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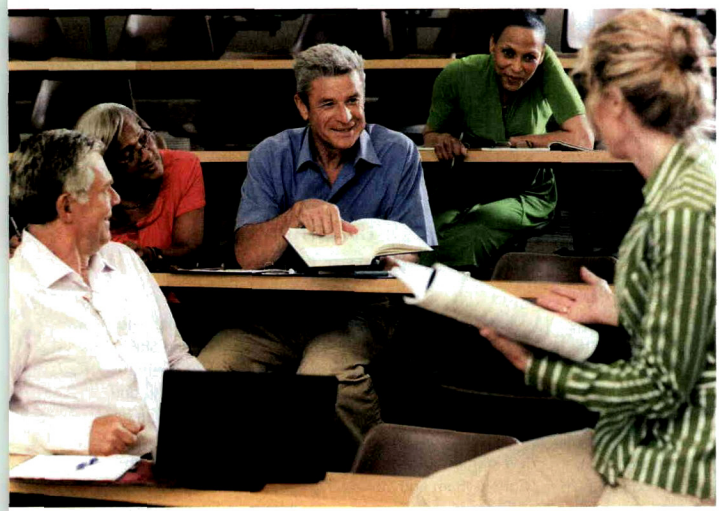

Becoming a TEACHER LEADER through ACTION RESEARCH

by Thomas J. Diana, Jr.

Find out how conducting your own classroom-based research project can help you become an effective teacher-leader.

Accountability. Wait Time. Differentiation. Inclusion. Inquiry. RtI. Constructivism.

Sound familiar? These are just a few of the programs, strategies, theories, and buzzwords emphasized in teacher education programs today. Often, for preservice students, teacher education programs consist of a series of disjointed experiences that fail to make a connection with their fieldwork and student teaching. For example, preservice teachers typically read about how to incorporate specific teaching methods, classroom management strategies, and assessment tools into their instructional practice, but rarely get the chance to implement and research how these techniques will work in their own classrooms.

There is a solution, however, that will give preservice teachers, and in-service teachers as well, the opportunity to systematically incorporate these techniques into their classrooms while investigating their usefulness. The solution is a tried-and-true professional development tool called *action research.*

In the age of accountability and high-stakes assessments, K–12 teachers are faced with increasing pressure to make classroom decisions based on both evidenced-based practices and data. The demand is even more evident for beginning teachers as they start to develop their curriculum, hone their instructional practices, and modify their assessment measures in the hopes of creating a classroom environment where all students can achieve success. Much of the responsibility for developing beginning teachers into self-starters and leaders who are effective in these areas falls on teacher preparation programs.

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Developing Teacher-Leaders

A primary goal shared by all teacher educators is to provide preservice teachers with meaningful professional development opportunities so that they can become effective teacher-leaders. *Teacher-leaders* are individuals who, through these experiences, develop the requisite knowledge and skills to become effective classroom teachers that are capable of implementing the current reform agenda. The challenge of preparing future teachers to serve as catalysts for transforming our nation's ailing schools is a formidable task. However, one way to accomplish this task is through classroom or school-based action research. New teachers graduate from their education programs with a sense of pride, energy, and excitement. Action research can help sustain these characteristics throughout their career.

Preservice teachers who engage in action research will develop new skills necessary to reflect on and evaluate their students' learning in addition to their own teaching practices. Action research represents one mechanism that may help the beginning teacher succeed in making the transition from being a student teacher to managing his or her own successful classroom.

So the question remains, what is action research and how will it help new teachers become effective teacher-leaders?

What Is Action Research and Why Is It Needed?

Research in education is conducted through various methods and designs. Though many quality studies have been performed and new research is continually conducted, often the findings of educational research never make it into the actual classroom. Typically, educational research is carried out by universities, and the results never reach practicing educators at the primary and secondary levels.

Why? According to many K–12 practitioners, the nature of the educational research (Koballa 1997):

- ignored the practical reality of life in schools;
- failed to translate into workable solutions; and
- was driven by university researchers without consultation with K–12 teachers and administrators.

The "research-practice gap" between university researchers and K–12 educators has been well-documented (Pekarek, Krockover, and Shepardson 1996; Constas and Sternberg 2006). One way in which this gap can be bridged is through a different type of educational research—action research.

Action research is conducted by the K–12 educators themselves, often in their own classrooms. In fact, teachers are the researchers examining their own practice in an attempt to improve their teaching and, ultimately, their students' learning.

Classroom-based action research is a systematic form of inquiry carried out by teachers and administrators who seek answers to classroom-based problems and issues. The applications are both immediate and practical, and are intended to improve practice (Tillotson, Ochanji, and Diana 2004). The main purpose of classroom-based action research is to develop change in the teacher's own classroom. Additionally, designing and carrying out an action research project helps teachers develop into reflective practitioners, make progress on school priorities, and build professional cultures within the school (Sagor 2000).

Typically, action research inquiry projects follow a five-step process (see Figure 1). However, because no rigid step-by-step procedure exists, each action research study may follow a different path. Following the completion of an action research project, the action research cycle generally repeats itself in an effort to address another issue or problem in the classroom. This process may take as little time to complete as a month or as much time as a few years.

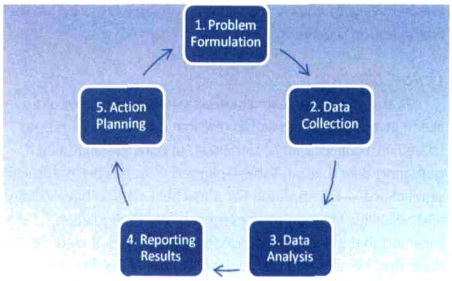

Figure 1. Stages of the Action Research Cycle (Tillotson et al. 2004, 327–29)

Stages of Action Research

To be successful in teaching, every educator must become a reflective teacher (Schön 1987). By becoming a reflective teacher and carrying out inquiry-based projects, a teacher gives himself or herself the opportunity for improvement year after year. Every teacher should expect his or her students to be skeptical and question things they see and experience. Similarly, teachers need to do the same in their practice. Once a teacher creates some questions regarding his or her classroom, any number of problems can be addressed.

Problem Formulation

The first step in the action research cycle is problem formulation. A teacher needs to determine what he or she already knows about an issue and what he or she needs to learn about it to carry out an investigation. Once that is determined, some questions need to be developed regarding the area of concern. To do this, a teacher may need to brainstorm some ideas of how to carry out the action research project. This may include collaborating with other teachers and administrators. Once the problem is defined, the suggested next step is to address some questions (Sagor 1992, 23–24):

- Who is affected?
- Who or what is suspected of causing the problem?
- What kind of problem is it? (e.g., a problem with goals, skills, resources, time)
- What is the goal for improvement?
- What do we propose to do about it?

After considering these questions, the groundwork is laid for the next step in the action research cycle. These guiding questions eventually lead to a more defined research question. An important note: the question a

teacher seeks to answer may change multiple times before the final question is defined.

Data Collection

At this stage, the teacher knows what he or she would like to investigate in the action research project, and it is time to begin to collect data of some sort. In educational research, gathering data that is reliable—referred to as having "statistical significance"—is important. For a teacher's data to have validity and reliability, the data sources must have "triangulation," meaning that at least three independent sources of credible data must be achieved (Sagor 1992; Creswell 2009).

Examples of these data sources can include, but are not limited to, the following quantitative and qualitative types:

- Interviews
- Written surveys
- Journals
- Videotape and photography
- Student work (portfolios or assessment results)
- Observational checklists
- Questionnaires

The length of time that is required to collect the data varies among different action research projects. Also, though action research generally is conducted on a small scale, sometimes involving only a few students, the researcher may need to collect data on several classes over several different time periods to determine the results of the study and the reasons behind them. In some cases, a small-scale action research study may not yield conclusive results right away, and then it is up to the researcher to collect more data for further analysis.

Data Analysis

Following the data collection from various sources, the action research investigator needs to analyze the data and identify apparent themes. During this step of the action research cycle, the investigator reads and scores surveys, listens to and transcribes interviews, and examines scores. With the data compiled in these ways, the investigator can proceed to identify important themes, issues, or factors that may be the cause for the results obtained. The data analysis step is where conclusions are drawn and initial suggestions for improvement are made based on what the results reveal to the investigator (Tillotson et al. 2004).

Reporting Results

For action research to be successful, the results from every single research project should be reported. The outcome of each action research project may be important to other teachers, administrators, and parents of students in the school district. For a teacher, reporting the results of an action research project that has been completed in his or her own classroom or school can be difficult because doing so reveals the results of that teacher's own teaching and methodology—and the results are sometimes unfavorable.

Though reporting the results obtained from an action research project may be somewhat of a risk for both untenured and tenured teachers because the results may be unfavorable, completing this step is nonetheless important and necessary. For teachers to realize the potential and necessity of this step in the action research cycle, administrators in each school district must make action research a school-wide collaborative effort. Even if the results achieved are unexpected or less than favorable, reporting results allows the action planning that follows, which is truly important for school-wide improvement.

Action Planning

Following the previous steps in the action research cycle, it is time to implement some changes based on the results achieved from the study. During this stage of the cycle, plans to implement change in the classroom or the entire school can consist of numerous actions, including changes in current teaching and assessment practices; alterations in existing school or classroom policies; and new mechanisms for studying problems or issues within the school community (Tillotson et al. 2004).

Though action planning is the final stage, action research is cyclical. As is the case in all research and in all fields, new knowledge that results from research almost always leads the researcher into new directions. This is the reason action research is a professional development process that is continuous and ongoing. Successful action research projects become the springboard for other questions and issues that can be studied in the future. In a perfect educational world, all educators would be proficient in conducting action research. All teachers and administrators then would be continuously involved in evaluating and assessing instruction as well as seeking ways to improve every school.

Action Research Resources

For further information on classroom or school-based action research, see the following resources:

Macintyre, C. 2000. *The art of action research in the classroom.* London: David Fulton Publishers.

Mertler, C.A. 2009. *Action research: Teachers as researchers in the classroom.* Thousand Oaks, CA: Sage Publications.

Sagor, R. 2005. *The action research guidebook: A four-step process for educators and school team.* Thousand Oaks, CA: Corwin Press.

Benefits of Action Research

Pursuing and carrying out an action research study can be a meaningful endeavor for a variety of reasons. Simply put, teacher-leaders will grow and develop both personally and professionally through action research. Evaluating and reflecting on one's teaching in a systematic way will result in more effective teaching and, in the end, higher achievement by students. Following are additional ways in which action research can benefit all teachers.

Delving into the Research

Though the implementation of action research is beneficial to all K–12 teachers, the tool is especially important for the success of beginning teachers. Early in their careers, teachers need to learn how to conduct their own inquiry project and delve into the research on their problem. By reading educational research, teachers increase their knowledge, which is beneficial to their growth as teacher-leaders (Cochran-Smith and Lytle 1993). While they gather research reports and articles from the professional literature, teachers identify topics that relate to or match their areas of interest. Organizing materials for their study and analyzing the information aids understanding their problem and helps to determine the most promising actions.

Results Impact Actual Practice

Teacher-directed action research inquiries can focus on a number of issues or concerns in the classroom or school. Typically, teachers' inquiry projects center on their students' performance, their own teaching performance, or their teaching methods. This inquiry by teacher-leaders can have numerous benefits in the classroom and beyond. Educators can relate theory and research to their practice, produce information about individual teachers' curriculum and classroom methodologies, act on valuable data directly from the source, create a platform to disseminate knowledge to teachers locally and nationally at professional conferences, and encourage other teachers to become teacher-leaders and apply problem-solving skills to real classroom situations (Keating et al. 1998).

One example of action research impacting classroom practice was provided by beginning science teacher Gregory Booth (2001), who carried out his own research investigation examining whether or not inquiry-based science labs were more effective than a more traditional approach. Contrary to what his district was looking for, that inquiry labs would yield higher quiz scores, Booth found that students participating in traditional science labs scored higher when compared to the use of open-ended inquiry-based labs. Because inquiry-based labs remain a focus of the *National Science Education Standards* (Center for Science, Mathematics, and Engineering Education 1996), the contradictory results of the action research study led Booth to further investigate how best to incorporate inquiry-based science labs into the curriculum. This is an example of a teacher-leader continuing the action research cycle in an effort to improve his teaching and, ultimately, his students' learning.

Effective Professional Development

Action research has the potential to become one of the most promising methods of professional development in all educational fields. For beginning teachers, action research is one method of professional development that can assist new teachers in becoming reflective educators. Across the entire spectrum of education—from preservice teachers to in-service teachers with more than 30 years of experience, to administrators concerned with accountability and data—action research can be used to examine and improve teaching and student learning in the classroom. Consequently, through this reflective action research process, these important stakeholders in education can develop into effective leaders.

Closing Thoughts

Because the scope of action research is small as compared to other types of research, the results cannot be generalized. Nonetheless, the results of action research projects can have an influence on all stakeholders within a school district. From the teachers to the administrators and, ultimately, to the students, the results of action research investigations can impact the teaching and learning of the entire school or district. Successful student learning is a predominant goal for schools today, and action research represents one very important vehicle for developing teacher-leaders and enabling them to reach this goal.

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