Impact of Action Research

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Focus

The purpose of this study is to document the nature and impact of a school district sponsored action research professional development program for teachers, principals, and other staff in the Madison Metropolitan School District, Madison, Wisconsin.

The Program

This professional development program began in 1990 and to date, has involved nearly 300 staff in conducting research about their own practices. During their participation in this program which runs from August to June, practitioner researchers formulate a research question and carry out an inquiry related to this question over the course of the school year. A few individuals have participated in the program for a second year and have either continued with the study begun during the first year or have conducted a new study.

The researchers meet once per month for a half or full day in small groups of 4-10 people that are facilitated by two experienced action researchers. Although a few people in the same group might be from the same school, the groups are all interschool in composition and are structured around either levels of schooling (e.g., middle school) or around broad themes (e.g., technology, ESL, integrated curriculum, race and gender equity). Most of the facilitators are teachers or other instructional staff who have participated in the program in previous years. Six days of released time per year are provided for each participant, paid for by a combination of district funds from different program areas. The total cost per action researcher for this released time and for supplies and materials to support their research is approximately $550 per researcher.

Seminars are held about every six weeks for the group facilitators that provide guidance and support in the facilitation of the research groups. Researchers complete a written report of their studies that are then published by the school district and distributed to all
of the schools in the district. Categorized abstracts of all of the studies have been made available on the school district's web page and the complete studies are available from the Staff Development office to those who request them.

An annual action research conference held in Madison provides program participants with an opportunity to share their research with a statewide audience from colleges and universities, school districts, and the state department of public instruction. The school district has produced four theme-based videos of participants discussing their action research that have been shown on local cable TV. All participants receive district professional development credits for this program or can elect to receive graduate credits through the Department of Curriculum and Instruction at the University of Wisconsin-Madison.

Research Questions

- What is the nature of the action research process in this program? What happens in the action research groups over the course of a year? What are the key aspects of the organization and facilitation of the groups? What are the obstacles that researchers experience?

- What is the role of knowledge previously produced in the program in informing the research of participants? What happens to the knowledge produced through action research once a study is completed?

- How has the program affected the way that participants think about their practice?

- How has the program influenced the practice of participants?

- How has the program influenced student learning?

- How has the program influenced the culture of particular schools?

- Is there any evidence of the influence of individual studies beyond the specific classrooms and other learning venues in which they were conducted?

Methodology

Interviews were conducted with 74 individuals who had conducted action research in this program as well as with 10 individuals who had also facilitated action research
groups. We interviewed both individuals who were participating in the program during our study (once in the fall and once in the spring) and those who had completed the program in previous years. Originally we had planned to interview the principals of all of the action researchers, but because of logistical problems in scheduling these interviews, we ended up interviewing only 2 principals. In order to minimize the likelihood that participants would withhold information critical of the program, most of the interviews were conducted by project staff who were not affiliated with the school district. Confidentiality was maintained for teachers with regard to the interviews.

We also read and analyzed all of the studies that had been done in this program since 1990 as well as 4 videos that were produced for local cable TV. Here we examined both the substance of the research that had been conducted and researchers' comments about the process of doing action research.

Two action research groups, a group on race and gender equity (1995-96) and a group on assessment (1996-1997) were the focus of our efforts to document in depth the nature of action research in this one school district. Robin Marion, a project assistant, co-facilitated both of these action research groups with Cathy Caro-Bruce. A variety of data provided the basis for our documentation efforts including detailed field notes that were recorded by Robin at each of the 10 meetings for each group, interviews with the 12 researchers who participated in these groups, an examination of the published studies of the 12 participants, and artifacts that were associated with the group meetings such as handouts and feedback sheets completed at the end of each meeting by all participants.

Findings

1. The nature of this program as a professional development activity.

Our analyses indicate that the following are the critical features of this program as a professional development activity.

- It is a voluntary program in which teachers assume ownership of the professional development process (e.g., choosing their own research question, data collection and analysis strategies, etc.). Because teachers can choose their own research issues and can connect their research to their current concerns and work situations, they develop a personal investment in the process that is often missing from professional development activities for teachers.
There is a recognition of and respect for the knowledge that teachers bring to the activity and for teachers as professionals. This was communicated by the provision of released time (providing space for thinking and working away from the hectic pace of the normal workday), comfortable meeting venues away from school, the particular way in which meetings were conducted that embraced teachers' struggles and provided intellectual challenge, and the opportunities made available for teachers to present and/or publish their work.

The activity takes place in a nurturing and supportive environment over an extended period of time. The groups provided teachers with emotional support and a chance to think deeply about their practice with colleagues, situations that many thought were missing from their everyday work lives. The authentic nature of the communication in the groups (e.g., people "really listening" to each other) was an important aspect of the group experience for teachers.

Although there was some variation across research groups, the group meetings were conducted according to a particular set of assumptions about how teacher learning is best supported. Specific rituals and routines (e.g., check-in and check-out procedures) in the groups provided a culture for teacher learning. Participants in the groups developed their own criteria for ways to interact with each other, how to choose a research question, etc. that provided unique cultures within the groups. There was an emphasis by the facilitators on modeling the asking of questions to further teacher thinking rather than on providing answers. There was a general structure to the activities in the groups over the course of the school year (e.g., development and refinement of a research question, September- November). Facilitators play a number of different roles in the groups that include: providing an overall framework within which the research is conducted, asking questions to help teachers think more deeply about their practice, providing technical assistance in forming and refining questions, collecting and analyzing data, helping teachers locate literature and resources related to their research topic, providing teachers with written records of group conversations about their projects, and in supporting teachers in the writing their research report.

The support for the group facilitators is an important feature of this program. This is accomplished by providing them with an overall structure for the op-
eration of the groups, numerous resources for use in the groups, and a regular seminar in which to discuss issues related to group facilitation. Group facilitators work in pairs which provides another level of support for group facilitation, and an experienced facilitator is often paired with a beginner to provide mentoring for new facilitators. Most interviewees felt that it is important for facilitators of action research to have gone through the process themselves. It was argued that this firsthand experience enables the facilitators to be able to empathize with the struggles that teachers often experience in conducting research and to understand the subtleties of the process.

- The program requirement of writing a final report of the research for publication in the district, although feared initially by many teachers, was felt by many to be an important vehicle for helping them analyze and synthesize their research. Many teachers found it difficult to keep up with the journal writing that was encouraged by facilitators, but some time for writing in journals was provided during the group meeting times to compensate for the time pressures experienced by teachers.

2. **Obstacles and difficulties experienced by teachers while doing action research**

Although most interviewees stressed the positive nature of the experience, some shared with us difficulties that they had encountered during the process.

- Some interviewees felt that there are increasing outside pressures on teachers from the school district that intensified their time problems. Some teachers said that they had little time to do things like collect and analyze data, write a research report, etc. because of these increased demands. The implementation of new standards, benchmarks, and assessments in the district with regard to several curricular areas is an example of an outside pressure cited by teachers.

- There were some problems in finding substitutes for teachers during the group meeting times. There were a few instances of teachers being called back to their schools because of the inability to find any substitute, a few instances of teachers complaining about the qualifications of the subs provided, and several instances of complaints about the extra work involved in preparing for a sub.

- A few teachers felt that the time frame of nine months is too short to conduct
action research and write a report about it. The district has begun to allow a few teachers to continue for a second school year in the program.

- In some of the larger groups, there was occasionally a problem where there was not time during a given session to let everyone report on their progress and get feedback from the group. It is important to keep the groups small enough so that all researchers can have adequate time during every group meeting to discuss their progress.

- Occasionally, when several people from the same school were gone to attend action research meetings on the same day, there were problems in the school with substitute coverage or with pupil behavior. The use of interschool groups minimized this problem and were also preferred by many interviewees because they felt freer to talk with colleagues who do not work in their own school. Participants felt that the opportunity to interact with teachers from other schools and subject areas broadened their perspectives and gave them a better sense of what is going on in the school district.

3. **What happens to the knowledge produced in this program?**

We found that interviewees had little knowledge of the action research studies published by the district before they joined an action research group. A few teachers who were located in schools where others had participated in the program had read and used studies, but the vast majority of action researchers had not. Several teachers reported using previous action research studies to inform their research after they joined the program and found out about the published studies. The practice of distributing bound volumes of the studies to each school and the annual action research conference were not effective by themselves in building more awareness and use of the studies. During the course of our research, several other strategies were added. Our interviews revealed the following ways in which participants shared their research with others:

- A number of teachers were asked to talk about their research at school staff meetings. One principal copied a teacher’s study and put copies in all of the staff mailboxes. A few teachers were asked to go to other schools to discuss their research. Several teachers discussed their research at professional development sessions they conducted within the district. Several teachers also discussed their research in teacher education classes at the UW-Madison or in
MMSD action research groups in subsequent years.

- The district produced four TV shows that involved teachers talking about their research. These were shown repeatedly on local cable. The district Staff Development Quarterly as well as the newsletter from the Wisconsin action research network featured a teacher's research study in each issue. During the course of our study, abstracts of all studies done since 1990 were put on the district's web page under different categories. A bound version of these abstracts, Voices from Madison, was also distributed throughout the school district and was catalogued in the UW-Madison's School of Education library.

- During the course of our research, four teachers discussed their studies at the annual meetings of the Northern California teacher research community in Monterey. To date, 13 of the MMSD action researchers have published their work in the NEA journal Teaching and Change. Several others published their studies in a special issue of the Elementary School Journal. Many teachers have discussed their studies at the annual action research conference held in Madison.

4. **How has the program influenced how participants think about their practice and their actions?**

We found much evidence that participation in this program influenced the ways in which teachers think about their work and their teaching practice. Although there was variation in the effects reported by different individuals, the following themes emerged in our data:

- Many teachers reported that their participation in the program helped them develop more confidence in their ability as teachers to influence their work and the circumstances in which they practice. They argue that they now feel a greater sense of control over their work and are more proactive in dealing with situations that arise. Action research was an energizing and validating experience for many teachers.

- Many teachers told us that doing action research caused them to look at their teaching in a more analytic, focused and in depth way, habits that many claim they have now internalized and made use of subsequent to their participation in the program. Teachers told us that they are now more likely to step back
and examine what they are doing using the tools they acquired in the pro-
gram, and they are now more concerned with the need to gather data to un-
derstand the impact of their teaching. Teachers describe the thinking that they
do in the daily course of their work and in most professional development ex-
eriences as superficial in comparison with the thinking about their practice
they did while doing action research.

- A number of teachers told us that they are more likely now to talk with col-
leagues in their buildings about their teaching and that being part of an action
research group convinced them of the importance of collaborative work with
other teachers. They also said that the quality of these conversations is of a
higher quality than before.

- Several teachers told us that the action research experience raised their expec-
tations for how they should be treated by others. Because they felt that they
were treated with respect and trust within this program and were given lots
of support, they now expect other staff development activities to display the
same respect for teachers and ambitious view of their capabilities. The idea of
teachers producing knowledge that can be valuable for others was a surprise
to many, but is another dimension of the program that helped teachers to de-
velop a more positive view of themselves as teachers and of the teaching pro-
ression.

- There was a "multiplier effect" in the learning that occurred in the groups.
Teachers said that they learned things about teaching that were helpful to
them and that caused them to rethink aspects of their teaching from all of the
studies conducted by teachers in their group.

- There is overwhelming evidence in our data that teachers became more learn-
er-centered in their practice, in part, as a result of gathering data from their
students during their research. Many teachers told us that they are now much
more convinced of the importance of talking to their students and listening
carefully to them, that they now listen much more closely and effectively to
their students than before, and that they have developed higher expectations
for what their students know and can do as a result of closely studying them
in their action research. Many teachers developed a new appreciation for the
knowledge their students bring to the classroom.
There is some evidence in our data that the development of a greater disposition to listen to students leads to more democratic and interactive work in classrooms. Many teachers told us that they are now more willing to let their students participate in decision making about classroom affairs including curriculum issues, and a number of teachers reported movement to more interactive classes where students are more actively involved.

Several teachers told us that because of habits acquired during their action research, they now keep much more detailed documentation about their students' academic progress.

5. **Is there evidence of any influence of doing action research on pupil learning?**

Although there is very little evidence in our data of improved learning as measured by standardized test scores, many of the interviewees reported improvements in pupil attitudes, involvement, behavior, and/or learning as a result of the specific actions taken as part of their research. The evidence for these changes is provided by teacher observations, careful documentation of classroom activities, the analysis of student work samples, and teacher designed assessments. In a number of cases, teachers reported that the learning that resulted from the actions implemented as part of their research were greater than gains seen before, either from the same students, or from different students with the same curriculum. We are not able to provide any evidence for the long term effects of the learning gains that were reported to take place during the action research. As teachers conducted action research, they implemented a wide variety of new practices with students that addressed learning and behavior issues. These included the introduction of new grouping and scheduling patterns (e.g., looping, heterogeneous grouping, inclusion), multicultural literature and music, the use of computers in chemistry, music, foreign language, and physical education classes, student journals, writing workshop, integrated and thematic curriculum, service learning projects, and new assessment practices. A number of the projects have sought to develop better communication between parents and teachers, among resource teachers and between resource and classroom teachers. Many of the projects focused on issues of equity even though they were not placed in groups that were labeled as concerned with equity. For example, several projects in the technology groups have been concerned with issues of equity in the use of computers. Following are a few examples of the kind of improvements in student learning reported by many teachers.
A sixth grade middle school teacher utilized manipulatives such as pattern blocks and number tiles in a unit on fractions. Students who had struggled in the past with fraction concepts, grasped the concepts by the end of the unit as measured by the unit test.

A kindergarten teacher implemented a new collaborative writing program with the assistance of a Title 1 teacher and an educational assistant and reported that student attitudes toward writing and writing skills improved by the end of the year much greater than they had in previous years. Most students were now writing complete sentences as opposed to the past when only a few students would be writing some sentences by the end of the year, and not every day.

Two fifth grade teachers in a team taught full inclusion classroom introduced a project based curriculum that provided meaningful and purposeful activities for their students (e.g., a food drive, garbage and recycling unit) and a vehicle for more authentic assessment of student development. They tracked the progress of three of their students and reported improvements in a variety of social and academic skills. Evidence for student progress was provided by analysis of student work samples, the observations of the two teachers recorded over time in notebooks, and feedback from the music teacher.

A social worker, English teacher and the nurse in the district's alternative high school incorporated a service learning component into a required unit on the life of Malcolm X in an orientation class for all new students. They wanted to see if the addition of service learning could address the problem of students not passing the course because of failure to complete this assignment. They reported that the addition of the service learning project that involved the high school students teaching sixth graders about Malcolm X resulted in an increase in the proportion of students who completed the class and in more positive attitudes among students, many of whom had a history of frustration and academic failure in school.

6. Is there evidence of the influence of individual studies beyond the classrooms and other learning venues in which they were conducted including on school culture?

Although our analysis shows that most of the impact of the studies seems to be on
those who conduct them and on their individual classrooms, we did find some evidence of an impact beyond the individual classroom. Examples of this broader impact include:

- In several schools where a number of staff have participated in the program, interviewees claim that there is more and better communication among the staff about substantive issues of teaching and learning. In one particular school where a number of teachers had been involved in the program, many of the studies done were distributed and discussed by the staff. One of these studies was concerned with the use of portfolios in the school and discussion about it caused a rethinking of how portfolios were being used throughout the school. In several studies, improved coordination and communication among support staff and between support staff and classroom teachers were reported to be a result of action research.

- Several studies conducted by resource teachers appeared to have an effect on policies used for referring children for special services. Two studies involving the referral of kids who were suspected of having ADD led to revised policies that led to fewer referrals. Another study led to a change in policy for referring ESL students. Several studies resulted in greater inclusion of students with special needs into the regular classroom and in a decrease in pull-out services.

- One study led to a major reorganization of the 6th grade social studies curriculum in a middle school to focus on fewer topics in more depth.

- One study led to a change from homogeneous to heterogeneous grouping in the teaching of 6th grade reading in a middle school.

- One study led to the modification of a house wide discipline policy in a middle school to address social class and race related inequities in the previous system.

Implications

Although this study has shown that there are many positive effects on teachers, their teaching, and on student learning as a result of conducting action research, one must be very cautious about using these results to advocate for teacher research as a professional
development activity. This research has suggested particular conditions in action research that may be important in producing the desirable influences. While these conditions are consistent with those typically identified in the literature on professional development, they also include factors such as intellectual challenge, respect for teachers, and emotional support, that are not often mentioned in the literature. The next phase of this research with funding from NPEAT will further explore which of the conditions identified in this research are important by studying action research that has been organized in different ways. For example, is participation in an action research group, the provision of released time, the use of facilitators, the preparation and support of facilitators, the particular way of conducting action research groups in Madison (e.g., the use of a research question), etc. important to the realization of the outcomes found in the current study? Are there other ways of organizing and supporting action research that lead to similar outcomes? Also, although we read about and were told by many participants of the improvements in pupil attitudes, behavior, involvement, and learning that were associated with actions taken during the research in the short run, this link between conducting action research and pupil learning needs further study in terms of the long term effects on both teacher actions and pupil learning.

Products and Dissemination of Findings

Conference Presentations and other dissemination to date:

1. Ken Zeichner and Cathy Caro-Bruce conducted a session at the 1997 annual meeting of the American Association of Colleges for Teacher Education (February, Phoenix). At this session, we discussed both the program and the design of the research project. No preliminary findings were shared at this meeting.

2. A symposium on the program and this research project was held at the 1997 annual meeting of the American Educational Research Association (April). During this session two teachers and group facilitators, Barbara Brodhagen and Laura Mueller discussed the program and Ken Zeichner discussed preliminary findings of the research.

3. Cathy Caro-Bruce, Ken Zeichner, and Madge Klais, group facilitator, discussed the program and the findings from this research project on a one half hour cable TV show that has been aired several times on the district’s local cable TV channel. (November, 1997)

4. Cathy Caro-Bruce conducted two workshops on action research at annual meetings of the National Staff Development Council that included a report of some of the
findings from this project. (November, 1996 Vancouver; November, 1997 Nashville) She also conducted workshops on action research that included a report of some of the findings at the Institute on Cultural and Linguistic Diversity (Brown University, November, 1997, March, 1998) and at the University of Missouri-Kansas City (March, 1998) for a conference sponsored by a local school-university partnership.

5. Robin Marion conducted a session at the annual "Voices from the Classroom" conference sponsored by the Northern California teacher research community that included a report of the findings of our research.

6. The Action Research Network of Wisconsin newsletters have included regular reports of the findings of this study.

7. Proposals will be submitted this summer to AACTE and AERA to present all of the findings of this research at their 1999 annual meetings.

Products


4. Aspects of this research project have also been cited throughout Zeichner, K. & Noffke (in press) Practitioner research In V. Richardson (Ed.) Handbook of research on teaching - 4th edition. Washington, D.C. AERA.

5. Caro-Bruce, C. (In press) Action research facilitators handbook. This resource book for the facilitation of school-based action research groups is based on the work in the MMSD program and will be published by the National Staff Development Council later this year.

6. We have had several discussions with publishers about an edited book that will include chapters describing the program, the findings from our Spencer-MacArthur funded study of the program, and examples of studies conducted in the program. Erlbaum has expressed much interest in publishing this book. We hope to have a complete manuscript ready to send them by the end of this summer. Revised versions of both of the 1997 AERA papers listed above will become chapters in this
Continuation of this work

Ken Zeichner has received funding for a new four year study as part of the National Partnership for Excellence and Accountability in Teaching (NPEAT) funded by the U.S. Department of Education to expand the work completed in this project. In 1998 he will produce a comprehensive review of the research on teacher research as professional development. In the following three years, he will conduct case studies to better understand the strengths and weaknesses associated with different conditions for organizing teacher research as a professional development activity. He will examine several additional examples of teacher research organized within a school district, a teacher research program organized by a regional educational laboratory, regional professional development consortium, teacher association, and by a university extension department. He is interested in understanding whether the particular key elements identified in the present research (e.g., group setting, facilitators, etc.) are necessary for realizing the outcomes discovered in this study or, whether there are other conditions of organization and support that produce similar outcomes.

Notes

1 Funding for this research was provided by a grant from the John D. And Catherine T. MacArthur and Spencer Foundations under the Professional Development Research and Documentation program. The views expressed are solely the responsibility of the authors.

2 http://www.madison.k12.wi.us Look under the Staff and Organization Development home page under Classroom Action Research.

3 The term "teacher" is used to refer to all MMSD staff who participated in the program with the exception of principals (e.g., classroom teachers, librarians, social workers, etc.).