



Action Research in Literacy: Teacher Inquiry Projects That Answer Questions About Practice

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ABSTRACT

This article presents ways that the author has been involved in action research, beginning with student teachers for whom action research was a focus during the student teaching semester. With brief descriptions of action research as a part of a professional practice school partnership, the article concludes by presenting action research experiences of graduate students in a literacy certification program.

AUTHOR BIOGRAPHY

Mary Ellen Levin, Ed. D. is a former reading teacher and middle school principal. She holds a doctorate from Teachers College Columbia University in Educational Leadership. She has been working in teacher education since her retirement from the public schools in 1999, and is currently the Chair of the Literacy Department at Manhattanville College in Purchase, NY. Her particular research interests are in teacher action research and its role in the Professional Development School. She has presented at several national conferences on related topics, and presented with a Manhattanville colleague at the IRA in Chicago this spring.

Action research, also known as teacher research or teacher inquiry, is an uncomplicated but powerful initiative that teachers can take in their own classrooms to enhance their effectiveness and improve student learning. Readers are likely to want to know “What is action research?” and “How does it work in classrooms?” My aim is to answer these questions with a brief literature review, followed by an account of a variety of investigations initiated and carried out by teachers, including a group of New York State literacy teachers working in elementary and middle schools. Readers will probably recognize, and perhaps be currently experiencing, many of the issues that these teachers chose for their research.

Teacher action research is based in schools. The researcher is an “insider”, with a participant role in the research. It is “intentional and systematic” (Bauman & Duffy-Hester, 2000; Lytle & Cochran-Smith, 1992). Teachers who engage in it pursue action and research (or change and understanding) at the same time (Dick, 1999). The process generally involves the teacher’s identification of a classroom issue and the development of a research question. Ideally, the issue or problem is one “owned” by the teacher, and change is within the teacher’s authority, should the research indicate that change is warranted.

How broad a review of related professional literature the investigator carries out depends upon various teacher-determined factors, including time constraints, interest, and availability of materials. There are studies large and small in books and journals on most literacy topics, and the teacher-researcher often does some reading of the professional literature connected with the problem identified, but often not the extensive literature review required for a university-based study. Since action research is formative, it



is often not appropriate to pre-formulate the issue based on the literature (Stringer, 2004). It is “an emergent process that takes shape as understanding increases” (Dick, 1999, ¶ 2).

Some would argue that all teachers are continually engaged in creation, investigation, and development of their own practice. How does a teacher’s everyday practice that involves working to help individuals and groups and trying out new methods and materials, for example, differ from action research? To answer that question, Lytle and Cochran-Smith (1992) describe intellectual communities of teacher researchers as networks of individuals who enter with other teachers into a common search for understanding in their professional lives. They differentiate teachers who build curriculum through data analysis, for example, from those who sit down together to write curriculum in the traditional way, sharing ideas and experience but no data. Their meta-analysis of action research identified four categories of teacher research, including teachers’ journals, essays that contain issue-oriented analysis, accounts of teachers’ oral arguments and discussions, and “small and larger scale classroom studies based on documentation and analysis, using procedures similar to those of university-based research” (p. 451). Lytle and Cochran Smith categorize literacy questions that were pursued, including “What works?” (in writing conferences and literature study groups) and “What worked?” (in a 12th grade writing workshop and in “untracking” of Advanced Placement English at one high school).

Why should educational research be carried out classroom by classroom, school by school? It appears that educational research doesn’t travel well. Teachers find that research done at another time and in another place, often by university-based researchers, does not meet their needs, nor have they the time, skills, or inclination to read it. Phil Jackson expressed a sea change in the outlook of educational researchers in an AERA address in 1990 (Lytle & Cochran-Smith, 1992), “The dream of finding out once and for all how teaching works or how schools ought to be administered no longer animates nearly as many of us as it once did. In its place we have substituted the much more modest goal of trying to figure out what’s happening here and now or what went on there and then” (p. 465).

Sagor (1992) describes five steps in one model for implementing an action research project: Problem Formulation, Data Collection, Data Analysis, Reporting of Results, and Action Planning. The fourth and fifth steps are particularly relevant to teacher inquiry, as contrasted with educational research in general. Action researchers are in a position to let school leaders, parents, and colleagues know what has been learned, and can plan and carry out improvements or next steps.

A simple research project is designed by the teacher who develops hypotheses about the issue at hand and identifies several ways to test each hypothesis. Topics are as diverse as school life itself, including, for example, instructional methods and materials, uses of technology, social issues, attendance, and relationship with parents. Data are collected during classroom intervention or observation. Data collection may go on for a period as brief as one month or as long as an entire school year. Teachers use test scores, report card grades, student work samples, observation, interviews (with parents, teaching colleagues, and students), surveys, and questionnaires. Hubbard and Power (2003) describe additional sources of data, including teaching journals and notes, classroom artifacts, audiotape and videotape transcription, and photography. Their book features generic forms for use in data collection, interviewing, and self-questioning.

Once data are collected, analysis and reflection are crucial to the action research process, and it is beneficial to have others, at school or outside of it, with whom to discuss findings. Colleagues and parents are often eager to see and hear findings and to help plan for the “action” aspect of the research.

Bauman and Duffy-Hester (2000) examined thirty-four teacher-research studies, to explore the “nature of methodologies teacher researchers have employed in published classroom-based inquiries in literacy” (p. 81). Topics included aspects of the reading and writing process that concern many teachers:



motivation to read, topics to use for writing, and reading and writing groups' functioning. Several were carried out in university methods courses. They explored the general attributes, process, methods and reporting of classroom inquiry, the process of teacher inquiry, teacher research methods, and teachers' ways of writing and reporting classroom inquiry. Significant findings were that teacher research is theoretically productive (over 90% of the studies), that it leads to collaboration with fellow teachers or parents (over 90% of the studies), and that questions evolve and are modified as teachers implement a classroom study (60% of the studies). The latter finding points up the formative aspect of teacher inquiry, with questions and methods changing as issues arise and intermediate findings are produced.

Action research can serve as a staff development tool, since groups of teachers that range in size from pairs to an entire faculty can try new methods and materials and plan to examine the results. It can serve as the focus of a university graduate course, or a district in-service course: teachers study the action research process together, then plan, implement, and report on their classroom research. Action research allows teachers to investigate what interests them, and to shape short-term projects to get answers and make changes.

Action research investigations

After decades of work as a public school teacher and administrator, I have recently spent several years leading university courses and seminars on action research, supervising the implementation of projects, and working in the field doing action research with classroom teachers. My early experiences were with student teachers, who were required to make action research projects a focus of their student teaching semester. In some cases the cooperating/supervising teacher became involved with the student teacher in carrying out the research; in other cases the teacher was just an observer, but obviously an interested observer. These projects addressed many questions at all school levels. It was interesting to note in seminar how eager student teachers were to learn about each other's results, since the group had been discussing each group member's topic from its inception.

They reported great interest in their research at the schools as well. For example, one student teacher reported on the impact on class achievement that included students with learning disabilities. Another, investigated techniques that a substitute might use to gain student cooperation. A third observed twelve English teachers and categorized their methods of discussing literature. Yet another studied the impact of an organizational initiative that paired heritage speakers of Spanish with monolingual English speakers in eighth grade Spanish class.

My next action research experiences were with the faculty of a middle school with whom I worked to develop a professional practice school on behalf of a university in the northeast where I was employed. At this middle school it was convenient – and effective – for faculty members to work together in teams of two or more to implement research projects. “Teacher inquiry groups that conduct action research can help identify student learning issues and help share best practices” (Teitel, 2003, p. 148).

It was interesting for me, as a former middle school teacher and principal, to note the variety of familiar issues administrators and teachers faced, and the research questions they identified. The principal investigated the types of report cards used by other fifth and sixth grade programs, hoping to find one more suitable to the educational philosophy of the school and herself than the one currently in use. Several counselors investigated the efficacy of a guidance program that involved service learning; through the program, students became involved with seniors in their community. Teams of teachers got involved in trying out spelling programs and writing programs. Another team decided to get floundering students



organized—their desks, backpacks, time, and follow-through with assignments with peer models and mentors.

Literacy teachers in the action research process

More recently I taught eighteen graduate students (all teachers) in a literacy certification program at a New York State private college. My first all-literacy action researchers, they faced the particular problems faced by contemporary elementary and middle school literacy teachers in an era of increased testing and a mandate to “leave no child behind”. I wondered what topics would be of most concern to these young teachers. How would they choose to carry out their investigations? I decided to organize their work into whatever categories emerged, hoping that other teachers, reading about the range of topics and methods would be inspired to become action researchers, too.

Problem finding

Following the recommendation of Sagor (1992), the teachers brainstormed about issues in their own practice, and each engaged in a problem-finding dialogue with another teacher, who asked questions and encouraged elaboration, but made no comments or recommendations. Many examined and discarded as potential research topics, concerns over students’ home lives over which they could have little or no influence. The questions took shape, as did ideas for investigating them. Particularly useful was a collection of case studies (Cross & Steadman, 1996) that described university instructors’ action research in their own undergraduate classes, where they faced issues of student motivation, preparation, and student self-esteem that would sound familiar to any elementary or secondary teacher. The instructor in each case study generated several hypotheses about each issue faced, and collected data about each in several different ways. It was helpful for my students to read about each instructor’s problem analysis, formation of a hypothesis, and methods of investigation.

The teachers’ issues took shape, and over the course of several weeks they refined problem statements and research questions. Some decided to observe a phenomenon passively; others investigated through surveys and interviews. Some actively intervened, and changed one or more factors in students’ educational lives. Each teacher-researcher decided upon several ways of collecting data for each research question. This sometimes meant inviting another teacher to become involved. The researcher’s observations were then confirmed or contradicted by another set of eyes on classroom instruction, assessment, or students’ journals.

Trends and topics investigated

The teacher researchers’ questions addressed instructional technology, motivation, decoding, fluency, vocabulary, comprehension, visualizing, and the writing process. A focus that they seemed to arrive at naturally when thinking of troubling classroom issues is the challenge faced by students with special needs or English language learners. In trying to help every child meet state learning standards, and also to read for information and enjoyment, teachers tend to worry about their most challenged learners. This was certainly true with these teacher-researchers, since a majority of the studies concerned students with disabilities or students with special language needs and issues. I have chosen to describe



individual research efforts that represent some of the recurring themes or categories. They represent a variety of research methods and school levels. Perhaps the reader will recognize familiar issues here.

The more experienced teachers, having taught three to ten years, identified issues of attitude, motivation and interest, while those less experienced, having taught fewer than three years, were more concerned with technique. (This observation was confirmed for me in a multi-school survey of literacy teacher concerns taken by our college literacy advisory group in Spring 2005. There, too, the most experienced teachers identified student motivation as their greatest challenge.)

It is interesting to note that as the literacy field's methods and classroom organization change, issues about our practice change with them. One example is a concern that we now experience about children's motivation to read books that they select, their ability to choose the right book, and their commitment to stay with a book until it is finished. These concerns are possible products of the often pervasiveness of independent reading time in classrooms, of the expanding supply of trade books found in most classrooms, and of the freedom of children to choose their own books. The professional stance now is that when independent reading doesn't work action is needed. Several of these teachers had concerns about the failure of boys to find satisfaction in reading. Although only two teachers focused specifically on boys and motivation, others who worked on providing more variety in reading for their students mentioned boys as a particular target of their efforts.

A general education teacher was concerned that the boys in her third grade class did not read books of their own accord, although the girls in the class spent happy hours with "series" books and other chapter books. Observation and a review of her classroom records confirmed that the problem existed. Her literature review was discouraging: boys lag behind girls in reading for "fun" in every English-speaking country. She did note that families have a strong impact and that boys who see their fathers read are more likely to choose to read. The teacher decided to provide role models for the boys. She invited men, teachers and other school employees, to visit the class and to discuss their own reading habits and preferences. Some of the men were frank about their late discovery of reading for pleasure, sometimes not until adulthood. One visitor talked about how much he likes cookbooks, and likes to try out recipes. The teacher soon found the boys avidly reading the cookbooks that she had in the room. Hearing the sorts of reading preferred by the men, the teacher realized she would need to expand the reading selection in her classroom, to include more non-fiction.

In another study, struggling elementary students were aided by one-to-one scaffolding by the teacher in advance of lessons. In another, an at-risk ninth grader appeared to benefit from similar efforts by a high school English teacher. Thus, similar problems were evident and similar solutions effective in both situations, in elementary school and in high school.

Several teachers used peer buddies or mentors to help students to focus and learn. Two used audiotapes and listening activities to accompany silent reading. Others tried repeated readings in an effort to improve fluency, a current, provocative literacy issue.

Several of the teacher-researchers had no way to create two groups randomly, but wanted to compare two methods. They alternated two or more treatments with the same children, or alternated one or two-week periods of time, providing the treatment and withholding it. Some teachers used tests provided by the textbook publisher to gauge the effects of these treatments. All of the teacher-researchers learned about the potential of this kind of research from hearing their results.

There is renewed use of commercial products in schools and school systems in response to No Child Left Behind. Teachers are left wondering whether they really work and whether they work for all children. Teacher researchers in my classes investigated the effects of several of them. Two teachers, one at the eighth grade level and another at the second grade level, tested commercial programs that used



visualizing as a major component. An eighth grade general education teacher wanted to test methods for promoting student retention of vocabulary. He was prompted by disheartening vocabulary retention statistics in his classroom and a negative attitude in his students toward vocabulary study. His literature review confirmed his impression that vocabulary increase is related positively to both comprehension and fluency.

He decided to try an alternative, a multi-sensory approach called Vocabulary Anchors (Winters, 2001), to what he called the “memorize and forget” technique by which vocabulary is frequently learned and soon forgotten. The teacher at first provided his 72 students pictures to connect with each of their vocabulary words; later, the students found their own pictures. Before each weekly vocabulary quiz, the teacher asked students to predict how well they would remember the week’s words. Although their confidence was not great, their grades soared relative to their grades before the technique was used.

The second grade special education teacher had been trained in a program called Visualizing and Verbalizing (Bell, 1991) and decided to try it with four of her students to see whether this technique would increase their comprehension, which was poor. Looking at a picture the teacher could not see, students described it using a series of function words such as what, size, color, and shape (Bell, 1991). They later developed pictures of their own with details about the “what” word. They gained vocabulary knowledge and new concepts and their comprehension on tests and in everyday classroom situations improved. This teacher discussed her results with her instructional team members, who all had students as challenged as the four in the study. Since all of the teachers had not had the training for Visualizing and Verbalizing, they decided to fit some semantic webbing into their everyday classroom program to build concepts.

Some teachers question the effect of classroom technology on learning and motivation, and also about its possible detrimental effects upon children whose free time is largely devoted to technology. A sixth grade special education teacher, teaching literacy in a departmentalized program, acquired a SMART board for his classroom in September that he used enthusiastically for months. He found by the second semester that his students were no longer motivated to participate in any classroom reading activity that did not involve the SMART board. He hypothesized that there had to be equally appealing activities for his students that did not involve technology and decided to investigate. His literature review produced many articles that touted the positive effects of computer technology and internet exploration, and he discovered a new term: The Miss Rumphius Effect (Leu & Karchmer, 1999), whereby students can become world travelers through the internet like Miss Rumphius in the children’s book by Barbara Cooney (1986). He did not find any research that would help him to wean students from the technology, however. The teacher decided to use lessons at the overhead projector as a second method, and student work with photocopied readings and different colored markers as a third alternative. This third method tested his theory that students do better when they can write in the margins or highlight the text. He developed a questionnaire for his students about their reaction to each of the three experiences, to be administered at the end of each week. He then taught in series, one week at a time, lessons involving SMART board activities, lessons involving the use of the overhead projector, and lessons involving photocopied reading material that students were allowed to “mark up” with highlighter and write comments and questions about in the margins.

To his surprise, he found that students liked the highlighter sessions as much as the SMART board sessions, because they enjoyed using the multicolored markers and writing on the text with pen, and because they could take their work to where they were comfortable, unlike sessions where the overhead projector or SMART board had been used. No students preferred lessons at the overhead projector, complaining that it was too hard to see and too hard for them to write on.



An eighth grade science special education teacher wanted to improve her students' comprehension of science text. Their out-loud reading was halting, and their comprehension was poor. I encouraged her to adopt listening to text while reading silently as one of the treatments she would try, on the assumption that some of her learning-disabled students needed the combination of visual and auditory input. She developed an experiment with three different treatments: student reads alone, reads with teacher support and discussion, and reads while listening to the text on tape. She used each for two weeks. She administered the weekly comprehension tests that the textbook publisher provided, but did not provide an out-loud reading of the test. She found that the listening/reading combination was the most effective.

Another teacher investigated the effect of repeated readings on the fluency of second graders' "cold", out-loud reading. She tried a four-step repeated reading intervention. First she modeled out-loud reading of passages for students. Next she and the students read the passages in chorus. Then the teacher and students re-read the text in chorus. Finally each student had the opportunity to read the text out loud alone. Although students' "cold" reading of new text was not much improved during the six weeks of the intervention, the researcher did note an increase in confidence and an improvement in attention to punctuation following the repeated readings. She planned to continue the repeated readings for the remainder of the school year, to see whether a longer period of time yielded additional gains.

Conclusion

Teachers thought the action research projects changed their practice permanently. They also reported that the activity changed their outlook on classroom issues, and predicted that they would be more likely to grapple with troubling issues, discuss them with colleagues, and think of ways to investigate them. Whether teachers decided to supplement commercial programs, add a variety of reading materials to their classrooms, try new methods, or help a struggling individual student, they were satisfied with their work.

I hope that teachers who read this will undertake their own action research, and hope to read accounts of some of those efforts in these pages in the future or to hear their work presented at the New York State Reading Association's annual conference. To talk online about action research, readers are invited to email me: levinm@mville.edu.

Author notes

I know of no books or articles devoted to methodology in literacy action research specifically, but *The Handbook of Reading Research* (Kamil, Mosenthal, Pearson, & Barr, 2000) contains a chapter, "Making Sense of Classroom Worlds: Methodology in Teacher Research" (Bauman & Duffy-Hester, 2000) that features a 34-item list of journal articles that report teacher literacy research of all types carried out at all grade levels (p. 80-81). Examples of titles from this list will allow the reader to see that they are accounts of individual classroom studies carried out by practicing teachers:

"Antonio: My student, my teacher. My inquiry begins" (Murphy, 1994).

"Try Reading Workshop in your classroom." (Swift, 1993).

"Appearing acts: Creating readers in a high school English class" (Cone, 1994).

Another chapter from the Handbook, useful for helping the teacher considering single subject research, is "A case for single subject experiments in literacy research" (Neuman & McCormick, 2000).



For a 31-page resource file of recent books on action research and related topics, go to:
<http://www.scu.edu.au/schools/gcm/ar/arp/biblio.html>. This annotated bibliography supports an on line public program, Action Research and Evaluation Online (AEROL).

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