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PREFACE

Action research is one of the most practical and efficient methods of conducting research by educators. The mere mention of the word "research" should not bring terror to the minds of educators. Many educators feel that conducting research is too complicated, painstaking, and time consuming. However, action research can offer a viable approach for conducting meaningful and practical research for school improvement.

This book has been written based upon years of study, research, and in-service training workshops on this topic. The strategies have been applied in both public and private elementary and secondary schools and in university settings. This book includes many proven principles and ideas for teachers and administrators. *Action Research for Educators* is based on a collaborative approach of recognizing the needs of all educators in utilizing a simple but powerful method of conducting research within the educational environment.

The concepts of action research can be used to support any educational program. It is a practical and no-nonsense approach that can be used by any educator—early childhood, elementary and secondary, preservice teacher programs, in-service teacher development programs, and at the graduate university level in educational research courses. Action

- Examples on how to conduct literature reviews.
- A detailed explanation of collecting data and analyzing this data in a practical manner.
- Practical tips and strategies to analyze data using basic statistical methods.
- Samples of teacher action research projects and references.
- How to construct graphs using Microsoft Excel.
- Methods of evaluating action research.
- Explanation of how to conduct a formal action research proposal.
- Strategies in conducting interviews and surveys.

The technique of action research, as presented in this book, has been applied in schools and taught for several years. For example, this technique has been used in major school districts to improve performance on test scores, teacher morale, quality of student learning, leadership, discipline, and safety. The principles of action research have also been implemented as a process to diagnose school organizational problems and to develop specific action plans to help improve the overall performance of schools, colleges, and universities. Several schools have implemented the principles from this book. Professionals have used this research to study student discipline problems and absenteeism, student motivation and self-esteem, teacher morale and stress, and overall student performance in the classroom.

This book contains a rich source of educational and reference aids so that educators can apply the principles of action research. Some of these aids include:

- A sample of educational problems.
- A sample of field-based educational issues.
- Detailed listing of references and benchmarking techniques.
- Samples of teacher action research projects.
- Examples of using action research to improve the overall school management.
- Case illustrations and figures in understanding action research.
- Seventy-five ideas for conducing action research.
- Actual examples of surveys and questionnaires used in action research.

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1

THE NATURE OF EDUCATIONAL RESEARCH

PRINCIPLES OF RESEARCH

A working definition of research is the systematic process of attempting to find a solution to a problem (when the solution is not known) using an acceptable methodology. The argument can be made that if the solution to the problem is known, then a person merely needs to find the solution, and, therefore, systematic research is not necessary. Research involves more than just finding a known solution to a problem. It entails a careful undertaking to discover new facts and relationships concerning a solution that is unknown.

Many people use the term *research* loosely, when, in fact, the process of research is much more investigative and scientific. As early as the 1930s, the famous philosopher John Dewey (1933) outlined the scientific process of research consisting of: problem identification, developing a hypothesis (or educated guess), collecting and analyzing data, and drawing conclusions concerning the data and hypothesis (see Figure 1.1).

The basis of Dewey's description of scientific research is somewhat similar to the process used today. Although variations in the process exist, depending upon the research methodology, this process is generally accepted as a general framework for scientific inquiry. Several common

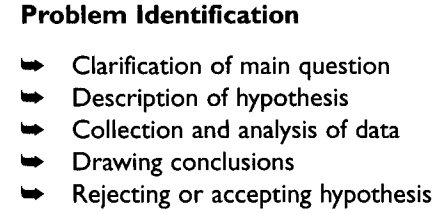

Figure 1.1. John Dewey's Scientific Process of Research

terms are used in research. The term *theory* can be described as "an explanation of observed phenomena." For example, most educators have learned Abraham Maslow's Sociological Human Needs Theory. Maslow (1943) attempted to describe the sociological needs of human beings through a hierarchy of lower-level and higher-level human needs. In essence, his explanation is called a research thesis. Piaget's Theory of Human Development is another example of a theory (1926). Many of Piaget's theories are familiar to educators who attempt to understand the development of children. Theories are an important part of research because the result of research often concludes with the development of a theory.

Another term that is used in research is called the *variable*. A variable is a quantitative way to describe a concept. Typically, the two kinds of variables are *independent variables* and *dependent variables*. Independent variables are defined as the cause of some action and dependent variables refer to the effect of some action. For example, if we were to reconstruct an experimental research study based on the question of whether fluoride reduces tooth decay, we might have two variables. The first variable, fluoride toothpaste, would be the independent variable (i.e., the effect of the fluoride on tooth decay), and the second variable, the dependent variable, could be the difference in the tooth decay (i.e., the reduction of tooth decay). Variables are often used in research to help describe a cause-and-effect relationship.

One of the more popular terms used in research is the *hypothesis*. A hypothesis can be described as simply an "educated guess." A more scientific definition of a hypothesis might be "the description of the relationship among two variables." Researchers often use two types of hypotheses: the *null hypothesis* and the *directional hypothesis*. The null hypothesis states that there is no difference or relationship between two

Quantitative
➥ A scientific approach to undertaking research

Qualitative
➥ A naturalistic and emergent approach to enquiry

Action Research
➥ A process of solving problems and making improvements

Figure 1.4. Three Approaches to Research

ACTION RESEARCH PRINCIPLES

Simply stated, action research is a systematic process of solving educational problems and making improvements. Action research is different from quantitative and qualitative research, but has characteristics of both. An action researcher utilizes an appropriate intervention to collect and analyze data and to implement actions to address educational issues. Action research is suitable for educators as a practical process because it does not require elaborate statistical analysis (e.g., quantitative research), or lengthy narrative explanations (e.g., qualitative research), but is more concerned with solving a problem in an efficient and feasible manner (Figure 1.4). Also, while traditional research methods have given much more concern for relating the findings to other settings or populations, action research is more concerned with improvements within the context of the study (i.e., solving a given problem). Figure 1.4 describes these three approaches to research (Tomal, 1996).

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behavioral science in attempting to solve sociological problems. He felt that action research programs were crucial in addressing social change issues and making social improvements. Lewin emphasized the need for collaboration and group inquiry in collecting information about social issues and developing action plans to solve these social problems (Lewin, 1947). Lewin's methods did not gain widespread popularity in the business and educational fields until the 1970s, when management consultants began using the principles of action research to improve organizational effectiveness. Although the use of action research flourished in the business world during the 1980s, it has only been within the last decade that action research has been widely used and formally applied in the educational environment (French & Bell, 1995; Sagor, 1992).

In action research, the researcher is concerned with using a systematic process in solving educational problems and making improvements. The researcher utilizes appropriate interventions to collect and analyze data and then to implement actions to address educational issues. Action research is suitable for educators as a practical process because it generally does not require elaborate statistical analysis. Also, although traditional research methods have shown much concern for generalizability (i.e., applicability of the findings to other settings or populations), action research is more concerned with improvement within the context of the study. Richard Sagor (1992), in his book *How to Conduct Collaborative Action Research*, emphasizes this point by stating: "As action researchers, you don't need to worry about the generalizability of your data because you are not seeking to define the ultimate truth of learning theory. Your goal is to understand what is happening in your school or classroom and to determine what might improve things in that context" (Sagor, p. 8).

Several features of action research distinguish it from other research methods. In traditional research, the researcher usually develops a null hypothesis as an objective basis to undertake a study. The researcher then sets out to either accept or reject this hypothesis. Scientific conclusions are later drawn. Action research does not entail creating a null hypothesis but rather focuses on defining a problem, collecting data, and taking action to solve the problem. Also, the action researcher is less concerned with statistical analysis as compared to the quantitative researcher.

Action research is also different from qualitative research. Qualitative researchers are generally concerned about discovering information

***Problem/Issue:* Organizational inefficiency and poor leadership**
➥*Intervention*
Survey feedback
Total quality management
Visioning
Cultural study
Socio-technical system
Leadership grid
***Problem/Issue:* Poor morale and teamwork**
➥*Intervention*
Team building
Conflict resolution
Quality of work life
***Problem/Issue:* Group and organizational conflict**
➥*Intervention*
Peacemaking
Conflict resolution
Team building
Role negotiating
Sensitivity training
***Problem/Issue:* Career and performance difficulties**
➥*Intervention*
Team building
Coaching
Education

Figure 2.1. Organizational Issues and Possible Intervention Method

Much like the OD practitioner, administrators can utilize the same interventions in addressing a multitude of educational issues. Likewise, action research is useful for teachers as a practical and sensible methodology for making classroom improvements.

ACTION RESEARCH MODEL

Kurt Lewin was an initial pioneer in establishing the action research model, but many researchers have proposed variations of his model (Beckhard, 1969; Argyris, 1970; Shepard, 1960; French & Bell, 1995). Although variations on this model exist, depending upon the nature of the researcher's discipline, the general framework is similar to Lewin's

Let's explore an example of applying this action research model for an educational issue, such as staff development. We will start with the assumption that the school principal does not know which of the teacher developmental areas are in need of improvement. Also, we will assume that the principal would like the teachers to develop a feeling of ownership (i.e., "buy in") to the process rather than feeling as if the proposed developmental effect is being mandated. Figure 2.3 lists typical examples of professional development needs.

Stage 1: Problem Statement (Initial Diagnosis)

The process begins with the principal identifying the initial problem based upon a "felt need" that her faculty would benefit from continuing professional development. Her initial diagnosis suggests a need for teacher skill development, based upon requests from the faculty, reading research articles, and the observation of teacher and student per-

Student-Centered Issues

- Building self-esteem
- Improving study habits
- Improving student character
- Developing student interpersonal relationships
- Helping students work together
- Helping students deal with change
- Improving student motivation

School-Centered Issues

- Dealing with financial constraints
- Gaining more parent involvement
- Improving the organizational structure
- Improving leadership
- Developing better teamwork
- Developing school improvement plan

Teacher-Classroom Issues

- Improving student attendance
- Managing student conflict
- Counseling students
- Helping students manage strong emotions
- Teaching challenging students
- Handling disciplinary problems
- Handling student complaints

Instructional-Development Issues

- Improving test scores
- Improving instructional techniques
- Developing team teaching
- Enhancing instruction
- Improving curriculum
- Improving student achievement

Figure 2.3. Examples of Professional Development Needs

formance. The principal might explore different methods to collect data (e.g., survey, needs assessment) for determining skill deficiencies or areas in need of improvement for the faculty. She would also conduct preliminary costs, time estimates, possible facilitators, tentative workshop dates, and other logistics prior to initiating and announcing her intentions. It is important during this initial diagnosis stage that the principal conduct a reasonable amount of planning in order to decide whether to undertake the action research project.

Stage 2: Data Collection

Data collection, the second stage, can be accomplished by several methods, such as: needs assessment, interviews, and group meetings. For example, if the principal elects to administer a needs assessment, this approach can be useful in ensuring confidentiality and anonymity. A typical needs assessment might consist of a list of professional development topics (e.g., class management, learning styles, curriculum development, stress management, counseling students, and instructional techniques), where the respondents are asked to assign a value to each topic (i.e., Likert Grading Scale) indicating the degree of need for further development.

Random one-on-one follow-up interviews with teachers could also be conducted to gain clarification about the topics identified in the needs assessment period. This information could be helpful in gaining additional information concerning additional organizational issues and isolating specific development needs for the teachers.

Stage 3: Analysis and Feedback

In this stage, the results of the survey could be made by calculating simple mean averages, then ranking the professional development topics in order of importance. The principal could then conduct a feedback session with the faculty to review the rankings, gain clarification about the results, and obtain input from them regarding the desired topics. Although preliminary action planning might occur in this feedback session, the primary objective is to gain clarification about the collected data. Also, as a practical matter, various organizational issues (e.g., time constraints, teacher schedules, and need for further analysis)

Stage 3: Analysis and Feedback

After the teacher collects information regarding the types and nature of disciplinary offenses, she is ready for the analysis stage. In this stage, she should actually complete a problem-solving phase of this process by identifying the most likely causes for disciplinary problems. If there is more than one cause, she could rank them in order of importance. The teacher might also want to discuss the nature of the disciplinary offences with her students. By discussing the disciplinary problems with the students, she might gain more insight regarding other causes of the problem.

Stage 4: Action Planning

The action planning stage is similar to a decision-making process. After the teacher identifies the types of disciplinary problems, she should begin listing various solutions to resolve the disciplinary issues. Some solutions might consist of: separating problem students from one another, making curriculum or instructional changes, and changing the classroom rules and policies. The action-planning phase concludes with identifying the most likely solution(s) for resolving the disciplinary incidents. This stage might also include analysis of each action. The merits of each action should be examined for their strengths and weaknesses in resolving disciplinary problems. For example, if the disciplinary problem tends to be an increase in student assaults, the teacher could work with a committee to examine possible solutions, such as educating students about assaults, making improvements within the classroom environment, removing a problem student from the classroom, or building the self-esteem of students.

Stage 5: Taking Action

Although this stage entails that the teacher actually incorporates the action(s), the teacher might also want to develop a contingency plan. A contingency plan involves developing an alternative course of action should the initial action prove unsuccessful. For example, if the problem is student assaults, the contingency plan might include harsher penalties for offenders, more elaborate classroom changes, or increased security.

in the study is voluntary, agreeing to share information with the participants, agreeing not to deceive the participants, protecting the subjects from harm (physical, emotional, and mental), and taking reasonable measures to honor all commitments that have been made to the participants (APA, 1992).

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DATA COLLECTION METHODS

THE NATURE OF DATA COLLECTION

There are many methods to collect data in action research. Selecting the best method is a crucial aspect to ensure the acquisition of relevant and valid information. The old expression, "garbage in, garbage out" applies to action research because if you fail to use the appropriate method of collecting data, your research will be compromised. In planning to collect data, the researcher also needs to consider the type of analysis of the data to be performed. A common mistake of educators is to select a method of collecting data without planning for the best method of analysis. For example, if a researcher is planning to collect data through the use of a questionnaire, he or she needs to plan how the actual responses to each of the items will be analyzed. A pilot testing of the questionnaire and analysis of the data should be performed. This will allow the researcher to identify more appropriate methods of collecting data or the need to revise the design of the questionnaire so that it is more suitable for analysis. For example, the researcher might decide, after piloting the questionnaire, that a different type of scale is needed in order to complete a comprehensive analysis. It is best to identify these problems during the pilot phase

making improvements. For example, if the data to be collected concerns the reading ability of students, then the researcher must also be able to benchmark and collect information regarding different viable reading curriculum, instruction, or intervention methods that could be used to improve the reading abilities of the students (i.e., benchmarked data). Assessing this type of information can help the researcher in deciding whether to conduct the action research and how much time and resources will potentially be needed. Moreover, the researcher might also plan to collect benchmarking information on reading while, at the same time, collecting the raw data collection from the subjects. This process could help the researcher be more efficient in the action research process.

When will the data be obtained? Just as important as collecting the right type of data is the researcher's ability to collect data at the appropriate time. For example, the data might best be collected during the beginning of the school year versus at a time when the students have more distractions, such as close to a holiday, scheduled activity, or end of the school year.

How will the data be collected? The researcher needs to be concerned with how the data is collected and whether consent forms or other confidentiality agreements should be used. Likewise, the researcher should be concerned with the method of collecting data so that it does not harm the students in any way psychologically or emotionally. Also, care should be taken to secure the data so that the information does not have a negative effect upon the learning environment. Although numerous methods can be used to collect data in research, some of the more common methods used in action research are listed in Figure 3.1.

OBSERVING

Observing is one of the more popular methods of data collection for all research studies. The many techniques of observing range from structured observations using tally sheets to an open, unstructured approach. Whether the researcher uses a structured or open process, skill is needed.

Observing

- Direct observation
- Anecdotal notes
- Check lists
- Journals

Surveying

- Group surveys
- Individual surveys
- Two-way surveys
- One-way surveys

Interviewing

- Group interviews
- Focus groups
- Individual interviews
- Structured interviews

Assessing

- Portfolios
- Testing
- Records
- Recordings

Figure 3.1. Methods of Data Collection

Direct Observations

One of the advantages to using direct observation is the researcher's ability to obtain actual firsthand information regarding subjects. Direct observation can give the researcher the opportunity to collect data in a real-life situation that cannot be obtained through secondary information, such as self reports and assessments. The researcher can also obtain information that is more reliable than relying upon data obtained from the subjects themselves or third-party individuals. However, there are some limitations. It is possible that if subjects know they are being observed, their pattern of behavior could be altered. For example, if a principal decides to observe a classroom, undoubtedly the performance of the students and teacher will increase. This concept is sometimes called the *Hawthorne Effect*. This concept suggests that the mere giving of attention to people will cause their performance to increase. Various techniques can be used to reduce the Hawthorne Effect, such as use of one-way mirrors or simply positioning oneself in the least conspicuous manner in the room (Mayo, 1939).

The observational technique can be more time consuming that using other data collection methods. If a larger number of subjects need to be observed, then other methods, such as interviews, questionnaires, and assessments might be more practical. However, even with the limitations, the advantages of the observational method can produce superior results for the researcher.

Whether an observer uses a structured or unstructured approach, the researcher should be aware of factors that hinder the observer in making accurate recordings (Frick & Semmel, 1978). Figure 3.2 lists some of the factors that hinder observations.

Observers must continually refine their skills to guard against these factors. One common problem for observers is the tendency to "see

Factor: Halo Effect
➥ *Definition:* Tendency to always view subjects positively or negatively

Factor: Leniency Effect
➥ *Definition:* Tendency to give high observational ratings to all subjects—even when differences exist

Factor: Recency Effect
➥ *Definition:* Tendency to give more emphasis to recent behaviors during the observational period

Factor: Central Tendency
➥ *Definition:* Reluctance to rate subjects either high or low and give average ratings

Factor: Rater Indecisiveness
➥ *Definition:* Inability to make categorical judgments about the subjects

Factor: Personal Bias
➥ *Definition:* Tendency to rate subjects based upon the observer's own prejudice

Factor: Contamination
➥ *Definition:* Any conditions that alter the natural setting of the subject's performance, which is being observed

Factor: Observer Omission
➥ Definition: Inability of the observer to record all necessary subject behaviors

Factor: Observer Drift
➥ *Definition:* Tendency for observers to lose their concentration and fail to record information

Factor: Intra-observer Reliability
➥ *Definition:* Failure of the observer to consistently agree with his or her observational recordings

Figure 3.2. Factors that Hinder Observation

example, the researcher might find it difficult to record general observations without a structured set of factors to help provide guidance. Several different methods of recording observations can be used with checklists, such as duration recording, frequency recording, interval recording, and continuous recording (Gall, Borg, & Gall, 1996).

The *duration recording* is a method in which the observer records information during a specific elapsed period of time. For example, the observer might record observations while a student is "on task" or "off task" and is engaged or not engaged in activities. The *frequency recording* technique allows the observer to make a tally mark on the checklist each time he or she observes a pre-specified behavior. The *interval recording* involves the observation of behavior at predetermined intervals, such as every three minutes. The observer records the student's behavior at each three-minute interval. *Continuous recording* involves observing all pre-specified behaviors of a student during the observation interval. Because it is difficult to observe all behavior, the observer must focus on specific incidents or behaviors. Checklists can be especially helpful in keeping track of student descriptions, such as gender, time, age, and conditions (Figure 3.6).

Journals The use of journals is similar to the method of anecdotal recording. Although there are different types of journals, such as logs and diaries, essentially the researcher is observing the situations (i.e., students in a classroom) and making narrative recordings. A log tends to be a more detailed description of events and incidents, and a diary tends to be more of a personal account of one's feelings and events. Therefore,

Date:_____ Student:_____ Gender:_____
Time:_____

Directions: Please mark a check for each time the following behavior is observed.

Student takes notes:_____ Total:_____
Student asks questions:_____ Total:_____
Student responds:_____ Total:_____
Student looks confused:_____ Total:_____
Student works cooperatively:_____ Total:_____
Student gives answer:_____ Total:_____

Figure 3.6. Sample of Observational Checklist

handwritten notes. Although the interviewer is primarily concerned with getting verbal information from the respondents, valuable observations can be made while observing their behavior during their responses that might not be obtained through the use of questionnaires. The interviewing technique also has the advantage of allowing the interviewer to engage in an in-depth discussion with the respondents, which can often lead to more useful and richer information. Also, the researcher can structure his or her questions based on specific areas of interest that can elicit different types of responses (Figure 3.8).

There are some disadvantages in using the interviewing technique, such as time limitations, potential inaccuracy of interpretations of the participant responses, difficulty in interviewing a large number of people, and that some people might not feel comfortable in participating in the interviewing process. Regardless of whether the interviewer conducts a group or individual session, the basic steps for conducting an interviewing session are the same (Figure 3.9).

The first step in conducting the interview is to *prepare the questions*. The questions should be tailored, based upon the information that the researcher wants to obtain. If the researcher is planning to interview a student regarding his or her difficulties in learning, the questions can be structured based upon feelings, situations, and behaviors that best elicit responses and get to the root of the problem. It also might be important

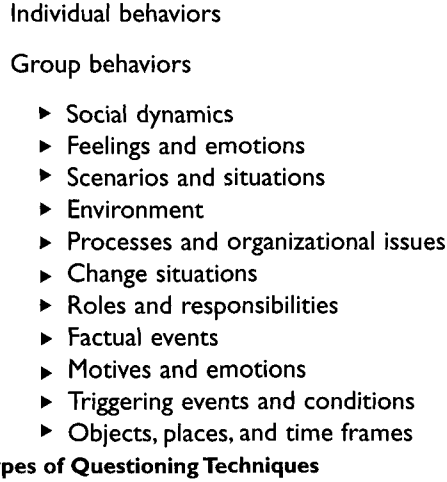

Figure 3.8. Types of Questioning Techniques

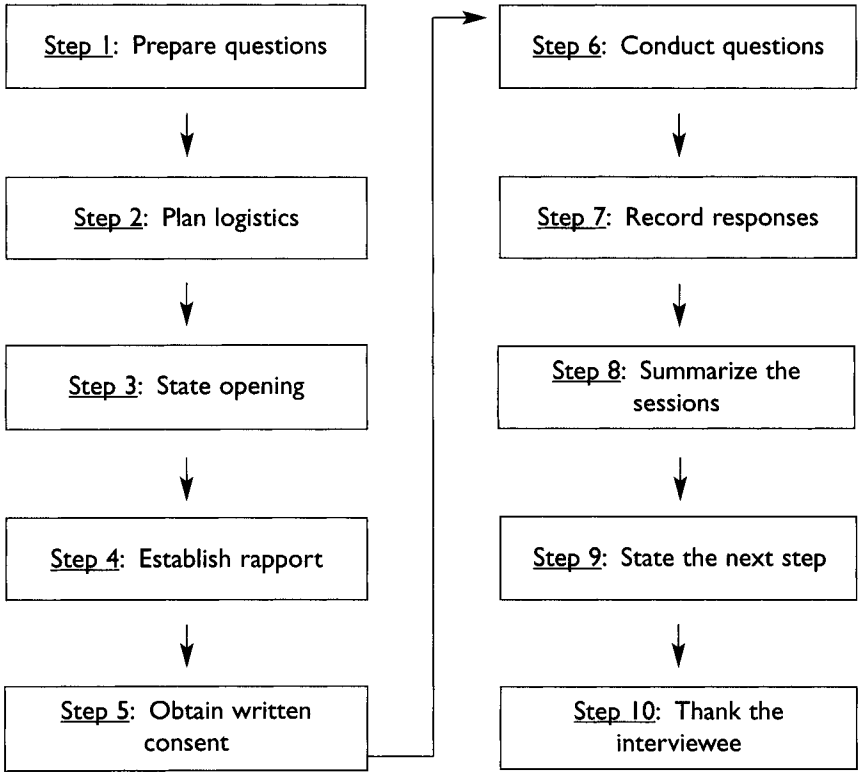

Figure 3.9. Steps in Conducting an Interview

to pilot the questions with a small group of experts or respondents before the interview session.

In step two, the researcher should plan the *logistics* for the session. It is important to find a suitable location for the interviewee(s) so that they will feel comfortable. This location should be in a quiet place with little distractions or potential for interruptions. For example, if the researcher selects the teacher's office or administrator's office, the student might feel very uncomfortable, given that it is not familiar territory. It might be more practical to find a neutral location, such as the student's study hall or classroom.

The third step of the interview involves the *opening*. Here, the researcher needs to set the stage regarding the purpose of the session and the ground rules, such as: it is an informal interview, the respondent should answer questions candidly and honestly, and state the time

you like best about your teacher?" Open-ended questions can be very powerful in obtaining a lot of information from the interviewee, although it can be ineffective and time consuming if the interviewer only is concerned with a yes or no response. *Close-ended questions* are best when the interviewer desires a brief "yes or no" answer. Typical closed-ended questions are "Did you like the lesson?" and "Do you like your teacher?"

The use of *paraphrasing* can be a useful questioning technique when the research interviewer desires the interviewee to elaborate. The paraphrasing technique consists of the interviewer simply putting in his or her own words what the interviewee stated. This can be good in drawing out additional information from the interviewee. *Reflection* is an interviewing technique that simply consists of a restatement of the interviewee's comment. For example, if the interviewee states that he or she feels sad in class, the interviewer would simply respond by saying, "You feel sad in class?" Restatement techniques can force the interviewee to continue talking and elaborate.

The use of the *expanders* are simply short words or expressions that the interviewer can state that will cause the interviewee to continue talking. Examples include; "Go on," "I see," "Is that right?" "Okay," and "Good." The last technique, the use of *silence*, might appear ironic as a questioning technique, but sometimes the best questioning technique is to not ask a question at all. The use of silence can force the interviewee to begin talking and can be more powerful in gaining information than asking structured questions that could stifle the interviewee from freely talking.

The last steps in the process consist of recording the responses, summarizing the session, stating the next step in the research process, and thanking the interviewee for participating in the interview. The researcher should always give his or her best estimates for completing the study so that the participants do not develop unrealistic expectations.

Group Interviews There are several methods in conducting interviews. The *group interview* is one that consists of asking questions to two or more people who have gathered for a session. It is important to select people who can make a contribution to the interview session. Otherwise, one or more people misselected can interfere with the in-

terviewing process and the researcher will fail to get good results. The interview process has been popular for many fields of study, such as sociologists, psychologists, educators, and health-care professionals. Conducting a group interview requires a great deal of skill by the interviewer. He or she needs to be able to pay attention to all the participants of the group and ensure that everyone contributes. The interviewer needs to have good facilitation skills in controlling the dominating individuals and drawing out responses from shy individuals.

There are several types of difficult participants in a group interview (Figure 3.11). The *excessive complainer* is the type of interviewee who takes advantage of the session by expressing his or her negative feelings. These complainers have a certain characteristic sound. If you listen to them, it sounds almost melodic. They also use a lot of "ands" and "buts." Complainers often have the ability to switch from one topic to another without hardly taking a breath. Although the interviewer might gain a lot of information, the complainer generally gets off topic and needs to be controlled. In essence, complainers are people who develop a sense of powerlessness. They often see causes of their problems as being outside influences, such as fate or other people. Therefore, when problems are encountered, the complainers are more apt to blame others than to accept it and try to logically understand the root cause of problems. In dealing with complainers, try not to produce an adversarial relationship. The researcher might start by paraphrasing or restatement such as "Okay, I understand," or "Let me see if I can paraphrase this." The researcher should also try not to apologize for the complainer's excessive complaints, but rather try to move to problem solving with the complainer to gain the information needed.

The *hostile interviewee* can be difficult to control. This individual is generally abrupt, abrasive, and emotional. The hostile person is not the most common type of interviewee, but certainly is one of the most difficult to manage. They generally have a deep sense of feelings about the way others should behave and there is often a noticeable degree of anger and distortion of real facts. They are generally inconsiderate to the interviewer. The hostile individual also has a very negative attitude and sometimes believes that outside influences are overwhelming. They often disregard the positive aspects and tend to focus only on the negative. They reinforce this attitude until it often becomes a consistent pattern. It

Type of Difficult Interviewee: The excessive complainer interviewee

➥ *Managing Technique:*

- State, "I understand your feelings"
- Don't reinforce
- Ignore the complaint

Type of Difficult Interviewee: The abusive interviewee

➥ *Managing Technique:*

- Don't argue
- Stick to the facts
- Be firm but let them save face

Type of Difficult Interviewee: The long-winded interviewee

➥ *Managing Technique:*

- Paraphrase
- Provide restatement
- Don't reinforce
- Interrupt and suggest specific response

Type of Difficult Interviewee: The shy interviewee

➥ *Managing Technique:*

- Ask open-ended questions
- Use paraphrasing techniques
- Use expanders

Type of Difficult Interviewee: The drifter interviewee

➥ *Managing Technique:*

- Don't reinforce
- Say, "I understand," and redirect
- Stick to the interview topic

Figure 3.11. Handling Difficult Interviewees

is essential that when dealing with a hostile interviewee the researcher does not develop an adversarial relationship. He or she should give direct eye contact, de-escalate any conflict or negativity, and should not be overly polite.

The *long-winded interviewee* can disrupt the entire group by not allowing others to speak and often gives a biased view of the group's opin-

ions. This person often comes across as a know-it-all. He or she is generally very confident and appears to have all the answers, and often generalizes about the problem from a biased viewpoint. In dealing with them, the researcher should make statements like, "I appreciate your responses, now can I hear other opinions, too?" Also, the interviewer can use paraphrase and restatement techniques to help control this dominating person.

The *shy interviewee* can be difficult for the interviewer to extract information. This person often feels uncomfortable giving opinions in a group setting and might be hard to understand. He or she might have a sense of mistrust and feel embarrassed giving information in a group setting. Therefore, in managing this type of interviewee it is important to use open-ended questions, paraphrasing, and expander techniques.

The *drifter interviewee* is the type of person who takes discussion off track. This individual might focus on personal issues rather than the topic of the interview session. The interviewee might want to take advantage of the session for hidden agendas or personal motives. In dealing with this type of interviewee it is important to redirect the individual to the topic and not reinforce this behavior.

Focus Groups A special type of group interview is called a *focus group*. A focus group generally consists of about five to ten people, who are interviewed in a comfortable, nonthreatening setting. Although the interviewer might ask questions to the focus group, the participants often just share their feelings and perceptions while the interviewer records their responses. The focus group might also have an internal facilitator who helps to direct questions or record their responses. Sometimes responses can actually be recorded on a flip chart or newsprint. The interview questions can be placed on the top of several flip chart sheets and, when filled with responses, taped to the wall so that everyone can see the information.

Although there are different variations of conducting a focus group, the most common, from an action research standpoint, is to ask questions to the members and then record their responses. It is important to allow the participants to have freedom and responsibility for eliciting responses from everyone within their group. The focus group operates best when all members have a common interest and are

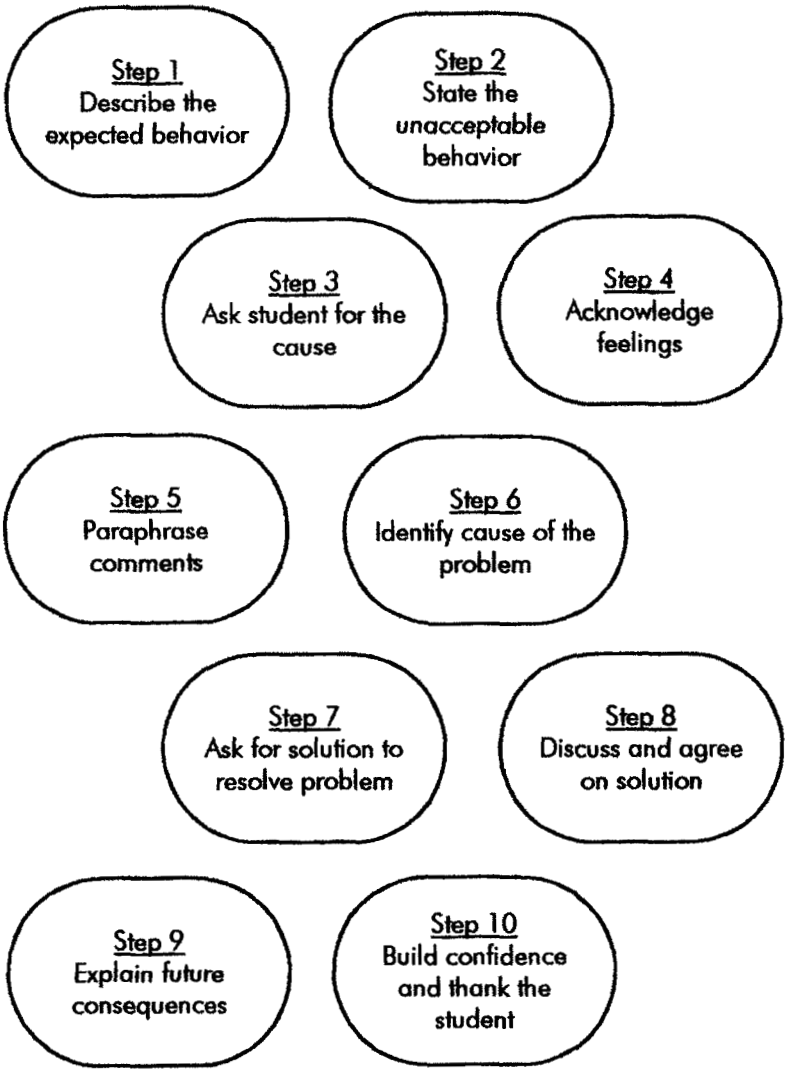

Figure 3.13. Steps in Conducting Coaching Interview Session

Step one of the coaching session begins by describing the *expected behavior*. The teacher should start the session by explaining the process, describing the expected behavior required of all students, and stating the school policy. Too often, teachers are quick to blame a student for an issue without first describing the school's policy and expectation for good student behavior. By stating the expected *behavior*

standard, the teacher confirms the school's policy on performance expectations.

In step two, the teacher should state the *unacceptable behavior*. The teacher should describe the student's misbehavior in a neutral, but firm, manner. He or she should give specific examples and actual facts to support the allegation. Documentation as well as statements by witnesses can also be helpful in supporting the allegation. During this step, the teacher should be careful not to personally belittle or degrade the student or create an intimidating atmosphere.

Step three consists of asking the student the *cause of the problem*. It is important that the teacher consider possible causes that could have contributed to the misbehavior, such as: peer influence, home environment, aptitude, attitude, motivation, or health conditions (e.g., behavioral or learning disability). Often if the teacher considers these causes, there is a good chance that one of them will be the root cause of the student's problem. During this step, it is also important that the student acknowledge his or her responsibility for his or her actions (Tomal, 1999).

In step four, the teacher needs to *listen* to the student and then *acknowledge* the student's feelings. Whether the teacher agrees or not with the student, it is important that the teacher give his or her full attention to the student, empathize with the student, and maintain rapport. The student might express remorse, anger, or hostility. The teacher might respond by stating "I understand how you feel in this situation" or "I see how someone would have feelings like this in this situation." Recognizing the student's feelings helps to personalize the conversation and develop rapport, which can help in resolving the issue. Even if the student is perceived as being cold and indifferent, the teacher still needs to recognize his or her feelings.

The next step involves *paraphrasing* the student's statement so that the teacher can confirm and document the actual comments made by the student. This technique also helps to promote further discussion so that the issue can be resolved. In step six, the teacher should *identify the cause of the problem*. This step often entails an in-depth discussion because students are often reluctant to give the cause or they have not thought about the reason for their misbehavior. Step seven involves solving the problem. It is best to begin by asking the student for solutions. The students are more likely to change their behavior if they have par-

ticipated in the solution. For example, if the student suggests an appropriate solution to the problem, and it is agreeable to the teacher, then the teacher should agree with the student. If a student suggests a solution that is inappropriate, then the teacher needs to further discuss the problem and consider offering his or her own *solution* (step eight). If the student is unwilling to consider any reasonable option, then the teacher will have no choice but to impose his or her own solution to the problem.

Step nine involves *indicating future consequences* for continued misbehavior. This step requires that the teacher explain the consequences of misbehavior and ensure that the student recognizes the further consequences. The last step involves *supporting the student and building confidence*. It is crucial that the teacher reinforce a positive atmosphere and state to the student that he or she can improve. Although it might be difficult at times for teachers to give this support, an attempt to restore a positive working relationship is crucial to resolving the issue and making improvements. Teachers should also use appropriate body language. The subtle nonverbal cues and signals that a student notices can communicate a teacher's feelings toward a student. Last, the teacher should *thank the student* for participating in the individual interview session. The teacher might want to document the results of the session, which could be necessary for future actions (Tomal, 1999).

The effective interviewer is one who can quickly establish rapport with the interviewee and obtain relevant information. One of the more practical theories in helping an interviewer in communicating with a person is the use of personality styles. The theory of personality styles is as outgrowth of the work of Carl Gustav Jung. Jung, a Swiss psychoanalyst, and student and colleague of Sigmund Freud, articulated the basic theory of personality (Jung, 1923). He believed that people had four personality styles and that most individuals have a dominant personality style genetically determined and can even be observed at the infant stage. As an outgrowth of Jung's work, four styles were identified called: intuitor, feeler, thinker, and doer (Tomal, 1999).

The *intuitor* personality style has communication characteristics of being theoretical, abstract, introspective, conceptional, and tends to communicate with respect of the time frame of the future. They place an emphasis on ingenuity, creativity, and originality. Intuitors are often verbose, intuitive, imaginative, and expressive during interview sessions.

They tend to communicate in a unique, novel, or conceptual manner. However, although intuitors appear to be insightful, they are often criticized for being impractical or unorganized. Therefore, the interviewer might need to keep the interview structured.

The *feeler* personality style is one who values feelings and emotions of people. During an interview, feelers are often very personal, good listeners, and tend to be very respectful to the interviewer. They also might exhibit behaviors of being perceptive, sensitive, warm, and empathetic. Given that feelers are people oriented, they may also come across as spontaneous and introspective during the interview. However, at their worst they can be seen as impulsive, overdramatic, moody, and emotional. Therefore, it is important to ask a variety of well-rounded questions because they tend to focus on people, feelings, and emotions.

The *thinker* personality style tends to have characteristics of being objective, logical, and analytical during the interview session. Thinkers can be effective in organizing their thoughts and presenting them in a clear and detailed manner. However, they tend to be indecisive in answering questions and prefer to ponder information for a long period of time instead of making a quick decision. Their strengths during interview sessions include being deliberate, objective, and analytical. Their weaknesses include being too rigid, overcautious, controlling, systematic, and stoic.

The *doer* personality style is practical and results oriented. During the interview doers will probably communicate in short and to-the-point statements. They are less likely to engage in personal collaborative discussions that are emotionally based. The doers strength include characteristics of being pragmatic, efficient, and straightforward in giving responses. However, their weaknesses include characteristics of being too combative, demanding, impatient, insensitive, and short-sighted.

Understanding the use of the personality styles can help the interviewer in conducting interview sessions (Figure 3.14). For example, individuals with similar styles tend to communicate more effectively with each other. They tend to "talk the language" of the other person. However, two people (i.e., interviewer and interviewee) with dissimilar personality styles might encounter miscommunication. For example, if the interviewer tends to be a thinker and he or she is interviewing a personality who is dominantly an intuitor, the interviewer might appear to the person as being overly controlling and lacking ingenuity. The inter-

Personality Style: Intuitor

➥ *Characteristics:*

- Be enthusiastic
- Focus on creativity and innovation
- Allow for flexibility and freedom

Personality Style: Feeler

➥ *Characteristics:*

- Personalize discussion
- Be concerned with feelings, uniqueness, and individuality
- Relate experiences based on emotional reactions, feelings, warmth and empathy

Personality Style: Thinker

➥ *Characteristics:*

- Present information in an organized, structured manner
- Don't push for immediate action and responses
- Be logical and data oriented and present things in a logical fashion
- Be more analytical and quantitative

Personality Style: Doer

➥ *Characteristics:*

- Be practical and concrete, spirited, and down to earth
- Use physical, practical examples in discussions and be succinct in questioning

Figure 3.14. Personality Styles During Interview Sessions

viewer might overwhelm the interviewee and he or she may not listen or actively participate.

On the other hand, if the interviewer is a doer personality style and the interviewee has an intuitor style, conflict could arise. The interviewer might be viewed as being too impulsive, quick, and bottom-line oriented. The interviewee might become frustrated and impatient and desire a more creative, innovative, or animated approach to the interview session, instead of being too down-to-earth and succinct.

The use of personality styles can be a useful aide when conducting interviewing sessions. The key to communicating effectively with interviewees begins with identifying one's own dominant style and then the

style of the other person. This does not mean that the interviewer must permanently change, but rather adapt one's approach to the interviewee(s). For example, when interviewing a person who is a dominant thinker, extra time might need to be taken to organize the questions and talk in a structured manner. When approaching an intuitor, an interviewer might want to be more dynamic and offer more thought-provoking statements. When dealing with a thinker, the discussion should be more structured and organized and presented in a step-by-step fashion. The feeler might also need time to contemplate and process information as compared to the doer, who might be more inclined to give his or her opinions. Doers, however, might just want to give quick answers to questions and the interview session may be short-changed in getting in-depth information.

One of the potential difficult aspects a person might encounter during an individual interview is defensiveness. When people become defensive, they often resort to using *defense mechanisms*. Defense mechanisms are psychological crutches that people utilize to prevent themselves from experiencing negative feelings (Figure 3.15).

Denial is a defense mechanism where people simply deny their own behaviors or feelings about a situation. For example, if a person is asked an uncomfortable question during the interview, he or she might give an untruthful response rather than experience potential embarrassment. *Projection* is a technique where an individual transfers his or her feelings to another person. For example, a student might state, "I am not tired, she is tired," or "I'm not disorganized, you are disorganized." It is important for the interviewer to watch for these patterns in people, which can give clues to their actual feelings and to ask follow up questions to gain clarification or verification of their responses. The use of *reaction formation* is

- Denial
- Projection
- Reaction formation
- Fantasy and idealization
- Avoidance
- Aggressive behavior
- Displacement

Figure 3.15. Defense Mechanisms Used During Interview Sessions

"Do you feel motivated by learning the material itself?," "Does recognition motivate you?," "Does the use of rewards provide incentive for motivation?," and "What things demotivate you from wanting to learn?"

SURVEYING

Conducting a survey is, without a doubt, one of the most popular and effective techniques for data collection in action research. A survey is used to obtain opinions from people regarding their feelings, beliefs, impressions, and facts about almost any educational issue or problem. Although different formats are used in conducting a survey, the main objective is to ask questions directly to people to get information that can be later analyzed and then used to develop action plans to address educational issues. Although most surveys tend to be administered through a questionnaire to a large number of people, surveys can also be conducted on an individual basis and administered through the Internet, over the telephone, via fax, or in person.

Group Surveys

Traditionally, surveys have been used when there is a large number of people in the sample population when conducting personal interviews would be impractical and time consuming. This survey is called a *group survey*. However, the use of the survey has evolved in action research, and is used for many different purposes, such as: surveying a person, an entire classroom of students, the teachers and parents, or all stakeholders of a school district. Figure 3.16 shows an example of some of the topics in which surveys have been used to obtain information.

Although surveys have many uses, they can be especially helpful in conducting longitudinal and trend studies. These types of studies collect information at different points in time and when assessing different samples from populations whose participants have changed and the researcher wants to make a comparison. Surveys can also be useful as a follow up to implementing actions to evaluate the results of the actions. The use of surveys can not always determine valid changes because the survey has been administered at different points of time historically. Although, the

- Improperly identifying the target population
- Poor planning of resources
- Poor design of questionnaire items
- Failing to pilot the questionnaire
- Poor planning of survey administration
- Failing to properly decide data analysis prior to administration
- Failing to consider all questions that need to be addressed

Figure 3.17. Problems in Conducting Surveys

participants and a problem in the questionnaire is discovered, then the entire survey might need to be redone. This problem can be prevented if the questionnaire is first pilot tested with a small group. Another common problem is the failure to have a precise plan of analyzing the data prior to administering the questionnaire. Without a clear and defined process for analyzing the data, the researcher might need to construct the items on the questionnaire differently than if the researcher had planned better. Figure 3.18 lists the steps in conducting a survey.

Step one in conducting a survey is *identifying the problem.* The action researcher must first identify the educational problem and what he or she would like to improve. Generally, this requires writing a well-defined statement of the problem. For example, the researcher might desire to improve the instructional skills of teachers, the math achievement of students, or the morale of students in a classroom. This first step allows the researcher to decide on the actual objectives of the survey and determine if the survey is the best method for addressing the problem. If the researcher wants to identify the skill areas in need of staff development in order to design a suitable training workshop, then a survey might be an appropriate approach. However, if the researcher would like to improve the disciplinary behavior of a student, a survey might not be appropriate, versus conducting an interview with the students. Likewise, if a researcher is concerned with improving the math achievement of students, he or she can assess the students' level of math proficiency and then administer an action step to approve their ability rather than administering a survey, which would be of little value. In identifying the problem definition, some possible questions the researcher can ask include: "What is the educational problem?," "What is the intended outcome?," "Will a survey be the best method for collecting data?," Should

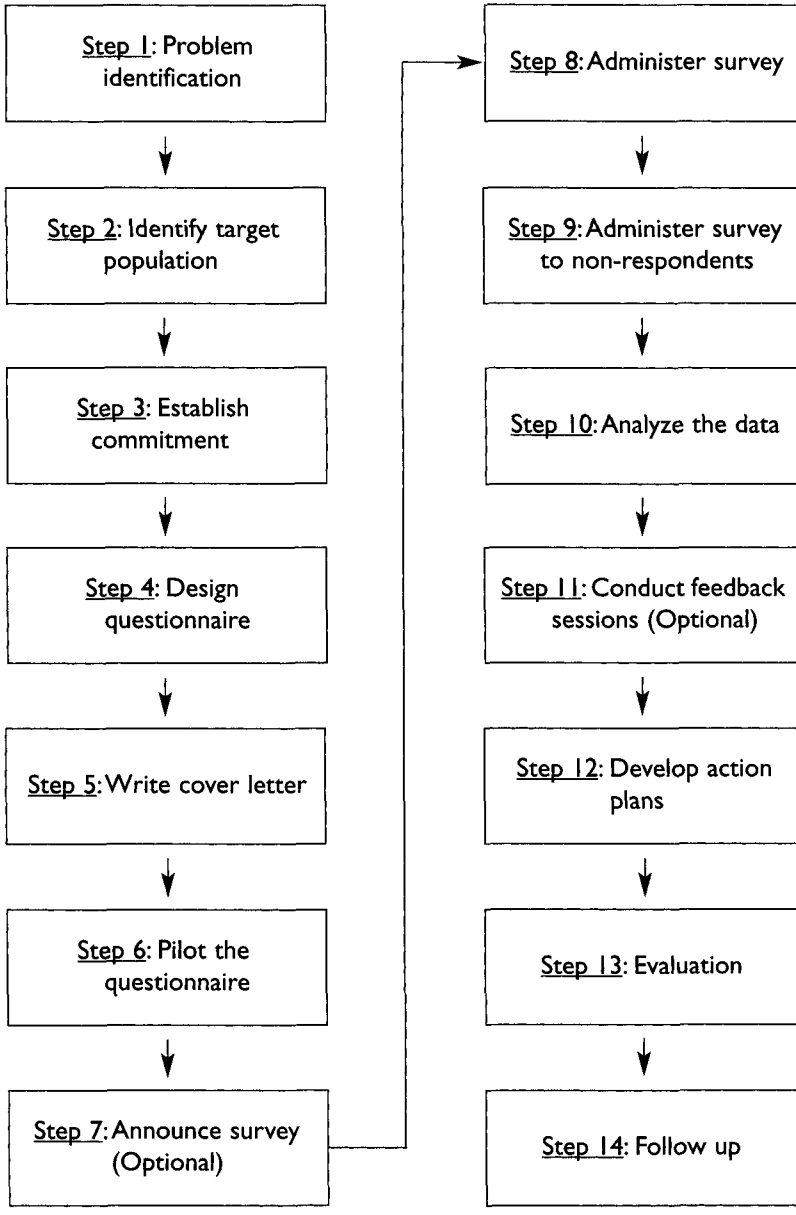

Figure 3.18. Steps in Conducting a Survey

another intervention method be used along with the questionnaire?," and "What is the time frame available to conduct the survey?"

Once the researcher has defined the problem, he or she must clearly *identify the target population* (step two). The exact participants to be included in the survey administration need to be identified. For example, if a researcher desires to administer a survey to a group of bilingual children, a survey questionnaire might be inappropriate if the children have a difficult time in understanding vocabulary or if their reading level is not proficient. In this case, although a survey might initially seem to be the most effective means, the researcher could decide to conduct interviews with the children rather than obtain information through a questionnaire. Also, administering a questionnaire to a target population when the subjects have little knowledge about the topic might be futile. For example, if a graduate student is seeking to assess an educational program and decides to administer a questionnaire to all the teachers, this process will likely be ineffective if the teachers are unfamiliar with the educational program. Upon analyzing the results, the graduate student might find that most of the questionnaires were returned without being completed. Therefore, understanding the target population and ensuring that the participants have the proficiency and knowledge to answer the items on the questionnaire are basic to all survey administration.

Another example of administering a survey without completely understanding the target population involves a situation of an education consultant desiring to improve teacher morale problems within a school district. The consultant might administer an organizational survey to all the teachers to assess their opinions about the school, only to find that the majority of teachers strongly agreed to all the statements. The consultant might later discover that the superintendent's office was desiring to remove the principal and most of the teachers were supporting the principal and decided to rate every statement very high so that the overall results of the survey would appear very favorable to the principal. Therefore, in this situation, obviously, the administration of the survey was ineffective, given the politics within the school district.

Step three consists of ensuring that there is *commitment* to conduct the survey. For example, a researcher might feel that a survey is the most appropriate intervention for collecting data, but that the resources are inadequate to administer it. For example, if a consultant is interested in

administering a survey to assess the teacher professional development needs, she must first talk to the administration to ensure that the resources are adequate, such as: people to administer the survey, money for making copies of the questionnaire and postage, time for teachers to complete the questionnaire, computer equipment and software to complete the analysis of the data, and time for the teachers to hear the results of the survey and participate in developing action plans to address the issues. For example, it is unrealistic to administer a survey if the teachers are too busy with more important activities. For example, teachers might be too busy at the start of the school year and too stressed at the end of the school year to give meaningful and unbiased opinions. Also, if the teachers are too busy or have higher priorities, it might result in a low turn out in completion of the survey. Therefore, in establishing commitment, the researcher must consider all time frames, logistics, allocation of resources, and realistic goals and deadlines for the survey administration.

The *design of the questionnaire* (step four) can be the trickiest part of the whole survey process. If the researcher doesn't develop a quality questionnaire, the result of the survey will be poor. The actual questionnaire, sometimes called the *instrument*, can be designed by using some basic guidelines (Figure 3.19).

Two types of questions can be used for the questionnaire: closed-ended questions and open-ended questions. Closed-ended questions are similar to multiple choice questions, which allow the respondent to select or rate a numerical value for the question. The answers to the questions typically measure the respondent's attitude, knowledge, or opinion. Many different

- Use common language; avoid jargon
- Keep the questionnaire short, but without losing substance
- Select the best scale for rating items
- Include specific, thorough directions
- Number each of the pages and statements
- Develop an attractive questionnaire format
- Don't mix positive and negative statements, which can confuse respondents
- Avoid leading questions that cause the respondents to answer in a preferred way
- Avoid repetitive statements
- Include specific instructions for returning the questionnaire

Figure 3.19. Guidelines in Designing Questionnaires

Category 1	Category 2	Category 3	Category 4
Strongly disagree	Very favorable	Strongly approve	Very frequently
Disagree	Favorable	Approve	Frequently
Undecided	Neither favorable	Neither approve	Sometimes
Agree	or unfavorable	or disapprove	Almost never
Strongly agree	Unfavorable	Disapprove	
	Very unfavorable	Strongly disapprove	

Figure 3.24. Categories of Scales

students with special needs or young children to completely understand the statements or scale. Therefore, one practical scale is the *facial pictorial scale* (Figure 3.25). When using the facial pictorial scale it may be necessary to read the questions and ask the student to point to each of the faces representing each of their responses.

A combination of different scales can be useful in surveys. For example, a combination of a categorical scale with an open-ended forced ranking can be useful in allowing the respondents to make thorough analysis of their ratings by completing this two-stage approach (Figure 3.26).

In the first stage, the categorical rating scale, the participants rate the factors, depending upon their extent of agreement for each item. For example, if the participants are rating the importance of the different topics for their personal development, this scale allows the respondents to rate each of the factors. After the respondents have rated each of the factors, then he or she completes the second stage by force

Directions: Please point to the face that represents your feelings towards each of the questions.

- I like to read
- I like my teacher
- I like my classmates
- I like my school books
- I like my school
- I like my principal
- I like my classroom

Figure 3.25. Example of a Facial Pictorial Scale

Directions: The purpose of this assessment is to assist Human Resources in selecting the most appropriate professional development topics. Please assign a number from one to seven for each of the topic indicating the degree of need for your further professional development.

1 2 3 4 5 6 7
Least Important — Average Importance — Most Important

____ Managing stress	____ Developing instructional skills
____ Planning and organizing	____ Understanding learning style
____ Time management	____ Understanding curriculum methods
____ Improving attendance	____ Building students' self-esteem
____ Managing discipline	____ Motivating students
____ Counseling students	____ Improving student study habits
____ Managing conflict	____ Understanding diversity
____ Teaching challenging students	____ Understanding character education

Directions: Please rank order from the above or other topics, the five topics most needed for your professional development (1 is most important).

1 _____
2 _____
3 _____
4 _____
5 _____

Figure 3.26. Sample Professional Development Questionaire Using a Two-stage Scale (Categorical Scale and Forced Ranking Scale)

ranking which of the top five factors would be most useful for his or her professional development. In this way, the researcher obtains two sets of data with which to analyze and make conclusions. The second set of data, the forced ranking factors, would probably receive more importance given that they were based upon previous analysis by the respondent (Figure 3.26).

There is an old saying that when a person is trying to secure employment that the purpose of the resume is to get the interview. Likewise, in survey administration, the purpose of the *cover letter* (step five) is to get the respondent to complete the questionnaire. Therefore, in both cases, each one needs to be written in a manner to accomplish the objective. Although the letter should be succinct, it should also contain all the necessary information the respondents need to accurately complete the questionnaire (Figure 3.27).

- Is the purpose of questionnaire stated?
- Is the importance of study emphasized?
- Is the study anonymous?
- Will the data be confidential?
- Does an informed consent form need to be enclosed?
- Does the study need to be described?
- Is the study voluntary?
- Will the respondents get a copy of the results?
- What is the time table for the study?
- Did you thank the respondents?

Figure 3.27. Questions to Consider in Designing a Cover Letter

Most cover letters should explain exactly the purpose of the study, what will happen to the data, and if the respondent is anonymous. The researcher needs also to be concerned with any sensitive areas or politics in completing the questionnaire. For example, a consultant was once asked to administer a school survey to all the teachers in a district office because there were several disgruntled teachers who disapproved of the principal's performance. Therefore, a discussion with the consultant, principal, and district superintendent was held to determine who should sign the cover letter in announcing the survey. If only the principal signed the letter, then many of the teachers would think that the survey process is biased toward the principal and the teachers would not trust the process. If only the consultant signed the cover letter, the importance of the entire survey would not be valued by the teachers if the school administration is not involved. Also, if only the superintendent were to sign the cover letter then teachers might also feel apprehensive given the principal is not involved, or an unbiased third party consultant. In this particular case, it was decided that all three people, the principal, the consultant, and the superintendent would draft a letter together and sign it so that the teachers would understand that everyone is involved in this process. Therefore, before administering a survey, all potential concerns and issues in drafting the letter as well as the questionnaire should be explored to ensure that the respondents will complete the questionnaire with candidness and honesty. (Figure 3.28 shows a sample cover letter.)

Some researchers have developed creative techniques in designing cover letters to increase the rate of return. For example, some people en-

Dear Teachers and Staff,

We are interested in obtaining your opinions regarding our school and would appreciate if you would complete the enclosed questionnaire and return it in the stamped, self-addressed envelope by March 15, 2003. The survey is being conducted by Dr. Smith, an independent consultant, who will complete the analysis and then conduct a feedback session for all teachers to explain the results of the survey. Based upon the results of the survey, I would like to establish quality teams to address the issues for our school.

The questionnaire is completely anonymous and voluntary. Your individual responses to the questionnaire will remain strictly confidential. Also, informed consent procedures for this study are contained in the questionnaire. Please take a moment to read it.

Thank you for your cooperation and participation in this process. I look forward to meeting with you during the feedback session.

Sincerely,

Mr. Jones

Mr. Jones
Principal

Enclosure

Figure 3.28. Example of a Cover Letter

close a small cash incentive or promise a gift for completing the questionnaire. Generally, if a cash reward is enclosed such as a few dollars, it should be clear that the money is being offered as a token of appreciation rather than for the respondent's performance in completing the survey. This will help ensure that the survey process is unbiased. The researcher should also include a date on which the questionnaire needs to be returned, otherwise people may procrastinate if a date is not given. The researcher should always include a stamped, self-addressed envelope, otherwise the rate of return will be decreased. The use of survey administration in action research probably has a higher rate of return than other types of research given that the respondents generally have a vested interested in solving educational problems and making improvements. The respondents are often individuals who desire to complete a questionnaire and be involved in developing action plans to address the issues. However, if the respondents feel that the survey is just another feeble attempt to gather information and that little will be done, their motivation will be low in completing the questionnaire. Therefore, when possible, the

administration and other influential people should sign the letter, which will increase the rate of return.

A common mistake of researchers is their failure to properly *pilot the questionnaire* before administering it (step six). Researchers should always pilot the questionnaire by pretesting it with a group of similar respondents. The researcher might conduct a focus group and read each statement aloud and ask the respondents the meaning of each statement and if each statement drives the intentions of the researcher. This process will help to establish the validity and reliability of the statements and allow the researcher to revise the statements as necessary. Another method is to try two versions of the questionnaire on two different subgroups and then make a comparison. When discussing each of the questions with the focus group, pay close attention to the wording of the statements to avoid biased or insensitive words. For example, if the researcher administering the survey asks the respondents if they feel they can trust people who have a beard, and if the researcher has a beard, then obviously the responses will be biased. Likewise, certain words are offensive, insensitive, or discriminatory against certain classes of people. These words can be biased in terms of gender, age, ethnicity, race, sexual orientation, or disability. For example, if a researcher is asking a group of women faculty to answer a questionnaire regarding faculty development and one of the statements refers to women as "girls" or "ladies," the respondents might be offended by the use of these potential "sexist" terms and the results of the survey will be diminished. Also, for example, the way in which some statements are worded can have a positive or negative impact on the responses. For example, a positively worded statement might be "Do you feel we should provide funding for the poor?" versus "Do you feel we should spend more taxes for welfare?" The first question might generate a more favorable response than the latter.

In some situations, the researcher might want to *announce the administration of the survey* prior to actually distributing it (step seven). For example, if a principal is using a consultant to administer a school survey for all the teachers, he or she might want to announce the survey a week in advance so that teachers can be prepared to allocate time to complete the survey and understand its importance. The teachers also might need time to ask questions concerning the process prior to completing it. In other cases, when a teacher is administering a survey to a class of students, he

		1 Strongly Agree	2 Agree	3 Undecided	4 Disagree	5 Strongly Disagree
11.	I believe morale is high among teachers at our school.					
12.	I believe interpersonal relations among the teachers are good.					
13.	There is good parent and community involvement at our school.					
14.	I believe the parents and community respect and support our school.					
15.	I believe that teachers carry their fair share of the workload.					
16.	Teachers are willing to volunteer for extra responsibility beyond their regular duties.					
17.	Our facilities are in good condition and are well maintained.					
18.	Teachers freely give assistance to each other in getting work done.					
19.	Faculty meetings are sufficient and regularly held.					
20.	The bussing operates efficiently at our school.					

Figure 3.29. Organizational Survey *(continued)*

according to grade level. The statements have been designed to reflect the organizational issues in the school. A five-point Likert scale is used to ask the participants their extent of agreement with each statement.

The statements in this organizational survey have also been categorized by dimensions (Figure 3.30) For example, the first two statements refer to the topic of policies. Therefore, dimension number one is labeled "policies." The third and fourth questions pertain to the topic of communications. The fifth and sixth questions pertain to "student-centered learning." The other dimensions are instruction and resources, curriculum, organizational climate, etc.

surveys do not allow for this two-way process to take place with the respondents. Quite often in survey research, data is gathered from the respondents, but they are never given the results of the survey or are actively involved in the study. This is one of the unique features of action research because it promotes active involvement of the participants in solving educational problems. Therefore, the design and administration of a survey, when used in action research, should generally be done with this two-way process.

In action research, surveys are designed with open-ended questions as well as closed-ended statements. The open-ended statements allow for the respondents to give their honest and candid responses in a narrative form (Figure 3.31).

One-way Surveys

Although most surveys, when used in the action research process, are designed as a two-way process, the one-way survey is sometimes used. The one-way survey is administered to respondents and the data is collected and analyzed and the respondents are never involved in actually obtaining the results of the survey or actively involved in developing action plans to address the issues. For example, the teacher might be interested in conducting an action research study in which he or she desires to assess the opinions of parents regarding student study habits. After the parents complete this one-way survey, the teacher analyzes responses and then, based on this information, develops action plans to improve the study habits of students without the parents ever obtaining the results of the survey. Although this approach is acceptable in action research, the researcher needs to make a decision whether a two-way process would be more beneficial or if the one-way process is more efficient. Regardless of whether the survey is a one-way or two-way process, the questionnaire could include both closed-ended and open-ended questions.

ASSESSING

Assessing is another technique used in collecting data in action research. Assessing involves the evaluation of individuals' work by exam-

ining tests, portfolios, records, and through the direct observation of individual and group skills and behaviors. Assessing student performance can be more practical than observing, interviewing, or surveying when the data exists or assessment provides more practical and richer information for the action research study.

Portfolios

The word "portfolio" is derived from the Latin term "portare," meaning leafs or sheets of paper. The *American Dictionary* describes a portfolio as "a portable case for holding loose sheets of paper, drawings, and the like." The portfolio has similar meaning for educators. The portfolio can be defined as a collection of a student's work, such as drawings, writings, papers, projects, and personal reflections, and related materials that can be used to judge his or her performance. The portfolio can be developed by the student in collaboration with his or her teachers. The portfolio contents can be contained in a three-ring binder, box, or suitable container. The key for developing a portfolio should be based upon the criteria of performance.

The idea of the portfolio, as used in action research, allows the researcher the opportunity to assess the student's work, which can give valuable information in identifying problems in the student's performance and assisting in developing actions for improvements. Roger Farr (1994) describes several advantages for portfolio assessment, such as "they encourage and develop self-assessment, provide varied and broad perspectives, integrate reading and writing with thinking, and should be authentic" (p. 5). With this in mind, portfolios can provide a convenient method for the researcher in evaluating a student's work, especially over a long-term period. An advantage of using the portfolio for assessment versus tests in action research is that they often give a better reflection of the student's overall performance. Examples of artifacts that can be contained in the student portfolio include: performance tests, papers, teacher observations, anecdotal notes, meetings with parents, personal student logs, and homework materials (Figure 3.32).

For example, if a teacher is experiencing a problem with a student who has shown a sudden decrease in reading performance, the teacher could make an assessment of the student's portfolio to gain insight as to the possible root cause of the problem. By reading the portfolio, the teacher

- Contains student's interests and ideas
- Includes other teachers' observations and anecdotal notes
- Contains meeting notes from meetings with parents
- Contains self-reflection notes
- Includes student's attitude toward work
- Provides introspective materials
- Contains actual student drawings and other materials
- Contains comments from conferences
- Contains writings and actual projects
- Contains photographs, and video and audio recordings of student work

Figure 3.32. Advantages of Portfolio Assessment

might identify that the student, through his or her self-reflections, has been experiencing increased conflict at home. Also, the researcher might identify through a teacher's checklist that the student has not been completing reading homework assignments. Based upon a review of these materials, the researcher might surmise from the increased conflict and lack of reading homework that the student's home environment could be causing the decrease in reading performance. A follow-up interview with the student might confirm the researcher's assessment of the portfolio in making a diagnosis for the problem. Roger Farr supports the benefit of using the portfolio as an assessment by stating, "That kind of analysis is surely a more dependable indicator that counting responses to multiple-choice test items. The portfolio collection should clearly indicate the questions you and the student can consider about why comprehension may have been limited" (p. 245).

Testing

Action research is more practical than qualitative and quantitative research designs mainly because it takes less time for data collection and analysis. Most educators simply do not have the time to conduct extensive research. Likewise, testing is one of the more convenient methods of data collection. Because teachers commonly administer tests, it is convenient for them to analyze this data outside of the classroom. Testing is often a normal part of the teacher's job and the use of this data-collection technique can be more easily performed as long as it is appropriate for the given action research study. Figure 3.33 lists some examples of types of tests that can be used in action research.

Records

Action researchers should never overlook the possibility of using student records to help collect data. There are many sources for student records, such as the student's permanent file, past teacher records, disciplinary dean's records, and records of counselors and other special services. These files contain valuable information in which the action researcher can gain insight in collecting data, such as the student's past attitudes, values, emotional and behavioral disorders, academic abilities, and past home environment characteristics. For example, a teacher might conduct an action research study to measure the impact of single parent versus two parent families on student behavior or achievement. The use of these records could provide a valuable source of data for the researcher.

PROCESSING

Processing is a method of data collection that is especially useful for analyzing situations and learning environments. The objective of using processing techniques is to facilitate individual or group structured sessions to brainstorm causes of problems that serve as a basis for decision

Processing Technique: Team Building

➥ *Description:* A structured session where team members exchange ideas, brainstorm causes for problems, and make action plans for improvement.

Processing Technique: Brainstorming

➥ *Description:* A structured approach whereby individuals meet to collectively generate possible causes for problems and ideas for solutions.

Processing Technique: Story Boarding

➥ *Description:* A problem-solving process whereby groups develop visual displays to diagram possible causes and solutions to problems.

Processing Technique: Cause and Effect Diagram

➥ *Description:* To portray, using a fishbone diagram, potential causes and effects of a problem.

Processing Technique: Force-Field Analysis

➥ *Description:* The "field theory" technique used to identify the hindering and supporting elements of a problem, which can be used for change and decision making.

Figure 3.34. Examples of Processing Techniques for Data Assessment

story boarding can be useful to the action researcher. For example, a school administrator can identify a problem of excessive tardiness among the students. He or she could assemble a group of teachers to develop the sequence of activities as students progress to classes throughout the day (Figure 3.35).

The story boarding process begins with identifying the topic (e.g., excessive tardiness). Then, the entire sequence of events for the students' day are outlined using *headers* such as: bus schedule, homeroom, first period, second period, etc. Underneath each header, the teachers, through use of cards which are pinned to a wall, list different situations which cause student tardiness for each event. When completed, the group can view the story board, identify problems, and then develop actions to address the issues.

The *cause and effect diagram* is a processing method that is especially useful in identifying technical problems. This technique, often called the *fishbone diagram*, provides a pictorial method of breaking down central problems in an understandable diagram. The objective of this fishbone diagram is to list the *effect* and *causes* of a problem that can then later be used to make decisions for improvement (Figure 3.36). For example, an administrator could identify the effect as "poor student academic achievement." The administrator then could brainstorm with a group of teachers to identify the major categories of causes that may be contributing to the poor student achievement. These might consist of poor teaching, instructional methods, curriculum, and school climate. Each of these categories would represent the branches of the diagram (i.e., fishbone arrangement). The group would then brainstorm specific causes for each of the major categories. For example, under the category of "school

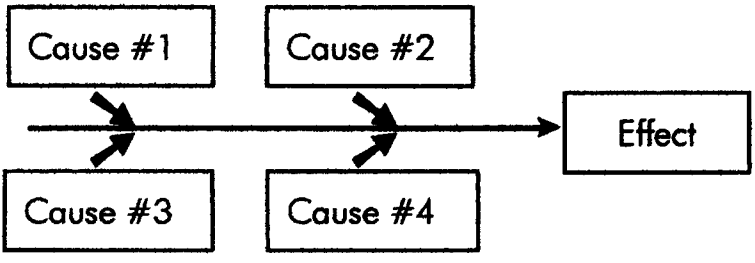

Figure 3.36. Example of Cause and Effect Diagram

culture," possible causes might include poor teacher morale, excessive discipline incidents, unsafe school, poor facilities, and presence of gangs. Under the category of "teaching," possible causes might include inexperienced teachers, apathy, low motivation, poor teaching skills, and poor placement of teachers. The category called "instruction" could include lack of innovative instruction, outdated instructional techniques, poor facilities for instruction, and inadequate instructional resources. The last major category, "curriculum," might include out-dated instructional materials, poor curricular resources, inadequate resource guides, and insufficient curriculum. The number of major categories and their subcauses can vary, depending on the statement of the problem.

The *force-field analysis*, although not specifically designed as a problem-solving technique, can be an effective processing technique for collecting data. This technique, developed by Kurt Lewin (1943), was originally designed as a group process for initiating change. The process involves identifying the *driving forces* (factors that promote change) and *restraining forces* (factors that hinder change). The result of these counter forces creates a polarization that prevents change from occurring (Figure 3.37).

Lewin stated that in order to create change, either the restraining forces must be reduced, the driving forces strengthened, or a combination of both. This technique can be useful for the action researcher in identifying the restraining forces (causes of problems) that hinder effective change. For example, if a teacher is conducting an action research study with the objective of improving reading skills, the force-field analysis technique could be used. The teacher could identify all the

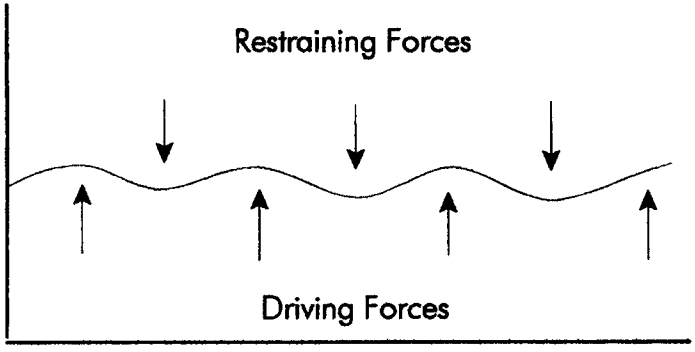

Figure 3.37. The Force-Field Analysis Technique

restraining forces that are hindering effective reading achievement, such as poor reading material, lack of parental support, low student motivation, inadequate reading resources, and poor reading instructional techniques. The driving forces could also be identified, such as the need to improve test scores, state mandates for reading improvements, and school district board policies. The teacher could use this technique as either an individual or group problem-solving process.

a science." This statement refers to the fact the physicians often need to use their best clinical judgement and common sense in treating patients versus always adhering to pre-established medical protocol. Likewise, action researchers must use their clinical ability and common sense to guard against obvious threats to validity to ensure that the research is of the highest quality.

USING DESCRIPTIVE STATISTICS

The term *descriptive statistics* refers to the use of visual graphics, charts, diagrams, and basic mathematics to describe data. The use of descriptive statistics is the most common method of analyzing and displaying action research information. Other methods of statistical analysis, such as tests of significance, are seldom used with action research and are reserved for quantitative research.

Measures of Central Tendency

The use of *central tendency*, a common analysis technique used in action research, is a method to describe a set of data that is the "average" or "middle" score. This calculation is commonly used to compare the differences of the individual scores from the group. It is often called the "central point," around which data from the group are distributed. The three common measures of central tendency are the *mean*, *median*, and *mode* (Figure 4.2). The mean is the arithmetic average of the scores. The median represents the middle score of a set of scores, and the mode represents the most frequent score of a set of scores.

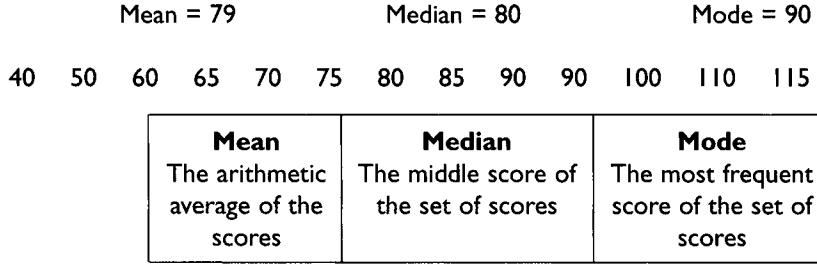

Figure 4.2. Measures of Central Tendency for a Set of Data

rate positively. If an item were to be positively viewed by the majority of respondents (e.g., two-thirds of the participants or more), then the action researcher would indicate that this item is a strength. Although there is no absolute standard on which the action researcher makes his or her conclusions as to which items are considered a strength (i.e., positive item) or weakness (i.e., area of concern). A general guideline includes: if more than 50% disagree or strongly disagree with an item, the issue should be identified as a concern.

A common method of collecting data and making an analysis is through the use of observation. For example, a teacher could conduct an action research study by observing students' misbehavior in the classroom. The teacher might desire to identify the different types of disciplinary offenses. If a checklist were used to identify the disciplinary problems, several of the types of disciplinary offenses could be listed and the teacher could observe students and place a check for each incident of misbehavior (Figure 4.5).

After observing the students for a period of time (e.g., one week), the teacher could then tally up the marks (i.e., frequency or mode) and then identify the most frequent offenses. This approach could be very helpful in isolating a specific type of misbehavior so that the teacher could then develop an action plan to address the issue. This checklist could also be helpful in establishing a baseline of student

Directions: Mark an "x" for each time you observe the student misbehavior.

Student Misbehavior	Frequency	Total
Use of profanity	x	1
Defiance or disrespect	xxx	3
Talking without permission	xxxxx	5
Cheating or lying	x	1
Sleeping in class	xx	2
Apathy or low motivation	xxx	3
Harassing other students	xx	2
Tardiness or absenteeism	xxxx	4
Verbal fighting/arguing	xx	2
Physical fighting		0

Observation period: 1 week Grand total: 23

Figure 4.5. Sample of Observation Frequency Form

more commonly used methods to display survey data because they provide a breakdown of the information into columns (Figure 4.6). A bar graph, often called a *histogram,* can display data as a line graph, or in a vertical or horizontal direction. The researcher needs to select the best type of graph to display the data in the most easily understandable manner.

Pie charts are similar to the bar graphs except that a visual proportion of the segments is given relative to the entire whole (Figure 4.7). For example, if the researcher were conducting a survey of students and wanted to present the responses indicating the percent of favorable responses among girls versus boys, a pie diagram could be used. In essence, the pie chart gives a visual orientation by allowing the researcher to cut the pie into different sizes to illustrate different proportions of responses. However, the researcher must be sure to not slice the pie into too many pieces, otherwise the diagram will be cluttered and hard to understand. For example, the pie chart could represent the percentage of students who are deficient in reading per grade level. The pie chart could indicate that the students in eighth grade are 50% deficient in reading, seventh graders are 20% deficient, and sixth graders represent 30% of the students that are deficient (Figure 4.7).

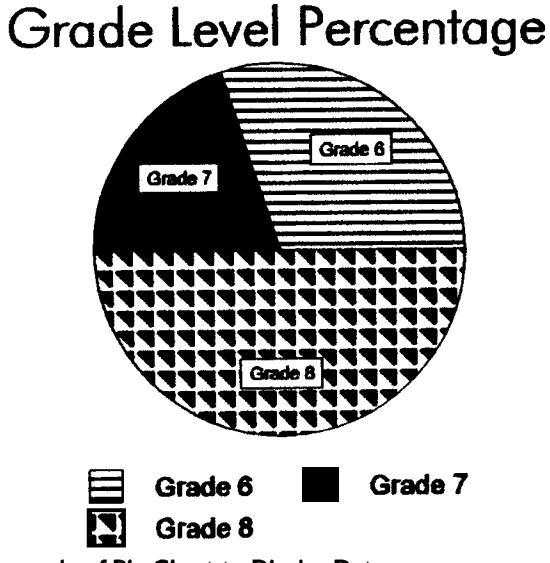

Figure 4.7. Example of Pie Chart to Display Data

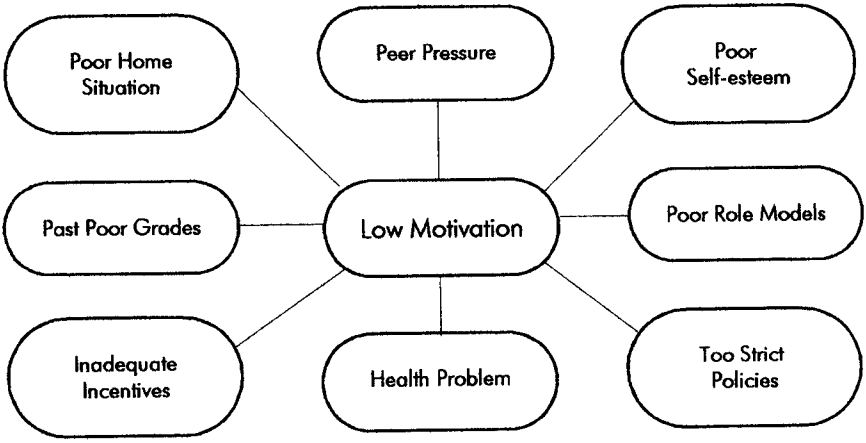

Figure 4.8. Example of Concept Map to Display Problem Issues

to low motivation. Once this concept map is displayed, the teacher could then conduct an action planning session to identify the most likely causes and suggest action plans for improvement.

WRITING NARRATIVE REPORTS

When conducting action research, the researcher will undoubtedly include a *narrative report*. The narrative report is a written description of the analysis of the data, which often includes references, measures of central tendency, and descriptive statistics. The report should be organized and succinct. The report should be written naturally, using short sentences and paragraphs, which can be most easily understood by the reader. Simple language should be used with proper formatting (e.g., use of headings, bold and italics, and a normal type size), which will help the reader understand the information. For example, the following is a sample of narrative report, providing the analysis and interpretation of a school survey.

A. Description of School

The Smith Elementary School is located on 1st Avenue in New York City. There are about 500 children in grades Head Start through sixth grade. The student population reflects a diversity of backgrounds. Attendance is 96%, mobility is 39%, and truancy 2%. Ten

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5

SOLVING PROBLEMS AND TAKING ACTION

BARRIERS TO PROBLEM SOLVING

After an action researcher has analyzed the data, the next step is to identify the root cause(s) of the problem and initiate action. An important aspect to this problem-solving process is understanding some of the common barriers in problem solving (Figure 5.1).

Making False Comparisons

One potential barrier for the action researcher is *making false comparisons* when attempting to solve a problem. For example, the causes of disciplinary problems at one school might be entirely different than at another school. These differences (e.g., socioeconomics, teaching staff, environment, community, culture, and facilities) contribute to the students' behavior. If the researcher is trying to identify the root cause of a problem, he or she should be careful not to make a false comparison between schools (Tomal, 1999).

Failing to Identify the Cause

Another frequent barrier to problem solving is when the researcher attempts to solve a problem based upon a proposed solution without

Failing to Collaborate

When researchers *fail to collaborate* in solving problems, the results of the action plan will be compromised. The foundation of action research is based upon a collaborative effort in solving problems. Action researchers should always attempt to involve other people, especially the subjects of the study, when solving a problem. Groups of people generally make better decisions than individuals. For example, when surveying the opinions of teachers, he or she should include them in the problem-solving and action-planning process.

Failing to Recognize Hidden Agendas

Problems can be difficult to solve when action researchers are hampered with *hidden agendas.* For example, if a teacher would like to implement a new curriculum, he or she might encounter resistance from other teachers who want to stay with the current curriculum rather than expend the additional effort in learning the new curriculum.

Treating the Symptom Versus the Cause of the Problem

A common problem of researchers is to *treat the symptom versus the cause of a problem.* The analogy of taking an aspirin for a headache instead of treating the cause of the headache applies action research. Researchers need to remain open-minded when identifying causes for a problem. For example, if an action researcher feels that the best method to address student absenteeism is through training teachers in absenteeism, it will be futile if the root cause of the problem is actually an ineffective school discipline policy (Tomal, 1999).

STEPS IN SOLVING PROBLEMS

Prior to planning and initiating an action, the action researcher must first identify the cause of the problem. There are four basic steps in problem solving (Figure 5.2).

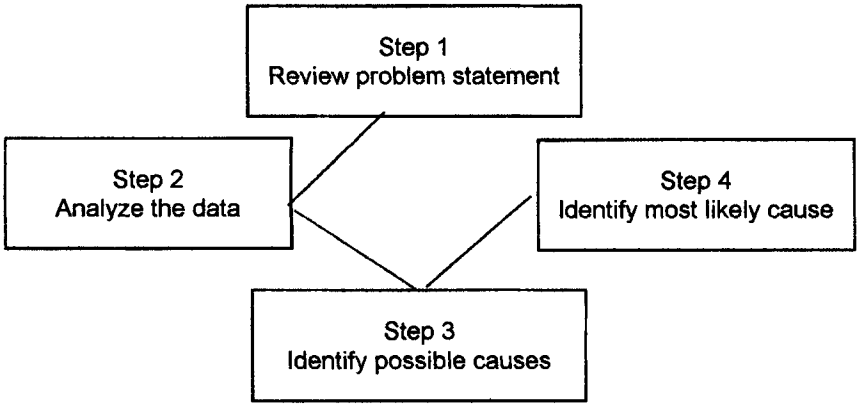

Figure 5.2. Steps in Problem Solving

Review Problem Statement

In step one, it is helpful for the researcher to reexamine the *problem statement* in order to keep focused upon the objective. For example, if a teacher is experiencing a significant upsurge in disciplinary problems in the classroom (i.e., the problem statement), the teacher needs to analyze the data from this perspective.

Analyze the Data

Step two entails the researcher *analyzing the data* for the problem. For example, if a teacher is trying to identify the cause of a current discipline problem, he or she could start by examining differences from past disciplinary problems. The teacher could identify differences, such as gender, class grade, frequency of each disciplinary offense, and degree of misbehavior. The teacher might identify the "what is" versus the "what is not." For example, the "what is" could be identified as predominantly freshman and sophomore girls who are fighting versus junior and senior boys (the "what is not"). In this manner, the teacher can better analyze the data to discern the problem by pinpointing the actual facts to a disciplinary situation.

Identify Possible Causes

In step three, the teacher should list the *possible causes* of the problem. For example, the teacher might benefit from conducting a brain-

storming session with his or her colleagues. This collaborative approach could be effective in identifying a multiplicity of potential causes to the problem.

Identifying Most Likely Cause(s)

After the teacher has listed all the possible problems, he or she should then identify the *most likely cause(s)*. In step four, the teacher actually completes the problem-solving phase of the process. There might also be more than one cause of the problem, in which case the teacher should write down the actual causes and rank them in terms of priority.

MANAGING CHANGE

Without a doubt, the most important step to action research is *planning and taking action.* Without taking action, there can be no action research. The essence of action research is to implement meaningful actions that can solve the problem, which always involves change. Therefore, basic to taking action is the need for an action researcher to understand the change process. Whether the change involves students, teachers, parents, or the community, there are several natural resistances to change (Figure 5.3).

Threat to Security

A common resistance to change for some people is the inherent feeling that any deviation from the status quo will result in a personal loss. For example, if a teacher has been teaching at the first-grade level for several years and then is asked to teach at the middle-school level, feelings of failure or inadequacy could occur.

- Threat to security
- Fear of the unknown
- Lack of understanding
- Desire for status quo
- Potential loss of power

Figure 5.3. Resistance to Change

to eliminate this program. In both cases, the loss of power can threaten their security and they might resent any change effort.

When planning the action step, the action researcher must understand the basic steps to initiating change (Figure 5.4). Following these basic steps can help ensure that the change process will be successful.

1. **Communicate Purpose** One of the surest ways to undermine a change effort is to fail to make the purpose of change clear. People need to have a logical, well-defined reason for the change. For example, if an administrator is considering making an organization-wide school change, he or she would need to hold several meetings with the staff to explain the purpose of the change, the benefits of the change, and how the change will affect everyone. The administrator might also consider providing a written explanation to all stakeholders (e.g., students, teachers, parents, staff, and community

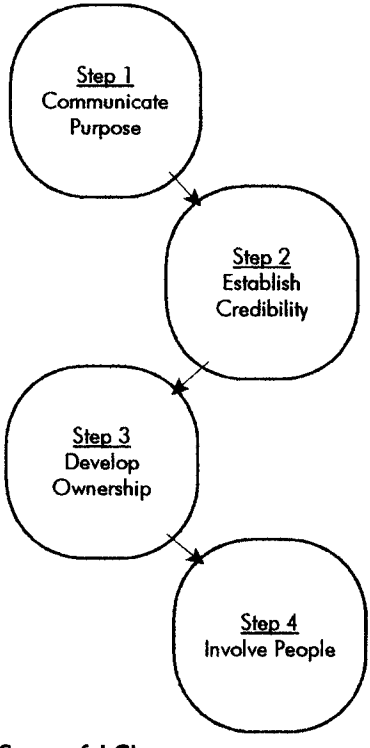

Figure 5.4. Steps for Successful Change

holder representatives, such as a teacher, administrator, board member, parent, union representative, and a community member. The purpose of the committee would be to help develop the action plan; provide inspiration, credibility, and direction for the school-wide change effort; help overcome any potential roadblocks; and provide resource support (e.g., finances, materials, facilities, and time). The committee might begin the first phase by developing a clear vision statement for the action to be taken. The vision statement might represent a crystalized long-range picture of what should be accomplished at the school. The vision statement could act as a foundation for the ongoing process to help maintain a central focus while implementing the change effort (Tomal, 1999).

After the mission statement has been established, the steering committee might develop the statement into a school improvement plan (SIP). Once the SIP is complete, the committee might want to ensure that everyone understands the intended change effort by conducting "awareness sessions." This communication effort can be a crucial component to ensure that everyone understands the action, expectations, and their respective roles in accomplishing the action plans.

The next step in initiating the school-wide improvement plan might be the formation of quality teams consisting of stakeholder representatives that could work on the organizational issues. The quality teams could work on such areas as multiculturalism, facilities, security, student achievement, discipline, parent and community relations, and technology. All team members could be trained in team work and group facilitation to improve their effectiveness.

The teams could also consist of stakeholders who genuinely desire to work on school-improvement issues or are associated with the defined issue by nature of their work responsibilities. For example, if the issue is to improve discipline, the school disciplinary dean might be involved on this quality team. A list of each team and issue could be posted on a bulletin board where interested participants could sign up. This process would also help to ensure effective communication and reinforce the purpose of the change effort. The administrator might also provide guidelines for the quality teams, which could include voluntary membership, ground rules for conducting meetings, and work goals.

The quality teams could be lead by a facilitator. The role of the facilitator could be to provide timely communications to all members,

credibility for the change effort, and help provide reinforcement for the team's good performance. The facilitator can also keep the teams on task, develop meeting agendas and minutes, and act as communication link with the steering committee and stakeholders. The actual implementation of the actions could also be accomplished through the efforts of the quality teams. The administrator should not implement the school-wide change effort by him or herself. Involving other people is essential to promote ownership and to maximize the use of human resources. For example, a discipline team might develop a new discipline program, but the discipline dean might actually implement it. The quality team could monitor the progress and act as a liaison with the steering committee. The team could also be involved later in evaluating the results of the actions (Tomal, 1999).

Education Issue: Low math achievement
➥ *Potential Action:* Cooperative learning program

Education Issue: High discipline problem
➥ *Potential Action:* New discipline program

Education Issue: Low science achievement
➥ *Potential Action:* Problem-based learning

Education Issue: Learning difficulties
➥ *Potential Action:* Collaborative learning program

Education Issue: Low motivation
➥ *Potential Action:* Motivational rewards program

Education Issue: Low student morale
➥ *Potential Action:* Self-esteem program

Education Issue: Low attendance
➥ *Potential Action:* New attendance policy

Education Issue: High teacher stress
➥ *Potential Action:* Stress management program

Education Issue: Stress and student conflict
➥ *Potential Action:* Parent mediation program

Education Issue: Poor reading skills
➥ *Potential Action:* Home reading program

Figure 5.5. Methods of Implementing Action

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6

EVALUATING ACTION RESEARCH

AREAS FOR EVALUATION

The final step in taking action is to evaluate the results. Without the evaluation step, the action researcher never knows if the results of the action were successful or if the problem has been resolved. Depending upon the action researcher topic, several areas could be evaluated (Figure 6.1).

Impact on Student Learning

At the core of action research for education is the impact of actions on student learning. One of the central goals of education is to improve student learning. Therefore, this area should be assessed. The assessment of student learning can be accomplished through many methods, such as structured tests, portfolios, performance activities, observations, and informal evaluations. For example, if a teacher implemented graphic calculators to improve mathematical comprehension, the use of problem-based tests could indicate change in learning.

Impact on Student Behavior

The behavior of students is directly related to student performance. Misbehaving students generally do not obtain optimum learning and are

improve a school district. This same organizational survey could be used over and over again to assess the results of actions in attempting to make continuous improvements.

Lastly, part of the evaluation process should include the distribution of rewards for people who contributed to improvements. People could be awarded for their efforts and achievements through various intrinsic and extrinsic reward systems, such as t-shirts, buttons, certificates, and luncheons. The key to reinforcing successful action research is to ensure that the participants are rewarded for their actual contributions. Celebrating the successes of action research can be a powerful stimulator in making continuous improvements and undertaking additional research studies.

7

CONDUCTING ACTION RESEARCH

SAMPLE RESEARCH STUDY

The purpose of this chapter is to provide an example of a published action research study and to describe the components within the action research model.

STUDY TITLE: COLLABORATIVE PROCESS INTERVENTION: AN ACTION RESEARCH STUDY

Stage 1: Problem Statement/Initial Diagnosis

The study presents the problem statement indicating that the school was on the verge of an educational crisis and was experiencing low teacher morale, conflict, mediocre student test scores, high disciplinary incidents, poor facilities, and instructional materials.

Stage 2: Data Collection

The method of collecting data consisted of an organizational survey and examination of student test scores from the Iowa Test of Basic Skills of Reading and Total Math.

consent before participating in research. Educational researchers should communicate the aims of the investigation as well as possible to informants and participants (and their guardians), and appropriate representatives of institutions, and keep them updated about any significant changes in the research program.

2. Honesty should characterize the relationship between researchers and participants and appropriate institutional representatives. Deception is discouraged; it should be used only when clearly necessary for scientific studies, and should then be minimized. After the study the researcher should explain to the participants and institutional representatives the reasons for the deception.
3. Educational researchers must be sensitive to any locally established institutional policies or guidelines for conducting research.
4. Participants have the right to withdraw from the study at any time, unless otherwise constrained by their official capacities or roles.
5. Educational researchers should exercise caution to ensure that there is no exploitation for personal gain of research populations or of institutional settings of research. Educational researchers should not use their influence over subordinates, students, or others to compel them to participate in research.
6. Researchers have a responsibility to be mindful of cultural, religious, gender, and other significant differences within the research population in the planning, conduct, and reporting of their work.
7. Researchers should carefully consider and minimize the use of research techniques that might have negative social consequences, for example, experimental interventions that might deprive students of important parts of the standard curriculum.
8. Educational researchers should be sensitive to the integrity of ongoing institutional activities and alert appropriate institutional representatives of possible disturbances in such activities which may result from the conduct of the research.
9. Educational researchers should communicate their findings and the practical significance of their research in clear, straightforward, and appropriate language to relevant research populations, institutional representatives, and other stakeholders.

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Appendix B

SEVENTY-FIVE IDEAS FOR CONDUCTING ACTION RESEARCH

1. Improving students' reading through parent interaction
2. Improving gender appreciation through coeducational classrooms
3. Creating prolific readers through the use of literature circles
4. Implementing strategies for discipline improvement
5. Improving female mathematical ability through heterogeneous educational programs
6. Improving children's reading through letter recognition
7. Integrating technology in the classroom for learning enhancement
8. Involving parents to improve student learning
9. Investigating year-round school to improve academic achievement
10. Implementing a mentor program to improve teacher effectiveness
11. Increasing student engagement through conversational styles
12. Using accommodations for learning disabled students
13. Improving reading fluency through use of the Great Leaps Reading Program
14. Developing a looping program to improve achievement

41. Increasing music ability through improved reading and language skills
42. Using block scheduling to improve scheduling efficiency
43. Using a summer bridge program to improve benchmark grades
44. Using flexible access library media programs to improve student achievement
45. Improving high school drop out rate through mentoring
46. Using multiple intelligences to enhance learning
47. Using an English immersion program for bilingual education improvement
48. Using phonic intervention for ESL student improvement
49. Improving math comprehension through use of journal writing
50. Using keyword mnemonic memorization for learning disabled students
51. Improving technical performance with mental visualization
52. Using sign language instruction to improve early childhood reading readiness skills
53. Improving reading proficiency through self-advocacy motivational tools
54. Improving problem solving and chemistry knowledge through use of didactic teaching techniques
55. Improving student literacy through an after-school newspaper club program
56. Improving discipline through the use of a uniform discipline code program
57. Improving education of learning disabled students through the use of personality style techniques
58. Improving at-risk emergent reading achievement through an early tutoring program
59. Improving reading achievement through an integrated reading program
60. Improving learning through gifted clustering techniques
61. Using direct instructional techniques on reading comprehension
62. Enhancing student responsibility with student-led conferences
63. Improving social studies achievement through cooperative learning
64. Using visual instruction for reading comprehension

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