

# Action Research: Do It Yourself!

Pat Goldys, Clare Kruff, and Patti Subrizi

When teachers collaborate to find ways to improve instruction, they create a community of learners and leaders.

## IN BRIEF

A principal describes how she introduced the concept of action research in her school by encouraging teachers to analyze how their teaching practices impacted students' success and to look for ways to improve. During the course of a year, teams of teachers introduced and monitored innovative projects designed to meet students' specific needs in reading and math. Year-end data indicate that 75 percent of the school's 620 students benefited from the action research projects.

*schools operate, how they teach, and how well their students learn. This information is gathered with the goals of gaining insight, developing reflective practice, effecting positive changes in the school environment (and on educational practices in general), and improving student outcomes and the lives of those involved (Mills 2003).*

Action research involves stages of identifying a question or focus for study, designing interventions to improve achievement around this focus, collecting data about how the interventions are affecting students, and analyzing and sharing the findings. It is a way to encourage teachers to collaborate and take ownership in their own professional growth as well as school improvement.

But how do we sell action research to a faculty not familiar with it? The key for us was the respectful approach we took by treating teachers as professionals while persuading them to analyze how their teaching practices impacted their students' success and to engage in research to improve those practices. In doing so, we found a way to create not only a com-

**T**eachers have lots of questions when a principal introduces a new concept. They want to know if it will be worth their time, how much it will change what they're doing, and what will be the impact on their kids. Those are some of the questions we had to answer when we introduced action research to Norwood Elementary School.

### What Is Action Research?

*Action research is any systematic inquiry conducted by teacher researchers, principals, school counselors, or other stakeholders in the teaching/learning environment to gather information about how their particular*

*schools operate, how they teach, and how well their students learn.*

A convenient way to understand how this process unfolded at Norwood Elementary School is to follow its progress through the 2004–2005 school year.

### Fall

Pat Goldys, the new principal, began her tenure by surveying each grade-level team to determine practices they wanted to keep or change within the school. One concern that showed up on every survey was the formal, one-shot observations of classroom lessons by the principal. Goldys addressed this concern after consulting with Clare Kruff, a former principal and college instructor who had returned to teaching and was experienced in action research at the classroom level. They formulated a plan to improve classroom instruction through ongoing action research. Instead of the principal dropping in or scheduling a formal observation, she would meet with each teacher and analyze ongoing evidence of student learning.

Goldys and Kruff began introducing action research as an alternative to the observation process with a one-hour seminar, "Action Research: Why Should I Get Involved?" during the week that teachers returned to school. Teachers were asked to:

- Attend optional monthly 15-minute conferences with Kruff for constructing studies, defining data, and analyzing results;



- Attend required conferences in October and January with the principal to discuss questions about their research projects;
- Focus on two large areas within the school improvement plan to improve student achievement in reading or math;
- Design a specific action research project as an individual teacher or as a collaborative team; and
- Celebrate or share the results of their action research in April with the faculty. The teacher teams (only two teachers chose to do individual projects) met with Krufft or worked on their own throughout the fall.

#### Winter

The winter holidays came and went, and teachers were excited to see early

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results of their efforts. They were beginning to tweak their projects and adjust their studies in response to these key questions:

- What does the data show?
  - What patterns are evident?
  - What anomalies exist?
  - Is the data from different sources consistent?
- Are these the results we expected?
  - What actions are needed?
  - What new research questions does this data suggest? (McTighe and Emberger 2000)

Goldys participated in collaborative brainstorming discussions with the teachers about what was and was not working. Here are some examples of how teams changed key elements of their studies during this time.

- A team measuring how the Reader’s Theater program would increase third graders’ fluency in expressive reading noticed that the data on reading *comprehension* was more significant. Therefore, they added a tracking of students’ comprehension scores.

## An Action Research Project

**Objective:** Using real-life experiences to increase learning of difficult math skills.

**Research:** Difficult math skills for students were identified by summative testing. Activities were then designed to allow targeted students to apply skills to real-life experiences. The students were then retested on the skills.

Sample Units	Skill	Real-Life Experience
Addition and Subtraction	Choosing operations for story problems	Collect bird-watching data and interpret results.
Place Value	Greater numbers	Compare school populations to inform pen pals.
Money	Adding with regrouping	Collect and count money for UNICEF.
Subtraction	Information from a table	Interpret current NFL data.
Multiplication	Increasing batches	Doubling or tripling recipes for cooking projects.
Division	Explaining division	Bring in objects to share with classmates.

**Results:** Retest scores were higher after real-life experiences 85 percent of the time and were the same 15 percent of the time. No student scored lower on any retest item after participating in real-life experiences.

■ A pair of teachers providing math workshops for parents changed their

assumptions when they noticed data indicating that workshops focused

on basic math concepts showed no improvement on students' unit tests, whether or not their parents attended the workshops.

■ A team of teachers working on a mentoring program for reluctant readers added students to their original target group at the request of classroom teachers who thought other students also could benefit.

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### Spring

As the April deadline approached to share their results, even the procrastinators got on board! Teachers discussed how to present the data and their generalizations to their colleagues and helped one another with their presentations. Patti Subrizi, the school's technology resource teacher, assisted many teams in the use of PowerPoint or Excel for visual displays of their data.

Three choices evolved as formats for the sharing celebration:

- A mini-presentation in which results were verbally shared;
- A PowerPoint presentation in which key data and results were highlighted; and
- A Gallery Walk, with booths set up

around the gym to display students' pre- and post-work samples and meaningful data summaries.

Projects that were presented varied in the numbers of students studied, the types of interventions that were done, and how the data were collected (*see box*).

As their first experience with action research came to a close in 2005, teachers were already discussing and preparing their research for the 2005–2006 year. Many revisited the displays to take notes and provide feedback. Others

## WEB RESOURCES

Infed provides an informative article that explores the development of action research and a guide to action research literature.

[www.infed.org/research/b-actres.htm](http://www.infed.org/research/b-actres.htm)

The ERIC Clearinghouse on Elementary and Early Childhood Education is the source for a comprehensive report on action research in early childhood education.

[www.ericdigests.org/1997-2/action.htm](http://www.ericdigests.org/1997-2/action.htm)

New York University's Wagner Graduate School of Public Service describes the purpose and programs of its Research Center for Leadership in Action.

[www.nyu.edu/wagner/leadership/about](http://www.nyu.edu/wagner/leadership/about)

The Centre for Action Research in Professional Practice "aims at helping the individual practitioner develop skills of reflective practice and to help organizational members develop communities of inquiry."

[www.bath.ac.uk/management/carpp](http://www.bath.ac.uk/management/carpp)

The National Writing Project offers useful tips that teachers can use to encourage children to write.


[www.writingproject.org](http://www.writingproject.org)

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requested a compilation of feedback for further reflection before selecting a different focus in the area of math or reading, or refining their earlier topics.

These are our insights from our first year of action research:

- The ongoing nature of action research strengthened professional growth and ownership of instruction;
- Action research opened the door to the steps needed to identify and meet student needs; and
- Action research supported the school improvement process by also meeting the needs of teachers and administrators.

In a school of 620 students, 464—75 percent—directly benefited from action research projects in 2004–2005. Just think about the possibilities for your school! 

## References

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- Mills, G. *A Guide for the Teacher Researcher*. Upper Saddle River, N.J.: Merrill Prentice Hall, 2003.

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