

Sustaining Teachers’ Growth and Renewal through Action Research, Induction Programs, and Collaboration

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Developing and retaining highly qualified teachers continues to be a critical need (Berry, 2004; Darling-Hammond & Sykes, 2003). As more teachers retire and school populations continue to grow, an increasing number of schools, universities, and states are implementing programs to ease induction, develop quality teachers, and inform educational practices. Many educators turn to action research to achieve these goals.

Action research, also called classroom or teacher research, has been defined as “systematic, intentional inquiry by teachers” (Cochran-Smith & Lytle, 1993, p. 5). Action research encourages school personnel to systematically develop a question, gather data, and then analyze that data to improve their practice. Over the last fifteen years the complexities of using action research

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in schools have been well documented (Calhoun, 1993; Crawford & Cornett, 2000; Morton, 2005; Sagor, 1995); however, few studies have explored the effects of prolonged action research engagement on schools (Folkman, 2002; Wagner, 1999).

This investigation offers a unique lens with which to view action research. In an earlier study we interviewed teachers at Parkland Elementary School to determine the impact of a school-university partnership on teachers and teaching at one school (Gilles & Cramer, 2003). Action research emerged as one of the engines that drove renewal in this school. For the current inquiry the data were further examined to unpack the complex interactions surrounding action research and to describe what factors led to the group's growth and longevity. Although many change initiatives are short lived, Parkland's action research group had existed for seven years at the time of the research. It was required for those involved in an induction program, the Teaching Fellows, and was voluntary to all other teachers.

The Partnership and the Teaching Fellows Program

Parkland belongs to the Missouri Partnership for Educational Renewal (MPER), a partnership between the University of Missouri-Columbia and selected Missouri schools. The mission of the partnership is to "collaboratively discover, develop, demonstrate, and disseminate effective standards-based educational practices" (MU Partnership for Educational Renewal, 2008). The partnership belongs to the National Network for Educational Renewal, conceptualized by John Goodlad (see <http://www.nnerpartnerships.org>). One important outgrowth of this partnership is the Teaching Fellowship Program.

The Teaching Fellowship Program places a first year, fully certified teacher/Fellow in a classroom with the support of a released mentor teacher, who mentors two Fellows. The Fellows also pursue their master's degrees over 15 months with coursework tied closely to their novice needs. The master's degree is free to the Fellows, and they receive a reduced teaching salary. The combination of appropriate coursework and mentoring help these new teachers transition quickly into solid, thoughtful, and strategic teachers (Gilles & Cramer, 2003). At each school in the Teaching Fellowship Program, one teacher is selected to be the mentor. One-third of the mentor's time is devoted to coaching two Fellows, one-third is committed to the school, and one-third of the time is assigned by the university to college teaching, committee work, or supervision. The mentor in the school facilitates action research with the Teaching Fellows and other interested teachers. For more in-depth information about this program, visit <http://www.coe.missouri.edu/~tfp>

Review of Literature

Although a great deal of literature has been published in the last decade examining action research or teacher research, more recently the idea of inquiry at the heart of action research has been explored (Badiali & Hammond, 2002; Calhoun, 1994;

Cochran-Smith & Lytle, 1993). Collaborating on action research opens communication among teachers and school faculty; it increases awareness and reflection of issues that affect learning and professionalism (Darling-Hammond & McLaughlin, 1995; Friesen, 1994; Lauer, 2001; Levin & Rock, 2003; McLaughlin, Watts, & Beard, 2000).

Some researchers have found action research to be a professional development tool that uses inquiry and reflection to promote change in a school (Folkman, 2002; Rosaen & Schram, 1997). Ginns, Heirdsfield, Atweh, and Watters (2001) found that action research was especially important to the growth of new teachers. They maintain that action research could “empower teachers to examine their own beliefs, explore their own understandings of practice, foster critical reflection, and develop decision making capabilities that would enhance their teaching, and help them assume control over their respective situation” (p. 129).

This research takes place in a professional development school that is part of the National Network for Educational Renewal (Goodlad, 1991). Professional development schools strive to create a context in which teachers, students, and researchers gain from the collaboration. Mullen & Lick (1999) term this “co-mentoring,” where not only parity exists as Goodlad (1991) suggests, but also a new culture of synergistic collaboration. Action research can be a tool that professional development schools use for school renewal.

One of the important potential benefits from action research is the creating or strengthening of a Professional Learning Community (PLC). The PLC can be characterized by: collaboration; shared norms, values, and vision; an emphasis on student learning; dialogue and reflection on practice; an increased awareness of others’ practices; and collaboration (Hord, 1997; King & Newman, 2000; Scribner, Hager, & Warne, 1999). Calhoun (1994) suggests that action research, through its “cycle of ‘noticing’ and ‘acting,’” nurtures the characteristics of professional learning communities. These new learning communities often occur because of the professional talk among faculty members which promotes collegiality.

Our research adds to this body of literature by highlighting *how* increased communication occurs, providing a new lens for authentic school renewal, and illustrating the impact prolonged action research has on professional learning communities.

Methodology

This study is situated within a constructivist paradigm of inquiry. Constructivism maintains that truth and knowledge are co-created by social and individual perspectives and absolute realities are unknowable (Hatch, 2002). This study employs naturalistic methods of data collection and analysis in keeping with the constructivist paradigm (Lincoln & Guba, 1985).

Two questions guide this study. We wondered what the complex interactions surrounding action research were that encouraged school renewal and the longevity of the voluntary group. In particular:

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- (1) What are the teachers' perceptions regarding the contribution of action research to collaboration in this school?
- (2) Given that the action research group is voluntary for all but the Teaching Fellows, what factors do teachers believe led to its growth and endurance over the last seven years?

Because we were interested in the perceptions of the participants, we interviewed 24 faculty members of Parkland Elementary School (pseudonyms are used). These interviewees were chosen from a list created by the principal. We wanted to interview teachers who had been at Parkland more than five years to understand what the school was like prior to the partnership augmented by the Teaching Fellowship. We also chose to interview current and former Teaching Fellows. We attempted to interview everyone on the principal's list; however, selection of participants was based on availability and willingness to participate in the research. The final participants represented three groups of professionals: current and past Teaching Fellows (11); teachers who had worked at the school more than five years, including past and present mentors (12); administrators—principal (1) and the school-university partnership liaison coordinator (1). All participants were female. The Chart of Participants in Appendix I includes information including the number of years taught, the number of years engaged in action research, and whether the teacher was a former or current Teaching Fellow, a mentor, or principal.

Face to face, semi-structured interviews with participants were conducted by a neutral interviewer, a graduate student not associated with the partnership (Merriam, 1998) in spring of 2002. She tape-recorded each interview, lasting from 40 minutes to an hour or more. Then we transcribed and analyzed the interviews. The protocol differed slightly for each group (i.e., past and present Fellows, past and present mentors, administrators, etc.) as each group participated differently in Classroom Research. (The general protocol used is presented in Appendix II.) Once the tapes were transcribed, we used constant comparison methods and borrowed from grounded theory to analyze our data (Glaser & Strauss, 1967). We used a computer software program (Nud*ist v5) to manipulate the data initially. All three researchers independently analyzed the data and came together to collaborate on initial and final coding (Miles & Huberman, 1994). We obtained triangulation (Denzin, 2000) by looking for those themes that occurred throughout the data either across groups or across interview questions. Both the principal of the school, Ms. Hasting, and the university liaison, Dr. James, read the final paper and offered their insights. Their comments were considered and woven throughout.

The Context of the Study

Parkland Elementary School, located in a Midwestern city of approximately 80,000 residents, has always been a well-respected school in a district committed

to progressive ideas. At the time of the study, Parkland had 903 students and 86 total staff, of which 42 were classroom teachers (including kindergarten and special education). The children who attended Parkland were mostly middle to high income; however, 9.15% of the students were eligible for either free or reduced cost for lunch because of their parents' low-income level. In terms of race, 86% were white; 13.3% were African American, Asian, Hispanic, or Native American.

Parkland Elementary School

Interviewing teachers and the principals, we found that prior to the partnership, Parkland was already a school concerned with professionalism and excellence. The principal encouraged teachers to pursue advanced degrees and teachers felt they needed to stay current and "be the best." Teachers felt autonomous in their classrooms, and there was some competition among them. In the early 1990s, the U.S. Department of Education honored Parkland for exemplary quality. The school was well regarded in the community.

In the late 1990s the Teaching Fellowship, a university-based induction program, began at Parkland. As Teaching Fellows matriculated through the 15 month program, most of them stayed at Parkland to teach. In 1999 the principal, Dr. Williams, retired and his assistant principal, Mrs. Hastings, replaced him. Participants informed us that she shared leadership with her teachers, expected more collaboration than competition, promoted a climate of inquiry in the school, and modeled respect for her teachers and the inquiry process.

Action Research as a Part of the Teaching Fellows Program

For seven years, a year-long class called "Classroom Research" was offered to the Teaching Fellows and other interested Parkland teachers. The Teaching Fellows were required to take the class as a requirement for their M.Ed., but other teachers took "Classroom Research" for university credit, district credit, or for no credit. Thus a steady mix of novice and experienced teachers were engaged in classroom inquiry. Teachers met twice a month for the entire school year. The mentor led the meeting, usually before school, and introduced new information about action research. She helped participants choose a research question; learn how to collect, code, and interpret data; and create an action plan. Within the meeting, time was protected for participants to talk to one another about their research in pairs or small groups.

Although the mentor taught the class, she was supported by Dr. James, a university faculty member/coordinator of the Teaching Fellowship Program. In consultation with all the mentor teachers, Dr. James wrote the syllabus and planned assignments. Mentors met with Dr. James each month to guide their facilitation of the groups, ask questions, and discuss ideas. The mentors supported the process, but Dr. James read final research papers and gave the grades. Thus the mentors were not seen as evaluators of the Teaching Fellows or other teachers in their building.

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Action research became a strong connection point between the university and the school.

Mrs. Hastings publicized the class and encouraged all teachers to attend. Attendance grew from four participants in the beginning to 16 participants per year, about 38% of the teachers. Many teachers took the "Classroom Research" course more than once. Of the former Fellows, 56% joined the class multiple times. Interestingly, of the teachers who taught more than five years but were not Fellows, half had taken the research class multiple times (up to four times), while the other half had never taken it. This school district had excellent professional development choices, so many teachers who did not choose to take the "Classroom Research" course attended other district professional development meetings, worked on an advanced degree at a nearby college or university, and/or had young children.

A school-wide sharing session was held towards the end of each school year. Originally Mrs. Hastings organized this session as a way for teachers who had conducted classroom research to share the results with others. Eventually she opened the sessions to teachers from other buildings. The sharing sessions encouraged Parkland's action research groups to grow and indicated the value Hastings placed on the research. She not only supported it, but used action research herself. She conducted a case study on looping and frequently sat in on the meetings to see what teachers were researching. When we interviewed her, she had taken a job at a new school, Kinkaid Elementary School, created because Parkland had become so large, and was again engaged in her own research question of how to "develop school community and professional learning communities in a new building."

Findings and Discussion

Analyzing the data, we identified three large themes: (1) interactions fostered through classroom research deepened the school's professional community; (2) classroom research was valued, thus prompting internal accountability; and (3) classroom research became a renewable professional growth cycle. Each of these themes is described below using quotes from participants. Each theme is subdivided into the aspects that helped to create it.

Interactions Fostered through Action Research Deepened the Professional Community

We identified three ways that action research deepened the professional community: (1) wider and deeper collaboration among faculty and specialists, (2) reflection as a lens to begin and sustain research, and (3) teacher awareness of the power of professional dialogue. Although each of these factors worked together, for the purposes of our paper we will discuss each separately.

Wider and deeper collaboration. Engaging in the classroom research process encouraged teachers to build increasingly stronger networks of collaboration. Action

research added a new dimension to grade level collaborations. The mathematics teachers who researched a new program best demonstrated this. When the district was considering a new math curriculum, Mrs. Hastings volunteered Parkland as a pilot for the TERC Mathematics curriculum and encouraged several teachers at the fourth grade level to use action research to inquire about various aspects of the program. They formed a collaborative research team with nearly every teacher at the fourth grade level and some at other levels investigating TERC. As Betty, a veteran teacher, reminded us:

There were a lot of people involved, working on different aspects of the same topic and that was really powerful. We would get together and talk about the new math program and the impact that it would have on the kids and, you know, it's not easy, but boy, it's worth it.

The collaborative research team helped the teachers examine the TERC from various perspectives and use it to maximize student learning.

Action research also encouraged teachers to collaborate across grade levels. The "Classroom Research" meetings were structured in ways that encouraged people who had similar questions to meet together and help one another. For example Cathy, a second grade teacher and former Fellow from another school, recalled that she worked with a fifth grade teacher on her research: "That was really cool because it made me feel really at home, because I would walk down the hall Friday and be like, 'Hey, how's it going?'" because I met with her Thursday." Cathy, who was a new teacher to the school, used "Classroom Research" to get to know other teachers in her building and forge networks with them.

Collaboration also extended to classroom visits and across content areas. As Kelly, a veteran teacher who had done action research several times, commented, "Because you do action research, you get to go out and observe other teachers who have a technique you want to see." Classroom visits led to collaboration across content. The special education teacher, a former Fellow, collaborated one year with a kindergarten teacher and the following year with a speech language teacher. Such collaborations helped teachers to leave the relative isolation of their own classrooms and disciplines and see the strategies and techniques of others. Sharing information about strategies and students helped teachers to improve their teaching.

Not only did teachers collaborate as they researched, they also shared their findings about particular children with the following year's teacher. For example Lorraine, a veteran teacher, researched a child who she described as "a selective mute." The child did not talk in school but talked at home. Lorraine worked with the child for a year. She then gave her classroom research paper to Betty, the child's next teacher, so that Betty knew what strategies had been tried and how effective they were. With Betty continuing the research, the child's progress soared and she began to talk at school.

Collaboration tended to remove the feelings of isolation that many teachers

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experience. As the number of teachers conducting action research grew, collaboration among the novice and veteran teachers deepened. Working through their research, novice teachers realized that they had support not just from their mentor, but from many veteran teachers as well.

Reflection as a lens to begin and to sustain research. Increased collaboration and reflection on instruction offered teachers a new lens with which to view classroom trouble spots and gave them a starting point to begin formulating questions for research. Teachers began to turn the problems they faced in the classroom into questions that could be explored through research. The large number of teachers participating in classroom research helped create a community of investigators. Cathy, a former Fellow, suggested that teachers thought, "this is the year I want to hone in on my classroom and I want to do some research."

Teachers took the initiative to use action research to address problems in their classrooms. Rita, a current Fellow, said, "I noticed a lot of my kids came in reading but they couldn't tell me anything about the book. So that is what I focused on." Rita's problem led directly to a research question. Sadie, an experienced teacher, explained it another way:

I finally did research on writing workshop because that was the thing that kept getting lost in my curriculum...my writing was usually the thing kind of getting passed off into the corner. Action research focuses me on the thing that I know needs it.

Reflection helped teachers identify areas that needed attention, but it also focused the teachers back to their own teaching. Kelly, a former Fellow, explained that, "Because I was doing action research, I had to be reflective about my teaching...and I had to study myself as a teacher and a learner." When teachers took a step back to investigate questions about their classrooms, they inevitably reflected on their own practices and grew in the process.

Teacher awareness of the power of professional dialogue. Teachers talked about their research questions, the actual process, how they collected and analyzed data, as well as the highs and lows of being teacher researchers. Hallways and faculty lounges became places where research conversations were on-going. Teachers recognized that dialogue and discussion were important to their research and the school's renewal. Corrine, a current Fellow, was typical when she referred to conversations in which, "We were always talking with each other about what we were doing, offering suggestions, and asking questions." Corrine knew that insights came through the talk.

Even though teachers often referred to talking and discussion, professional dialogue probes deeper. We used Cavazos and Members of WEST's (2001) definition of dialogue, "a conversation directed toward discovery and new understanding, where the participants question, analyze, and critique the topic or experience" (p. 160) to inform our working definition. Lorraine, a former mentor, recalled, "The

sharing is just so powerful and really entices others to join in discovery.” Terry, a former Fellow, enhanced our definition when she explained, “I’ve had people approach me and ask if they could share their ideas with me, bounce it off, just get feedback, if I could share mine with them, my findings and what I did.” Terry viewed research as building on another’s ideas through discussion.

Such dialogue naturally leads to the making of new meanings (Barnes, 1992). Belinda, a former Fellow, suggested, “I paired up with other people that were doing the same topic as I was and we were able to collaborate and compare ideas and push each other to think about new things.” For Belinda, the notion of pushing one another to think about “new things” is vital to inquiry. She used talk to urge others to make new meanings and push them beyond their current selves (Gilles & Cramer, 2003). Urging each other to new meanings was an important attribute of the professional dialogue.

Although many participants mentioned how talking or conversation moved them to new knowledge, a few like Dinah, a former Fellow, were metacognitively aware of the talk:

I thought I would never go back [to “Classroom Research”] because the Fellow’s year is so intense...But it is just that dialogue and just sharing what other people are doing and what they are seeing and what they are wondering about. It is really a nice thing to hear.

Dinah recognized the power of dialogue and could name it. Professional dialogue emerged as the glue of action research, giving life to the inquiry, enhancing reflection, and deepening the professional community.

***Classroom Research was Valued,
Thus Prompting Internal Accountability***

Over time classroom research at Parkland became the norm, not the exception. As teachers found ways to either formalize what they were already doing or learn new ways of problem solving, classroom research became institutionalized within the school. Valerie, a former Fellow, reminded us that research permeated the school “probably in more ways than we know.” As we tried to tease out why classroom research became the norm, two closely-linked factors emerged: (1) many people not directly involved in the research recognized the value of it, and (2) classroom research encouraged teachers to be accountable to others.

Mrs. Hastings, the principal, valued classroom research. She had conducted her own research study as a part of the class, sat in on the school’s meetings and organized the all-school sharing sessions. She made her positive stand on teacher research public by opening the sharing sessions to the entire district. Often a number of teachers from schools other than Parkland attended these sessions to get new ideas. Mrs. Hastings recognized that important collaboration happened in these meetings. She stated:

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Collaboration grew through our process of having the actual research taking place on site, because we saw some of our veteran teachers join in the action research and our numbers continued to grow in that group each year.

Parkland teachers mentioned that other teachers in the building and even outside the building were interested in the findings from the "Classroom Research" class. The weekly meetings and yearly sharing sessions provided a valuable forum for teachers to explain their classroom practices and learn about others' practices. Cathy, a former Fellow, told us that the music teacher stopped her in the hall after the yearly sharing session and told Cathy that she was fascinated by her research. The session enabled the music teacher to understand more of what occurred in other classrooms. Because the music teacher was interested in Cathy's practices, Cathy felt like what she was doing was important.

This valuing of classroom research was coupled with the internal accountability it promoted. Teachers are often concerned with external accountability through students' test scores. "Classroom Research" provided the teachers at Parkland a greater sense of internal accountability to themselves, their colleagues, and their students. Unlike external forms of accountability such as high stakes testing, we saw both novice and experienced teachers using the reflection process to self-evaluate or question their beliefs and practices. Since many teachers were meeting, sharing their questions, and visiting one another's classrooms, the school became more transparent.

We borrowed the business definition of transparency, which emphasizes sharing ideas freely, openly, and honestly as a way of increasing accountability and raising professional standards (Friedman, 2000). "Classroom Research" provided a window through which participants could see, understand, and value each others' practices. This open door policy created a more transparent school climate that invited more trust. Participants interviewed knew about their colleagues' research projects. Liz, a former Fellow, explained that meeting weekly with the action research group and listening to the presentations made the school transparent for them:

We would swap resources [in "Classroom Research"] and I really knew a lot about what was going on in their rooms. 'Cause that really helps to know what is going on in kindergarten or fourth grade classrooms.

Another former Fellow, Deena, said she had "a heartbeat on what was also going on in their classrooms, because we're always talking about what's going on or what do you think your question might be." Knowing what transpires in colleagues' classrooms challenges the closed-door cliché. Instead, classroom research created a climate of open doors within the school. This transparency nurtured the professional community by fostering trust among teachers, which in turn created more internal accountability. As teachers participated in the research process from the initial collaborations to the final sharing session, they were accountable not only to themselves, but to their students and their colleagues.

The yearly research sharing sessions added another layer of accountability,

and also emphasized the value of the research. Since “Classroom Research” was voluntary and did take time outside the school day, we interviewed four teachers who did not participate. One cited personal health issues for not participating, while the other three mentioned that they knew about the action research but did not participate. As Donna stated, “Well, I’ve not participated in them, but I know they’re available. I know quite a few of the teachers do get themselves involved in those.” All of the teachers we interviewed who were not involved still remained positive about the opportunity. Three of the four teachers not involved indicated that the research did impact them. Beth, a veteran teacher who did not attend “Classroom Research,” told us about her experience:

I just went to the sharing meeting. I observed some of the teachers who were involved in it. I took notes and there were a couple of things that I learned at that time. I need to go back and look at those and talk to those teachers...It was very impressive.

Only one teacher, Sarah, felt that she had learned little from the presentations. She said:

I can’t say my teaching has changed. You know, my teaching has changed definitely a lot over the years, but through professional growth opportunities and those things. I’m sure it [“Classroom Research”] has had some impact, but off the top of head I can’t tell you something I’m doing differently because of that.

Teachers seemed honest in their answers and did not appear to be marginalized for not attending the classroom research class. Most teachers felt some impact of classroom research whether they were directly involved or not.

The interactions through “Classroom Research” emphasized best practices. Kelly, a veteran teacher, said that classroom research encouraged her to familiarize herself with new teaching ideas, “Because people are saying, ‘Oh, have you seen this book?’ and the Fellows would talk about books they had in classes.” The less threatening internal accountability encouraged teachers to stay current in research and best practices. Their students ultimately profited because teachers considered more deeply their instruction and its effect on students, thus compelling professional growth in practice.

Corrine, a current Fellow, described the same desire to find the best way to help her students learn. She explained that after listening to the whole school presentations, “I was like, ‘Wow, third graders can really do that. Okay, so help me try some different things with my kids this year.’” The combination of engaging in research that was valued by others and the internal accountability challenged many Parkland teachers to improve their practices to better meet student needs.

***Classroom Research Became
a Renewable Professional Growth Cycle***

Classroom research nurtured and strengthened the culture of professional development that existed within the school. The teachers and administrators were

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given new opportunities by participating in the research class that increased professional growth, which in turn led to a higher value placed on action research. By the time we interviewed these teachers, many felt that action research was now institutionalized at the school. Lorraine, a current mentor, explained:

As teachers began to see what was happening with other teachers' research it continued to grow in the number that joined with the Fellows in doing classroom research. Obviously, if the action research was done right, and I think it pretty much was, it is a professional development opportunity for all involved.

Because all faculty members were invited to attend "Classroom Research" meetings, visit one another's classrooms, and share in the discussion, the cycle of professional development became a part of the school.

"Classroom Research" helped teachers grow as their questions moved them into professional literature. They had opportunities to discuss and brainstorm techniques to better collect and analyze data. As they listened to colleagues' research, they learned ideas to try in their own classrooms. Presenting their findings at the "Classroom Research" meetings helped them articulate their findings and publicly present an action plan of how they would change their teaching the following year. At the same time, they heard the ideas of others that might impact their teaching. As teachers sought ways to help their students, their own learning increased. Like the cycle of inquiry (Harste, Short, & Burke, 1995), we saw teacher's learning occur in a cyclical pattern beginning with the careful reflection of a teacher posing a question, and after action and further reflection, it ends right back where it started—with the teacher. This process of reflection helped to create what we termed a *renewable professional growth cycle*.

Growth is sometimes uncomfortable, as some first year Fellows discovered. They learned that not all strategies worked perfectly the first time. Liz, a former Fellow, talked about her first-year project:

I used action research just to grow professionally...As I look back at things I did...I don't agree with some of the things I tried just knowing there are other things I could have done, but it did help me grow in the other way to say what I won't do again.

As Liz describes, not every strategy described in the research literature works with every student. She learned to be selective and follow the needs of her students.

For at least one Fellow, the "Classroom Research" class proved too much with the coursework and teaching load. Corrine said, "I had too much on my plate and I was just like 'I can't deal with this.' So I think for a long time I just put it on the back burner." Corrine was the only Fellow who described this type of experience; however, others may have felt the same about adding "Classroom Research" into an already full class load and full time teaching. Yet, over half of the Fellows volunteered to be part of the "Classroom Research" class again, even when they didn't need to take it for credit, attesting to the fact that it held value for them.

Implications and Conclusion

This study confirms prior research that found action research a powerful agent for change (Calhoun, 1994; Calhoun, 2002; Kushner & Kruse, 2000; Reardon, 1995). Examining the data, we located the factors that contributed to collaboration and longevity. Because of the induction program, first year teachers were engaged in action research with veteran teachers. Both groups learned from each other, similar to Mitchel's study (2007). Many faculty members engaged in classroom research multiple years, nearly 40% of the faculty engaged each year in "Classroom Research," and nearly all faculty members attended end-of-the-year sharing meetings. The collaboration of new and veteran teachers with strong mentors within a climate of inquiry changed the day-to-day interactions of teachers at Parkland.

Classroom research enjoyed continued success for over seven years in Parkland because of many factors. First, the principal valued it. She established a climate of inquiry, promoted the "Classroom Research" class, and encouraged all teachers to attend the class. She made her support public by inviting teachers from across the district to the yearly sharing meeting. Second, it was a requirement for the Teaching Fellows, so it occurred each year. Third, having mentors facilitate the class offered stability, expert support, and a contact point with the university. It also offered them additional leadership opportunities as they lead the research with their teaching peers. The combination of the induction program and action research promoted complex interactions among teachers, leading to a deeper professional community, more internal accountability among teachers, and a renewable cycle of professional growth.

The collaborative nature of the action research process increased teacher interactions and sharing. The interactions among teachers moved them beyond their grade level to include other grade levels and specialists who were exploring similar questions. Increased interaction encouraged transparency in this professional community. As trust deepened among teachers, they shared more research practices that informed their teaching. Teachers attended the yearly sharing days to learn from one another and then used that knowledge in their own classrooms. Classroom research at Parkland provided deeper sharing, communication, and collegiality. Because of the communication among a large number of teachers, new practices were articulated and implemented. As Calhoun (2002) reminds us, action research changed the context and "tended and extended" professional expertise (p. 23). Teachers shared powerful, successful instructional practices with one another.

The data demonstrated that teacher ownership is a vital aspect of a professional learning community. As Parkland teachers investigated new questions, they became the experts who helped their colleagues learn, resulting in site-based professional development built upon inquiry. Teachers continuously participated in a professional growth cycle, outgrowing their former selves. The growth teachers experienced from this process affected other new and veteran teachers, nudging them into inquiries of their own. The power of this professional development was that the teachers who benefited from it and were the source of it; thus, they created even more of a

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shared, grass-roots vision at Parkland. Wilson and Berne (1999) wrote that, "teacher learning ought not be bound and delivered but rather activated" (p. 194). Instead of being instructed from the outside to make changes, or being part of a grant that ended, teachers initiated their own more meaningful explorations through their research. This suggests that learning is not only accomplished through courses held at the university, but also through the action research activities of teachers at schools. Strong learning can occur where experiences are contextualized closest to actual practice. This model of teachers, with the support of the university, facilitating research for other teachers at local sites, may be valuable to examine in subsequent research studies.

Could the same kind of complex interactions occur when teachers engage in reflective practice, study a book, or meet to talk about student growth? We argue no. The fact that these teachers were carefully examining their practice, selecting a question to study, and then engaging in classroom research over the course of a year made their interactions qualitatively different. Classroom research became a way they solved problems. Inquiry was embedded in the school.

It is clear that for Parkland, the complex interactions surrounding classroom research played a large role in the renewal of the teachers and educational practices they shared. Grass-roots classroom research within a university induction school-partnership is a powerful agent for change.

Post-Script

Because this data was gathered in 2002, we can report some information about what happened after the new school, Kincaid Elementary, was constructed and about one-half of the teachers and students moved into it. Ms. Hastings became the principal at Kincaid, while Mr. Thomas, assistant principal at Parkland, was promoted to principal. Although there weren't Teaching Fellows in 2003 at Parkland, the teachers requested an action research group. Pat James, the university liaison led the group and about seven teachers attended.

Since 2003 Kincaid has had Teaching Fellows, while Parkland has hosted Teaching Fellows all but two years. Since participation in the program is contingent on a naturally occurring vacancy, twice Kincaid has not had the vacancy and could not participate. The last few years the Fellows Program has chosen to have schools join together to have "Classroom Research" meetings, as a cost-saving measure. Kincaid and Parkland are joined and meet at Kincaid (about six blocks from Parkland). When we contacted the principal of Parkland, Mr. Thomas, and asked him about how the school has used action research since 2002, he replied:

For the past several years I have included an action research component to the Parkland school improvement plan. I used this approach with every staff member, all grades and all specialists. I used the *Smart School Teams* book by Anne Conzemius and Jan O'Neill as a guide to direct our action research. The action

research process helped us to better understand how the science of teaching fits together with the art of teaching.

The new school, Kincaid, with Ms. Hastings as principal, has consistently hosted classroom research groups of 10-15 teachers each year since 2002. Many of them are former Fellows, but other faculty members continue to take the course for district credit, university credit, or just to sit in. The viability of the group is exemplified in the fact that in 2008 the mentor, Sadie, was awarded a district study grant to provide additional materials for the action research group (including Parkland and Kinkaid) and literacy materials for the school. Thus, teacher research has continued to be viable in both schools, even after the research took place and the new school was built—over 12 years. Both schools have continued to use and be changed by teacher research. Classroom research, nested within a university partnership, is a powerful agent for inducting teachers into the profession as well as continually renewing teachers.

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**Appendix I:
Chart of Participants**

Name	Fellow	Mentor	Teacher	Years Taught	Years Engaged in AR*	Other Experiences
Kelly			X	17	3	
Corrine	X			1	1	
Joan (Sp. Ed.)	X			4	1	
Terry	X			6	2	
Liz	X			3	1	
Deena	X			3	3	
Dinah	X			3	1	
Rita	X			2	1	
Lisa	X			4	1	
Valerie	X			7	2	
Beth			X	13	0	
Sadie			X	12	5	
Lorraine		X		26	2	Helped as a consultant with more AR projects
Dorothy		X		24	2	
Leslie		X		26	2	

(continued on next page)

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Name	Fellow	Mentor	Teacher	Years Taught	Years Engaged in AR*	Other Experiences
Janet			X	17	3	
Betty			X	17	1	
Marcie		X		25.5	3	
Ms. Hastings				5 years (principal)	3	Assistant principal 10 years
Cathy	X			2	1	
Sarah			X	9	0	
Natalie			X	10	0	
Donna			X	16	0	
Belinda	X			1	1	

*This includes "Classroom Research" course and other action research opportunities (i.e., Leadership Academy, action research classes, etc.).

**Appendix II:
General Protocol for Interviews**

(Changed slightly for new Teaching Fellows,
former Teaching Fellows, experienced teachers, or principal)

Describe your experience with the Teaching Fellows Program.

What kind of professional activities are you involved in? School-wide, district-level committees; In-services in the school or at the district level (participate or lead); Have practicum students or student teachers; Belong or lead state or national professional organizations.

Describe Parkland when you began your position here in terms of: Climate in the school; Collaboration and collegiality of faculty; Academics/curriculum; Communication with parents.

Since that time, have you noticed any changes in Parkland school in terms of the above?

Is there a common vision at Parkland? What is it? How do you know what it is? Who shares this vision? Is it realized in the curriculum across grade levels?

Describe the Classroom Research opportunities at Parkland? Have you been involved? How often? What topics did you research? How has your research impacted your classroom? Are you aware of other's research? Has it impacted your classroom? How? Has the school in any way been impacted by teacher's or principal's research?

How do you feel about the Teaching Fellows' program? How would you characterize most of the teachers at Fairview feel about the Teaching Fellow's Program?