

THEMES IN EDUCATION



ACTION RESEARCH

by Eileen Ferrance

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What is Action Research?

Action research is a process in which participants examine their own educational practice systematically and carefully, using the techniques of research. It is based on the following assumptions:

- Teachers and principals work best on problems they have identified for themselves
- Teachers and principals become more effective when encouraged to examine and assess their own work and then consider ways of working differently
- Teachers and principals help each other by working collaboratively
- Working with colleagues helps teachers and principals in their professional development

(Watts, 1985, p. 118)

Although there are many types of research that may be undertaken, action research specifically refers to a disciplined inquiry done by a teacher with the intent that the research will inform and change his or her practices in the future. This research is carried out within the context of the teacher's environment—that is, with the students and at the school in which the teacher works—on questions that deal with educational matters at hand. While people who call for greater professionalization say

that teachers should be constantly researching and educating themselves about their area of expertise, this is different from the study of more educational questions that arise from the practice of teaching.

Implicit in the term action research is the idea that teachers will begin a cycle of posing questions, gathering data, reflection, and deciding on a course of action. When these decisions begin to change the school environment, a different set of circumstances appears with different problems posed, which require a new look. Indeed, many action research projects are started with a particular problem to solve, whose solution leads into other areas of study. While a teacher may work alone on these studies, it is also common for a number of teachers to collaborate on a problem, as well as enlist support and guidance from administrators, university scholars, and others. At times, whole schools may decide to tackle a school-wide study to address a common issue, or join with others to look at district-wide issues.

What is Not Action Research?

Action research is not what usually comes to mind when we hear the word “research.” Action research is *not* a library project where we learn more about a topic that interests us. It is *not* problem-solving in the sense of trying to find out what is wrong, but rather a quest for knowledge about how to improve. Action research is *not* about doing research on or about people, or finding all available information on a topic looking for the correct

answers. It involves people working to improve their skills, techniques, and strategies. Action research is *not* about learning why we do certain things, but rather how we can do things better. It is about how we can change our instruction to impact students.

Types of Action Research

Part of the confusion we find when we hear the term “action research” is that there are different types of action research depending upon the participants involved. A plan of research can involve a single teacher investigating an issue in his or her classroom, a group of teachers working on a common problem, or a team of teachers and others focusing on a school- or district-wide issue.

Individual teacher research usually focuses on a single issue in the classroom. The teacher may be seeking solutions to problems of classroom management, instructional strategies, use of materials, or student learning. Teachers may have support of their supervisor or principal, an instructor for a course they are taking, or parents. The problem is one that the teacher believes is evident in his or her classroom and one that can be addressed on an individual basis. The research may then be such that the teacher collects data or may involve looking at student participation. One of the drawbacks of individual research is that it may not be shared with others unless the teacher chooses to present findings at a faculty meeting, make a formal presentation at a conference, or submit written material to a listserv, journal, or newsletter. It is possible

for several teachers to be working concurrently on the same problem with no knowledge of the work of others.

Collaborative action research may include as few as two teachers or a group of several teachers and others interested in addressing a classroom or department issue. This issue may involve one classroom or a common problem shared by many classrooms. These teachers may be supported by individuals outside of the school, such as a university or community partner. The LAB at Brown has just such a relationship with several teams.

School-wide research focuses on issues common to all. For example, a school may have a concern about the lack of parental involvement in activities, and is looking for a way to reach more parents to involve them in meaningful ways. Or, the school may be looking to address its organizational and decision-making structures. Teams of staff from the school work together to narrow the question, gather and analyze the data, and decide on a plan of action. An example of action research for a school could be to examine their state test scores to identify areas that need improvement, and then determine a plan of action to improve student performance. Team work and individual contributions to the whole are very important, and it may be that problem points arise as the team strives to develop a process and make commitments to each other. When these obstacles are overcome, there will be a sense of ownership and accomplishment in the results that come from this school-wide effort.

District-wide research is far more complex and utilizes more resources, but the rewards can be great. Issues can be organizational, community-based, performance-based, or processes for decision-making. A district may choose to address a problem common to several schools or one of organizational management. Downsides are the documentation requirements (communication) to keep everyone in the loop, and the ability to keep the process in motion. Collecting data from all participants needs a commitment from staff to do their fair share and to meet agreed-upon deadlines for assignments. On the positive side, real school reform and change can take hold based on a common understanding through inquiry. The involvement of multiple constituent groups can lend energy to the process and create an environment of genuine stakeholders.

Figure 1. Types of action research

	Individual teacher research	Collaborative action research	School-wide action research	District-wide action research
Focus	Single classroom issue	Single classroom or several classrooms with common issue	School issue, problem, or area of collective interest	District issue Organizational structures
Possible support needed	Coach/mentor Access to technology Assistance with data organization and analysis	Substitute teachers Release time Close link with administrators	School commitment Leadership Communication External partners	District commitment Facilitator Recorder Communication External partners
Potential impact	Curriculum Instruction Assessment	Curriculum Instruction Assessment Policy	Potential to impact school restructuring and change Policy Parent involvement Evaluation of programs	Allocation of resources Professional development activities Organizational structures Policy
Side effects	Practice informed by data Information not always shared	Improved collegiality Formation of partnerships	Improved collegiality, collaboration, and communication Team building Disagreements on process	Improved collegiality, collaboration, and communication Team building Disagreements on process Shared vision

Steps in Action Research

Within all the definitions of action research, there are four basic themes: empowerment of participants, collaboration through participation, acquisition of knowledge, and social change. In conducting action research, we structure routines for continuous confrontation with data on the health of a school community. These routines are loosely guided by movement through five phases of inquiry:

1. Identification of problem area
2. Collection and organization of data
3. Interpretation of data
4. Action based on data
5. Reflection

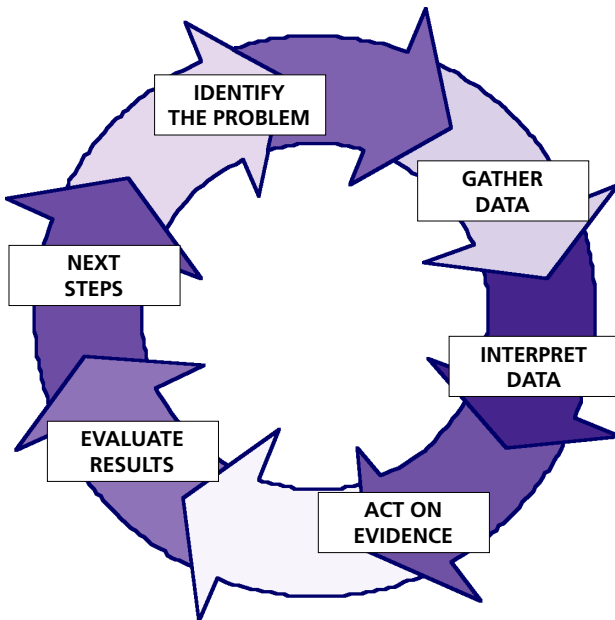


Figure 2. Action Research Cycle

■ IDENTIFY A PROBLEM AREA

Teachers often have several questions they wish to investigate; however, it is important to limit the question to one that is meaningful and doable in the confines of their daily work. Careful planning at this first stage will limit false starts and frustrations. There are several criteria to consider before investing the time and effort in “researching” a problem. The question should

- be a higher-order question—not a yes/no
- be stated in common language, avoiding jargon
- be concise
- be meaningful
- not already have an answer

An important guideline in choosing a question is to ask if it is something over which the teacher has influence. Is it something of interest and worth the time and effort that will be spent? Sometimes there is a discrete problem that is readily identifiable. Or, the problem to be studied may come from a feeling of discomfort or tension in the classroom. For example, a teacher may be using the latest fashionable teaching strategy, yet not really knowing or understanding what or how kids are learning.

■ GATHER DATA

The collection of data is an important step in deciding what action needs to be taken. Multiple sources of data are used to better understand the scope of happenings in the classroom or school. There are many vehicles for collection of data:

interviews	journals
portfolios	individual files
diaries	logs of meetings
field notes	videotapes
audio tapes	case studies
photos	surveys
memos	records – tests, report cards, attendance
questionnaires	self-assessment
focus groups	samples of student work, projects, performances
anecdotal records	
checklists	

Select the data that are most appropriate for the issue being researched. Are the data easy to collect? Are there sources readily available for use? How structured and systematic will the collection be? Use at least three sources (triangulation) of data for the basis of actions. Organize the data in a way that makes it useful to identify trends and themes. Data can be arranged by gender, classroom, grade level, school, etc.

■ INTERPRET DATA

Analyze and identify major themes. Depending upon the question, teachers may wish to use classroom data, individual data, or subgroup data. Some of the data are quantifiable and can be analyzed without the use of statistics or technical assistance. Other data, such as opinions, attitudes, or checklists, may be summarized in table form. Data that are not quantifiable can be reviewed holistically and important elements or themes can be noted.

■ ACT ON EVIDENCE

Using the information from the data collection and review of current literature, design a plan of action that will allow you to make a change and to study that change. It is important that only one variable be altered. As with any experiment, if several changes are made at once, it will be difficult to determine which action is responsible for the outcome. While the new technique is being implemented, continue to document and collect data on performance.

■ EVALUATE RESULTS

Assess the effects of the intervention to determine if improvement has occurred. If there is improvement, do the data clearly provide the supporting evidence? If no, what changes can be made to the actions to elicit better results?

■ NEXT STEPS

As a result of the action research project, identify additional questions raised by the data and plan for additional improvements, revisions, and next steps.

Benefits of Action Research

Action research can be a worthwhile pursuit for educators for a number of reasons. Foremost among these is simply the desire to know more. Good teachers are, after all, themselves students, and often look for ways to expand upon their existing knowledge.

Focus on school issue, problem, or area of collective interest

Research done with the teacher's students, in a setting with which the teacher is familiar, helps to confer relevance and validity to a disciplined study. Often, academic research is seen as disconnected from the daily lives of educators. While this might not always be true, it can be very helpful for teachers to pick up threads suggested in academic circles, and weave them in to their own classroom. It is also comforting for parents, or education administrators outside of the school, to know that a teacher is not just blindly following what the latest study seems to suggest, but is transforming the knowledge into something meaningful.

Form of teacher professional development

Research and reflection allow teachers to grow and gain confidence in their work. Action research projects influence thinking skills, sense of efficacy, willingness to share and communicate, and attitudes toward the process of change. Through action research, teachers learn about themselves, their students, their colleagues, and can determine ways to continually improve.

Collegial interactions

Isolation is one of the downsides of teaching. Teachers are often the sole adult in a room of children, and have little or no time scheduled for professional conversations with others. Action research in pairs or by teams of teachers allows time to talk with others about teaching and teaching strategies. By working on these teams, teachers must describe their own teaching styles and strategies and share their thoughts with others. As a team they examine various instructional strategies, learning activities, and curricular materials used in the classroom. Through these discussions with colleagues they develop stronger relationships. As the practice of action research becomes part of the school culture, we see increased sharing and collaboration across departments, disciplines, grade levels, and schools.

Potential to impact school change

As teachers get into action research, they are more apt to look at questions that address school and district concerns rather than questions that affect the individual teacher. This process creates new patterns of collegiality, communication, and sharing. Contributions to the body of knowledge about teaching and learning may also result. Development of priorities for school-wide planning and assessment efforts arise from inquiry with potential to motivate change for improvement's sake.

Reflect on own practice

Opportunities for teachers to evaluate themselves in schools are often few, and usually happen only in an informal manner. Action research can serve as a chance to really take a look at one's own teaching in a structured manner. While the focus of action research is usually the students, educators can also investigate what effect their teaching is having on their students, how they could work better with other teachers, or ways of changing the whole school for the better. Conversations can take on a different focus from attempting to "fix" to arriving at understanding.

Improved communications

Team work within the school or district brings individuals together for a shared purpose. Educators involved in action research become more flexible in their thinking and more open to new ideas (Pine, 1981). Studies by Little (1981) suggest positive changes in patterns of collegiality, communication, and networking.

Frequently Asked Questions

Q. *What is action research?*

A. Action research is deliberate, solution-oriented investigation that is group or personally owned and conducted. It is characterized by spiraling cycles of problem identification, systematic data collection, reflection, analysis, data-driven action taken, and, finally, problem redefinition. The linking of the terms “action” and “research” highlights the essential features of this method: trying out ideas in practice as a means of increasing knowledge about or improving curriculum, teaching, and learning (Kemmis & McTaggart, 1988).

Q. *What is the purpose of action research?*

A. Action research is used for various purposes: school-based curriculum development, professional development, systems planning, school restructuring, and as an evaluative tool.

Q. *How can teachers become researchers?*

A. A teacher can decide to tackle a problem alone or join with others to learn more how children learn. They can meet after school or during common time to discuss the nature of a problem and decide on a strategy based on an analysis of data.

Q. *How do I learn more about action research?*

A. Many local colleges and university offer coursework

on action research. Some private organizations offer workshops on the basic principles of action research and have networks that are open to interested educators. Additionally, contact the regional educational laboratory in your area.

Q. *How can I use action research in my classroom?*

A. You can use it to chart the effects of implementation of a curriculum or strategy, to study student learning and responses, or to profile individual students.

Q. *How does action research benefit students in the classroom?*

A. Action research can improve the teaching and learning process by reinforcing, modifying, or changing perceptions based on informal data and non-systematic observations.

Q. *How does action research benefit teachers?*

A. Teachers learn what it is that they are able to influence and they make changes that produce results that show change. The process provides the opportunity to work with others and to learn from the sharing of ideas.

Q. *Why should schools engage in action research?*

A. Reasons for performing action research fall into three categories: to promote personal and professional growth, to improve practice to enhance student learning, and to advance the teaching profession (Johnson, 1995).

- Q.** *What gains can be made from action research that affect students?*
- A.** Change is based on data; the student is the subject and object of inquiry.
- Q.** *Does action research take away from other instructional time?*
- A.** Time must be made to organize, study, collect data, analyze data, and for dissemination.
- Q.** *Who will manage action research projects?*
- A.** Projects can be managed by the individual teacher or a team leader. With school-wide or district-wide projects, it is not unusual for an outside facilitator to manage the project.