

Evaluation Research to Sustain and Expand an Established PDS

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Abstract

Accountability in many and varied forms is being required of teacher preparation programs. Weiner (2000) explores the dichotomy of the belief that meaningful learning needs to be situated versus policy that demands educational outcomes be standardized. This contradiction demands urgent analysis as we look for appropriate measures of accountability for both teachers and students. The George Washington University *Urban Initiative* Professional Development School (UI-PDS) partnership engaged in interview, survey, focus group, and observational research during the 2004-2005 school year to study the effectiveness of the Urban Initiative (UI) in preparing teachers for urban schools.

Bronfenbrenner's ecological theory stresses the important role of authenticity and context in understanding Professional Development school (PDS) work (Muuss, 1996). When evaluating PDS effectiveness, it becomes necessary to take into account the interrelatedness of context and school. The research presented here contextualizes the study within a well established PDS partnership in a high poverty urban setting that prepares preservice teachers to teach students with low literacy levels.

The research, conducted with preservice teachers in the UI-PDS and graduates of the UI-PDS in their first year of teaching, indicates teachers prepared within a PDS model are well equipped to meet the challenges of urban settings. They plan and implement lessons relative to students' diverse backgrounds, interests, and skills while simultaneously engaging in advocacy and collaboration to advance their students' achievement. This research also indicates components of the UI-PDS program that best supported preservice and novice participants' learning to teach that they specified through interviews and surveys. Components included taking responsibility

for teaching students, daily on-site support, collaborative practice, and personal attributes of participants.

Professional Development Schools in the Age of Accountability

For as long as there has been public education in America, there have been calls to reform it. While over the decades reform movements have run the philosophical gamut, one fact remains constant: What is deemed success or failure is informed by the political climate in the nation at the time. No Child Left Behind (NCLB) is the current legislative effort holding educational systems accountable. With its standards for highly qualified teachers and testing for all schools, NCLB focuses on accountability measures as indicators of success.

The Professional Development School model (PDS), an innovation of the Holmes Group (1986, 1990) and the Carnegie Forum (1986), has been utilized as a model for simultaneous reform of teacher education and public schools based on school-university partnerships. While collaboration is the driving force behind the model, the reform efforts are predicated on training new teachers to become teacher-leaders within the public school system. Since the inception of PDS, their numbers have grown to over 1,000 PDS partnerships within the United States (Abdal-Haqq, 1998; Schwartz, 2003). Rigorous research on their effectiveness as well as their impact as been slow to emerge.

In 2001, The National Council for Accreditation of Teacher Education (NCATE) along with representatives of various constituencies of PDSs worked closely together and issued a set of standards to guide PDS accountability measures (www.ncate.org). The standards were framed by the following objectives:

1. That the standards enable PDSs to become high leverage institutions in the context of teacher quality and education reform.
2. That the standards be useful both for supporting PDS development and for accountability.

3. That the standards be consistent with the beliefs and values inherent in the PDS model and the ways people worked in them. (Levine & Churins, 2001, p. 178)

The development of national standards provides PDSs with a measure for accountability. With the proliferation of various PDSs, the NCATE standards provide common guidelines in which to direct PDS development and evaluation.

Purpose of Research

Guided by NCATE Standard II: Accountability and Quality Assurance, research was conducted during the 2004-2005 school year to examine the effectiveness of the Urban Initiative PDS (UI-PDS), designed to prepare educators for urban secondary schools. To this end we investigated characteristics and practice of first year and intern teachers trained in the UI-PDS as well as external variables within the professional development school experience that influenced their preparation.

To hold the UI-PDS accountable, research was conducted to examine the following questions.

Question 1: Does the UI-PDS preparation result in intern and novice teachers who work effectively with students within a challenging urban school system?

Question 2: What are the successes and challenges faced by the UI-PDS?

This paper will address the first question.

UI-PDS Program Description

The UI-PDS is professional development school partnering The George Washington University's Graduate School of Education and Human Development with the District of Columbia Public Schools (DCPS). In 1997 the UI-PDS was created with the vision to prepare highly qualified teachers to work in DCPS, an urban school district with historically low literacy

levels and high poverty. The program intended to improve DCPS's recruitment and retention of teachers equipped with the dispositions, knowledge and skills to effect change within a challenged system. The UI-PDS mission included developing teacher skills and self-confidence to address learning needs of adolescents with diverse backgrounds and profiles. In particular, a focus on impacting low literacy levels of adolescents in a high poverty school contextualized teaching within a social justice framework. The UI-PDS was designed to prepare teachers who could meet the demands of teaching and remain in teaching despite the usual 50% attrition rate for new teachers in urban settings within three years (Darling-Hammond, 1999). The UI-PDS partnership was established in 1997 with one DCPS high school, Cardozo Senior High School (Cardozo). This partnership remained constant until the spring of 2005 when the UI-PDS partnership was ended due to funding constraints.

The UI-PDS incorporated six design features described below:

1. Program Length, Intensity and Incorporation of Teacher Education Practices to Maximize the PDS Experience

The UI-PDS was offered as a two-year master's degree program. The first year of the program was comprised of part-time evening courses. The second year included a full-year, full-time internship with continued coursework. The internship incorporated a number of experiences that promoted interns' learning from the UI-PDS context: *Community Mapping* (Burko & Putnam, 1998) which allows learners to explore the resources and needs within a school community; *Critical Friends*, based on the work at the Annenberg Institute for School Reform (McEntee, Appleby, Dowd, Grant, Hole, & Silva, 2003) which promotes collegial collaboration and problem solving; *Worksampling* (Girod, 2002; McConney & Ayres, 1998) which structures interns' unit planning to include demonstration of their knowledge of the school

and community context and multiple assessment practices; co-teaching which allows intern teachers to learn how to collaborate before, during, and after teaching; and Pathwise® Observations (also referred as to Praxis III) which holds interns accountable for demonstrating the knowledge, skills and dispositions expected of competent intern and beginning teachers.

2. Cohort Composition

Individuals chose to apply to the UI-PDS among a variety of options for master's degrees in teacher preparation at GWU. In addition to this initial self-selection, applicants participated in a multi-step selection process, which incorporated university requirements (i.e. references, undergraduate grade point average, and standardized test scores), documentation of prior experience in advocacy and/or social justice, positive results from an urban teacher screening instrument called the Haberman Teacher Selection Interview (Haberman, 1995), and a visit to Cardozo to meet with current interns in the UI-PDS program and Cardozo staff.

3. General and Special Education Teacher Preparation

The UI-PDS was a unique Master's program in that it combined licensure courses in secondary and special education. UI-PDS staff and GWU faculty were able to revise internship and core courses to better integrate special education and general education knowledge and practice.

4. Literacy Focus

Language and literacy development was a theme addressed across two years of coursework required by the UI-PDS, based on well-documented literacy needs of DCPS students. In response to Cardozo adolescent literacy needs, UI-PDS provided a Literacy course for 9th and 10th grade students. The course curriculum was designed by UI staff and was co-taught by UI-PDS interns in a Literacy Lab supervised by a UI-PDS literacy coordinator. The

balanced literacy curriculum addressed decoding, vocabulary development, reading comprehension, and critical thinking. Additionally, interns were required to infuse literacy instruction into their content area lessons when interning with Cardozo teachers in classrooms outside of the Literacy Lab.

The 9th and 10th grade Literacy course was taught in the Literacy Lab, a space designated by Cardozo. The Literacy Lab classroom had space for group instruction as well as 24 individual computers with Internet access for student and staff use. The Literacy Lab served as the hub for all UI-PDS work. Additionally, it was commonly used by Cardozo teachers and students for its resources.

5. PDS Partners

From 1997 to 2005, DCPS had seven different superintendents. In contrast to this, Cardozo had the same principal and a stable teaching faculty. This allowed UI-PDS interns and staff to work within a predictable immediate environment while simultaneously experiencing the challenges of working in a school system in constant flux. The school climate was positive and nurturing despite some significant challenges in serving a student population with overall low literacy levels, many of whom were living in poverty.

There were six professionals who were responsible for guiding and sustaining the UI-PDS relationship. Five of these individuals worked consistently with the program across the nine years of the partnership. Two were Cardozo educators - the principal and an English teacher who was the leader of the 9th grade team. The three consistent UI-PDS educators were the dean's liaison for partnerships, the special education faculty advisor and the project director (there was a change in project directors half way through the relationship). The fourth UI-PDS

position, literacy coordinator, experienced a high level of turn over with five different individuals filling this role over the nine year partnership.

Theoretical Framework

The National Council for Accreditation of Teacher Education (NCATE) defines an effective PDS as grounded in an interdependent learning community committed to inquiry focused on the improvement of school-based practice to enhance student learning (www.ncate.org). NCATE Standard II: Accountability and Quality Assurance – Developmental Guidelines requires that PDS partners periodically and systematically evaluate their progress. Since PDS work is authentic and occurs in specific contexts, the evaluation must mirror that authenticity and context. Bronfenbrenner’s ecological theory that “social interactions always exist as part of the larger ecological system in which they occur” stresses the important role of authenticity and context in understanding PDS work (Muuss, 1996, p. 312). When evaluating PDS effectiveness, it becomes necessary to take into account the interrelatedness of context and school with teacher preparation and school reform.

Goodman (2002) noted that in order to research PDS work we must identify constructs that allow for the integration of theory and practice and use these constructs as a guide for the evaluation of PDSs. This study was guided by the construct of authenticity that recognizes the importance of the ecological context in which learning takes place. Goodman describes contextual authenticity as:

The interaction loop between authentic learning and authentic evaluation is continuous, with the results of evaluation continuing to revise and refine what constitutes the most efficacious learning methods, materials, and experiences for the entire community of lifelong learners participating in the PDS. (p. 39)

The UI-PDS uses Contextual Teaching and Learning (CT&L) and Pathwise ® to ground and assess its practice. CT&L and Pathwise ® are both grounded in authenticity. CT&L is a theoretical framework that unifies a constellation of education theories expressed as six attributes (Sears & Hersh, 1998). Pathwise ® is a research-based observational assessment system that provides a framework for describing and assessing the knowledge, skills and dispositions of beginning teachers.

Contextual Teaching and Learning

Contextual Teaching and Learning (CT&L) is a theoretical framework for teacher education as well as K-12 education. Sears and Hersh (1998) define CT&L as:

teaching that enables learning in which pupils employ their academic understandings and abilities in a variety of in-school and out-of-school contexts to solve simulated or real world problems, both alone and in various group structures. . . . Learning through and in these kinds of activities is commonly characterized as problem-based, self-regulated, occurring in a variety of contexts, involving teams or learning groups, and responsive to a host of diverse needs and interests. (1998, p. 4)

CT&L incorporates multiple teaching and learning theories including cognitive theories that stress the situated, social, and distributed nature of learning (Brown, Collins & Duguid, 1989), constructivism (Simon, 1995), self-regulation (Bandura, 1986), problem solving (Albanese & Mitchell, 1993) and school-to-career theories (Hamilton, 1990). In the UI-PDS the translation of CT&L into practice involved attending to the six attributes. These CT&L attributes are described in Table 1 and are aligned with a list of UI-PDS program features to illustrate the ways in which CT&L was embedded in the UI-PDS.

Table 1: CT&L Attributes in UI Preservice Curriculum

CT&L Attribute	UI Project Example
<i>Occurring in multiple contexts</i> – Learning in realistic workplace situations results in better prepared teachers.	Some university classes held at Cardozo and Cardozo community sites. Yearlong PDS internship and community mapping activities.
<i>Anchoring understanding in students' diverse life contexts</i> - Teachers need experiences to develop insights about the diverse students, colleagues, and communities they will be serving.	Year-long PDS internship, community mapping activities, Worksample assignments, participation in 9 th grade team, interning with Cardozo teachers.
<i>Fostering self-regulation</i> – Teachers need experiences that help them develop ways of thinking that lead to effective problem solving; they are able to self-evaluate.	Daily lesson planning and feedback. Self-assessment for a “Teacher Development Plan,” weekly reflections, Pathwise reflection.
<i>Using a problem-based approach</i> – Teachers are motivated to problem solve based on how directly they are affected by the problem.	Yearlong Cardozo UI-PDS internship including daily responsibility for Literacy class.
<i>Utilizing interdependent working groups</i> – When teachers are a part of a learning community they learn to be responsible for their own learning and for assisting others in their learning.	Relationship with program cohorts, co-teaching Literacy class, co-teaching literacy, Critical Friends, interning with a Cardozo teacher, blogging as a way to share reflections with cohort.

CT&L Attribute	UI Project Example
<p><i>Employing authentic methods of assessment</i> – Teaching is a highly complex activity, which demands assessment that is ongoing and multifaceted and includes teacher thoughts and actions as well as evidence of student learning.</p>	<p>Daily lesson planning and feedback, Pathwise® Observation, Worksample assignments.</p>

Literature Review

The effectiveness of the Professional Development School has been studied from various viewpoints. Within the PDS literature, studies comparing teachers prepared in a PDS with those prepared in a more traditional model support using a PDS approach in teacher preparation programs (Gill & Hove, 2000; Houston et al., 1999; Mantle-Bromley, Gould, McWhorter, & Whaley, 2000; Neubert & Binko, 1998; Sandholtz & Wasserman, 2001; Walling & Lewis, 2000).

Other studies have sought to verify benefits of the PDS model. The benefits discussed include greater confidence in teaching (Blocker & Mantle-Bromely, 1997) better linkage between theory and practice (Sim, 2006; van Zandt, 1998) and increased collegiality and collaboration (Grossman, 1994; Woloszyk, 1992).

In relation to specific teaching competences, studies support the merits of teachers prepared in a PDS as being more student-centered, better at self-analysis and reflection, and more competent in some aspects of instruction, management, and assessment (Castle et al., 2006; Harris & van Tassells, 2005; Reinhartz, & Stetson, 1999).

However, there remains a lack of research that looks at the “connections among teacher characteristics, teacher education, teacher learning, and teaching practices” (Zeichner, 2005, p. 742). Mantle-Bromley (2002) discusses this issue in current PDS literature stating:

More common are what Chen (1990) calls black box evaluations, where inputs and outputs are examined “without concern for the transformation processes in the middle. Such simple input/output evaluations may provide a gross assessment of whether or not a program works but fail to identify the underlying causal mechanisms that generate the treatment effects, thus failing to pinpoint the deficiencies of the program for future program improvement or development.” (p. 18)

PDS programs are typically described in the literature along with their accompanying outcomes, but there is no attempt to discover what causal relationships exist between the two. There is a lack of research that looks at what is going on in the PDS partnership that leads to outcomes found (Book, 1996; Teitel, 2003). Furthermore, there remains a lack of studies that are situated within a theoretical framework (Cochran, Smith, & Zeichner, 2005; Goodman, 2002). Conway and Artile (2005) argue for the use of a sociocultural perspective. They state, “A sociocultural perspective defines teaching as a cultural activity embedded in the practices of local school systems” (p. 30). A study’s conceptual framework must take into account the unique setting and activities of the PDS model being studied. The characteristics that preservice teachers bring with them, the unique features of a PDS as well as the political, cultural and social context of the local school system are all influential elements.

It is important to hold PDSs accountable so that relationships among the variables influencing teacher development are better connected. Investigation of how and what PDS components interact and influence teacher development and learning can guide future program

development and evaluation. Furthermore, research demonstrates a relationship between teacher certification and improved student achievement (Angus, 2001; Darling-Hammond, 2000; Teitel, 2003). Given this, it becomes imperative to increase our understanding about the connections among the many variables present in a PDS.

Methodology

Data Sources and Procedures

We employed multiple methods to collect data from the following constituents: current interns (Interns), novice teachers (Novices) who graduated from the UI-PDS who were in their first year teaching, Cardozo students, and university and Cardozo educators working with the UI-PDS. We employed three individuals external to the UI-PDS to collect data. Two interviewed and conducted focus groups and one conducted Pathwise® observation of the novice teachers. The UI-PDS project director conducted Pathwise® observations of the intern teachers, a role associated with her supervisory responsibilities regardless of the research agenda.

Pathwise® Observation System. This system is the result of longitudinal research conducted by the Educational Testing Service and historically has been used to assess interns as part of UI-PDS supervision practices. It is organized into four domains (planning, learning environment, teaching, and professionalism) with 19 criteria assessed through observation, interview, and document review. The system yields rich descriptive data as well as numerical scores indicating levels of demonstrated competence appropriate to beginning teachers (1.0-1.5 area of need, 2.0-2.5 acceptable performance, and 3.0-3.5 mastery). Intern teachers were observed once each semester and Novice teachers once during the spring semester. Multiple raters were used in 20% of the observations and high reliability across the raters was achieved.

Worksampling. The teacher worksample, developed by Western Oregon University, is a format for intern teachers to assess the success of their teaching based on student learning (Girod, 2002; McConney & Ayres, 1998). Its format guides prospective teachers through the process of first researching their school and community. Then the format requires prospective teachers to plan, teach and evaluate a 10 to 15 lesson unit. The culmination is a detailed reflection including an analysis of student learning based on pre and post unit assessments.

Cardozo mentor focus group. We conducted a focus group to determine Mentor experiences working with the UI-PDS as a project as well as their experiences working with their current intern. Mentors who could not attend the focus group were interviewed using the focus group questions.

Intern and Novice teacher interviews and focus groups. Each Novice and Intern teacher was interviewed in the fall and spring for a description of their current experiences and their perceptions of the UI-PDS preparation in relation to their current responsibilities. One Novice and one Intern focus group was also held in the spring.

Intern and Novice teacher self-assessment. This was an individually administered survey instrument that allowed UI-PDS preservice and novice teachers to self-assess their knowledge, skills, and dispositions and to identify specific aspects of the UI-PDS they felt had the greatest impact on self-identified areas of their own teacher development.

Ninth grade team meetings. The ninth grade team (including UI staff and Interns) met weekly at lunch to address issues related specifically to the ninth grade or to the school in general. The director kept minutes of these meetings.

Sample Population

All five Intern and Novice teachers ranged in age from their mid-late twenties to early thirties. Overall the majority of them were female (7/10) or Caucasian (5/10). The group of Interns exhibited greater age, gender, and ethnic diversity than the Novices.

Table 2: Intern and Novice Teacher Demographics

Intern	Gender	Age	Ethnicity
1	F	32	Asian
2	M	27	African-American
3	M	31	Asian
4	F	27	African-American
5	F	24	Caucasian
Novice	Gender	Age	Ethnicity
1	F	32	Caucasian
2	M	27	Caucasian
3	F	31	Caucasian
4	F	27	African-American
5	F	24	Caucasian

Of the seven participating mentors, three were Caucasian, three were African-American, and one was Hispanic. Mentor ages ranged from mid-20's to 50's. The majority of the mentors were female (4/7). The number of years teaching ranged from 5 years to over 20 years. Their content areas included, English, English as a second language (ESL), mathematics, science, social studies, and special education.

Table 3: Mentor teacher demographics

Mentor	Gender	Age	Ethnicity	Number of Years teaching	Content Area
1	F	30's	Caucasian	5-10	special education English
2	F	30's	Hispanic	0-5	ESL
3	M	30's	Caucasian	11-15	social studies
4	M	40's	African-American	11-15	mathematics
5	M	40's	Caucasian	15-20	ESL science
6	F	50's	African-American	20-25	English
7	F	50's	African-American	11-15	special education

Data Analysis

All interviews and focus groups were conducted, recorded and transcribed by individuals external to the project. Minutes from project and 9th grade team meetings were transcribed by the UI-PDS project director. All data were stored electronically and were available to all members of the research team.

A research team comprised of the UI-PDS project director, GWU faculty advisor and a GWU graduate research assistant (one of the data collectors) analyzed the data. We focused our first set of interview questions on Interns and Novice teachers' description of their current teaching experiences and their perceptions of UI-PDS preparation in relation to their current responsibilities. After the first round of data collection the research team read through the transcripts and each member of the team coded for descriptive themes. Conceptual categories were created (Merriam, 1998) and we then determined data that could be analyzed using the four Pathwise ® domains (planning, learning environment, teaching, and professionalism) with specific CT&L attributes associated with each domain. The result of this coding was the addition of a fifth domain, leadership, to address responses that were specifically associated with unique features of UI-PDS.

The research team also determined that the interviews were not yielding enough specific information on Intern and Novice teachers' perceptions of specific UI-PDS components most influential to their teacher development. In an effort to collect information that would help examine relationships between intern and novice teachers' preparedness for teaching in DCPS to the specific features of the UI-PDS, the research team developed the *Intern and Novice Teacher Self-Assessment*. This was a structured survey that yielded quantitative data in the form of Likert scores for self-assessment with accompanying rankings of the influence of the program components for each of the five domains of the study. The final set of interview questions were developed based on themes that were emerging from the data as well as questions that would allow for comparison between the first and second set of interview data.

The Mentor teachers were interviewed in a focus group. Individual follow up interviews were conducted as well to gather data from Mentors who were unable to attend the focus group.

The Mentor teachers provided data related to their perceptions of Intern characteristics, UI-PDS components and their impact on Cardozo, as well as the teaching and learning practices demonstrated by UI-PDS Interns.

The research team then divided data analysis by Pathwise® domains. Descriptive matrixes (Miles & Huberman, 1994) were used to generate explanations and interpretations found in the data. The research team met regularly to share findings, verify coding within domains, and identify and analyze themes crossing all domains. Matrix displays were developed to examine the relationships between program features and descriptions of Novice and Intern teacher characteristics. Finally, the research team, with the assistance of an additional GWU research assistant, used axial coding (Strauss & Corbin, 1998) to reassemble data and describe emerging phenomena more concisely.

All research data in this study was confirmed through constant comparison (Merriam, 1998) between the two sessions of individual Novice and Intern interview data and Mentor, Novice, and Intern focus group data. Additionally, the numerous and extensive collection of data sources including both quantitative with qualitative data allowed for triangulation of data. Intern and Novice scores on the Pathwise ® observation scale and *The Intern and Novice Teacher Self-Assessment* yielded quantitative data that provided verification of data obtained through interviews and focus groups.

Results

Organizing Content Knowledge for Student Learning

We examined Novice and Intern teachers' experiences with planning instruction. Lesson planning was a consistent daily expectation during the internship year with on-site support by the UI-PDS literacy coordinator and project director. Interns were held accountable for producing

weekly and daily plans for the Literacy class and for planning with their cooperating teachers in content classes.

Differences between Novices and Interns. There was a marked difference in Novice and Intern experiences with lesson planning during the fall semester. All interns expressed frustration with the complexities of planning lessons that met students' interests and instructional needs, were appropriate for the 86-minute block, and that produced productive student outcomes. Lesson planning was portrayed as "extremely rigorous," "frustrating" and "time consuming," with Interns expressing feelings of "being abused." Intern teachers greatest need in the realm of planning was developing appropriate evaluation strategies for their students.

Novice teachers reported feeling confident in their ability to engage in lesson planning. Their major concern was how to plan lessons for students with the lowest reading levels. Novice teachers consistently referred to the range of adolescent literacy levels they were encountering during their first year of teaching. They reported feeling comfortable preparing lessons for students who were reading above a primary level (i.e., 4th grade and above), but they were struggling to plan for students whose reading challenge was with basic word identification. All novice teachers indicated this as a major planning issue whether they were teaching classes in developmental reading or a content area.

Commonalities between Novices and Interns. Both groups of teachers reported that by the end of the UI-PDS internship they felt confident in their ability to plan lessons. The development of interns' ability to lesson plan can be represented by one intern's description:

It was hard at the beginning, to turn in a set of objectives, and then get rejected, and turn another set in, and get rejected again. The process for one hour of instruction, it could take three days to plan. But now, I'm very competent in my ability to do that, and I know

that next year, it's not going to be a difficulty I think that is a very valuable skill that I have developed over the course of the year.

Influence of UI-PDS components. Being responsible for teaching the Literacy class was the primary UI-PDS feature identified by both groups that promoted their competence and confidence in lesson planning. Both groups also indicated that their personal attributes which included their prior work and volunteer experiences as well as their personal dispositions and talents were also important contributors to this area of competence.

Creating an Environment for Student Learning

We examined Interns and Novice teachers' ability to attend to the social and emotional aspects of learning, which included types of interactions that occur between teachers and students.

Differences between Novice and Intern teachers. Novice teachers demonstrated a higher level of mastery of classroom management during observations than Intern teachers. All Novice teachers were assessed at the Pathwise ® mastery level (3.0), while Intern teachers' assessments averaged at the acceptable level (2.0). Despite this competence, Novices reported their ability to manage classes was affected by inconsistent school disciplinary policies and students who demonstrated serious emotional and behavioral issues. Novice teachers reported they did not feel that they had adequate preparation either through university courses or during their internship in addressing students who consistently presented challenging behaviors. In contrast, Interns' issues with behavior management were more focused on finding a common ground with their co-teacher's philosophy and beliefs in the Literacy class and becoming comfortable with developing their own 'behavior management style.'

Commonalities between Novice and Intern teachers. The most consistent theme across all data sources was Intern and Novice teachers' commitment to developing relationships with their students. Each teacher clearly wanted to know students for two purposes – to be instructionally effective and to be a supportive and positive adult in students' lives. Throughout the data there was a noticeable lack of negative descriptions of students with many examples of actions each teacher had taken to get to know students. The quotes below were typical statements:

Novice Comment- My biggest strengths are my ability to relate and deal with the students, like deal with their issues and their day-to-day problems . . . the relationships I form with them . . . being able to get through to a lot of students that have difficulties with may other teachers.

Mentor Comment– It's very heart warming to see an Intern on the second floor and ESL kids walking by, whom they encountered last semester, and they stop at the door and they throw their thumbs up, and he throws his thumb up, and then they say something, and everybody's taking and grinning.

Intern Comment- The classroom I have now, all the students, I know them pretty well and what's going on at home . . . [and] their different situations that they have to tend to.

Influence of UI-PDS components. The most influential factor identified across Novice and Intern teachers (8/10) were their personal attributes, most specifically drawing on their culture, ethnicity, identity, beliefs and important life events that they brought to the program. The second most influential factor was being responsible for teaching the Literacy class (7/10). These factors are represented in the quotes below.

Intern Comment- I've done different things with kids, I've been a school counselor, I've done after-school programs, I have done counselor-related activities, but it always got back to wanting to work with kids, and specifically kids in an urban setting, and just being more directly involved in their, I don't know, their development in that formal school setting; but also in informal ways that you develop relationships with kids . . . It [patience] helped me a lot with building rapport with the kids, with my sense of humor.

Intern Comment- The advantage of that [teaching in the literacy lab] [was] I got my own classroom, and I got to do everything. I had to schedule on my own, so from grading to teaching, to talking, and I thought that was a great experience, seeing myself in my own classroom, so I could make my own mistakes and have my own successes.

Teaching for Content and Literacy Development

Through this domain we investigated factors that support the act of teaching with student learning as a goal.

Differences between Novice and Intern teachers. Pathwise ® scores indicated that all Novice teachers demonstrated acceptable to mastery performance in this domain with all five teachers exhibiting mastery in making content comprehensible to students and using instructional time effectively. Interns' area of greatest challenge was using instructional time effectively as indicated by Pathwise ® scores and self-assessments with all but one Intern achieving an acceptable level of performance in this area by the end of the school year. When asked about Intern performance, Mentor teachers were impressed with the Intern teachers willingness to listen, collaborate and spend the time necessary to plan, but also thought that time management, and closing lessons were skills that were still developing.

Commonalities between Novice and Intern teachers. Intern and Novice teachers clearly accepted that a diversity of literacy levels was to be expected in urban teaching and consistently demonstrated a problem solving approach to teaching students with diverse literacy needs. The Novice and Intern quotes below demonstrate their acceptance combined with persistent problem solving to determine ways to address higher order thinking while accommodating for a lack of basic skills.

Novice Comment- When I got to [School X], there were students who couldn't read at all. So, that was a struggle, and I don't know this, but I would say that in an urban environment, you're more likely to find that situation, and that's something that a teacher needs to be able to do. Then, you combine all that with the higher order [thinking] stuff . . . I mean, I never thought about it as we were working through it [in the internship] but then, the first part of this year, as we were in our reading group, one of the kids had ADHD [attention deficit hyperactivity disorder], and it was such a balancing act because then it doesn't help when they're focusing too much just on the skills.

Intern Comment - The [unit test] section in which the students made the least progress was the definitions. I have shown some weakness in the vocabulary building. I try to steer away from the students memorizing the definition, but it seems that I need to focus more on basing the instruction around the vocabulary . . . Learning the language would help the students to express their thoughts. I need to make sure they have a solid understanding of the words and concepts before I start them on the activities using the words and concepts.

Every Novice and Intern felt inadequately prepared to effectively teach students with the lowest reading levels. Both Intern and Novice teachers expressed a strong desire to continue to

develop a repertoire of literacy strategies, and saw this as a necessity for urban teaching. The great need a teacher to be able to meet student literacy needs was also voiced by Mentor teachers. One Mentor describes her continued to struggle with the diversity of reading levels at Cardozo:

Generally speaking, their reading levels are so low, so regardless of what content area you're trying to teach, you're going to encounter several readers, you will have several readers in your class, and you have to have a sense of how to measure whether or not they're improving, to get a sense of what the problem is, so that you can help them to move forward and assess their competency.

Influence of UI-PDS components. The two major influences identified, as significantly contributing to growth in this domain was being responsible for teaching the literacy class and the on-site support provided for literacy instruction.

Novice Comment - I know it seems surprising that I would like this, especially coming from UI where there were so many observations done - and I thought, Oh God! - but you really get used to it, and you learn to rely on being able to go into someone else's classroom and watch them, and then have someone else come in and watch you, and just get a different perspective on what you're doing, and I don't have that at all in my classroom . . . You get that push to, you know, just keep you on your toes and push you forward.

Intern Comment – [During a pre-internship course] we were supposed to prepare lessons that were going to be accessible for this populace, this basic write-up of a class, like all these 14-16 year-olds at various reading levels, and, like when we planned those lessons, I really didn't know what that looked like; I didn't know what is a student who's 15-16

years old reading at a 4th grade level, what does that look like, you know; what does that entail. And, then by working with those students and practicing those strategies, it's allowed me to see kind of what that is. If you're planning lessons in a class, like you have no clue if you're not currently working in a school with that population. I mean, you know, you may think giving them Dr. Seuss books, I mean those aren't going to be interesting; well I mean, [at] 16/17 [years old], I mean they can deal with a large enough content and different ideas, but, which is it, is it the long sentences, is it just the long words, I mean, not knowing what that is . . . so working with the students and practicing reading strategies and stuff, I got a lot of knowledge from that.

The mentor teachers felt that the literacy strategies that the interns had become familiar with and utilized in the literacy lab were a real benefit of the program to them and to Cardozo students. One Mentor explains, “Right now, this intern I’m working with, she has a lot of different reading tactic and strategies, I mean, I’ve kept a list of them that I’ll attempt to go through.”

Teacher Professionalism

Teacher professionalism addresses aspects of teacher efficacy including the ability to reflect and collaborate.

Differences between Novice and Intern teachers. Pathwise ® and self-assessments of Novice and Intern performance showed the greatest difference in this domain. The Novice teachers demonstrated a strong ability to reflect and demonstrate a sense of efficacy. Although Interns demonstrated growth in these areas throughout the year, as a group they were exiting the internship with reflection and efficacy assessed at the low acceptable range (2.0).

Although both groups were able to describe types of collaborative relationships they had developed, Novice teachers demonstrated the ability to initiate collaboration across a greater diversity of individuals and situations. One Novice teacher had joined a literacy task force and taught reading strategies to her colleagues. Another was involved in co-piloting a new reading curriculum. Another had provided workshops around special education assessment to her colleagues. There were no systems or procedures in place for collaboration between special education and general education teachers at any of the novice teachers' schools. However, all of these novice teachers had special education "caseloads" averaging 18 students. Often the students were not in the Novice teachers' regularly scheduled classes so they took it upon themselves to seek out the general educators to engage in conversations about the students' goals and progress. One novice teacher commented about the collaborative requirements of her current position:

I communicate with the general ed. [education] teachers, because all our students are in the general ed. classes who are on the diploma track. I communicate with the teachers to figure out what the students are working on in their classes, and sometimes I'll go into the classroom and help, like, a group of students, or I will - at the beginning I pulled out - and that worked.

Another Novice reflected on the difficulty of collaboration:

This last year, it was hard. When we started at the beginning of the year, we had 20 kids on our caseloads, so that was hard, to really keep up with all the teachers. But, I think I did, I did the best I could, you know, letting them know what the accommodations were that each student needed, and to let them all know at the beginning of the year, and at the beginning of the second semester; you know, giving them a copy of the accommodations that they need.

Another novice teacher discussed voluntary extra responsibilities:

So, the [extra] thing I managed to do this year is, I made a connection with some of the social studies teachers, because my background's in history, and worked some stuff for the special ed. kids, all the special ed. kids that they had, so I could just provide them with support services for that class.

There were several comments during the Novice focus group about how they developed their skill set for professionalism. One Novice explains:

I think the [UI-PDS] program really set me up to push my learning. I really understand in a lot of my relationships with the kids and [in] a lot of my teaching, to reflect on that and know that that just some of that phase that you go through isn't smooth, it is part of teaching, and I don't think that I would have had that if I hadn't gone through such an intense program. And, in terms of developing relationships, I think we were encouraged to find out if there are other resources in the school even if they're not really apparent, and to extend yourself, and that's been a really rewarding experience for me.

Another Novice commented:

I'm inclined to go with myself and handle things on my own. That was one of my biggest problems last year, [to learn] that you just can't do that in the setting, you really need to reach out for help. Otherwise you will lose your mind. And at the time, it seemed like a ridiculous, busy kind of activity when Kate [the project director] or someone would send us out to talk to someone else . . . anyway, we learned that it was really important to get out there and get input from somebody else.

As would be expected, Interns exhibited a more limited focus in their collaborative activities gaining much from Cardozo Mentor teachers and the 9th grade team. A comment from an intern's lesson reflection describes their collaboration, "It was great to have [a Cardozo Teacher]

available to assist students during the warm-up and individual practice segments of the lesson . . . it was important to have all possible resources available to the students.” Another Intern comment from a unit reflection support this same notion, “At the end of my co-teacher’s unit, we collaborated to develop a plan for the final synthesis of the whole course. . . I created some of the worksheets while my co-teacher created the others.” Another stated:

The learning I have done in this classroom and in this [content area] experience has been purely due to the mentoring of my collaborative teacher. Watching the teaching style and how the teacher connects with the students taught me the importance of establishing connections with students.

These statements exemplify the interns building relationships to facilitate co-teaching, planning, and learning through modeling.

In terms of building their professional skill sets some interview quotes indicate that UI-PDS structure allowed for collaboration across UI-PDS staff, interns and Cardozo 9th grade teachers.

One intern stated:

The main thing we rely on are the teachers that are right down the hall, and they are all of the same mind set. It’s really good to be able to access themOh, it’s been great. With lesson planning, for instance, a bunch of us sit down on Thursdays and we go over each other’s lessons. And that’s very helpful. And we get ideas from one another.

Yet another intern’s comments support this same idea, “In our hallway, we have so many teachers who have graduated from our program and it’s a great support network.”

Another intern discussed growth in collaboration skills when asked to comment on the most significant learning from the internship:

Probably just in terms of understanding, just the role as a teacher, and, I mean not just as a teacher in terms of the group of students that you have, but in terms of the school, the interactions with other teachers.

Commonalities between Novices and Interns. There was strong evidence that Interns and Novices alike were developing efficacy by focusing their reflections to learn from their students' performance. The ability to reflect was strongly tied to their ability to assess and analyze student performance. When asked about transference of learning from the internship to their first year one Novices comments were, "Like I said before, the ability to reflect. Looking at the kids and the instruction, and really assessing that and looking at what I need to do next and what I need to improve or what has been working." One example of this transference to the first year of teaching was revealed in this Novice statement:

I looked at the textbook [tests], and I said, there is absolutely no way [students] would have a shot at this – with the textbook on an entirely different level from what the kids were at, so I made up my own.

There were also many examples of Interns' reflections based on student work. This was an integral part of daily lesson planning and feedback. Intern daily written reflections on their *Worksample* units provided consistent concrete examples on the ability to reflect and then plan based on student performance. An Intern teaching French reflected on one student's increase from refusal to participate in a pretest to an 85% on the post-test:

When [student name] took the pretest . . . she grew quickly frustrated and put her test to the side . . . [The student] and I worked a lot through discussion [during the unit] on how to improve her self-esteem and coping skills in the classroom.

Other Interns were able to analyze student performance and identify specific instructional techniques that would improve student performance such as the positive relationship between writing short responses to reading comprehension, the need to pretest foundational math skills to develop cluster students for instruction, and the benefit of combining oral and written assessments. Both Novices and Interns alike were developing their sense of efficacy based on their growing understanding of the relationship of assessment to instruction.

Influence of UI-PDS components. The main factor identified by the majority of Interns and Novices (8/10) that influenced their professionalism was their personal attributes, specifically the dispositions they brought to the program. The second most influential factor (5/10) was being responsible for teaching the literacy class.

Leadership, Special Education, Social Justice and Community

This domain was developed by the research team to assess unique features of the UI-PDS which focused on leadership roles, special education, social justice and connection to community.

Commonalities between Novice and Intern teachers: Knowledge of a challenged special education system. Both Interns and Novices demonstrated knowledge of systemic special education issues related to working in a disjointed, disorganized, and inconsistently implemented system. A lack of coordination and communication in their schools and system-wide emerged as the central theme. Novice teachers were also frustrated by existing barriers to providing students with disabilities a continuum of services and the inconsistent special education discipline procedures at their schools.

Commonalities between Novice and Intern Teachers: Perseverance in a chaotic school system. Although all of the Novice and Intern teachers discussed the general chaos of working in

urban schools, their comments indicate that the internship experience working in an urban school gave them a realistic idea of urban working conditions. In fact, all of the Novice and Intern teachers felt “very prepared” to work in the often chaotic environments of urban schools after their yearlong internship at Cardozo SHS. One novice explained, “Yeah, most definitely, it [the internship] acquainted me with the realities of DCPS.” This same idea was shared by an intern who when asked to describe a metaphor for the internship at an urban school stated, “Assume nothing; expect the unexpected.”

Both novice and intern teachers maintain positive and proactive dispositions and were not discouraged by the chaos of urban schools. According to an intern who was facing attendance problems:

I think that, I still have the sense that you've got to maintain hope, otherwise it will defeat us. I mean they [the students] come in every day. Although some stayed home today, still some came in today, so I mean, there's still the sense that, in all of this, you've got to maintain this hope.

In fact after one year of teaching, all of the novice teachers expressed a willingness to continue working in urban schools in their individual interviews. A novice explains,

I just love working in a diverse atmosphere with lots of different people and I think that you lose some of that when you leave the urban environment. And, I think everyone says, "Oh, you teach in an urban school, and you're so wonderful," but really, I think it's selfish [to have that attitude]. It's so rewarding, and it's so challenging, and it's kind of scary, and it just keeps you feeling alive, and that's good.

Differences between Novice and Intern Teachers: Being a Special Education Teacher vs. Interning. While all Intern teachers worked with a special education mentor teacher, they

were sheltered from experiencing the daily demands of a special education teacher. Novice teachers' provided vivid descriptions of the day-to-day reality of working within a challenged special education system. All five Novice teachers, including the two with dual certification, taught special education classes and supported inclusion during their first year of teaching.

Novice teachers struggled greatly with the many barriers to inclusion present in urban schools and all of them questioned whether their schools could realistically implement inclusive programs given limited resources and administrative support. All discussed lack of personnel to adequately run an inclusion program in their individual interviews and in the focus group. All five Novice teachers indicated that their schools were not organized in ways to support inclusive practices and discussed the absence of a continuum of services for students with disabilities.

In addition to their teaching duties all Novices had the responsibility of managing special education casework in addition to their classroom teaching duties. This involved setting up and conducting all special education meetings and checking in on students in other teachers' classes to monitor their progress toward meeting their individualized education plan (IEP) goals. Large caseloads were common among all novice teachers with the group reporting caseload sizes of 13, 18, 20, 22, and 23 students. The following comment sums up the common difficulties expressed by all Novices in their first year as special educators:

Novice: We have some special ed. teachers who teach general ed. classes [for students with disabilities], and so the kids will be placed in that. But, if there isn't a teacher like that, then they just get placed in the general ed. classes, or they get tracked, full-time, into the resource classes, which is just horrific. So, we actually have a lot of LD [learning disabled] kids who are certificate [non-diploma] tracked who shouldn't be.

Interviewer: So, do you go visit the other teachers and make sure [the students are making progress]?

Novice: Ideally, yes, that's the idea. But, with 22 kids [on my caseload], and teaching, it becomes really difficult. . . . Yeah, well, certain periods. And I did try to do that [visit caseload kids' classrooms] as much as possible. But, again, with the 22 kids, it's just so much. And then my [caseload] kids... Like the teachers who have been there for a while have worked the system so that the kids on their caseload were in their classes. . . I was a new teacher, I did not do it that way, so most of my [caseload] kids I did not have in class.

Interviewer: So, they were just assigned to you?

Novice: Yeah, they were assigned to me; it was, like, here's a group of kids.

Differences between Novice and Intern Teachers: Emerging Advocacy and Leadership.

Although both Interns and Novices expressed the combination of frustration with urban schools and a willingness to persevere in them, only Novice teacher's comments indicated leadership actions toward remediation of systemic issues. However, Novice's comments indicated that they were reluctant to recognize their actions as leaders, as they currently try to gain their own footing as professionals. A novice explained:

I don't really see myself as a leader yet. I take part in everything and do what I'm supposed to do, and that type of thing. I'm just trying to get my feet wet before I take on more than I can handle. So, I wouldn't be stepping up to any type of leadership positions at this point in my career, just because I don't think I'm ready . . . I need to teach for a while before I feel like I can lead really well.

Although the majority of the novice teachers were reluctant to call themselves leaders, all of them participated in leadership actions including working on a Literacy task force, being

responsible for researching and creating a bilingual special education program, serving as the special education department chair, co-piloting a new reading program, teaching other staff how to use a special education assessment, providing literacy workshops for other teachers, reformatting special education courses, working collaboratively with special education advocates, participating in leadership teams, collaborating with departments, working on curriculum development, attending special education hearings, and coaching and tutoring after school.

Commonalities between Novice and Intern teachers: Social justice as a mindset. Social

Social justice was both a theoretical frame of UI and a thematic strand of the UI Literacy Curriculum preservice teachers used while teaching in the Literacy Lab. While both Intern and Novice teachers personally valued social justice and had experience using the literacy curriculum based in it, both groups struggled with integrating its principles into the courses they taught. Their comments indicate that social justice for new educators was too complicated to be realized as a skill-set and instead they utilized it as mindset in their approach to working with students. One Novice explained:

I think that it [social justice] is very important. While I don't always get to apply those principles directly to my classes, because I teach the science class where it's sometimes hard to bring those issues up, especially with botany. But, I think because they had such a focus on that throughout the [UI] program, I think it helps me understand where the kids are coming from, and that the world of the students is very different from the world of my experience, and the experience of many of the other teachers in the school, and knowing that and using those principles to help, I can understand that, while a teacher may see it one way, a lot of times, the student is totally seeing it a different way, simply based on the cultural experiences that they've had. While, it's not directly relevant to my classroom, it has

impacted my relationships with the students, and it helps me to understand the relationships between students, and between students and teachers, and my understanding of social justice issues definitely helps me strengthen those relationships that I have with the students.

Although both Intern and Novice teachers struggled with integrating social justice into their content teaching, Novice teachers described many incidences in which a social justice mindset influenced their actions. Novice teachers were willing to step into leadership positions when they believed a situation was unjust or when the situation at hand demanded their leadership. One Novice struggled greatly with the overrepresentation of students with low-level disabilities who were inappropriately placed on the IEP certificate track, which prevented them from working toward diplomas. She was able to change one student's placement:

I had one kid this year who was [on the] certificate [track]. He's in the 9th grade. He's 17. . . He's so bright and talented and has this amazing artistic ability . . . We managed to get him into an art program next year. So, he's going to do art and then continue to work for his diploma. So, we put him back on the diploma track . . . That was my biggest victory [this year].

Although Novice teachers expressed reluctance to call themselves leaders, their actions clearly indicate their emerging roles as leaders. All of the Novices described this hesitancy towards leadership roles as a temporary state in their professional development and expressed their planning to take future leadership roles either in the near future in their schools or long term in the field of education.

Influence of UI-PDS components. The majority of Intern and Novice teachers felt their personal attributes (8/10) and experiences either interning with a Cardozo teacher or teaching the Literacy class (7/10) were the most influential factors in their development in this domain.

Limitations

Many of the limitations of this research are common to qualitative studies with small sample sizes. The small sample size limited generalizability to other PDS research, while at the same time provided “thick description” of the UI-PDS program. However, UI-PDS has historically trained under ten interns per school year, therefore the research sample represents an historically normal sample size. Within the sample of novice teachers, all of them worked as special educators even though three out of five held dual licenses in special education and a content area (two were licensed science teachers, one as social studies teacher). Their roles as dually licensed teachers in the District of Columbia working as special educators is indicative of the great systemic need for special educators and not necessary reflective of the teachers themselves. Related to the shortage of special educators, three of the novices chose to accept teaching positions at the same high school. This school, within a few blocks from Cardozo, is a language magnet school serving a largely Hispanic population.

Similar to small sample size, researcher positionality was also both a benefit and a limitation to the research. The majority of the research team were faculty and staff of the UI program. However, no members of the UI community who directly advised or taught UI Interns or Novices were involved in interviewing for focus groups or individual interviews. Involved research team members, on the other hand, did play significant roles in interpreting data and drawing conclusions. Great care was practiced on the part of researchers to be aware of and limit interpretation bias.

In response to our research question pertaining to UI-PDS teacher effectiveness, we intended to use standardized test results from DCPS as a measure of student outcomes. However, DCPS did not test the majority of students in the 2004-2005 school year due to the

new Superintendent bringing in new content standards to DCPS so this data was unavailable. We also intended to have input from mentors of Novice teachers to measure UI-PDS teacher effectiveness. Despite the DCPS policy to provide mentors to all first year teachers, none of the Novice teachers participating in the study were assigned mentors. Therefore, all mentor data is limited to Intern experiences.

Discussion

Competent Urban Teachers

Often high poverty urban school settings reflect the chaos and low literacy levels inherent in these communities that can create challenging settings for new teachers. The most powerful tool available for preparing competent urban teachers is a classroom of their own. This vehicle allows new teachers to practice fulltime for a full year with a fair degree of responsibility that includes intense and rigorous daily supervision. Through the Literacy Lab, our research indicates, Interns and Novices simultaneously learn how to design curriculum and student centered instruction, teach and manage diverse sets of students, and advocate for students within the school setting. One mentor described the Literacy Lab as a *protective womb* in which emerging teachers learn how to function in an urban school.

Both Interns and Novices demonstrate knowledge of systemic issues faced by DCPS. They approach students' low literacy skills as a systemic problem related to inadequate previous instruction and urban social problems, and avoid placing blame for this discrepancy on their students. Instead, they describe their students as capable learners and accept the responsibility of improving students' literacy skills. This disposition advances Interns and Novices' practice toward the leadership end of the spectrum. As they seek supports for their students, they must leave their classrooms, interact with the school community to locate resources, and foster their students'

achievement. A goal of PDSs envisions impacting school reform. With teacher preparation that fosters emerging leadership, impact on reform efforts will be sustained and vigorous for the PDS school and system.

Another key reason Interns and Novices fair well in urban settings is due to who they are and what they bring to the classroom. Interns and Novices entered our program with dispositions and background experiences as advocates in social justice causes and/or organizations. Personal attributes, such as their natural tendencies, individual histories, and prior experiences impacted why they chose to participate in a teacher preparation program focused on special education, social justice, and literacy in urban schools and why they continued to work toward equity in education. Social justice, as a disposition, influences how Interns and Novices work with students who have complicated personal lives and arrive in the classroom with diverse sets of skills and knowledge. Interns and Novices connect with their students and school communities in ways that demonstrate a willingness for advocacy and improving instructional supports, especially relative to special education service delivery. As new teachers they use social justice as a lens for viewing their context and their relationships with students but are not as sophisticated in integrating social justice into classroom curriculum and instruction.

Contextual Teaching & Learning Framework

This research affirms the incorporation of the Contextual Teaching and Learning (CT&L) framework into teacher preparation curriculum as well as 9th grade Literacy Lab curriculum. Adhering to a framework that promotes authenticity and demands attention to context concentrates Interns' and Novices' attention on students' needs, available resources to support students' learning, and school community collaboration to achieve student success. Interns and Novices are able to relate theory to practice because CT&L attributes emphasize reflection, collaboration, authentic

assessment, and personal responsibility. They also connect theory to practice because they participate in a yearlong full time internship with daily on-site support.

The intense internship opportunity facilitates first year teacher's learning and speeds the typical learning continuum for classroom management and survival. Through daily collaboration with university and school site personnel, Interns are able to work through their initial confusion and misconceptions in a reflective setting. These interactions promote student centered learning about the teaching process while simultaneously fostering learning about the theory behind good practice. By *living the life*, Interns are prepared to accept the challenges urban schools offer because they are well equipped with teaching and management practices and also a working knowledge of school resources that can support them and their students when the need arises. As Novices who, in effect, have already experienced their first year of teaching, they are equipped to meet diverse learning needs of students and take on the non-classroom responsibilities the profession of teaching demands.

Evaluation Research

Research is always time and resource-consuming. Attempting to conduct evaluative research, while simultaneously doing the work required in the PDS, is overwhelming. Work within PDS contexts already demands 110%. Adding a research component to roles and responsibilities can be a challenge that often goes unmet. Our research was supported by a yearlong grant that allowed us to invest in outside researchers. Even with that added support to conduct and transcribe interviews and focus groups, our research work became exhausting. Being able to continually engage in evaluative and accountability research would require dedicated time, resources, and reconfiguring roles and responsibilities that would impact the PDS personnel and context.

This study is an attempt to untangling the multiple factors involved in PDS accountability. If Professional Development Schools are to remain viable, continued attention to the interactional influences of teacher qualities and components of the PDS experience are necessary. Whether PDS work can sustain the monetary costs and time commitment that accountability measures require remains to be seen. Calls for education reform and accountability will continue. Teacher preparation through PDSs represents a rigorous multi-layered approach that works but research must continue to study relationships between and among teacher characteristics, teacher education, teacher practices, and student achievement that identifies “causal mechanisms that generate the treatment effect” (Mantle-Bromley, 2002, p.18).

References

- Abdall-Haqq, I. (1998). *Professional development schools: Weighing the evidence*. Washington, DC: American Association of Colleges of Teacher Education.
- Albanese, M. A., & Mitchell, S. (1993). Problem-based learning: A review of literature on its outcomes and implementation issues. *Academic Medicine*, 68, 52-81.
- Angus, D. L. (2001). *Professionalism and the public good: A brief history of teacher certification*. Washington, DC: The Fordham Foundation.
- Bandura, A. (1986). *Social foundations of thought and action. A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Blocker, L. S., & Mantle-Bromely, C. (1997). PDS versus campus preparations: Through the eyes of the students. *The Teacher Educator*, 33, 70-89.
- Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18, 32-42.
- Burko, H., & Putnam, R.T. (1998). The role of context in teacher learning and teacher education. In 1998 *Contextual teaching and learning design conference proceedings: Preparing teachers to enhance student success in and beyond school*. Columbus, OH: The Ohio State University, College of Education, Center of Education for Training and Employment. (ERIC Document Reproduction Service No. ED434095)
- Carnegie Forum on Education and the Economy. (1986). *A nation prepared: Teachers for the 21st century*. Washington, DC: Author.
- Castle, S., Fox, R., & Souder, K. (2006). Do professional development schools (PDSs) make a difference? A comparative study of PDS and non-PDS candidates. *Journal of Teacher Education*, 57(1), 65-80.

- Cochran-Smith, M. & Zeichner, K. M. (2005). *Studying teacher education: The report of the AERA panel on research and teacher education*. {Executive Summary}. New Jersey: Lawrence Erlbaum Associates, Inc.
- Conway, P., & Artiles, A. (2005). Foundations of a sociocultural perspective on teacher performance assessment. In F. P. Peterman (Ed.), *Designing performance assessment systems for urban teacher preparation* (pp. 21-48). New Jersey: Lawrence Erlbaum Associates.
- Darling-Hammond, L. (2000). Teacher quality and student achievement: A review of state policy evidence. *Educational Evaluation and Policy Analysis Archives*, 8(1). Retrieved March 24, 2006 from <http://epaa.asu.edu/epaa/v8n1>
- Gill, B. & Hove, A. (2000). *The Benedum Collaborative Model of Teacher Education. A preliminary evaluation*. Pasadena, CA: RAND Education.
- Girod, G. (2002). *Connecting teaching and learning: A handbook for teacher educators on teacher worksample methodology*. Washington, DC: AACTE Publications.
- Goodman, G. (2002). Implementing and researching teacher education programs in PDSs. In I. M. Guadarrama, J. Ramsey, & J. N. Nath (Eds.), *Forging alliances in community and thought: Research in professional development schools* (pp. 31-64). Greenwich, CT: Information Age Publishing Inc.
- Grossman, P. L. (1994). In pursuit of a dual agenda: Creating a middle level professional development school. In L. Darling-Hammond (Ed.), *Professional Development Schools: Schools for developing a profession* (pp. 50-73). New York: Teachers College Press.
- Haberman, M. (1995). *Star teachers of children in poverty*. Bloomington, IN: Kappa Delta Pi.

- Hamilton, S. F. (1990). *Apprenticeship for adulthood: Preparing youth for the future*. New York: Free Press.
- Harris, M. & van Tassell, F. (2005). The professional development school as a learning organization. *European Journal of Teacher Education*, 28(2), 179-194.
- Holmes Group. (1986). *Tomorrow's teachers: A report of the Holmes Group*. East Lansing, MI: Author.
- Holmes Group. (1990). *Tomorrow's schools: Principles for the design of professional development schools*. East Lansing, MI: Author.
- Houston, W. R., Hollis, L. Y., Clay, D., Ligons, C. M. & Roff, L. (1999). Effects of collaboration on urban teacher education programs and professional development schools. In D. M. Byrd & D. J. McIntyre (Eds.), *Research on professional development schools: Teacher education yearbook VII* (pp. 6-28). Thousand Oaks, CA: Corwin Press.
- Levine, M., & Churns, E. (2000). Designing standards that empower professional development schools. *Peabody Journal of Education*, 74(3&4), 178-208.
- Mantle-Bromley, C. (2002). The status of early theories of professional development school potential. In I. M. Guadarrama, J. Ramsey, & J. N. Nath (Eds.), *Forging alliances in community and thought: Research in professional development schools* (pp. 3-30). Greenwich, CT: Information Age Publishing Inc.
- Mantle-Bromley, C., Gould, L. M., McWhorter, B. A., & Whaley, D. C. (2000, Spring). The effect of program structure on new teachers' employment and program satisfaction patterns. *Action in Teacher Education*, 22(1), 1-14.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco, CA: Jossey-Bass.

- McConney, A., & Ayres, R. (1998). Assessing student teachers' assessments. *Journal of Teacher Education*, 49(2), 140 – 150.
- McEntee, G., Appleby, J., Dowd, J., Grant, J., Hole, S., & Silva, P. (2003). *At the heart of teaching: A guide to reflective practice*. NY: Teachers College Press. (ERIC Document Reproduction Service No. ED 476 072)
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis*. Thousand Oaks, CA: SAGE Publications.
- Muuss, R. (1996). *Theories of adolescence*. NY: McGraw Hill Companies Inc.
- National Council for Accreditation for Teacher Education. (n. d.) *Standards for professional development schools*. Retrieved August 8, 2004 from <http://ncate.org/documents/pdsStandards.pdf>
- Neubert, G. A., & Binko, J. B. (1998). Professional development schools: The proof is in performance. *Educational Leadership*, 55(5), 44-46.
- Reinhartz, J., & Stetson, R. (1999). Teachers and leaders. In D. M. Byrd, & D. J. McIntyre (Eds.), *Research on professional development schools: Teacher education yearbook VII* (pp. 157-172). Thousand Oaks, CA: Corwin Press.
- Sandholtz, J. H., & Wasserman, K. (2001). Student and cooperating teachers: Contrasting experiences in teacher preparation programs. *Action in Teacher Education*, 23, 54 - 65.
- Sears, S., & Hersh, S. (1998). Contextual teaching and learning: An overview of the project. In *Contextual teaching and learning: Preparing teachers to enhance student success in and beyond schools*. Columbus, OH: Eric Clearinghouse on Adult, Career, and Vocational Education and Eric Clearinghouse on Teaching and Teacher Education.
- Schwartz, W. (2003). *The impact of professional development schools on urban education*.

- Retrieved online March 9, 2006 from <http://www.ericdigests.org/2001-2/urban.html>
- Sim, C. (2006). Preparing for professional experiences-incorporating pre-service teachers as 'communities of practice'. *Teaching and Teacher Education*, 22(1), 77-83.
- Simon, M. A. (1995). Reconstructing mathematics pedagogy from a constructivist perspective. *Journal of Research in Mathematics Education*, 26, 114-145.
- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: SAGE Publications Inc.
- Teitel, L. (2003). *The professional development schools handbook: Starting, sustaining and assessing partnerships that improve student learning*. Thousand Oaks, CA: Corwin Press.
- van Zandt, L. M. (1998). Assessing the effects of reform in teacher education: An evaluation of a 5-year MAT program at Trinity University. *Journal of Teacher Education*, 49, 120-131
- Walling, B., & Lewis, M. (2000). Development of professional identity among professional development school pre-service teachers: longitudinal and comparative analysis. *Action in Teacher Education*, 22(2A), 63-72.
- Woloszyk, C. A. (1992). *A study of school climate in a secondary professional development school*. Paper presented at the annual meeting of the American Association of Colleges for Teacher Education, San Antonio, TX. (ERIC Document Reproduction Service No. ED346026)
- Zeichner, K. (2005). A research agenda for teacher education. In Cochran-Smith & Zeichner (Eds.), *Studying teacher education: The report of the AERA panel on research and teacher education* (pp. 737-759). New Jersey: Lawrence Erlbaum Associates.