THEMES IN EDUCATION

ACTION RESEARCH

by Eileen Ferrance

LAB
a program of The Education Alliance

Northeast and Islands Regional Educational Laboratory At Brown University

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The LAB, a program of The Education Alliance at Brown University, is one of ten educational laboratories funded by the U.S. Department of Education's Office of Educational Research and Improvement. Our goals are to improve teaching and learning, advance school improvement, build capacity for reform, and develop strategic alliances with key members of the region's education and policy making community.

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About This Series

This is another edition in a series of "Themes in Education" booklets produced by the Northeast and Islands Regional Educational Laboratory at Brown University. The topics addressed by these booklets are generated in response to requests for information from practitioners, parents, and other members of the public. Each booklet aims to present a balanced view of its topic and a glimpse of how the approach works in schools. Some discussions may lend themselves to a state-by-state summary; others are illustrated by a series of vignettes that demonstrate the central concepts. For topics that are more global in nature, the booklet will cite a few illustrations within the region or nationally.

The goal of this series is to provide resources containing useful information on education-related topics of interest. Connections to other relevant resources, selected current references, and ways to obtain more information are provided in each booklet.

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INTRODUCTION

Action research is one of those terms that we hear quite often in today's educational circles. But just what does it mean? If you ask three people to define action research, you may find yourself with three different responses.

Typically, action research is undertaken in a school setting. It is a reflective process that allows for inquiry and discussion as components of the "research." Often, action research is a collaborative activity among colleagues searching for solutions to everyday, real problems experienced in schools, or looking for ways to improve instruction and increase student achievement. Rather than dealing with the theoretical, action research allows practitioners to address those concerns that are closest to them, ones over which they can exhibit some influence and make change.

Practitioners are responsible for making more and more decisions in the operations of schools, and they are being held publicly accountable for student achievement results. The process of action research assists educators in assessing needs, documenting the steps of inquiry, analyzing data, and making informed decisions that can lead to desired outcomes.

This booklet discusses several types of action research, its history, and a process that may be used to engage educators in action research. Two stories from the field, written by teachers about their own reflections on the process, are given as illustrations of action research.

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

A Brief History of Action Research

The idea of using research in a "natural" setting to change the way that the researcher interacts with that setting can be traced back to Kurt Lewin, a social psychologist and educator whose work on action research was developed throughout the 1940s in the United States. "Lewin is credited with coining the term 'action research' to describe work that did not separate the investigation from the action needed to solve the problem" (McFarland & Stansell, 1993, p. 14). Topics chosen for his study related directly to the context of the issue. His process was cyclical, involving a "non-linear pattern of planning, acting, observing, and reflecting on the changes in the social situations" (Noffke & Stevenson, 1995, p. 2).

Stephen Corey at Teachers College at Columbia University was among the first to use action research in the field of education. He believed that the scientific method in education would bring about change because educators would be involved in both the research and the application of information. Corey summed up much of the thought behind this fledgling branch of inquiry.

> We are convinced that the disposition to study…the consequences of our own teaching is more likely to change and improve our practices than is reading about what someone else has discovered of his teaching.
>
> (Corey, 1953, p. 70)

Corey believed that the value of action research is in the change that occurs in everyday practice rather than the generalization to a broader audience. He saw the need for teachers and researchers to work together. However, in the mid 1950s, action research was attacked as unscientific, little more than common sense, and the work of amateurs (McFarland & Stansell, 1993, p. 15). Interest in action research waned over the next few years as experiments with research designs and quantitative data collection became the norm.

By the 1970s we saw again the emergence of action research. Education practitioners questioned the applicability of scientific research designs and methodologies as a means to solve education issues. The results of many of these federally funded projects were seen as theoretical, not grounded in practice.

The practice of action research is again visible and seen to hold great value. Over time, the definition has taken on many meanings. It is now often seen as a tool for professional development, bringing a greater focus on the teacher than before (Noffke & Stevenson, 1995). It is increasingly becoming a tool for school reform, as its very individual focus allows for a new engagement in educational change.

> Action research emphasizes the involvement of teachers in problems in their own classrooms and has as its primary goal the in-service training and development of the teacher rather than the acquisition of general knowledge in the field of education.
>
> (Borg, 1965, p. 313)

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**

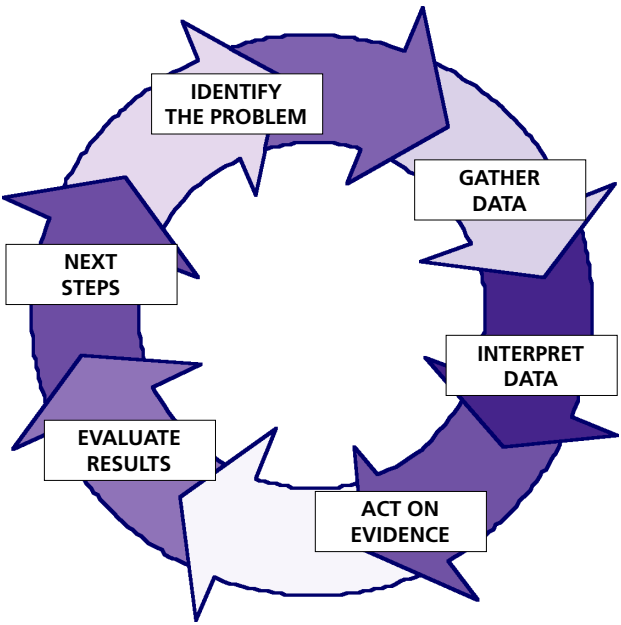

Figure 2. Action Research Cycle

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

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.

Stories from the Field

Rebecca Wisniewski
Charlotte M. Murkland School
Lowell, Massachusetts

When I sat down to write about my experience with action research, I began by looking over my team's final report, my meeting notes, and my e-mails to our consultant from the LAB at Brown. I am glad I did. Doing action research can be a little like labor. You forget what it was really like. The notes and e-mails reminded me of the messiness of our meetings and our struggle to pare down the project into something manageable.

I am the Title I Resource Teacher for the Charlotte M. Murkland School in Lowell, Massachusetts. Our school is in the inner city and has about 530 students in pre-school to fourth grade. The Murkland has a Khmer bilingual strand and over 60% of our students are from homes in which English is not spoken. Our poverty rate is one of the highest in the city, at about 89%-92%, depending on the month. The Murkland is a new building with an experienced, stable staff that formed when the school was built six years ago. Although our school offers us many challenges, on most days, most of us are glad to be at the Murkland.

"Do you like research?" asked my Title I facilitator, Eileen Skovholt. "Yes," I said, "I loved research in college." With those words I was on my way to becoming a teacher–

researcher. That conversation led to a multidisciplinary team, made up of our vice principal, the city-wide Title I facilitator, an ESL teacher, a bilingual teacher, a special education teacher, and myself, being asked to attend the LAB Institute on Cultural and Linguistic Diversity: Problem Solving through Action Research, held at Brown University.

At the conference, our group was taken with the idea that we could actually begin to conduct inquiries into our own teaching. We have so often felt pulled in one direction or another by the swing of the educational pendulum. By doing our own action research we could gain a better perspective into our own teaching and the students' learning. The changes that we would make in our teaching would come out of our own work. Perhaps most importantly, we would be working as a community of learners.

During the conference, we began to talk about a group of bilingual Cambodian students in our third and fourth grades who were non-readers. Most of them were new to our school. They would, of course, be referred to special education for testing. The truth is, we see students such as these just about every year. At this age, time is short and the testing process is time-consuming. Even when the testing is completed, we still need to develop a program for them. Action research would provide us the opportunity to try different strategies and see which ones actually brought about significant change for our students. After visiting Brown, we were invited to write the grant that led to this project. Several of us had never worked together before. The discussion that occurred as we were writing the grant generated many ideas. As we wrote the

grant, there was a sense of common goals and a feeling that what we were about to do was important to our school and to our own personal growth.

Our Approach

Our research question became, "What can we provide for effective reading instruction for third- and fourth-grade English language learners who are limited readers or non-readers?"

We began the literature research project by gathering articles that we felt would be of interest. We each read the articles and set aside a day to report our findings back to the group.

We also collected as much information as possible on our target students. We looked at their past records and at their current programs.

Then we had to determine where we would go from here. This was the most difficult time for our team. Up to this point we seemed to have moved along with only a few problems. Now, our meetings seemed to go in circles. We became very frustrated with our lack of progress. Our impatience caused discord among the members of the team. We were able to move past this point by allowing each member to choose a different strategy to research. We chose among strategies that we had either discussed or read about, and then worked with a targeted group of students. Each teacher collected data and then looked to see how her own practice might be improved. In retrospect, this was a good decision. Looking at your own teaching is real professional development.

Working With the Students

My part in the project was to work each morning with two of our target fourth-grade students. They would sit with me at the computer and we would write a few sentences about what they were doing in school. This became a newspaper that was sent home to parents. Students had to read what they wrote to their parents and the parents had to sign the newspaper and return it to school. In later editions, we began to have students ask the parents for feedback.

As students sat with me and we talked, I was able to help them build and write sentences in English. The process was easy and non-threatening. We also talked about vocabulary and what concepts they were learning in their other content areas. We wrote articles to inform their parents about this. The concept of how to use a pulley is the same in any language.

Findings

What makes action research so powerful? As a team, we interviewed our students and asked for their views on which of our strategies helped them to become stronger readers. It is powerful to listen to students. Even as seasoned teachers, we can make wrong assumptions about how a child is learning. A staff member from the LAB at Brown helped us to do a linguistic analysis of the students' comments. For me, this was the most interesting piece. We looked at all the student comments and then charted their responses. For example, we counted how many times they talked about needing to obtain support from a Khmer-

speaking teacher. What they said made perfect sense. They needed the most support when their English skills were less developed. This need lessened as they became better English speakers. For us, this supported our own feelings that a few words in Khmer at the right time can make a big difference in their learning. For my own research piece, it was good to learn that most of the parents liked and enjoyed reading the newspaper. By the end of the project, parents began to request articles.

Helping Parents To Be Involved With Their Child's Learning

The newspaper was a wonderful way to communicate with our parents about what their children were learning. By having the students write the articles, they were reinforcing their own learning and they were practicing English. Therefore, the student newspaper was a viable idea to teach English sentence structure, reinforce vocabulary, reinforce content skills and information, and communicate with parents.

The one common finding from everyone's research was that students needed to have their lessons supported in Khmer. As they are learning English, they need to be able to go back to their first language to have their learning verified.

Action research allows us the opportunity to shape and refine our own teaching and to build on our own successes.

In a climate that is at best stressful, action research allows a teacher to focus her energy in a positive way. So many of the issues in education today are out of our hands. As education continues through the reform process, teachers must have a say in how they change their own practices. I found that action research was a process that helped me to put some of my assumptions to the test. I made unexpected discoveries about my own teaching by listening carefully to students. Action research changes the conversations that take place in a school. This has an incredible effect on the school climate for staff and children.

Need For Professional Educational Researchers

When doing action research it is vital to have the input of professional researchers. They can bring a perspective and experience to the work that is invaluable. Their presence in the project helps to legitimize that work. With their involvement there is an increased chance that the work will play a role in school or district priorities. Our consultants aided us by helping us to refine our question, establish an action plan and timetable, and reflect on our data to find trends or patterns. Our consultants were able to give us that third-party perspective and reassure us that our work and pace were on target.

Julie Nora
Roger Williams Middle School *
Providence, Rhode Island

Before being sent to an action research conference by my department head more than a year ago, I hadn't given much thought to what educational research could teach me about my own busy classroom. Researchers, it seemed, imagined a reality quite different from my own. Rubrics, flow charts, and scaffolding offered me little in the way of keeping my students engaged or of personally gauging how many of my lessons led to serious learning.

My attitude changed when I joined several colleagues at an action research conference in November 1997. As a tool to help teachers ask questions about their everyday work, action research promised something a little different: a chance to study my own practices and the proficiencies of my students with an eye toward what worked and what didn't. My goals were to assess the current level of performance in my classroom, to experiment with new ways of doing things, to measure the results, and to begin again as necessary.

I teach ESL at the Roger Williams Middle School in Providence, Rhode Island. This state now requires most

* At the time this reflection was written, Julie Nora taught at the Roger Williams Middle School in Providence, Rhode Island. She is now a program planning specialist at The Education Alliance Northeast and Islands Regional Educational Laboratory at Brown University (LAB). A version of this reflection first appeared in the LAB's online periodical, *Voices from the Field.*

fourth-, eighth- and tenth-graders to take part in a standards-based assessment tool created by the National Center for Education and the Economy (NCEE). The test is administered entirely in English and norm-referenced on monolingual English language users. Because of this, and because the state has mandated a 3-5% increase in each school's level of performance, my concern is on what the consequences of this new assessment will be on non-native speakers of English. As a teacher of these students, what matters most to me can be summed up in the simple question that forms the basis of my classroom inquiry: Does the explicit teaching of the NCEE standards enhance ESL student performance?

One of the basic principles of action research is that researchers need each other's ideas for stimulation and depend on other people's perspectives to enrich their own. For this reason, I elected to become part of an action research team that would apply for and receive technical assistance from an outside consultant. The group was initially comprised of all of the teachers from our district's bilingual department who had participated in the conference; but it wasn't long before our 12-person team dwindled down to just two, myself and an elementary school ESL teacher. Many of the members had joined more out of a sense of obligation to our director than out of a desire to participate at that particular time, while others faced personal obstacles that interfered with their ability to take part. Only the two final members were involved with writing the proposal for assistance. In hindsight we saw that these factors crippled our efforts to build a larger team that could reap the greatest benefits of research collaboration.

Still, our two-woman group continued to meet once per quarter to engage in dialogue about our individual questions. The contact I had with my colleague was a 100% increase from the previous year and allowed me to share triumphs and concerns in a productive environment. Knowing that I would be presenting my findings to someone else also helped me to organize my thoughts and my data. Though my usual way of teaching was indeed student-centered, I came to see that it wasn't building in a circular way as I had thought it was. The increased dialogue between us contributed to the development of our knowledge about teaching and learning.

Over time, I came to see that action research demands the skills of two types of professionals: teachers who work in the trenches every day, and educational researchers who can help us to assess our teaching in a way that gives us meaningful information. Teaching is, after all, quite subjective. Our consultant helped us in the initial stages to become aware of the need to conduct consistent data collection. He also helped me to think more about the instruments of assessment I choose so that I am clearly witnessing the results of student change and not of differing conditions.

As a result, I became more consistent in the creation of tasks and the assessment of student work. For example, in a weekly computer lab each student read from a book called *The House On Mango Street* for a fixed period of time, summarized some aspect of what he or she had read, and related it to his or her personal life. The task addressed two NCEE standards, reading and writing. I documented student progress quantitatively and qualitatively on each

element of these tasks. That is, I counted and recorded the number of pages read during the 10-minute period and the number of words written during the remaining 40 minutes. Qualitatively speaking, I was able to document students' abilities to summarize, relate the reading to their personal lives, and express their ideas in writing. I also began to document student errors in grammar, punctuation, and spelling and to use student work as the basis of explicit instruction of common areas of weakness.

In the course of the past year, the students in this class have improved dramatically, as action research has allowed me to address their needs and to document their progress. This has felt especially significant in the current atmosphere of accountability. When testing time comes, I certainly hope that my students will be deemed "at standard"; but if they are not, I will know more about their progress than the simple fact that they have failed. I will know what they still need to reach the next level and how I can best help them to get there. Action research has allowed me to see the bigger picture in my work.

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.

Conclusion

This booklet provides information about action research—its history, the different variations occurring in the field, and a step-by-step process that may be adapted by educators or schools to address their need for learning more about practice and successful interventions. While there may be different terms to describe the steps in action research, the basic concept is the same. Educators are working in their own environment, with their own students, on problems that affect them directly. They are at the place where research and practice intersect and real change can occur. Results of their actions can be seen first-hand, and they can build on this information.

There are many uses for action research. It is used in curriculum development, as a strategy for professional development, as part of pre-service and inservice programs, and in systems planning for schools and districts. The active participation of teachers and others is part of what makes this a viable and useful tool. The investment of time and energy by the participants provides a sense of ownership and connection to the process and outcomes. Activities of action research and the mindset of those involved in the process become an integral part of the professional repertoire of many educators. When they see the value of their work as they progress through the steps and the reflection time that is used to discuss strategies and methods, they find that the benefits go far beyond student achievement. Practitioners develop skills in analyzing their own teaching methods and begin to unconsciously utilize the principles of action research in their professional life.

Action research will not provide all the answers to our questions about how students learn or what educators can do to improve practice. But action research happens at the place where these questions arise; it happens where the real action is taking place; and it allows for immediate action.

How Do I Get More Information?

For more information about action research or other publications in this series, contact the Information Center of the LAB at Brown University at 1-800-521-9550, (401) 274-9548, or e-mail to info@lab.brown.edu.

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Internet Resources

- **http://ousd.k12.ca.us/netday/links/Action_Research/begin_guide_action_research**

  This site gives a clear outline and summary of the steps involved in action research. In addition, this site highlights the benefits of the action research process.

- **http://www.phy.nau.edu/~danmac/actionrsch.html**

  This site gives descriptions and diagrams of action research cycles. It also describes the function of each stage in the action research process.

- **http://elmo.scu.edu.au/schools/sawd/arr/arr-home.html**

  This site provides a brief summary of the methodologies used in action research, a bibliography with a substantial list of authors and titles, frequently asked questions, and links to various action research sites.

- **http://educ.queensu.ca/~ar/**

  This site has various informational and personal essays on action research. It also provides links to other action research sites.

- **http://www.tiac.net/users/dfleming/resource/arwhatis.html**

  This site describes many different forms of action research and how each one is unique and useful.

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