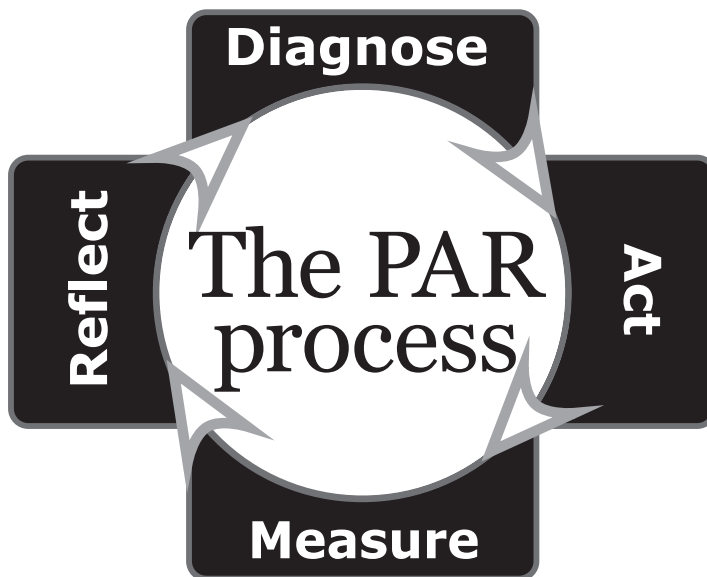
Figure 8.4   The PAR Process

SOURCE: Alan Bucknam/Notchcode Creative, 2005.

right from the beginning (James, 2004). When this is the case, the diagnosis of the underlying issues and the PAR practitioners' actions mature with each cycle.

In an example of questions maturing with process, two teachers studying the experience of homeless and highly mobile (H&HM) students first asked what information their districts could provide. In their first round of research, they discovered that both the teachers' schools and the school districts were unaware that any of the students could be considered homeless, so the answer to their first questions was "None." During their second round, they studied H&HM students' experiences enrolling in school. For this round the teacher researchers asked students to compare their current experiences to their previous experiences in other schools. When almost 10% of these students stated that no one in the school wanted them around, these teachers began their third round and questioned what it would take to increase the degree of welcome felt by new students. Subsequent cycles informed other teachers about the students' perspective of an unwelcoming environment, set up practices for the administrative office staff, and established a "new student" buddy system for the following year. Each further cycle built new questions developed through the accumulated understanding of previous cycles (Rahn & Skrobela, 2004).

Three principals in the same study started and ended their PAR project asking, "What can schools do to stabilize H&HM families?" Their project took them through many steps: interviewing families and teachers, setting up relationships with outside resources, initiating programs in the school to address the needs families expressed, and so on. Throughout each step, the principals tracked the relative satisfaction and stability of the H&HM families in their schools. These administrators concluded that while all their steps, made a positive impact, nothing in the long run could combat the chaotic conditions faced by much of their student population who experience high mobility or homelessness (Cook, Heintzman, & McVicker, 2004).

The distance between diagnosis and action may be blurred from the beginning of the project. Herr and Anderson (2005) point out that "just raising the question and designing a way to study it is often already an intervention into the setting" (p. 108). The nature of educators is to want to help from the moment a student expresses a need that may result in immediate action.

Action

The actions of research teams mature as individual cycles of the study grow in complexity. The cycles of a whole PAR team, or group of teams within a school, overlap and integrate. This totality of their combined efforts can be viewed as "meta cycles" (Coghlan & Brannick, 2001). There appears to be a

relationship between the roles of the PAR participants as individuals and the increase in productivity during the action cycles because of the accountability these practitioners feel to the larger PAR team (James, 2006a). As an example, in an adult literacy project in a homeless shelter, Kalinosky's (1997) group produced consistent results in recruiting "recalcitrant" residents as long as both her curriculum and the research project were guided by the suggestions of residents. As soon as the curriculum was changed to meet the needs of shelter staff, attendance of residents in the literacy classes dropped to pre-PAR levels. This link between PAR group process and improvement also plays a role in outcomes as shown in Timmerman (2003). In this study, prospective teachers experienced a cycle of teaching while collaboratively planning, implementing, and analyzing math lessons. The researchers conclude that the peer support contributed to both the teachers' and the professors' professional development as their objective analysis of each other's work provoked mature responses in the new context they faced.

Measurement

Individual and metameasurement as well as analysis advance through multiple cycles as well. Discussion of the logic model discussed in Chapter 2 is best updated toward the beginning of each research cycle or as a bimonthly process—whichever makes the most sense (Hughes & William, 2001). Regular team conversations about the use of these two methods helps measure sustained focus on the study's purpose, allows for spontaneous celebrations of the progress, increases the specificity of planning for the next round of data collection and analysis, and increases rigor (Kock et al., 1997).

Similar to the metacycles of learning as discussed by Coghlan and Brannick (2001), multiple cycles of measurement can be analyzed both by individuals and across teams. The underlying principle of **meta-analysis** is that many small studies can blend to show an accumulative effect. Meta-analysis is defined as a method designed to increase the reliability of research by combining and analyzing the results of all known trials of the same product or experiments on the same subject. While each individual study may show only small or moderate outcomes, as a collection of studies their educational implications can be significant (Wampold, Ahn, & Kim, 2000). While the term *meta-analysis* applies to a specific set of statistical processes that allow multiple studies to be analyzed as a group, the principle of blending and coanalyzing data can also be of value to those involved in schoolwide, districtwide, or national PAR projects.

Reflection

In simple terms, reflection is the motor that makes the PAR cycles turn. Firmly rooted in the theoretical underpinnings of adult learning (Bray et al., 2000), reflection can be viewed as both a cognitive and affective process. During the reflective cycle, the PAR practitioner acknowledges the growth in wisdom that accumulates through every cycle. Coghlan and Brannick (2001) point out that reflection not only advances the topic under study but also the group process as a whole—bringing about organizational change as a result. To the extent that PAR teams work together across the various departments within the school, they represent different departmental views and realities—becoming essentially intercultural.

> It's phenomenal—one of the greatest journeys you can embark on—I feel like a professional. Reflection helps me go so deep into what I do as a teacher, and the job does not become monotonous. Every day I pay attention and I reflect—it helps me grow and life is all about growth. It also teaches me that I have to make mistakes—this allows our humanity and then I move on. (James, 2006c)

Time Line and Group Process for Significant Success

In our experience, a PAR project with the purpose of making a significant change in a school can get off to a strong start within a complete school year. During the fall, the individuals form a team, set up regular meetings, and adjust to the extra work in their schedules. The learning curve during this term includes meetings to discuss the purpose of their project and the review of the literature. Progressively during the fall, team members remind themselves about the rigors of research and begin to carve out time to conduct initial interviews and discuss the project. By the conclusion of the term, they have completed their first round of diagnosis and initiated a small action or conducted additional measurements of the situation under study. The practitioners have also begun their ongoing reflective process.

The spring semester seems to be the time of action, and commonly PAR teams implement two additional cycles of further diagnosis, action, measurement, and reflection before May, when the analysis of project outcomes for the year are finished. If the practitioners have only 1 year to dedicate to the project, their experience may be that they have learned more than originally expected and have accomplished some positive outcomes. Often by spring semester, the

excitement about the potential for further growth has increased to the point that the PAR team decides to continue the project for a second year.

We generally work with school-community teams, comprised of three team members. However, recently a comprehensive study, one that combined home-work and school culture, was conducted by a team of six, inclusive of classroom teachers, the principal, Title I support staff, and a community agency employee. The PAR group process may have its difficulties, but ordinarily tensions that will derail the entire project materialize within the first few months. In a national project during the 2005–2006 school year, one PAR team lost two of its members due to illness within the first 6 weeks of school. Occasionally, we have witnessed situations when one member of a team is just not engaged suf-ficiently or experiences family difficulties and needs to drop off the project. When this occurs, the group will either replace that person or proceed without the individual.

Group process requires people to respect each other's differences and to see the value of diverse ways to solve problems. Committing to and following through with scheduled meetings seems to be the single biggest key to success. Groups who are excited about learning from each team member and who hold together to the end finish the process more easily than groups whose members are less sure of each other. However, the less cohesive teams do complete their studies, even multiyear projects, as long as working the PAR process happens often enough to become a habit.

Task 8.1: Using the Forward Planner

The purpose of this exercise is to help PAR teams keep on track with their cycles of learning while maintaining intergroup accountability to the project.

Procedure

1. Copy the chart in Table 8.1 on a flip chart so that everyone in your PAR group can use it as a point of discussion.

2. Write your purpose on the top of the sheet so that everyone keeps it in mind throughout the discussion.

3. Write today's date at the edge of the paper near the left-hand column.

4. In the first left column, list the major questions and answers you have used while investigating your topic.

5. In the second column, list short- and long-term actionable steps you have taken or plan to take.

6. In the third column, list the measurements you have used (or plan to use) to test the success of your actions.

7. In the fourth column, use a word or short phrase to represent each of the lessons you have learned through your first PAR cycle.

8. Repeat Steps 4 through 7, strategizing your next steps and ideas for as many future cycles as the group can envision.

9. Finish by giving due dates to each part of the upcoming cycle(s).

Table 8.1   PAR Process Related to Access of Services

Purpose statement for study			
To improve access to services for homeless families in order to increase readiness to learn			
Diagnosis: questions and data	*Actions*	*Measurement of actions*	*What has been learned*
How many students in our school can be classified homeless or highly mobile?/office records and student drawing family exercise	(1) Collected data from drawing family exercise (2) Contacted families about potential for services	(1) Analyzed student drawings for information about families (2) Recorded interviews with families about services (3) Tracked service records	(1) Most of the school's families who are eligible for services live doubled up with multiple other families. (2) Readiness to learn may be tied to quality of homework support—a key for future investigations.

One line of Table 8.1 is filled out in a manner typical to what educators in the homeless project would write. In their first round of research, they identified families eligible for services and contacted them. In future rounds, the PAR team will track and measure attendance, attachment, and homework, as well as overall achievement as indicators of readiness to learn.

REFLECTIVE QUESTIONS

- Would you describe yourself as a person of thoughts, a person of actions, or both?
- What personal characteristics do you think contribute to your analysis?

SECTION 3: THEORETICAL UNDERSTANDING BOLSTERS ACTION AND VICE VERSA

Readers in an academic setting may be called upon to discuss the theoretical underpinnings of their PAR projects. The purpose of Section 3 is to offer a succinct explanation of the main theoretical discussions surrounding PAR. We have found that theory, and specifically discussion around positivism, may or may not be inherently useful to educational leaders. Educators who benefit from searching out and understanding explicit theories that guide their design for a course of action may find inspiration from searching out the works cited below:

- In planning, I draw on my explicit theories. In action, tacit theories often guide me. In later critical reflection, I have time to ask if my explicit theories corresponded to the theories implied by my actions (Dick, 1998b, p. 1).
- An important outcome of AR is to produce theory, "whose validity can be tested against publicly communicable standards of judgement" (Whitehead & McNiff, 2006, p. 1).
- Some believe that the only true knowledge is scientific, which they defined in a linear process from inquiry to knowledge. This positivist theoretical doctrine denies the validity of any notion of reality that cannot be measured. This belief creates debate with PAR practitioners on four main levels (Dick, 1998a).
- Rigor in positivist-based research tests the direct linkage from the research question through the reliability of the instruments employed in the methodology to the results. PAR addresses rigor through questions of holism and diversity, encouraging practitioners to investigate multiple avenues in support of the purpose of their project (Dick, 1998a).
- PAR studies occur with local context, whereas a positivistic approach would try to control outside variables associated with the environment in which they work (Kock et al., 1997).
- PAR practitioners actively try to manipulate positive outcomes, and no pretense is made about being neutral observers (Kock et al., 1997).

The metacyclic nature of PAR combats the proponents of positivist theory and leads to confidence in areas of validity, credibility, and reliability of results. A bias of PAR practitioners is that because local educational issues are complex in nature, the issues need to be studied within local environments. The more the issues are studied, the more diverse approaches are implemented, and the more likely educational practice will improve. Kock and colleagues (1997) assert that having diverse local evidence to build on is essential in finding sustained solutions in uncontrollable environments. They stress how a compilation of multiple data collected from various sources and analyzed by a diverse group of people creates the potential for a "desirable form of triangulation" (p. 9). Lessons learned through the practitioners' involvement, as they attempt to construct positive outcomes, are heightened because of the experiential nature of the learning and are confirmed through multiple measures.

CONCLUSION

The cycles inherent in PAR are important because these multiple iterations generate a process through which the practitioners are forced to be both flexible and rigorous. Both of these characteristics increase the understanding of the issue being studied. PAR cycles ordinarily do not progress in a linear fashion. This results in a myriad of approaches.

Each step deepens and matures when revisited throughout the cyclic process. As data gathering broadens, so does the diagnosis of the issue. The complexity of understanding the key issue and emerging solutions grows as actions are taken by individuals within groups and between group members. Each PAR project within a group magnifies the others' results and can be seen in the context of metacycles (Coghlan & Brannick, 2001). Measurement also accumulates, resulting in the development of multifaceted learning through many small projects. Reflection then advances the PAR team into a new cycle. Finally, theoretical understanding increases exponentially, as does rigor, throughout multiple cycles. Complex weaving of research and action in groups and through cycles results in the validity, credibility, and rigor available through PAR studies.