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School/University Partnership: Supporting Beginning Teachers' Inquiry in Urban School Settings

Barbara H. Davis and Kimberly A. Higdon

This article describes an urban school/university partnership that incorporates classroom-based inquiry into a graduate mentoring and induction program. It examines the influence of providing inquiry support to six (N=6) beginning teachers in a large, urban district in Central Texas. Using qualitative methods, data were collected through focus group interviews, questionnaires, and final narrative reports. Data were analyzed using thematic analysis and code development. Specific aspects of the inquiry experience associated with professional growth were identified. Findings suggest that inquiry partnerships between beginning teachers and experienced mentors can benefit beginning teachers in several ways.

Teachers are not “finished products” when they complete a teacher preparation program. Strong residency and mentored induction experiences during their initial years in the classroom provide beginning teachers with invaluable support as they lay the groundwork to become accomplished teachers. A well-planned, systematic induction program for new teachers is vital to maximize their chances of being successful in any school setting, but it is especially critical in high-need schools. (from *No Dream Denied: A Pledge to America's Children*, National Commission on Teaching and America's Future [NCTAF], 2003)

Recent statistics indicate that beginning teachers are leaving the profession at an alarming rate (Fideler & Haselkorn, 1999; Lewis et al., 1999; NCTAF, 2003). An analysis of data from the National Center for Education Statistics found that approximately a third of America's new teachers leave the profession sometime during their first three years of teaching; almost half may leave during the first five years. To ensure quality education for students in the future, it is imperative that the educational community find ways to support and retain "high-quality" teachers. This is especially true in low income, urban schools where teacher turnover is the highest (Ingersoll, 2001). Quality induction programs, which incorporate opportunities for professional development such as classroom-based inquiry, can lead to improved retention rates (Darling-Hammond, 2003; Davis, Resta, Higdon, & Latiolais, 2001; Weiss & Weiss, 1999).

This article describes the results of a study that investigated the influence of classroom-based inquiry on the professional development of beginning teachers in two low-income, urban elementary schools in Central Texas. The inquiry projects were conducted as part of a school/university graduate mentoring and induction program for first-year teachers. In this partnership, the novice teachers are supported in their research efforts by university faculty and on-site mentor teachers. As program faculty, we wondered what influence the classroom-based research projects had on the professional growth of the beginning teachers with whom we worked, in particular those who taught in urban settings. Our purpose for the study was to identify ways in which we could better support the novice teachers in their research efforts. Thus, the following question served to guide this study:

- How does classroom research influence the professional development of beginning teachers?

In particular, we were interested in how the process of conducting inquiry in the classroom impacted novice teachers in urban school settings.

This article will provide an overview of the school/university partnership that provided the context for the study and present findings from our study of beginning teachers' classroom research projects.

Supportive Inquiry

A major premise of the school/university partnership described in this article is that teacher induction programs must model reform-based teaching practices, including classroom-based research, if novice teachers are to thoroughly understand and develop a disposition toward inquiry. Current literature on induction programs emphasizes the importance of creating learning communities that partner experienced teachers with beginners (Breux & Wong, 2003; Johnson & Kardos, 2002; Wong, 2004). Johnson and Kardos (2002) argue, "What new teachers need is sustained, school-based professional development—guided by expert colleagues" (p. 13).

Through collaboration, university faculty and public school mentors can provide novices with the support, assistance, and guidance necessary to sustain professional inquiry and development. This is especially important for beginning teachers who are facing numerous challenges in urban school settings. Crosby (1999) argues that "teaching, as it is now practiced in urban schools, is the most isolated of the professions" (p. 302). He recommends collaborative efforts between and among educators to help reduce this isolation. Similarly, Ladson-Billings (2001) points out that the number of experienced teachers who know how to teach well in challenging circumstances is decreasing each year due to retirement and other job opportunities. She asks, "How can urban districts ensure a faculty of effective teachers when there is high teacher turnover and relative inexperience?" (p. 3). To address this question, she calls for programs that will provide nurturing and support for new teachers.

According to Oakes, Franke, Quartz, and Rogers (2002), "The range of understandings, skills, and dispositions that urban teachers require cannot be fully developed even in two years of intensive teacher preparation, nor should they be" (p. 231). While the continuous development of these competencies is an essential part of high-quality teaching, they point out that "the typical conditions in urban schools provide few opportunities for teachers to continue to learn and develop" (p. 231). This lack of opportunity, they believe, is what contributes to the high rates of attrition in urban schools. Like others, they call for professional learning communities that provide support for new urban teachers during the induction years.

Various studies have documented the effectiveness of incorporating teacher inquiry into the induction years (Davis, Resta, Miller, & Fortman, 1999; Ginns, Heirdsfield, Atwey, & Waters, 2001; Keating, Diaz-Greenberg, Baldwin, & Thousand, 1998; van Zee, 1998, 2003). According to van Zee (1998),

Learning how to reflect upon one's practices is an essential component of learning to teach ... teachers possess unique knowledge that must be articulated and contributed to efforts to improve instruction in general. To know what happens during induction into teaching, we must create opportunities for new teachers to tell us—not as anonymous subjects in university researchers' studies—but in their own voices from their own perspectives. (p. 252)

Inquiry should be an integral part of teaching throughout an educator's career (Cochran-Smith & Lytle, 1993; Darling-Hammond, 1998; Hubbard & Power, 2003). School/university partnerships such as the one described in this article can provide the social and organizational structures supportive of beginning and experienced teachers' learning and collaboration.

Context of Study

In 1994 the Teacher Fellows Program, a graduate mentoring and induction program, was established between a university and several local school districts in the Central Texas area. The Teacher Fellows Program represents a unique collaborative effort that addresses first-year teacher needs based on a no-additional-cost exchange of resources between the participating university and partner school districts (Resta, 1996). In this model Teacher Fellows, fully certified teachers who are graduate students, are contracted by the university to serve as first-year teachers in participating school districts. In exchange, experienced classroom teachers from participating districts in the Central Texas area are released from classroom assignments to serve as mentors to the beginning teachers. The Teacher Fellows earn a master's degree, tuition free, within a specified 15-month program and are supported by a \$15,000 fellowship in lieu of a district salary.

This public school/university partnership provides a supportive and collaborative organizational structure in which first-year teachers learn procedures for conducting inquiry in their classrooms (Davis et al., 1999; Davis et al., 2001; Davis & Resta, in press). For example, university faculty assist the beginning teachers in formulating an inquiry question and creating a research proposal. The on-site mentors also help the novices in developing an inquiry question as well as assisting with data collection and analysis during the implementation phase of the research project.

Design of Study

The methodology used in this study was action research. Sagor (2000) defines action research as “A disciplined process of inquiry conducted by and for those taking the action. The primary reason for engaging in action research is to assist the ‘actor’ in improving and/or refining his or her actions” (p. 3). Action research is characterized by a systematic and cyclical method of operation. It involves the process of identifying a problem or focus area, data collection, data analysis, implementation, and evaluation (Catelli, Padovano, & Costello, 2000). Ultimately, the goal of action research is to take “informed action” (Sagor, p. 6).

Participants

Six beginning teachers from two different elementary schools were the focus of this study. All six were members of the school/university graduate program during their first year of teaching. The teachers, five White females and one Hispanic male, were from middle-class backgrounds. During their first year of teaching, each taught in an elementary school that serves a majority (between 75-85%) of low socioeconomic students almost all of whom qualify for federal lunch programs (see Table 1, p. 106).

Table 1. *Campus Demographics*

Campus	Number of Students	Economically Disadvantaged	Ethnic Distribution			
			African American	Hispanic	White	Other
Langford	848	75.6%	12.5%	73.7%	13.0%	.9%
Widen	811	85.1%	14.3%	80.8%	4.9%	0.0%

Data Collection

The beginning teachers formulated their own inquiry question based on wonderings they wanted to explore or problems they were experiencing in the classroom. Their self-selected inquiries covered a range of topics (e.g., literacy instruction, classroom management, etc.). They collected data using a variety of methods including teacher research journals, surveys, student work samples, interviews, and informal/formal assessments (see Table 2, p. 107). While data was collected on all students in each of the classrooms, the novice teachers chose 5-6 target students to observe more closely.

To address the question "How does classroom research influence the development of beginning teachers?" we collected data through audiotaped focus group interviews, written questionnaires, and final written narratives of the inquiry projects.

Data Analysis

To analyze the data, we used the thematic analysis approach described by Boyatzis (1998). Thematic analysis is an inductive method for coding qualitative information. "Thematic analysis enables scholars, observers, or practitioners to use a wide variety of types of information in a systematic manner that increases their accuracy or sensitivity in understanding and interpreting observations about people, events, situations, and organizations" (Boyatzis, 1998, p. 5). This procedure involves four stages: (a) sensing themes (i.e., recognizing codeable

moments in data), (b) encoding the themes reliably, (c) developing codes, and (d) interpreting the information and themes in the context of a theory or conceptual framework. Using this procedure, we read, reread, and coded the various data sources in order to determine themes that related to the research question.

Table 2. *Teacher Inquiry Projects*

Teacher Fellow	Grade Level	Research Topic	Data Collection
Ben Estrada	Second	Home Language Influence on Bilingual Students	<ul style="list-style-type: none"> ▪ Teacher research journal ▪ Student surveys ▪ Parent interviews
Marlayna Fore	Fifth	Integrating Math and Literature	<ul style="list-style-type: none"> ▪ Questionnaire ▪ Teacher research journal ▪ Texas Assessment of Academic Skills (TAAS)
Alison Gaylord	First	Bilingual Phonics Program	<ul style="list-style-type: none"> ▪ Developmental Reading Assessment (DRA) ▪ Teacher research journal ▪ Writing continuum
Becky Hebbel	First	Rubrics/Criteria Charts	<ul style="list-style-type: none"> ▪ Behavior tally chart ▪ Anecdotal notes ▪ Student work samples
Melissa Langner	Kindergarten	Journal Writing	<ul style="list-style-type: none"> ▪ Student journals ▪ Teacher research journal ▪ Writing continuum ▪ Student survey
Lynette Lev	Second	Classroom Meetings	<ul style="list-style-type: none"> ▪ Sociogram ▪ Student survey ▪ Student journals ▪ Teacher research journal

Findings

Results of the analysis suggest that conducting classroom research in the beginning years of teaching can assist novices in several ways. These include the following: (a) focusing on authentic problems, (b) developing skill in systematic observation of practice, (c) validating

effective teaching practices, and (d) connecting theory with practice. Each of these findings will be described more fully in the following sections.

Focusing on Authentic Problems

Traditional forms of professional development, such as one-day inservice workshops, that are delivered to all faculty members frequently do not meet the actual needs of teachers or students. This is especially true for novices who have particular needs that are often unrelated to those of more experienced faculty members (Johnson & Kardos, 2002). Teacher research, however, is embedded in the daily life and work of the classroom.

Beginning teachers in the Teacher Fellows Program design a classroom research project that relates to an authentic problem they are actually experiencing in the classroom. In formulating their research questions, the Teacher Fellows examine their dialogue journal entries to identify critical incidents and recurring themes. In addition, they discuss possible research topics with their mentor teachers and university faculty.

In her final narrative report, Marlayna described how she developed her research question. She explained how each day her students complained about having to do math. She wrote, "I was struggling to come up with a way to motivate my students about math. I tried lots of hands-on activities. These activities certainly helped, but I still felt like my students were lacking the understanding of why we need to learn math."

While selecting books for a schoolwide "Literacy Day," Marlayna stated, "A light bulb went off inside my head." In the following excerpt she explained:

I thought to myself, since I am the math teacher we should read books that have a math theme to them ... Literacy Day came and the [math-related] books were a big hit. Not only did we read the books but we also interacted with them ... I had never seen my students that excited before about doing math. That day led me to want to find out how literature can motivate students to want to learn math. (Fore, 2002)

Lynette began her first year of teaching feeling more like a referee than a teacher. In the first weeks of school, she felt she was standing in the midst of chaos as children blurted out, “He stole my pencil!” “She took too many books for DEAR time!” “He won’t keep his hands off my desk!” “She slapped me!” This “chaos” led her to focus on conflict resolution strategies for her inquiry project. She wrote,

All this tattling began to disrupt my instruction. Will these children be ready for third grade at the end of this year? How will they react to challenges with others in the real world? They will not have a referee to help as a mediator when situations arise. I wanted to eliminate the begging for help with nonsense problems and find a way to let my students problem solve on their own.

My goal was to hold daily class meetings in my classroom in order to increase the children’s problem-solving skills. I realized that in order for me to do this, I needed to learn [how] to teach my children to solve problems that occur amongst themselves. (Lev, 2003)

Developing Skill in Systematic Observation of Practice

As noted previously, each Teacher Fellow used various methods of collecting data for his/her action research project. By systematically observing students and collecting data over time, these novice teachers were better able to chart student progress and identify student needs.

Becky, for example, found out why her first graders were not finishing their work during center time. She stated,

When I first started it [classroom research], actually sat down to take notes and do tally marks, I was like, well no wonder they’re not finishing their work. Look at what they’re doing instead. It just kind of opened my eyes to, “Well, gee, I wonder why these poor kids never finish anything in an hour and half’s time. It’s because they’re doing this, that and the other.” That was stuff I never noticed before I sat down to look at it. I would glance over and I would think they were on task

because they're really good at acting like it, unless they are just running around the room acting crazy. Most of them don't but when you sit down to actually look and pay attention to what they're really doing, you begin to see. (B. Hebbel, personal communication, March 7, 2002)

Becky found a correlation between students who were off task during center time and the quality of the work they turned in. Based on what she found during her observations, she was able to redirect students' behavior during center time to help them stay on task.

Like Becky, Ben shared how systematic observation helped him focus on student learning:

By actually sitting down and tallying, whether you're doing tally marks or observing them for a couple of minutes ... you're having to focus a little bit more, on a certain number of students than if you weren't doing a research project ... you're focusing not only on their daily activity but where that daily activity might have come from. I mean, you tie in; you might have to talk to the parents about why this is, why they might think they're acting a certain way or what's coming in from home. ... So you're actually getting to know the student and maybe sometimes the family and what part they play in the development of their child's education. (B. Estrada, personal communication, March 7, 2002)

In addition to collecting student data in the form of surveys, tally charts, and work samples, the novice teachers collected informal information by writing weekly in a teacher-research journal. They coded their journal entries for critical incidents that occurred during the research projects.

Validating Effective Teaching Practices

Boreen et al. (2000) point out that professional development for the novice teacher involves learning about new teaching strategies and how to implement them into classroom practice. Frequently, however, novice teachers lack the experience needed to determine what

impact “best practices” are having on student performance. Analyzing data collected during an inquiry project can provide them with that information.

Alison examined the influence of a systematic Spanish language program on the literacy development of her native Spanish-speaking students. In her final report, she wrote:

All of the students are moving up the developmental writing continuum from beginning to developing writers. One of my most struggling students, Osmin (a pseudonym) had incredible growth in his writing. He went from crying because he did not know how to write, to producing pieces on his own. He progressed from isolated groups of words to creating sentences that flowed together.

... finding quality Spanish materials is the biggest challenge to teaching I have faced when trying to help my students achieve greater literacy. Using a systematic Spanish language program gave me the confidence that I was “covering the bases” so to speak, to meet the varying needs of my students with their literacy development. Reading scores were raised in all of my students with most being at, or above, level desired for second grade.

Osmin, while not at the desired reading level by the end of the year, was probably the biggest success. He went from producing nothing in class, with several teachers having special education concerns about him, to being considered a reader and writer at the end of the school year. He went from milling around the classroom at independent reading time to choosing a book, sitting down, reading it, and then proudly showing the words he knew to me. I wrote the following in my journal: Today Osmin did something amazing. While showing me a piece of his writing he noted something that did not look right. He said he would fix it and be back. When I asked if he needed help, he said no, he knew how. Wow! (Gaylord, 2002)

As a result of examining the influence of this Spanish-language program on her student's literacy skills, Alison was better able to determine its effectiveness. This is but one example of how these novice teachers were able to validate the effectiveness of "best practices" in their classrooms.

Connecting Theory with Practice

All of the novice teachers conducted a literature review as part of their classroom research proposal. Implementing the project helped them make connections between the related literature and actual classroom practice. According to Hiebert, Gallimore, and Stigler (2002), "Teachers rarely draw from a shared knowledge base to improve their practice. They do not routinely locate and translate research-based knowledge to inform their efforts" (p. 3). These authors point out the "persistent" concern that educational research has little influence on improving classroom teaching and learning.

Our experience working with novice teachers demonstrates that they can, with support, use specific research information for improving classroom practice. For instance, Melissa, a kindergarten teacher, reviewed literature related to the influence of journals on the writing development of young children. In her summary of related articles, she noted that several authors claim the following practices contribute to writing development: teacher modeling, routine scheduling, conferencing, and self-selecting topics. She wrote in her final narrative, "Research ... suggests links between daily journal writing and writing growth. This sent me on a quest in my own classroom to find these same links with my students" (Langner, 2002, p. 8).

The purpose of teacher inquiry is to help teachers reflect upon and improve their own practice. Improving teaching practice can lead to improved student performance. All of the beginning teachers in this study reported that they learned more about teaching and student learning as a result of conducting an inquiry project in their classrooms. Even when a research project didn't turn out as expected, learning occurred. Becky, for example, found that most of her first graders did not use the criteria charts and rubrics they created to help them improve the quality of their work in centers. She did learn, however, that when

the independent work in centers was meaningful (e.g., creating Valentines for family and friends) the students did follow the criteria they had established. Becky has used this information to adjust her procedures for independent work in centers to make them more meaningful.

Conclusions

Our ongoing work with beginning teachers demonstrates the effectiveness of incorporating teacher inquiry into a mentoring and induction program. As the results of this study indicate, supported inquiry can assist beginning teachers in developing the disposition and skills necessary to become effective problem solvers in the classroom. These skills are especially critical in low-income, urban settings. Our hope is that these novice teachers, who are on their way to becoming “highly-qualified” educators, will remain in urban settings where they can continue to seek solutions to the numerous challenges that low-income schools present.

To date, all of the teachers who participated in this study are still teaching. All but Melissa are teaching at the same low-income campus they taught in during their first year. Melissa moved to another city and is teaching in another large urban district. When asked what made her decide to continue teaching in an urban setting, she replied, “The love for diverse students.” In answering the same question, others wrote,

I feel needed here. Students in this area need and deserve well-qualified teachers and these kids can teach me more than children similar to my background.

I enjoy the students and the community. I like living in an urban community because it has much to offer outside of teaching. I believe that even though a[n] urban community might have it's (sic) stigma, such as gangs and poverty, this gives me even more reason to think that I can make a difference for my students.

I decided to stay at an urban school after my first year because I thought that I could better benefit them [the students] and I feel like I was making a difference in their lives. I also like the challenge (most of the time).

We believe the confidence these novice teachers demonstrate is a result, in part, from the support and guidance they received during their first year of teaching. We wonder, however, what the future holds for these novice teachers. Will they continue teaching in urban schools? Will they keep researching their classroom practices? If so, what influence will future teacher research have on their students' performance? Will they seek out opportunities to collaborate with others within the educational community? These questions will guide our future research related to how supportive inquiry helps novice teachers develop professionally.

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