CHAPTER 4

Qualitative Data Collection

Educators live in a world where everyone has an array of thoughts about education. This multitude of ideas, opinions, and beliefs, generated throughout people's lives, makes the world of qualitative evidence both rich and confusing. The purpose of this chapter is to help the novice PAR researcher sort through and implement qualitative data collection. Conversations, notes, e-mails, voice mails, interviews, and focus groups all have potential to become qualitative data. PAR research holds itself to the standard of being responsive to the community in which the researchers are based. Therefore, qualitative data collection will be some part, most often the greatest component, of the data on which a PAR team draw their conclusions.

People experience the same set of circumstances differently. This concept is vividly illustrated in Akira Kurosawa's film *Rashomon* (Kurosawa, 1950), in which a crime witnessed by four individuals is described in four mutually contradictory ways. The theme of the movie relates to the difficulty, if not impossibility, of gaining an accurate view of a situation or story from witnesses whose stories conflict. The story, based on the accounts of five different characters—the Woodcutter, the Priest, the Bandit, the Samurai, and the Samurai's wife—is summarized as follows:

> In 12th-century Japan, a samurai and his wife are attacked by the notorious bandit Tajomaru, and the samurai ends up dead. Tajomaru is captured shortly afterward and is put on trial, but his story and the wife's are so completely different that a psychic is brought in to allow the murdered man to give his own testimony. He tells yet another completely different story. Finally, a woodcutter who found the body reveals that he saw the whole thing, and his version is again completely different from the others. (Lohner, 2006)

Seldom will qualitative data in schools provide such dramatic examples of how everyday experiences provide multiple perspectives. Nevertheless, PAR practitioners must stay vigilant to capturing enough evidence that the range of possibilities emerge.

Qualitative data collect information as written or visual images and report findings as words. Yet qualitative data collection is more than just conversations, records, or observations. Rigorous collection and analysis of the words and pictures, gathered as evidence about a topic, enhance the position of educators to build a convincing body of knowledge on which to improve educational practices. Once PAR teams have decided upon their first research questions and searched through previous research for ideas, resulting in a clear and logical reason for gathering data, they are ready to begin. Qualitative evidence, collected during the PAR diagnosis and measurement steps, is shown in Figure 4.1 along with the portions of the logic model where PAR practitioners record their local measurements.

HOW IS QUALITATIVE EVIDENCE USEFUL?

Qualitative evidence, when rigorously analyzed, makes it possible for PAR teams to uncover, expose, and consider the complexities within their community. While no scientist would endeavor to measure a situation with an infinite number of variables, this is precisely what school leaders do when investigating educational issues. Qualitative evidence extracts depth and adds body to the conclusions drawn by PAR teams. Data collection and analysis tools are employed when practitioners need to delve deeply into circumstances and understand the human motivations involved. These data are particularly informative to answer questions of

- *Meaning:* The significance of situations (held in peoples' minds as meanings) are subjective and vary, depending upon personal experiences. More than other types of queries, a question about meaning will surface the biases of both the individuals who ask the questions and the individuals who respond.
- *Context:* Influences understanding. This is true whether it is a personal context (e.g., age, gender, or cultural background) or the community context (e.g., wealthy or poor; rural, suburban, or urban; stable or changing demographics; economically stable or unstable).

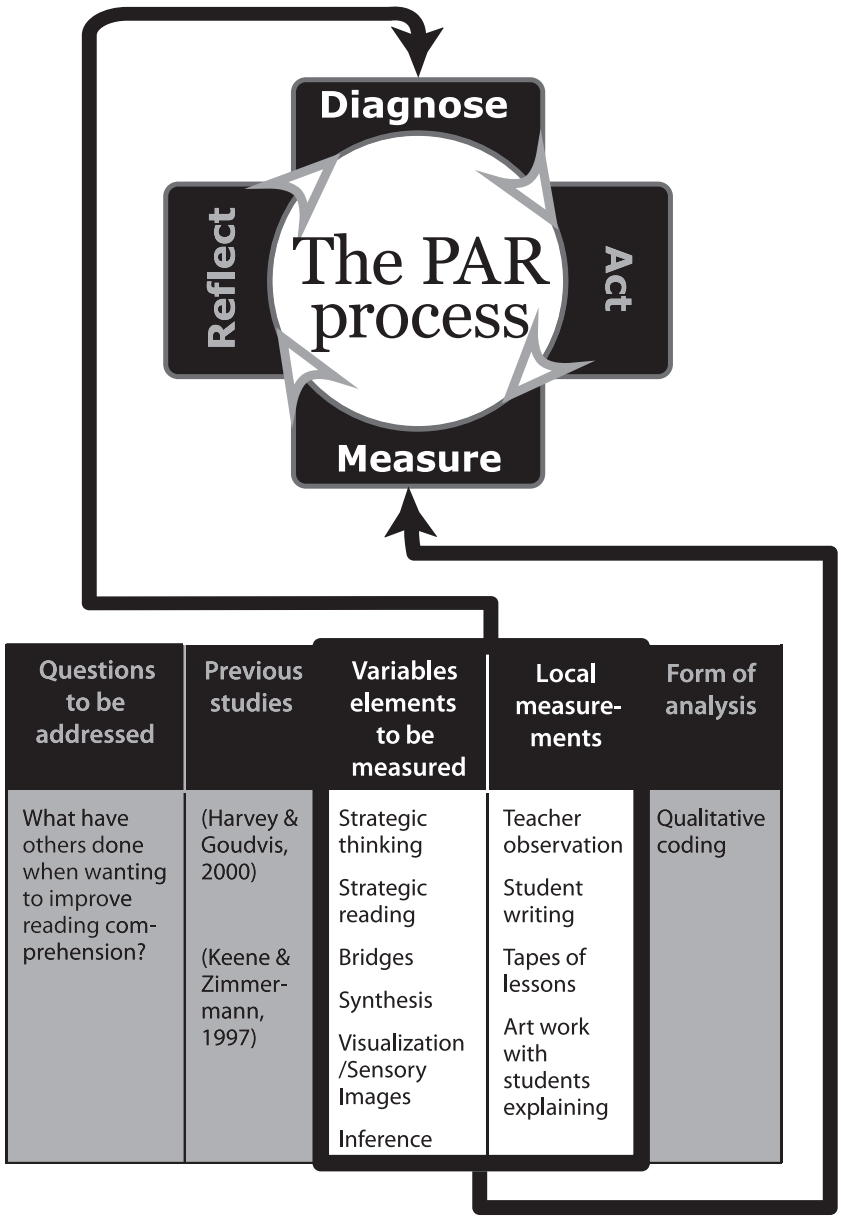

Figure 4.1 Chapter 4's Stage of the PAR Process

- *Understanding of process:* In order for the PAR conclusions to be transferable to other contexts, the background that led to the situation and the actions that resulted need to be understood and reported. In addition, the reporting on either the success or failure of programs in schools calls for understanding both the planning and implementation phases of program development.
- *Causal relationships:* Understanding the complex situations that cause people to take action is key to understanding the cultural and societal mechanisms that make up the fabric of life within a community or school. The study of causal relationships requires a strong chain of logic, with a wide range of diverse opinions collected and analyzed at each link in the chain (Maxwell, 1996).

WHAT MAKES QUALITATIVE EVIDENCE DIFFICULT?

Qualitative evidence collection is subject to the biases of the people involved, both in collecting the evidence and in providing it. Researchers may have a preconceived notion about the evidence they are likely to find in their investigation. Unconsciously they may ask questions phrased in such a way as to heighten the chance the respondent will answer as expected. Likewise, the respondent may have biases about either the researchers or their topic and may not be willing to disclose personal ideas or feelings. This is likely to occur when issues connected to power, sensitive feelings, or cultural values enter the topic under study. PAR teams, acting as critical friends, help each other through diligence to search out and overcome biases.

As mentioned before, qualitative data collection extends beyond a sole conversation, record, or observation. Likewise, the understanding to be gained from gathered evidence exceeds simple reflection. Covered in the next chapter, qualitative data analysis requires breaking down the data (words or pictures) in such a way that each bit can be analyzed and resorted. Subsequently, with a sufficient accumulation of "bits," new understanding develops.

REFLECTIVE QUESTIONS

- What are all the ways you receive information from other people?
- What concerns do you have as you begin to ask people questions?
- How can your PAR team help to address your concerns?

SECTION 1: QUALITATIVE DATA COLLECTION METHODS

As mentioned earlier, qualitative data are particularly appropriate for PAR projects because they can help us understand people's reactions, beliefs, and behavior more clearly. This section outlines the ways to collect qualitative data and discusses practical considerations that researchers need to take into account as they implement these strategies. Though distinct categories are listed, in reality these categories may seem much more ambiguous to researchers gathering data in the field. Nonetheless, it is useful to divide them here for the purpose of discussion (Byrne-Armstrong, Higgs, & Horsfall, 2001; Maxwell, 1996; Patton & Patton, 2002; Snape & Spencer, 2003; Strauss & Corbin, 1998).

Table 4.1 divides the three general categories of data collection methods discussed in this chapter into separate strategies. As mentioned above, these groupings and definitions are pliable.

Table 4.1 Categories of Data Collection Methods

Data collection strategy	*Attributes*	*Challenges*
Data collected directly in words from people		
Interviews: one-on-one question-and-answer sessions where the researcher may use a variety of techniques. Interviews average 30–45 minutes per person.	Reveal information about the worldview of a single individual. This is a flexible strategy that (with care) can be massaged during data collection as needed to heighten results	Interviews are a time-consuming form of data collection. To gather data from one person requires preparation, the time of the interview, and the time of transcription.
Focus groups: group interviews, using the same variety of techniques and taking approximately the same length of time as interviews.	More time effective than interviews but with slightly less flexibility. The group process may encourage results from shy or hesitant people when the group brings up topics with which they agree.	The group dynamics may interfere with complete or accurate data.

(Continued)

Table 4.1 (Continued)

Data collection strategy	*Attributes*	*Challenges*
Data collected once or throughout a process of change		
Reflective journals: handwritten or verbal account of an event, or group of events, over time. These often unveil how writers subscribe meaning to their topics	Subjective account of the event from the point of view of the writer, who may be the researcher or a subject of the research. Can be collected once or throughout a process of change	Similar to interviews, reflective journals display the worldview of single individuals. They also frequently require transcription.
Field notes: written explanations or data taken, often by multiple observers at a single event, capturing interactions of interest to the larger topic under study.	May follow a prescribed format or be open-ended. Generally gathered by the PAR team and therefore likely to target the topic of study.	Somewhat more objective than reflective data although still subject to the biases of the writer.
Data collected during the event(s) being studied		
Anecdotal evidence and logs: data taken from people often outside the research team that report the facts of the interactions as understood by the writer.	May follow a prescribed format or be open-ended. May be more objective about the topic of study, since not constrained by the biases of the PAR team's discussions of the topic under study	Somewhat more objective than reflective data although still subject to the biases of the writer. Generally not gathered by the PAR team and therefore may not center on the topic of study.
Observations: stylized note taking about predetermined portions of an event or group of events under study, generally taken by more than one observer. Observations often tally the number of times an event takes place.	Are often collected over a period of time. Can be collected by a variety of people, thereby increasing the possibility of reliable results. Accuracy may be helped by voice or video recording prior, with multiple people taking part in analysis.	Accuracy may be constrained by the point of view of the person recording the data.
Student work:	Can also be collected over time and with the intention of showing growth.	May be hard to interpret accurately.

One PAR study will serve as an example throughout this chapter. The research team in a medium-sized elementary school took on the challenge of improving parent and community involvement.[1] While involved in a broader study focused on other issues, their principal read an article by Gerardo Lopez titled *On Whose Terms?* (Lopez & Mapp, 2002). In the article, Lopez investigated parent involvement from the perspective of migrant farm workers and concluded that these parents felt very involved with their children's education yet saw no reason to interact with schools. The elementary school principal in our example decided to ask a team of teachers and parents to join him in investigating whether and to what extent these results might be true for the families in their school. He knew from his test scores that many students were reading below grade level. Were these parents involved in supporting their children's education, and how could the school improve the success of those efforts?

Data Collected Directly in Words From People: Interviews and Focus Groups

The PAR team in our example decided that they first needed to interview a few parents who were involved with the school in traditional ways, such as class sponsor or parent/teacher organization (PTO) member, and a few who were not currently involved. These conversations helped the team understand the topic's parameters and the need to rewrite and reorganize questions from a parent's point of view. Next, they organized pizza parties for parents in the different grades and conducted focus groups. During each party they asked the same short series of questions that had evolved from the initial interviews. The team paired off for the pizza parties. While one person asked the questions, the other recorded the answers.

Interviews and focus groups are similar methods, as both allow researchers to question subjects and probe responses with further questions. In both settings, researchers

- Develop their questions through an iterative initial process, testing the way in which they ask the questions to help ensure that their questions are understood by their subjects.
- Work to set up an environment that enhances the potential for full disclosure, being both comfortable and safe from a research subject's point of view.
- Keep a short list (four to five questions) of the topics from which they are gathering evidence, with the backup of a longer list of potential probing questions they may use.

- Commit to starting and ending between 45 and 60 minutes to avoid participant fatigue.
- Utilize multiple means of collecting data. In the ideal, there is someone taking notes on a computer, the tape recorder is running to help capture exact words, and the facilitator is working with a flip chart to provide feedback to the subject's responses and from which to ask clarifying questions.

Take time to ensure that the surrounding area is quiet and that electronic equipment is in working order. It is best to not depend exclusively on the use of electronics and to be prepared in case of equipment failure or difficulties. This can be accomplished by having at least one person taking notes. Then if the recorders fail, all data will not be lost.

Both interviews and focus groups are flexible methods for gathering qualitative evidence, offering PAR practitioners insight into the human dynamics in the situations they are studying. To achieve the greatest benefit, researchers must balance the time taken for data collection with considerations about analysis (Byrne-Armstrong et al., 2001; Maxwell, 1996; Patton & Patton, 2002; Snape & Spencer, 2003; Strauss & Corbin, 1998). For example, if PAR practitioners decide to record interviews rather than intrude on the conversation with note taking, time allotment for tapes transcription will be needed prior to data analysis. On the other hand, should transcription services be available, full transcriptions offer researchers the richest data. Tapes may take, on average, 4 hours to transcribe 1 hour of conversation.

These two methods of collecting data are dissimilar in other ways. An interview allows in-depth personal probing of a response until researchers feel they understand the answer and its implications to their topic. However, in a focus group, the facilitator needs to progress with questioning and balance his or her curiosity related to specific responses with the need to maintain momentum in the group process. Besides time, other factors may influence the decision to question people as individuals or in groups.

Traditionally, these data-gathering techniques have been segregated into three categories: structured, unstructured, or semistructured (Maxwell, 1996; Strauss & Corbin, 1998). The divisions relate to the relationship of ideas and concepts to the manner in which data are gathered. For instance, a structured interview is one in which all subjects are asked exactly the same questions—the questions are based rigorously on prior evidence. These questions may take the form of "Please relate your understanding of the relationship between X and Y." The researchers have structured the questions to focus the subjects' responses in a particular way. **Unstructured interviews** start with general ideas

or areas of concern, and the specific questions asked are likely to change, depending on the subjects' responses and interests. Unstructured questions may be open-ended, such as "Tell us about your experience of this topic."

In our experience, the semistructured middle ground is effective for PAR practitioners (James, 2004; Reynolds, 2005). **Semistructured interviews** are developed when researchers know what the literature says about their topic and map out pertinent questions with possible probing subquestions. Semistructured interviews allow the opportunity to digress from the primary question and probe a response to understand more clearly what is seen as a provocative remark on the part of the interviewee. Such remarks may come in two categories: (1) the researcher has not heard that position stated before or (2) what has been said seems to be in contradiction to comments others have made previously. In situations when the research subject is particularly articulate, with pertinent responses useful for direct quotations, an interviewer may take extra time and effort to capture not only the subject's meaning but the exact words of the response.

Structured interviews also have value in PAR studies. In this more formal technique, researchers decide upon a series of questions and read the questions exactly to individuals to establish an understanding of their ideas on a topic. For example, in a PAR study on homelessness, the research team asked respondents a series of questions about attitudes toward families and children who lived without homes in their community. An interview was solicited from every fourth person who came out of a mall on a given Saturday (James, 2005b).

McKernan (1996) and others (Legard, Keegan, & Ward, 2003; Stringer, 2004) present the following list of question stems as appropriate for interviews and focus groups: "Why," "Should," or "How important is . . . ?" In addition, a researcher may want to query affect by asking about feelings and emotional responses. It is appropriate to form a leading question by asking, "What do you think about . . . ?" or "Do you remember your experience of . . . ?"

Data Collected Through a Process of Change: Reflective Data/Field Notes/Anecdotal Accounts

The PAR team in the above example based their investigation on Epstein's (2001) book on parent involvement. The group decided they needed data from a variety of sources to capture the relative effectiveness of their current support strategies for parents helping their children with homework. To start, they focused on parent/teacher conferences that were held multiple times during the year. Team members kept reflective journals noting their activities before, during, and after the conferences. They each reflected on what they thought

went well and ideas for improvement. Prior to the conferences, the PAR team discussed what types of evidence might display both positive and negative communication between teachers and parents during the conferences. They then circulated at the event, taking **field notes** pertaining to observations. Field notes are written explanations or data taken, often by multiple observers at a single event, capturing interactions of interest to the larger topic under study. Finally, the team asked teachers and parents to write anecdotal accounts of the same conferences. These included details about attendance and topics discussed.

Some individuals are not comfortable with the concept of reflective work or keeping journals and may wish to substitute *field notes* or *anecdotal evidence* for reflective writing. All three methods have much in common:

- All three allow people to capture details and ideas about events.
- PAR team discussions prompt the topics identified or addressed in the notes.
- Individuals delivering the data supply as many details as possible.
- Data make note of both the date of the incident and the reporting date of the incident. Each is recorded as close to the event as possible.
- Data may include attachments of other types of evidence as well.
- Systems that help the people capture the data in digital formats aid PAR practitioners in analyzing one data set as compared to another.
- All three methods allow researchers to note the politics, the power issues, and other subtle interactions that ultimately influence the success of any educational implementation.

Student participation logs and student journals are viable sources of qualitative data and come under the loose headings of reflective journals or field notes. The degree of insight that they offer is directly tied to frequency and quantity of the writing. For instance, a single entry in a student journal may not be as indicative of an overall theme as entries where one or several students mention the theme regularly. Sagor (2005) reminds us that, especially for older students, the ethics of informed consent applies to the use of student journals as research data. It should be clear to the students whose work is being used whether and to what extent these journals are to be used as data, whether or not results will be reported in aggregate form, and whether further permission will be obtained prior to the use of direct quotes. Student names should not be used in documents without both student and parent permission.

Anecdotal evidence is accounts written directly after an incident and include explanation, setting, and contextual information as well as reporting the facts of who did what and so on. Potential interpretations may also be included, but the writer must take responsibility by indicating when these descriptions may be an

interpretation of the incident and not simply facts reported ("The expression on her face implied to me that . . ."). Examples of anecdotal evidence frequently found in schools include student behavior summaries, field trip activity forms, or injury incident reports. All include the date and time of the occurrence as well as the date and time of writing. Specific details help provide accuracy with important situational facts that may become lost or become vague at a future time.

These three types of data differ in (a) their relative amount of subjectivity and (b) how closely they follow the PAR team's prescribed format for data collection. A more objective format, which clearly delineates topics or questions to be addressed, is more likely to produce data that are useful to the study yet less likely to reveal unexpected insights or ideas. Subjective data may present fascinating new ideas, although taking longer to read, and may contain elements that are unconnected to the topic under study.

Data Collected During the Event(s) Being Studied: Observations/Student Work/Logs

As their study progressed, the team members in our PAR example decided to focus on parent involvement with homework. To study what types of homework help occurred and to help parents learn new strategies, the team offered a series of clinics after school. They collected two types of qualitative evidence during these sessions. First, a series of examples of student homework was collected prior to the clinic, during the clinic, directly after the clinic, and work turned in a month later. The PAR team also collected observational data about the ways in which students interacted with their parents and the methods parents used to help their children before and after coaching.

Observations (a research technique in which no direct questions are asked, but individuals in a public place [e.g., shoppers and drivers] are watched and their behavior recorded) are often collected over a period of time to measure the variance in a particular set of behaviors (e.g., actions on the playground, interactions during peer tutoring). The basic process to capture observational data over time is to observe first, create a checklist next, then observe again using the checklist. Repeat the process until the list functions as an accurate and easy way to capture the behaviors under study. Observations, examples of student work, and logs are similar in the following ways:

- All develop a type of trend analysis by measuring the same phenomena over time.
- All include the weakness of the human element, for the recorder's focus may shift and skew these data.

- For each type, the more structured the approach, the tighter the observations will fit researcher objectives.
- All are similar to journals and field notes in that a high degree of structure also means that observers will be less likely to capture new or unexpected events.

Sagor (2000) gives an example of shadowing, where one aspect of a school reform effort includes teachers following students throughout their school day to observe and to better understand the school context from students' perspectives. This technique could make use of parent observers as well. One group found that the technique of shadowing varied from elementary to middle and high school. One significant difference was the participation of the student being shadowed. Younger students could be shadowed anonymously. Older students should give their consent for the shadowing and for permission to use the observations as verifiable data (Sagor, 2000).

Reviewing class disruption reports led one alternative high school PAR practitioner teacher to uncover trends related to interruptions of instruction:

> After discussing different possibilities, we decided to track attendance, tardies, verbal disruptions, and technology disruptions (phones, CD players, etc.) that interrupted instruction. I created a tally sheet and made certain taking a tally didn't also interrupt instruction. I split verbal disruptions into minor (those that interrupted instruction briefly) and defined major interruptions as those that stopped instruction for thirty seconds or more. Absences are quite high and tardies are significant early in the day. Phones and music machines show fewer interruptions than I anticipated. As I examined the data displayed for this report, the attendance/grades balancing act was starkly presented by the high number of absences. (Ecord, 2006, n.p.)

This teacher continues to track student work and measure their relative success against the number of disruptions in class. He will present these data to his students so that they will be able to make informed decisions and potentially change their patterns of behavior. AR cycles will measure whether and to what extent they take responsibility for their disruptive behavior after confronting these data.

Observations may also include photographs and videos. An advantage in employing digital recording techniques lies in the ability to record information in a constant and passive way that is easily ignored by the person being observed and therefore is likely to capture unrehearsed moments. Another advantage is

that as a data collection strategy, such evidence can be viewed repeatedly. A challenge of digital recording relates to its transcription into written accounts; therefore, it is difficult to compare with other types of data for purposes of triangulation. Photography has the added disadvantage of the interpretation of events being open to very subjective levels of interpretation by others.

Observations and student work are dissimilar in the locus of control of data to interpretation. For instance, the students are completely in control of their work, with only the data interpretation subject to the ideas of the researcher. On the other hand, observations of what is recorded and its interpretation are subject to the interpretation of the researcher, who may or may not experience events as students do. One very positive way to eliminate such disparities is to include students in the participatory teams of the project who directly interpret events in their lives or their schoolwork.

Task 4.1: Collecting a Variety of Qualitative Data

The purpose of this exercise is to gather data about an event employing multiple sources of qualitative data collection. This may be completed after the event as an exercise, keeping in mind that the greater the distance from the actual event, the less likely the data are accurate.

Procedure

Think of an upcoming event that relates to the topic you are studying. As an example, the PAR group from the chapter example described a back-to-school night.

Brainstorm a list of questions or topics and categorize them under the four types of qualitative evidence: meaning, context, process, or causal relationships. Add other questions as appropriate to cover each type of evidence

Go through the chart and descriptions of the three categories of qualitative evidence: those collected directly from people, throughout a process of change, or during an event. Choose a variety of data collection strategies and brainstorm what questions could be answered.

Rate the relative difficulty of proceeding with that data collection strategy on a scale of 1–10.

Proceed with planning and implementing those qualitative techniques that appear to be the most efficacious to advancing your research.

You may wish to use the following graphic organizer as you analyze use of these techniques. The first line of the following table illustrates the ideas in the example above.

Table 4.2 Graphic Organizer for Qualitative Data

Questions	*Meaning, context, process, or causality?*	*Who has the information/When does it occur?*	*How might we gather data?*	*Relative expense of time and resource/Value*
Do parents know how to help with their children's homework?	Understanding a process	Parents and children/ nonclass time	Interviews or focus groups with students and parents. Observations during homework clinics.	Time consuming/ Valuable Less time consuming/ Group chose to do them both.

REFLECTIVE QUESTIONS

- Looking back on the description you wrote for Task 4.1, to what extent did you investigate the event from others' viewpoints?
- What other questions might you have asked that would have made your description more complete?
- What other data collection techniques might you have decided to use?
- To what extent might quantitative evidence, such as what you could gather from a larger population with a survey, help strengthen the evidence from these data?

SECTION 2: MAXIMUM SUCCESS AND RIGOR

We agree with Maxwell (1996) that qualitative evidence cannot nor should not be collected and analyzed in a linear fashion. Our experience has been that data collection and analysis are an inherently complex interplay of choice-making elements. Figure 4.2 demonstrates PAR practitioners' best approach to qualitative evidence by (a) discussing what they know or understand; (b) gathering data to confirm, deny, or enhance that understanding; and then (c) analyzing their data shortly after the data are collected. The actual process may move in a loop between any two steps before proceeding. New results help to fine-tune the practitioners' next phase of data collection.

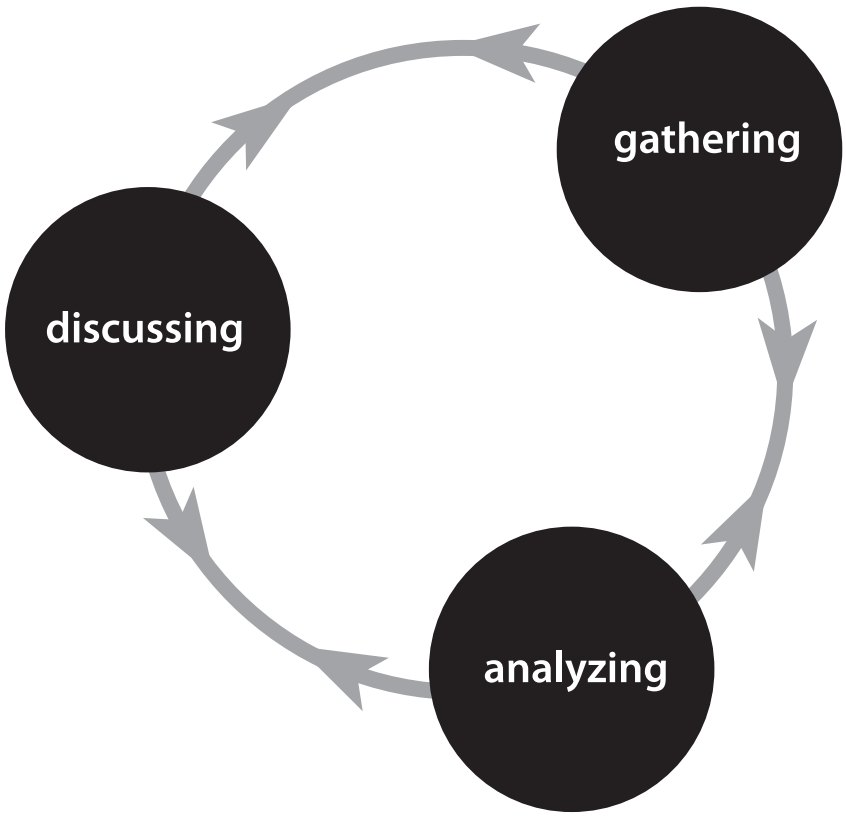

Figure 4.2 Process of Qualitative Data Collection

SOURCE: Alan Bucknam/Notchcode Creative, 2006.

This interplay allows PAR practitioners to build projects with valid and reliable results. While discussed in more detail later, practitioners demonstrate validity by gathering data from multiple sources in order to confirm their conclusions. Reliable conclusions are demonstrated through the ability to improve educational practice in a local context and the transferability of these findings to other settings.

Managing Time and Resources

Journals, scrapbooks, case notes, portfolios, field notes, observations, and so on all have one factor in common: the conscious collection of thought as data.

This is a daunting task, since people have more thoughts in a day than they can count, in fact more than they are aware of. Educators frequently feel caught in a system that requires them to work long weeks during the school year. Many tasks require their attention, some of which add to their educational settings but do not directly affect students. The secret to successful completion of a PAR project, without undue stress, is to wrap the project creatively into as many ongoing tasks as possible. The following six strategies will help the new PAR practitioners with time efficiency:

- Aim for the collection of digital data, capturing the exact words of the subject. To the extent that all data hit this target, analysis time will be shortened.
- Know when the data gathered are "enough." Enough qualitative data can be convincingly quantified. For example, we found that when we questioned 20 parents (out of a class of 30) about their involvement in their children's education, we found that the majority attended parent-teacher conferences (80%). A research team may judge data as adequate when it becomes clear that they have captured the major themes, usually when subjects repeat what others have already stated. At this point, researchers may consider confirming their results using new techniques or from new sources. When two techniques produce similar responses from a variety of subjects, these techniques hold sufficient evidence for the researchers to consider moving into action.
- Make it easy for subjects to participate in the collection of data. Will an e-mailed self-report questionnaire work? If so, then do not make appointments for interviews.
- Make data gathering part of normal work activities. Observations are a good example of data collection wrapped into the educator's day.
- Students can be assigned a time to reflect on their participation during the day, allowing the educator time to write as well.
- Incentives may influence whether subjects will make themselves available for focus groups. Many educators using PAR have used food as an incentive.

How to Make It More Rigorous

PAR practitioners who increase the rigor with which they approach both data collection and analysis do much to enhance the efficacy of reports to their constituencies. To add rigor, we recommend the following strategies that require little time.

- Maintain a strict time line for data collection and analysis (Glanz, 2003). PAR groups hold each other accountable to time lines and plans, acting as critical friends to ensure that everyone stays on task.
- Capture the number of respondents and percentages of agreement as qualitative data are collected. Qualitative evidence is more descriptive and convincing when reported side by side with numbers and percentages.
- Divide the note-taking sheet into two columns. On the left, take notes as usual. On the right, write down comments that come to mind. The right-hand column becomes a qualitative record of your critical thinking about the ongoing procedure.
- Use any existing whole-faculty study groups or professional learning communities that already exist to further data collection efforts. For instance, when the example PAR group shared their ideas with the faculty study groups in their school, others offered to gather information from the parents working on special projects in other areas.

Introduction to Mixed Methodology

Pragmatic use of mixed methodology means that PAR practitioners make use of all available data (both qualitative and quantitative) in order to build a rigorous, cohesive set of conclusions about their topic. They do this through the triangulation of multiple sources of data. Triangulation is defined as using a variety of research methods to compare diverse sources of data pertaining to a specific research problem or question. This process helps to enhance the validity of results, since they do not overly rely on any particular method of study.

This chapter has clarified the use of several types of qualitative data. Comparison of data collected at different times, which uses different methods or populations, builds a strong analysis of the issues. The comparison also ensures that resulting actions take into account meanings, context, processes, and causality. Some types of qualitative data ask similar questions, and when compared, these data types verify the consistency of human experience across any given issue.

However, there are times when qualitative data alone will not be sufficient to alleviate doubt about the outcomes achieved through PAR projects. As an example, in a hypothetical research project, 100% of the parents in a focus group, all with children from the same classroom, thought that the school did not offer worthwhile volunteer possibilities. Would that necessarily make it true? What if the researcher instead recorded that the five parents who attended the focus group had their children in the same class of 30 students and that a subsequent

questionnaire distributed to the whole class showed that 65% of the parents reported the need for a greater range of volunteering possibilities? Both of the statements were true, and both quantified their results, but the reactions to the two reports, with two size samplings, might be very different.

Reporting situations for large groups will likely be more valid, credible, and reliable by verifying results with quantitative forms of measurement. In the example case, the PAR team studying parent involvement designed a questionnaire to validate information originally acquired through a focus group. PAR researchers need to evaluate their data and ask, "If an experience that exists for a few students or parents also exists for many students or parents, does it exist for the population as a whole?" Larger populations are more easily studied using quantitative techniques that are covered in Chapter 6.

Task 4.2: Data-Planning Matrix

The following exercise is adapted from Maxwell (1996, p. 83). Researchers can employ the exercise to plot individual and group needs for data in PAR projects. This planning matrix can be used for both qualitative and quantitative data, and we suggest that, like the logic model, PAR groups employ the task throughout multiple cycles of the PAR process.

Procedure

Any of these may be tracked using a graphic organizer as follows:

- Establish a table with six columns and multiple rows in a landscape format.
- Label each column from left to right as follows:

  What do I need to know?

  Why do I need to know this?

  What kind of data will answer the questions?

  Where can I find the data?

  Whom do I contact for access?

  Time line for acquisition

This example has been filled out by the team whose work was discussed throughout this chapter. Note that the three main sources of qualitative data

overlap. Table 4.3 shows that the team is realistic about the substantive amount of work needed to collect evidence within the period of a few months.

Table 4.3 Planning Matrix Graphic Organizer

What need to know	*Why need to know It*	*Data*	*Who/where data*	*Time line needed*
Whether and to what extent parents are involved in their student's education	What can be done so that their involvement aids academic standing	Interviews with involved and noninvolved parents Reflections and field notes Student work and homework clinic observations	Parents and students/library pizza party and PTO meeting Parent/teacher conferences Homework clinic	One month: can be done by next meeting Design field notes and test during conference with counselor and use at parent/teacher conferences in 3 weeks. Plan and advertise homework clinic, then gather homework and observe

As an individual or group, fill in the table until all questions have potential sources of data listed.

Discuss access to data issues and assign group members to each. When implementing an individual PAR project, review the table with a critical friend to ensure a high level of sensitivity related to data collection issues.

CONCLUSION

Qualitative evidence can be words or pictures. Whether collected from individuals, throughout a process of change, or during an event, PAR teams rely on

strategies that balance time and resource constraints while collecting enough evidence to rise above the subjective nature of understanding. Overall, the strongest strategy is to collect data from multiple sources and then compare results.

Discussed in this chapter were (a) collecting individual data from interviews and focus groups, (b) collecting data throughout a process of change from reflective journals, field notes, and anecdotal evidence or logs, and (c) collecting data at the event through observations or student work. Each has positive attributes that help these data add to the richness and variety of understanding on which the PAR team will base their conclusions. These strategies are constrained by either issues of time, subjective understanding, or the biases of either the researcher or subject.

The people collecting qualitative data can take steps to ensure that their work is accurate and precise. PAR teams further the quality of these data when they work as critical friends to establish usable tools, double-check for bias, and adhere to a regular timetable for date collection. Finally, data emerging from various qualitative and quantitative strategies should be compared. Mixed methodology aids PAR teams to build a rigorous, cohesive set of conclusions about their topics.

NOTE

1. Several PAR studies, which took place during the 2003–2004 and 2005–2006 school years, are blended in this example (James, 2006a, 2006b, 2006c).