

Teacher-Candidates' Perceptions of Schools as Professional Communities of Inquiry: A Mixed-Methods Investigation

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Abstract

In North American teacher education programs, preservice students typically complete a substantial proportion of time practice teaching in schools, experiencing the extent to which professional school communities of inquiry contribute toward improving teaching and learning. Although there is extensive research about the experiences of new teachers, there is far less attention on preservice teachers' perceptions of schools as professional communities of inquiry. The purpose of this mixed-methods research was to compare teacher-candidates' expectations prior to the practice-teaching placements with their observations following the practice-teaching experience. More specifically, the objective of this paper was to determine the effect of the student-teacher practicum experience on prospective teachers' beliefs about schools as communities of inquiry to improve teaching and learning. Of major significance, participants' perceptions following their preservice training were significantly lower than their expectations prior to the field placements.

Introduction

The importance of effective and purposeful school organization has been extensively documented in the literature (Gottfredson, Gottfredson, Payne, & Gottfredson, 2003; Welsch, 2000). School organizations that are defined by communities of professional practice and collaboration encourage their members to partake in knowledge-creation (Hara, 2001; Wenger, 1998; Zhu & Baylen, 2005). The manner in which schools are organized influences the collective actions of their constituents since the work of educators extends beyond the classroom (Ingram & Smith, 1993; Williams, 2005; Young, 2000). School organization consists of various networks of aligning systems that impact strategic and managerial concerns (Morgan, 2006). Formal school organizations, therefore, establish the goals and boundaries of human activity (Aldrich & Ruef, 2006).

Schools that function as professional communities of inquiry include teachers and administrators who are committed to shared learning practices. The objective of their individual and collaborative endeavors is to improve their effectiveness as professional educators to further improve student learning (Fullan, 2003; Hargreaves & Fink, 2006; Hord, 1997; Mitchell & Sackney, 2000). Under the construct of professional learning communities, all educators are commissioned to continuous inquiry to improve teaching and learning (Westheimer, 1999). Further, learning communities are distinguished by their professional approach to teaching and learning and by their principle-driven decision-making protocols (DuFour & Eaker, 1998; Hargreaves & Stone-Johnson, 2004). Embedded in their organizational principles is a culture of trust, professional inquiry, and proven resolve to further student learning (Anderson & Togneri, 2002; Bryk & Schneider, 2004; Evans, 1996; Fielding, 2001; Hargreaves & Stone-Johnson, 2004; Westheimer, 1999). Schools as professional communities of inquiry recognize the importance of extending supplementary support to novice teachers in contrast to school organizations that do not adequately sustain collaborative and meaningful action (Lipshitz, Friedman, & Popper, 2007).

As a major component of their teacher training programs, preservice teachers complete a substantial proportion of time practice teaching in schools (in Ontario, Canada, for example, the teacher practicum ranges from 10 to 12 weeks). Prospective teachers are immersed in the norms, values, and

social relationships of various schools, as these experiences contribute toward their professional trajectory (Bryk & Driscoll, 1988; Lee, Bryk, & Smith, 1993). Critical to school organizational environments is their potential as professional communities of inquiry to sustain constructive dialogue and collaborative problem solving. In this context, dialogue serves as the vehicle to interrogate the systemic processes of inquiry and learning (Bohm, 1990; Senge, Kleiner, Roberts, Ross, & Smith, 1994). The processes demand forums for professional dialogue founded upon mutual trust and professional cooperation (Harris, 2002). Student teachers experience firsthand the formal and informal operations and processes of professional and collaborative communities of inquiry and the extent to which they make a valuable contribution toward improving teaching and learning in schools (Johnson & Johnson, 1998; Lieberman, 1996; Marshall, Pritchard, & Gunderson, 2004; Oplatka, 2004).

Purpose of the Study

Preservice teacher-candidates are exposed to varying professional school communities throughout their formal teacher training. While it is true that the literature is rich in scholarship into the problematic experiences of beginning teachers (Bullough, 1992; Calderhead & Robson, 1991; Cherubini, 2008), drastically less research has been conducted on teacher-education students in terms of their initial experiences and perceptions while in the field (Menon & Christou, 2002). Research confirms that beginning teachers' experiences are profoundly affected by the perceptions garnered throughout their practicum placements and that these perceptions translate into expectations as their careers evolve (Bandura, 1997; Menon & Christou, 2002).

This research was conceptualized around a central question: What are teacher-candidates' expectations about schools as professional communities of inquiry to improve teaching and learning prior to their field teaching placements when compared to their perceptions subsequent to having been immersed in the field? The conceptual gap between teacher-candidates' expectations and perceptions can contribute toward a cognitive dissonance with their professional role and to their eventually abandoning the profession (Murmane, Singer, Willet, Kemple, & Olsen, 1991). This study employed a mixed-methods research design to investigate the effect of the student-teacher practicum experience on prospective teachers' impressions about schools as professional communities of inquiry. The presurvey served to attune participants to the significant components of schools as communities of inquiry, while the postsurvey tracked the emergence of the relevant configurations in their extended experiences in the classrooms (Roth, 2005). By focusing on student teachers' expectations and observed realities, the process of becoming a professional teacher may also be better understood (Guillaume & Rudney, 1993; Swennen, Jorg, & Korthagen, 2004).

Methods

The study's mixed-methods research design utilized quantitative and qualitative means to arrive at an in-depth understanding of the research predicament (Creswell & Plano-Clark, 2007; Elliot, 2005; Tashakkori & Teddlie, 2003). This study represents one component of a larger-scale research endeavor.

Participants

Preservice students enrolled in a 1-year postgraduate bachelor of education teacher-preparation program from a mid-sized Canadian university in southwestern Ontario were invited to participate in this study. For the sake of clarification, education is a provincial responsibility in Canada and, aside from First Nations Education, does not rest within a broader federal jurisdiction. The bachelor of education degree is earned in this case as a second degree and is a 1-year program of study. In this program, students choose a specialist area in one of the primary/junior (p/j) or intermediate/senior (i/s) teaching divisions. The p/j program leads to certification to teach grades 1 to 6; the i/s program leads to certification to teach grades 7 to 12. Seventy-five students accepted the invitation (from the 145 originally enlisted), representing a 52% response rate. One percent of the responses were discarded during the preliminary vetting due to response prevarication. In self-reported measurement indicators,

63% of participants were female and 17% male (20% did not respond); 51% were enrolled in the i/s qualification program and 41% in the p/j divisional qualifications (8% did not respond); 65% belonged to the 20–29 age bracket, 11% to the 30–39 age category, and 13% indicated that they were 40 years of age or older (the remaining 11% did not respond).

Procedure

The triangulation design of this mixed-methods research compared participant responses from the quantitative items with their more detailed qualitative written entries. It involved the concurrent but distinct collection and analysis of both quantitative and qualitative data (of equal weighting) prior to the merging of the two properties of data during the interpretation process (Creswell et al., 2003; Hanson et al., 2005). On a basis of a Likert-type scale ranging from strongly disagree to strongly agree, participants recorded their expectations of schools as professional communities of inquiry before their initial practicum experience at the onset of the academic year and then ranked the same items after their final teaching practicum at the conclusion of their preservice teacher-education program. Each of the six statements began with, *During my interning and practice-teaching in schools, I expect that...* The statements were scripted as follows:

- *Staff meetings will be professional gatherings that focus upon student learning.*
- *Teacher professional development will be a high priority in the school community.*
- *Department (or division) meetings will be conducted in a professional manner and will focus upon improving student learning.*
- *Teachers will ensure that they competently address the individual learning needs of all exceptional students.*
- *Teachers will involve students' parents in creating positive learning experiences within the school community.*
- *Teachers will demonstrate a professional responsibility within the school community to ensure that students have opportunities to be successful according to their unique capabilities.*

In the qualitative section of the presurvey, participants commented on their expectation that school organization will be conducive to collaborative and professional communities of inquiry (see Cherubini, in press). Specifically, the two prompts were stated as follows:

- *Schools will be organized so that both new and experienced teachers have opportunities to fulfill their own vision and beliefs. Explain why you either agree or disagree with this statement.*
- *Do you expect administrators and teachers (regardless of their years of experience in teaching) to work collaboratively to improve student learning. Explain in detail. If not, explain why.*

The postsurvey invited participants' qualitative and descriptive explanations to the following prompt:

- *Describe examples of how collaboration was embedded in the routines and practices of schools to improve student learning. Or, explain why you believe collaboration was not embedded in the routines and practices of schools to improve student learning.*

Both the presurveys and postsurveys were administered at the conclusion of scheduled class time with minimal disruption to coursework. In advance of the survey distribution, course instructors were provided with a description of the study and the instructions to share with those students who chose to participate. The quantitative and qualitative sections of the survey were previously field-tested under similar circumstances with different samples of preservice student cohorts for the sake of instrument fidelity (Onwuegbuzie, Witcher, Collins, Filer, Wiedmaier, & Moore, 2007). Peer debriefing sessions were conducted after each field test for external evaluation (Glesne & Peshkin, 1992; Maxwell, 2005;

Merriam, 1998; Newman & Benz, 1998). In terms of validation, a mixed-methods research design provided a more descriptive analysis of preservice teachers' expectations and perceptions of schools as professional communities of inquiry. A colleague with extensive experience in mixed-methods designs, but who did not have a vested interest in the study, constructively criticized the findings as they emerged (Lincoln & Guba, 1985). The open-ended qualitative questions provided opportunities for participants to elaborate upon their responses from the Likert-type items. Sample integration accounted for the inferences as they emerged in the coding and analysis stages (Onwuegbuzie & Johnson, 2006; Tashakkori & Teddlie, 2006).

Data Analysis

The six statement responses were quantitatively analyzed in terms of means and frequencies before being subjected to t tests to factor significant differences. The findings of the quantitative analyses are tabled in the Results section of this paper. The quantitative responses were then analyzed on multiple comparisons based on participants' self-reported age, gender, and divisional qualifications.

The open-ended qualitative responses were inputted into Ethnograph software to identify relevant patterns. Grounded theory (Glaser & Strauss, 1967), as a qualitative analytical mode of analysis, facilitated the coding of the respective patterns into emerging themes as they were grounded in the data (Strauss & Corbin, 1990). The process of constant comparison saturated the conceptual relationships into the respective categories (Glaser, 1978; 1992). The qualitative data were combined and inductively analyzed using a cross-section of variables including age, gender, and divisional qualifications.

Results

In accordance with mixed-methods tradition, the results for each of the variables from both the quantitative and qualitative analyses are presented respectively (Creswell & Plano Clark, 2007). The underlying finding of the study was that student teachers' experiences during their teaching-practicum assignments had a unanimously negative effect upon their beliefs of schools as professional communities of inquiry to improve teaching and learning.

Quantitative Data: A Ranking of Descriptive Means

In terms of the Likert-scale quantitative responses, the descriptive means for each of the six statements were lower in the postsurvey than they were in the first administration of the survey. Most importantly, the preservice candidate participants had higher expectations of schools as professional communities of inquiry prior to their student-teaching practicum than they reported following the practicum experience. Table 1 includes a presentation of the means obtained pre- and postpracticum.

Table 1
Descriptive Means for Items Related to Schools as Professional Communities of Inquiry to Improve Teaching and Learning

Responses	N	Premeans	SD	N	Postmeans	SD
Staff meetings as professional gatherings that focus on learning	75	4.15	.828	75	4.12	.86
Teacher professional development as a high priority in school community	75	4.05	.820	75	3.76	.89
Department (or division) meetings conducted in a professional manner and focus on learning	75	4.08	.850	75	4.06	.990

Table 1 (continued)

Responses	N	Premean	SD	N	Postmean	SD
Teachers ensure that individual student learning needs are addressed	75	4.31	.870	75	3.62	1.07
Teachers involvement of students' parents to creative positive learning experiences for students in community	75	4.03	.972	75	3.73	.843
Teachers demonstrate a professional responsibility to ensure opportunities for success	75	4.05	.899	75	4.01	.98

N: Number of Participants; SD: Standard Deviation

The greatest difference between mean scores was in relation to teachers addressing the unique learning needs of exceptional students within the school community. Teachers' willingness to involve parents in creating positive learning opportunities also demonstrated a notable contrast between teacher candidates' expectations and perceptions following the practicum experience. Also of note are that study participants' expectations of teachers' professional development being a top priority in the school community was also represented as a lower score on the postteaching experience observations. The other three differences, though reported to be less different between pre- and postpracticum assessments, reflected the overarching pattern of preservice candidates' expectations as being lower following the practicum experience than they were when assessed before the practicum experience.

Significant Differences: Two-Tailed t Tests

When the data were subjected to two-tailed t tests at an alpha of .05, a statistically significant difference was found in three of the six responses, with one more t-test result approaching significance (see Table 2). Consistent with the paired sample statistics, teachers' attention to addressing the unique learning exceptionalities of students in professional collaborative learning communities represented the most statistically significant difference ($p = .000$). Significant differences were also noted with participants' observations of school organizations committed to professional teacher development ($p = .009$) and to teachers' capacity to involve parents in creating positive learning experiences for students within the school community ($p = .038$). The least difference reported was in participants' expectations and observed realities of department or division meetings as professional gatherings focused upon student learning ($p = .924$).

Table 2
Paired Samples Test

Items	Mean	SD	SE Mean	T	Significant Difference (2-tailed)
Pair 1 meetings; meetings 2	.02740	1.06683	.12486	.219	.827
Pair 2 professional development; professional development 2	.29333	.94115	.10867	2.699	.009

Table 2 (continued)

Items	Mean	SD	SE Mean	T	Significant Difference (2-tailed)
Pair 3 student learning; student learning 2	.01333	1.21359	.14013	.095	.924
Pair 4 learning needs; learning needs 2	.68000	1.24293	.14352	4.738	.000
Pair 5 positive learning; positive learning 2	.29333	1.20554	.13920	2.107	.038
Pair 6 professional responsibility; professional responsibility 2	.04000	1.30943	.15120	.265	.792

T: t Test; SD: Standard Deviation; SE: Standard Error

The reported results are not an indictment on any of the participating schools and school boards since the 75 participants were assigned to numerous elementary-, middle-, and secondary schools dispersed across a vast geographical region in Ontario.

Independent t Test Comparisons

It was also decided to examine the differences across the surveys in terms of participants' age, gender, and divisional qualifications; as a result, independent t tests were conducted. Of note, the 22–25 and the 40+ cohorts reported significant differences in their expectations and eventual observations of professional development as being a priority for the learning communities to which teachers belonged (as shown in Table 3). Independent t tests of multiple comparisons based on gender were also conducted. There were no statistically significant differences.

Table 3
Multiple Comparisons: Age and Divisional Qualifications

Responses	Age	Age	Mean Difference	Significant Difference
Professional development as priority	22–29	40+	.674	.016
Responses	Divisional Qualification	Divisional Qualification	Mean Difference	Significant Difference
Professional development as priority	p/j	i/s	.739	.021
Professional responsibility for student learning and success	p/j	i/s	.708	.031

Significant differences were also found through a multiple comparison of t tests based on participants' divisional qualifications. Two statistically significant differences emerged. In the first instance, the p/j teacher-qualification cohort differed significantly with the i/s preservice candidates in terms of professional development being a priority for schools as learning communities. In the second instance, as compared to the i/s sample, the p/j sample reported a higher frequency of teachers' demonstration of a professional responsibility to ensure all students achieve success according to their unique capacities.

Qualitative Data: A Grounded Theory Analysis

For both the presurveys and postsurveys, the respective responses to the qualitative open-ended questions were inductively analyzed using grounded theory analysis (Cherubini, 2007). The written entries were independently coded according to the same variables employed in the quantitative analyses; those being, age, gender, and divisional qualifications.

Variable 1: Age

The 22–29 cohort responses for the first question in the first survey were coded and saturated into a core category; namely, *participants' high expectation that professional autonomy will exist in each school but that one's personal vision must conform to school and principal paradigms*. The responses were typical of the following: "I would hope that we are able to work within the greater structure;" "Teachers' visions and beliefs should be fulfilled as long as they are within the curriculum." Throughout the transcripts, new teachers were distinguished as the teacher population that needed to feel particularly affirmed that their vision was pertinent to the school and school organization. As one participant stated, an affirming and collegial school infrastructure is "especially important for beginning teachers who may not have completed their ideas for what their vision and beliefs are." In the majority of responses, participants qualified that personal vision must "comply with the school's mission statement and policies." "Individual core beliefs," as another participant stated, "are critical in teachers' professional development," but qualified in the same sentence, "as long as those beliefs coincide with the values of the school." Some of the prospective teachers in the study reflected the view that, "teachers should be able to fulfill their own needs and thoughts, but they should never go against what schools expect or believe."

The second presurvey question response data were also saturated into a core category identified as *teachers considered to be integral to faculty team and a vital part of the communication between administrators and students*. The expectation existed that school administrators and all teacher colleagues would, as these participants attested to, "help each other and share resources," "meet regularly to discuss student progress and provide information in confidence that will help student learning," "discuss how to guide positive behavior and how to modify lessons," and "work together in an environment where communication, integrity, and respect are modeled." The expectation was for "meetings [to] be scheduled regarding at-risk students to identify needs and possible solutions" since they believed that "everyone's opinion matters" given the expectation that teachers and administrators "are all on the same team and share the same goals." Consistently throughout the data, the 22–29 cohort underscored the fact that they did not expect their inexperience as young professional teachers to be a factor for discrimination since "just because they [older and more experienced teachers] are experienced doesn't mean they know everything."

For the 22–29 cohort emerging from the second survey at the conclusion of the academic year, the core category relating to the nature of collaboration as it was embedded in school practices to improve student learning was described as *managerial routines and resource-sharing*. Participants commented on the lack of professional collaboration among teachers, support staff (educational assistants), and school administrators. One individual noted, "It was not embedded because there was not teamwork." In the majority of cases where collaboration was observed, it consisted of "teachers working together on the

music trips," "sharing [supervision] duties," "sharing a lot of their resources," "reinforcing routines and ideas in the school," and collaboratively "preparing for the prayer services." The fact that colleagues "worked together" in these capacities was nevertheless noticed by the study participants.

The 30–39 cohort responses to the first presurvey question were saturated into the core category described as *the vision of school administration takes priority over individual teacher beliefs and perceptions*. Representative of this category were comments that included, "You are required to follow school protocol, and this makes it difficult to follow your beliefs if they differ from the schools;" "Usually the principal sets the tone and tries to fulfill his or her vision and beliefs;" and "There may be some room for personal interpretation and expression for teachers, but it is within a collective vision."

The responses to the second presurvey question represented a concerted expectation that collaboration would manifest in schools as strong support networks. The core category emerged as *networks to enable students to achieve and reach their potential*. Participants anticipated that all teachers and administrators "should have the best interests of the students at heart," and that "collaboration means teachers helping students as a result of regular discussion in department meetings." In the bulk of responses it was indicated, as one individual stated, that "administrators and teachers work hard together." Participants in this cohort expected that the common mandate for all educators is to "work together for students ... supporting each other."

Considerably different were the responses in the postsurvey. The core category that saturated the respective codes and properties was described as *collaboration as being a nonembedded process and resigned to the initiative of individual teachers*. Teachers were perceived to be "too hands-off" in terms of becoming involved in school initiatives to improve student learning, and, as a result, professional collegiality was often "not embedded in the school programs at all." Participants were candid in describing "teachers talking about students and sharing resources, but there was no discussion of how to improve student learning." Typical of the responses was this participant's who stated, teachers "did their own thing."

For the first question on the presurvey, the core category for the 40+ participant cohort was *cautious optimism*. Participants expected to facilitate their visions but had their reservations that this was going to be possible. Participants anticipated that the school community as a whole would "benefit from the visions and beliefs of others," and looked forward to situations to exercise "the freedom to live out those visions and beliefs." They openly questioned, however, "how this can be accomplished" and wondered if such opportunities "will likely be few and very limited." The core category emerging from the second presurvey question represented participants' *distinguished appreciation and expectation for school administrators to facilitate professional collaboration*. Consistently, participants positioned the onus on school administrators to, as this participant suggested, "consult with the teachers in building programs that meet the needs of the students and improve their learning." This cohort of participants clearly delineated individual school roles according to hierarchy and formally identified positions of additional responsibility. Indicative of other responses, one individual stated that the principals of the schools need to "set schedules and share resources and teaching strategies for specific students," as well as establishing as this participant described, "an information base upon which to understand and influence student needs."

The properties and themes from the postsurvey question that saturated this cohort's responses into a core category captured an alternate reality of professional collaboration. The core category, identified as *collaboration limited to colleagues assisting one another with daily management routines*, was based on observations that saw teachers "suggesting crafts that would be appropriate for various activities," teachers "helping one another in the primary wing of the school," and staff "coordinating community learning days."

Variable 2: Gender

When subjected to gender comparisons, there emerged noteworthy similarities between presurvey and postsurvey responses. In response to the first question of the presurvey, female participants acknowledged both *the ideal and what they expected to be more realistic perspectives of being able to fulfill their*

visions and beliefs (core category). While they anticipated, as one participant stated, to “implement their own vision,” another individual’s response was equally typical in suggesting that “it greatly depends on the support that new teachers receive from the experienced staff.”

The core category representing the male responses was bewildering. It recognized the import of having a personal and meaningful philosophical paradigm from which to operate, but conceded that the infrastructure of contemporary schooling may not be conducive to facilitating this possibility. The category was identified as *recognition of the importance of fulfilling personal vision, but an expectation that school organization may not allow for it*. Male participants said that they “agreed it [having opportunities to fulfill one’s visions and beliefs] should happen, but certain visions and beliefs may cause problems with other teachers or students.” While they acknowledged the importance of giving “teachers space,” they also expected that personal autonomy will be “kept in check” by the school administration.

The core category belonging to the second question focused on the significance female participants attributed to open communication between educators. It was identified as *the expectation that collaboration will be a continuous conversation and constructive dialogue between teachers, administrators, parents, and students*. Participants in this cohort expected to “observe [other teachers’] lessons,” be invited to strategic meetings “to reflect and talk about our teaching skills,” and “get together to share experiences, get feedback, and demonstrate understanding and improvement in what we are doing.”

The core category that emerged for the male cohort was an *anticipation of collaboration as being a complex and tenuous process*. Male prospective teachers “expected teachers to share stories, resources, and experiences,” but many of the others suggested, “It will depend on the school’s collective attitude if this actually happens because if experienced teachers are not on board, then it’s not going anywhere.” These participants’ reflections were quite typical of the majority: “I expect that teachers will work collaboratively in all aspects of student learning, but personality conflicts will always exist,” and “I would expect administrators and teachers to work collaboratively to improve student learning; however... both administrators and teachers are extremely busy and have their own goals to achieve.”

Female participant responses to the postsurvey question were similar to that of the 30–39 and the 40+ groups. The core category was identified as *collaboration as a product of same grade/division/department teachers when it existed*. Consistently, throughout the responses were examples of teachers “from the same grade planning collaboratively,” and “team teaching” scenarios. Common in the majority of responses was this one: “Teachers talked about a student and tried to share resources, but there was no discussion of how to improve the student’s learning.”

The core category for male responses to the postsurvey question was also similar: *Collaboration was a product of same grade/division/department teachers when it existed*. Some cited the “monthly staff meetings where topics were introduced... [teachers] came up with ideas as a whole group.” Others cited the objectives of specific departments who strove to “ensure that all courses were taught roughly the same way.”

Variable 3: Divisional Qualifications

The core category that represented the i/s cohort responses to the first question on the presurvey was described as *participants expected that respect and tolerance for professional autonomy will exist under the condition that they are aligned to the principal’s vision*. Common to the majority of responses were those that included the expectation that schools “should be open to new ideas and innovations,” but personal visions and beliefs must conform and be “incorporated into the framework of the entire school.” Though participants acknowledged the importance of teachers’ individual vision, they were also cognizant of the “principal’s vision as the one that lights the way.”

The core category representing the p/j division cohort was similar but included a novel slant: *New teachers’ visions can be valuable for the contribution they make to the school, but personal beliefs have to be tightly aligned to principals’ visions*. Participants stated that “this is necessary for me as a new teacher to be able to do what I believe in, but I don’t think it will be the case if the principal’s opinions are different.” They were adamant in asserting that “new and experienced teachers can learn from each

other,” but, by the same token, agreed that personal beliefs “reflect and coincide with the principal and vice principal’s ideas.”

The core category representing the i/s responses to the second presurvey question was notable. The category was described as *school organization will facilitate collaboration, but reservations exist regarding the commitment from experienced teachers*. Reminiscent of the other reflections, one participant wrote that “all teachers should collaborate, but they likely won’t given human nature.” Others recorded that teachers “should collaborate, but realistically it won’t happen because too many people will be involved and this will make it hard for everyone to get on the same page.” The p/j cohort’s core category, unlike the other variables in these cross-section analyses, identified particular components of school programming considerations that address authentic student learning. In their responses, they distinguished collaborative opportunities that will entail “discussions on modifying lessons,” “offering counseling on one-on-one teaching tips,” “ways to better organize my classroom for certain kids,” and “building programs that meet the needs of the students.”

The core category for the i/s cohort responses to the postsurvey question was identified as *endeavours to strengthen authentic student learning were not visibly evident*. Participants noted that secondary school departments “acted as though they were their own country. There was no collaboration between departments or administration.” Others thought that they “didn’t observe any collaboration in terms of moving kids’ learning forward. Everyone did their own thing.” This was comparable to the p/j core category of *collaboration in schools perceived as informal and haphazard*. Although in a number of responses it was observed that discussion between same-grade and division teachers “took place to make sure they were on the same page,” and in “staff room conversations,” teachers were more often perceived as “very isolated” and functioned in school environments where there “was not a lot of communication [since] no one was ever in the division workrooms.”

Discussion

Prospective teachers’ perceptions serve as meaningful gauges of schools as professional communities of inquiry (Gorton, Alston, & Snowden, 2007). The results of the study, both the statistically significant differences and the saturated qualitative core categories, clearly indicate that preservice teacher expectations about schools as professional communities of inquiry to improve teaching and learning were unanimously higher before the practicum experience than following the practicum experience; thus, the practice-teaching experience strongly influenced participants’ perceptions. These perceptions about the professional learning environments of schools may impact participants’ outcomes during their induction into teaching (Western Michigan University Evaluation Center, 2005).

The results of this research have noteworthy implications. Participants in both the quantitative and the qualitative component reported differences between their expectations and perceptions of the various characteristics of learning organizations under study; namely, schools that facilitate optimal learning opportunities for all students, faculties that consider learning as the vehicle to address goals, and schools that encourage inquiry and open communication between all voices in the community (Calvert, Mobley, & Marshall, 1994; Daft & Marcic, 1998; Pegal, 1998; Watkins & Marsick, 1993). Participants readily shared that while their experiences in the schools throughout the teaching practicum exposed them to dedicated learning-centered classroom teachers, the focus on teaching and learning in a social context was significantly less than what they anticipated prior to their student-teacher placements.

Participants reported the greatest disconnect to be between their expectations and eventual observations in the area of teachers competently addressing the individual learning needs of all exceptional students. The notion of collective learning on the part of school faculties’ intent on being proactive in addressing students’ unique needs (as described in Hord, 1997) was under-represented according to participants’ perceptions. Participants expected students’ individual needs as “diverse learners and problem solvers,” as one participant shared, to be addressed with direct and specific

instructional strategies that resulted from “a lot of schoolwide discussion.” They anticipated classroom learning cultures that, as one individual stated, “programmed kids for success regardless of their abilities” and that were supported by school communities that sustained instructional environments nurturing the range of students’ skills. The observed realities in the schools, given the criteria of professional communities of inquiry, lacked the strong congruence of “sense making” that accounts for purposeful instruction and improved student achievement (Gorton et al., 2007; Reilly & DiAngelo, 1990). This poses a further concern in terms of the research on academically effective schools that underpin the importance of schoolwide procedures and expectations on academic effort and accomplishment (Purkey & Degen, 1985).

A second disconnect existed in the area of participants’ perceptions of parents being involved in creating positive learning experiences for students within the school community. This too has serious implications for effective schools as communities of inquiry since research tells us that all school stakeholders, primarily parents, should have opportunities to enact their broad influence on learning-improvement initiatives (Foster, 2004; Smylie, Conley, & Marks, 2002). In their postsurvey qualitative responses, participants noted on numerous occasions how “resistant some teachers are to inviting parents into their classroom,” and how, as another prospective teacher wrote, “A lot of teachers seem kind of intimidated by parents even if they are just coming in to watch a talent show or something like that.” The baseline profile of the quantitative and qualitative responses suggested participants’ expectations that parents and the outreach community were critical partners in the teaching and learning process. As reported both statistically and conceptually, the prospective teachers in this study expected teachers to encourage students’ parents in establishing partnerships and core action teams. These expectations complement the research that infers the positive outcomes of schools’ use of family involvement to improve student performance (Epstein & Sheldon, 2002; Sheldon & Epstein, 2003; 2005). Parents’ attendance at school events foster open communication with teachers and is positively related to student achievement (Desimone, 1999; Hill & Craft, 2003). Of further significance, English language learners (ELLs) experience sustained long-term gains in their schooling (Epstein, 1992), as do children from lower- and middle-income populations (Hidalgo, Bright, Sui, Swap, & Epstein, 1995; Robledo Montecel, 1993). Participants’ experiences in this study reflected a more disjointed version of parental collaboration within school communities and a far cry from the home-school networks that improve achievement (Reynolds, 1991).

The fact that teacher professional development was not perceived to be a priority in schools as professional communities of inquiry represents a third finding worthy of discussion. In preteaching practicum reflections, participants noted their expectation that professional development was interconnected with improving teaching practice to improve student learning. As one participant expressed, “I would expect the school community to be the greatest advocate of teachers advancing themselves in their professional development.” Prospective teachers considered schools, as professional communities of inquiry, to assist teachers in relating their needs to the professional development opportunities that exist. Another participant’s entry was candidly forceful and represented many others: “We are professionals. In order to better at what we do, we will need ongoing professional development so that we can make significant contributions to the school community. This has to be a priority for the school.” The observed realities were markedly different. In fact, the post-teaching practicum results were more in tune with the reality that once teachers achieve professional certification, their effectiveness as classroom practitioners to improve teaching and learning is not necessarily subjected to vigorous scrutiny (Pajak & Green, 2003). It is interesting that the youngest (22–29 years of age) and the p/j cohorts had higher expectations than the 40+ and i/s cohorts, respectively, in this area. The former cohorts more readily recognized the formal training and licensing requirements associated with being a professional. These participants extended such professional standards into the workplace and expected similar attitudinal attributes to be nurtured by the professional community of educators. It is less surprising that the i/s cohort had lower expectations of professional development as a priority in schools than their p/j colleagues since the research about

secondary schools concludes that their larger size potentially inhibits formal organizational connections and cohesive school climates across the board (Lee, Smerdon, Alfeld-Liro, & Brown, 2000; Lee et al., 1993).

The 22–29 cohort noted consistently throughout their postpracticum reflections that the collegial nature of schools as professional communities varied tremendously and were predominantly represented by exchanges of personal favors to fulfill administrative and bureaucratic tasks. Professional development and collegial and collective action (as discussed in Aldrich & Roef, 2006), marked by a clear focus on teaching and learning, was scarcely reported. The successes of individual classrooms rarely, according to participants, extended into the school community at large, as they would in thriving professional school communities (Cunningham & Cordeiro, 2006). Systemic processes to identify improvements in teaching and learning and conceptualizing plans to address these (Cunningham & Gresso, 1993; Sarason, 1996) were sporadically distinguished by participants in the postsurvey reflections.

More distinguishable, then, were the interests of individual teachers and distinct departments or divisions in furthering their self-serving positions in the school community. While professional collaboration, even in these smaller units, was often described as informal conversation about students and school programming, communitywide agendas to further student achievement were perceived more as competing rather than complementary forces (Razik & Swanson, 2001). Although participants were sensitive to the unique components of schools as professional communities, including the respective routines, expectations, and vision to name a few (Fiol, 1991), their perceptions of these communities of inquiry were more characteristic of fragmented and incoherent dialogues often far removed from the issues that most profoundly implicated teaching and learning. Their collective postpracticum views summoned the characteristics of a loose-coupling school community model (Gamoran, Secada, & Marrett, 2000) where teaching and learning pedagogy seemed distant from professional collective inquiry driven by student achievement.

This is not to deny participants' sensitivity to the importance of a school vision to sustain communities of inquiry (Cherubini, in press). However, prior to their teaching placements in schools, participants perceived school vision as a product of a socially inclusive and constructed process (Johnson, 2005). Their experience in the various school communities undermined their symbolic understandings. Participants' qualitative responses clearly delineated the conceptual divide between school visions that evolve from collective voices and those that represent the principal's paradigms as they symbolize hierarchy and control. Throughout the postsurvey responses, participants stated their expectations to be able to exercise their professional beliefs and visions but did so in a discourse of conformity. Their entries epitomized a normative assumption that they would be able to cultivate their experiences as novice teachers, but conversely, would have to manifest their educational philosophies in respect to the political and discursive positioning of the hierarchical power structures. They expected to implement their educational ideologies both in their classroom practice and in the larger school community, but they framed this understanding in a discourse of traditional organizational power structures. These expressions suggest an uncritical acceptance of authority and a submissive commitment to what they expect will be a more sophisticated value system. Such a finding is contrary to literature that situates organizational commitment as stemming from the communal construction of an organizational vision that is relevant and meaningful to all staff (Leithwood & Jantzi, 2005; Yu, Leithwood, & Jantzi, 2002).

Of contextual relevance to this research is the fact that new teachers' preliminary stages of professional induction are characteristic of high energy levels and idealistic conceptions of teaching and learning despite the fact that they are obviously low in competence (Blanchard, 1990; Marshall et al., 2004). Also noteworthy to the interpretation of the results are both new teachers' varying degrees of dependency in their preliminary years of practice and the disillusionment they incur during their induction (Achinstein & Villar, 2002). The division between the expectations and perceived realities of collaboration may be especially disadvantageous to new teachers' socialization into professional

communities of inquiry (Chubbuck, Clift, Allard, & Quinlan, 2001; Kelchtermans & Ballet, 2002). Novice teachers prefer to be enculturated into professional and collegial communities that honor their voices (Spindler & Biott, 2000). They expect to serve critical roles in collaborative professional networks where their contributions are valued by colleagues and administrators (Martin & Rippon, 2003). Central to new-teacher development is their identity formations within these support networks and the school community (Rippon & Martin, 2006).

Limitations

The mixed-method design implemented in this research study addressed political legitimation by implementing comprehensive qualitative and quantitative techniques; nevertheless, replications of this scholarly inquiry would further address the reliability of its findings. According to Onwuegbuzie and Johnson (2006), other mixed-methods research designs applied to a similar context could acknowledge sequential and conversion legitimation.

Further, the study's results are not necessarily generalizable beyond the sample from one preservice teacher-education program in an Ontario university. The findings of the study would be strengthened if applied using the same research procedure to other consecutive education students from the various faculties of education situated across the province.

Finally, a minor adjustment in the postpracticum qualitative survey may have resulted in additional useful information. The change, which would be in the second part of the question in order to maintain consistency within the question, would be from one of the following: "Describe examples of how collaboration was embedded in the routines and practices of schools to improve student learning;" "Explain why you believe collaboration was not embedded in the routines and practices of schools to improve student learning;" "If collaboration was not embedded in the routines and practices of the school, explain how it might have been in order to improve student learning."

Summary

The characteristics of schools as professional communities of inquiry to improve teaching and learning that were explored in this research were purposefully selected based on an extensive initial review of the literature. The results of the study underscore a significant phenomena; namely, the distinctive circumstances of student-teacher practicums profoundly impacts upon candidates' perceptions of schools as professional communities of inquiry. In both the qualitative and quantitative postpracticum survey results, participants' perceptions of schools as communities of inquiry dedicated to teaching and improving student learning were significantly lower than their expectations prior to the field placements.

The results of this study reflect teacher-candidates' observations of the professional norms, organizational governance, collective learning, and school conditions that foster professional communities of inquiry. Preservice education professors might note the extent to which student teachers' practicum experiences erode the research-informed perspectives espoused at the faculty of education. It may be equally prudent for school board induction providers to address the organizational realities of the professional school communities into which they are inducting novice teachers.

References

- Achinstein, B., & Villar, A. (2002, April). The politics of the mentoring process for beginning teachers: Tensions and negotiations. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Aldrich, H. E., & Ruef, M. (2006). *Organizations Evolving*. Thousand Oaks, CA: Sage.
- Anderson, S., & Togneri, W. (2002). *Beyond islands of excellence: What districts can do to improve instruction and achievement in all schools*. Washington, DC: Learning First Alliance.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman.

- Blanchard, K. (1990). *Situational leadership II and the stages of group development*. Escondido, CA: Training and Development.
- Bohm, D. (1990). *On dialogue*. Cambridge, MA: Pegasus Communication.
- Bryk, A., Camburn, E., & Louis, K. S. (1999). Professional community in Chicago elementary schools: Facilitating factors and organizational consequences. *Educational Administration Quarterly*, 35, 751–781.
- Bryk, A., & Driscoll, M. E. (1988). *The high school as community: Contextual influences and consequences for students and teachers*. Madison, WI: National Center on Effective Secondary Schools.
- Bryk, A., & Schneider, B. (2004). *Trust in schools: A core resource for improvement*. New York: Russell Sage Foundation.
- Bullough, R. (1992). Beginning teacher curriculum decision making, personal teaching metaphors, and teacher education. *Teaching and Teacher Education*, 8, (N)239–52.
- Calderhead, J., & Robson, M. (1991). Images of teaching: Student teachers' early conceptions of classroom practice. *Teaching and Teacher Education*, 7, 1–8.
- Calvert, G., Mobley, S., & Marshall, L. (1994). Grasping the learning organization. *Training*, 48(6), 38–43.
- Cherubini, L. (in press). Teacher candidates' perceptions of principal and teacher leadership: A fundamental disconnect. *Leadership Review*.
- Cherubini, L. (2007). Un impianto originale per un progetto di grounded theory: Una riflessione critica. *Encyclopaideia*, 21, 101–118.
- Cherubini, L. (2008). A grounded theory analysis of beginning teachers' experiences: Illuminating leadership capacities. *International Journal of Teacher Leadership*, 1(1), 22–38.
- Chubbuck, S. M., Clift, R. T., Allard, J., & Quinlan, J. (2001). Playing it safe as a novice teacher: Implications for programs for new teachers. *Journal of Teacher Education*, 52(5), 365–376.
- Creswell, J. W., & Plano Clark, V. L. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage.
- Creswell, J. W., Plano Clark, V. L., Gutmann, M., & Hanson, W. (2003). Advanced mixed methods research designs. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research* (pp. 209–240). Thousand Oaks, CA: Sage.
- Cunningham, W. G., & Cordeiro, P. A. (2006). *Educational leadership*. New York: Pearson.
- Cunningham, W. G., & Gresso, D. W. (1993). *Cultural leadership: The culture of excellence in education*. Boston: Allyn and Bacon.
- Daft, R., & Marcic, D. (1998). *Understanding management*. Fort Worth, TX: The Dryden Press.
- Dessimone, L. (1999). Linking parent involvement with student achievement. *Journal of Educational Research*, 93, 1–30.
- Dufour, R. E., & Eaker, R. (1998). *Professional learning communities at work: Best practices for enhancing student achievement*. Bloomington, IN: National Educational Services.
- Elliot, J. (2005). *Using narrative in social research: Qualitative and quantitative approaches*. London: Sage.
- Epstein, J. L. (1992). School and family partnerships. In M. Alkin (Ed.), *Encyclopedia of educational research* (6th ed., pp. 1139–1152). New York: Macmillan.
- Epstein, J. L., & Sheldon, S. B. (2002). Present and accounted for: Improving student attendance through family and community involvement. *Journal of Educational Research*, 95(5), 308–318.
- Evans, R. (1996). *The human side of school change*. San Francisco, CA: Jossey-Bass.
- Fielding, M. (2001). *Taking education really seriously: Four years' hard labour*. New York: Routledge Press.
- Fiol, C. M. (1991). Managing culture as a competitive resource. *Journal of Management*, 17(1), 191–211.
- Foster, R. (2004). Leadership and secondary school improvement: Case studies of tensions and possibilities. *International Journal of Leadership in Education*, 8(1), 35–52.
- Fullan M. (2002, April). The role of the district: Professional development and district reform. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

-
- Fullan, M. (2003). *Change forces with a vengeance*. London: Routledge Press.
- Gamoran, A., Secada, W., & Marrett, C. (2000). The organizational context of teaching and learning: Changing theoretical perspectives. In M. T. Hallinan (Ed.), *Handbook of sociology of education* (pp. 37–64). New York: Kluwer Academic Publishers.
- Glaser, B. G. (1978). *Theoretical sensitivity: Advances in the methodology of grounded theory*. Mill Valley, CA: The Sociology Press.
- Glaser, B. G. (1992). *Basics of grounded theory analysis: Emergence vs. forcing*. Mill Valley, CA: Sociology Press.
- Glaser, B. G., & Strauss, A. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine.
- Glesne, C. & Peshkin, A. (1992). *Becoming qualitative researchers: An introduction*. White Plains, NY: Longman.
- Gorton, R., Alston, J. A., & Snowden, P. (2007). *School leadership and administration*. New York: McGraw-Hill.
- Gottfredson, G., Gottfredson, D., Payne, A. A., & Gottfredson, N. (2003). School climate predictors of school disorder: Results from the National Study of Delinquency Prevention in Schools. Manuscript submitted for publication.
- Guillaume, A., & Rudney, G. (1993). Student teachers' growth toward independence: An analysis of their changing concerns. *Teaching and Teacher Education*, 9(1), 65–80.
- Hanson, W. E., Creswell, J. W., Plano Clark, V. L., Petska, K. P., & Creswell, J. D. (2005). Mixed methods research designs in counseling psychology. *Journal of Counseling Psychology*, 52(2), 224–235.
- Hara, N. (2001, April). *Formal and informal learning: Incorporating communities of practice into professional development*. Paper presented at the annual meeting of the American Educational Research Association, Seattle, WA.
- Hargreaves, A., & Fink, D. (2006). *Sustainable leadership*. San Francisco, CA: Wiley.
- Hargreaves, A., & Stone-Johnson, C. (2004). *Evidence-informed change and the practice of teaching*. Paper presented at the MacArthur Foundation Symposium on Evidence-Based Education Reform, Cambridge, MA.
- Harris, A. (2002). *Leadership in schools facing challenging circumstances*. Paper presented at International Congress of School Effectiveness and School Improvement, Copenhagen, Denmark.
- Hidalgo, N. M., Bright, J., Sui, S. F., Swap, S., & Epstein, J. (1995). Research on families, schools and communities. In J. A. Banks & C. A. Banks (Eds.), *Handbook of research on multicultural education* (pp. 498–524). New York: Macmillan.
- Hill, N. D., & Craft, S. A. (2003). Parent-school involvement and school performance. *Journal of Educational Psychology*, 95, 74–83.
- Hord, S. M. (1997). *Professional learning communities: Communities of continuous inquiry and improvement*. Austin, TX: Southwest Educational Development Laboratory.
- Ingram, H., & Smith, S. R. (Eds.). (1993). *Public policy for democracy*. Washington, DC: The Brookings Institute.
- Johnson, D. W., & Johnson, R. T. (1998). *Learning together and alone: Cooperative, competitive and individualistic learning* (5th ed.). Boston, MA: Allyn and Bacon.
- Johnson, P. E. (2005). Organizational justice, language and the sexually specific subject. *Gender Issues in Leadership*, 33(2), 60–68.
- Kelchtermans, G., & Ballet, K. (2002). The micro politics of teacher induction. *Teaching and Teacher Education*, 18, 105–120.
- Lee, V. E., Bryk, A. S., & Smith, J. B. (1993). The organization of effective secondary schools. In L. Darling-Hammond (Ed.), *Review of research in education* (Vol. 19; pp. 171–267). Washington, DC: American Education Research Association.
- Lee, V. E., Smerdon, B. A., Alfeld-Liro, C., & Brown, S. L. (2000). Inside small and large high schools: Curriculum and social relations. *Educational Evaluation and Policy Analysis*, 22(2), 147–171.
-

- Leithwood, K., & Jantzi, D. (2005). A review of transformational school leadership research 1996–2005. *Leadership and Policy in Schools*, 4(17), 177–199.
- Lieberman, A. (1996). Creating intentional learning communities. *Educational Leadership*, 54(3), 51–55.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Beverly Hills, CA: Sage.
- Lipshitz, R., Friedman, V. J., & Popper, M. (2007). *Demystifying organizational learning*. Thousand Oaks, CA: Sage.
- Marshall, J. C., Pritchard, R. J., & Gunderson, B. H. (2004). The relation among school district health, total quality principles for school organization and student achievement. *School Leadership & Management*, 24(2), 175–190.
- Martin, M., & Rippon, J. (2003). Teacher induction: Personal intelligence and the mentoring relationship. *Journal of In-Service Education*, 29(1), 141–162.
- Maxwell, J. A. (2005). *Qualitative research design: An interactive approach* (2nd ed.). Thousand Oaks, CA: Sage.
- Menon, M. E., & Christou, C. (2002). Perceptions of future and current teachers on the organization of elementary schools: A dissonance approach to the investigation of job satisfaction. *Educational Research*, 44(1), 97–110.
- Merriam, S. (1988). *Case study research in education: A qualitative approach*. San Francisco: Jossey-Bass.
- Mitchell, C., & Sackney, L. (2000). *Profound improvement: Building capacity for a learning community*. Downingtown, PA: Swets & Zeitlinger.
- Morgan, G. (2006). *Images of organization*. Thousand Oaks, CA: Sage.
- Murmane, R. J., Singer, J. D., Willet, J. B., Kemple, J. J., & Olsen, R. J. (1991). *Who will teach? Politics that matter*. Cambridge, MA: Harvard University Press.
- Newman, I., & Benz, C. R. (1998). *Qualitative-quantitative research methodology: Exploring the interactive continuum*. Carbondale, IL: Southern Illinois University Press.
- Onwuegbuzie, A. J., & Johnson, R. B. (2006). The validity issue in mixed research. *Research in the Schools*, 13(1), 48–63.
- Onwuegbuzie, A. J., Witcher, A. E., Collins, K. M., Filer, J. D., Wiedmaier, C. D., & Moore, C. W. (2007). Students' perceptions of characteristics of effective college teachers: A validity study of a teaching evaluation form using a mixed-methods analysis. *American Educational Research Journal*, 44(1), 113–160.
- Oplatka, I. (2004). The characteristics of the school organization and the constraints on market ideology in education: An institutional view. *Journal of Education Policy*, 19(2), 143–161.
- Pajak, E., & Green, A. (2003). Loosely coupled organizations, misrecognition, and social reproduction. *International Journal of Leadership in Education*, 6(4), 393–413.
- Pegal, C. C. (1998). *Handbook of strategies and tools for the learning company*. Portland, OR: Productivity Press.
- Purkey, S. C., & Degen, S. (1985, Spring). Beyond effective schools to good schools. *R & D Perspectives*, 1–6.
- Razik, T. A., & Swanson, A. D. (2001). *Fundamental concepts of educational leadership*. Upper Saddle River, NJ: Prentice-Hall.
- Reilly, B. J., & DiAngelo, J. A. (1990, February). Communication: A cultural system of meaning and value. *Human Relations* 5, 129–140.
- Reynolds, A. (1991). Early schooling of children at risk. *American Educational Research Journal*, 28, 392–422.
- Rippon, J. H., & Martin, M. (2006). What makes a good induction supporter? *Teaching and Teacher Education*, 22, 84–99.
- Robledo Montecel, M. (1993). *Hispanic families as valued partners: An educator's guide*. San Antonio, TX: Intercultural Development Research Association.
- Ross, W. M. (2005). *Doing qualitative research*. Rotterdam, Netherlands: Sense Publishers.

-
- Sarason, S. B. (1996). *Barometers of change: Individual educational social transformation*. San Francisco: Jossey Bass.
- Scott, W. R. (1995). *Institutions and organizations*. Thousand Oaks, CA: Sage.
- Senge, P., Kleiner, A. C., Roberts, C., Ross, R., & Smith, B. (1994). *The fifth discipline fieldbook: Strategies and tools for building a learning organization*. New York: Currency Doubleday.
- Sheldon, S. B. (2005). Testing a structural equation model of partnership program implementation and parent involvement. *The Elementary School Journal*, 106(2), 171–187.
- Sheldon, S. B., & Epstein, J. L. (2003, April). *School programs of family and community involvement*. Paper presented at the meeting of the Developing Literacy for Students in Urban Schools: Research and Policy, International Reading Association, and Urban Partnership, San Diego, CA.
- Smylie, M., Conley, S., & Marks, H. (2002). Exploring new approaches to teacher leadership for school improvement. In J. Murphy (Ed.), *Educational leadership challenge: Redefining leadership for the 21st century* (pp. 162–188). Washington DC: American Educational Research Association.
- Spindler, J., & Biott, C. (2000). Target setting in the induction on newly qualified teachers: Emerging collegueship in a context of performance management. *Educational Research*, 42(3), 275–285.
- Stein, M. K., Smith, M. S., & Silver, E. A. (1999). The development of professional developers: Learning to assist teachers in new settings in new ways. *Harvard Educational Review*, 69, 237–270.
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage.
- Swennen, A., Jorg, T., & Korthagen, F. (2004). Studying student teachers' concerns, combining image-based and more traditional research techniques. *European Journal of Teacher Education*, 27(3), 265–283.
- Tashakkori, A., & Teddlie, C. (Eds.). (2003). *Handbook of mixed methods in social and behavioral research*. Thousand Oaks, CA: Sage.
- Tashakkori, A., & Teddlie, C. (2006). *Validity issues in mixed methods research: Calling for an integrative framework*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.
- Watkins, K., & Marsick, V. (1993). *Sculpting the learning organization: Lessons in the art and science of systemic change*. San Francisco: Jossey-Bass.
- Welsh, W. (2000). The effects of school climate on school disorder. *Annals of AAPSS*, 567, 88–107.
- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge, UK: Cambridge University Press.
- Western Michigan University Evaluation Center (2005). *The NASSP school climate survey: Description of the instrument*. Retrieved November 17, 2006 from <http://www.wmich.edu/evalctr/charter/pacharter/climate.html>
- Westheimer, J. (1999). Communities and consequences: An inquiry into ideology and practice in teachers' professional work. *Educational Administration Quarterly*, 35(1), 75–94.
- Williams, A. (2005). Class, race, and power: Interest group politics and education. *The Urban Review*, 37(2), 127–147.
- Young, I. M. (2000). *Inclusion and democracy*. Oxford: Oxford University Press.
- Yu, H., Leithwood, K., & Jantzi, D. (2002). The effects of transformational leadership on teachers' commitment to change in Hong Kong. *Journal of Educational Administration*, 40(4), 368–389.
- Zhu, E., & Baylen, D. M. (2005). From learning community to community learning: Pedagogy, technology and interactivity. *Educational Media International*, 42(3), 251–268.
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Appendix A
Core Categories Grounded in Qualitative Data: Pre- and Postsurveys

- (i) *Schools will be organized so that both new and experienced teachers have opportunities to fulfill their own visions and beliefs (presurvey—question 1).*
 - (ii) *Do you expect administrators and teachers (regardless of their years of experience in teaching) to work collaboratively to improve student learning? If not, explain why (presurvey—question 2).*
 - (iii) *Describe examples of how collaboration was embedded in the routines and practices of schools to improve student learning (postsurvey). Or, explain why you believe collaboration was not embedded in the routines and practices of schools to improve student learning (postsurvey).*
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- 22–29 cohort
Presurvey—question 1:
High expectation that professional autonomy will exist in each school but qualify that personal vision and belief must conform to school and principal paradigms
Presurvey—question 2:
Teachers as integral to faculty team and a vital part of the communication between colleagues, administrators, and students
Postsurvey:
Observed collaboration in schools consisted of managerial routines and resource-sharing
- 30–39 cohort
Presurvey—question 1:
Vision of school administration takes priority over individual beliefs and perceptions
Presurvey—question 2:
Collaboration understood as support networks to enable students to achieve and reach their potential
Postsurvey:
Collaboration not an embedded process and resigned to the initiative of individual teachers
- 40+ cohort
Presurvey—question 1:
Cautionary optimism; expected school organization to facilitate their visions but had reservations that this would be the case
Presurvey—question 2:
A distinguished appreciation and expectation for school administrators to take the lead in facilitating opportunities to collaborate
Postsurvey:
Evidence of collaboration limited to colleagues assisting one another with daily management routines
- Females
Presurvey—question 1:
An acknowledgment of the ideal and what was expected to be more realistic perspectives
Presurvey—question 2:
Collaboration as a continuous conversation and constructive dialogue between teachers, administrators, parents, and students
Postsurvey:
Collaboration as a product of same grade/division/department teachers when it existed

- Males
Presurvey—question 1:
A recognition of the importance of fulfilling personal vision, but an expectation that school organization may not allow for it
Presurvey—question 2:
Collaboration as a complex and tenuous process
Postsurvey:
Collaboration as a product of same grade/division/department teachers when it existed
- Intermediate/Senior Qualifications
Presurvey—question 1:
Respect and tolerance for professional autonomy to exist under the condition that they are aligned with principal's vision
Presurvey—question 2:
School organization to facilitate collaboration, but reservations exist regarding the commitment from experienced teachers
Postsurvey:
Endeavors to strengthen authentic student learning not visibly evident
- Primary/Junior Qualifications
Presurvey—question 1:
New teachers' visions valuable for the contribution they can make to the school, but significant qualification exists that personal beliefs have to be tightly aligned with principal's vision
Presurvey—question 2:
Specific attention to elements of programming to address authentic student learning
Postsurvey:
Collaboration perceived as informal and haphazard

Student Learning in a Professional Development School and a Control School

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Abstract

This study investigated the impact of a Professional Development School (PDS) on student learning by comparing student achievement in a PDS and a control school. Student achievement data were collected from an elementary PDS and a matched control school over a 6-year period. The results indicate that the PDS moved more students up to mastery level and more students out of intervention level on state standardized tests than the control school. PDS development descriptions and standards ratings are used to provide a picture of PDS partnership building and a context for the findings. The PDS Standards Student Learning Pyramid is used to interpret the impact of PDS partnership activities on student learning increases.

Purpose

This study investigates the impact of a Professional Development School (PDS) on student learning when compared with a control school. PDS programs involve schools and universities as partners in joint efforts to improve teacher preparation, student learning, professional development, and inquiry-based practice (Levine, 1992; Trachtman, 1998). Those involved in PDSs attest to their value, but research-based connections between PDS activities and school improvement have been difficult to establish (Abhal-Haqq, 1998; Book, 1996; Teitel, 1998; Valli, Cooper, & Frankes, 1997). Most schools have improvement initiatives, either internally developed or externally mandated. What, then, is unique about the PDS model? And what difference does it make in schools? These are critical questions given the intensive and expensive nature of PDS work.

While anecdotal evidence accumulated, little research addressed the impact of PDSs on student achievement (Abdal-Haqq, 1998; Teitel, 1998). However, Teitel (2004) recently highlighted a growing body of research, focusing on the impact of PDSs on student learning. The research looks at such factors as achievement gains and dropout and graduation rates. Standardized test scores are used as achievement measures, but results are often inconclusive, lack comparative studies, or do not address the question of which specific aspects of PDS activities contribute to student learning (Castle, 2001; Grossman, 1994; Pine, 2003).

Compounding the problem of studying student achievement in PDSs is the complexity of factors that affect both PDS work and student learning in these settings. PDSs vary considerably in the activities they undertake, the number of school and university faculty involved, and the number of years required to build effective, collaborative partnerships and to institutionalize complex changes (Fullan, 2001).

In order to control for some of the variance and to explain some of the complexity, this study used a control school design in which a PDS and a non-PDS school were matched on achievement and demographic variables and then compared over a 6-year period. To explain differences in student learning between the PDS and control school, PDS activities and standards ratings were described in some detail so that factors impacting student learning might become evident. In an effort to assist in identifying and relating these complex factors, PDS development and student learning outcomes were mapped onto the PDS Standards Student Learning Pyramid described below (Teitel, 2003).

Teitel (2003) proposed a “logic model” for PDS research in an attempt to increase the explanatory power of findings through a theoretical framework. The model is a pyramid based on the PDS standards (National Council for Accreditation of Teacher Education [NCATE], 2000a). At the base of the pyramid are partnership foundations (indicated by the standards of Collaboration and Structures, Resources, and Roles). In the middle are new approaches to teaching and learning (indicated by the standard of Learning Community). At the top of the pyramid are desired outcomes for K–12 students and preservice and practicing teachers. Along the sides are supports (indicated by the standards of Accountability and Quality Assurance and Diversity and Equity). The logic model begins at the bottom and progresses upward. Thus, the logic model suggests that partnership foundations lead to new approaches to teaching and learning, which lead to desired outcomes for teachers and students. This model provides the theoretical framework for the current study.

Research Questions

What is the impact of the PDS model on student learning? Specifically, is there a difference in student learning over time between a PDS and a control school?

Background

PDS Network Context

The PDS in this study was part of a larger PDS network at a regional university. The PDS network had been in existence for 8 years and included eight schools. PDS activities focused on improvement in four primary areas: 1) teacher education; 2) student achievement; 3) school improvement; and 4) professional development and collegial exchange. Day-to-day operations of the network were governed by university and school faculty who met regularly to coordinate activities and to determine policies. Work at each school was coordinated by a leadership team consisting of the principal, university facilitator, and school-based site facilitator (in this case, the instructional resource teacher, or IRT). The university faculty member was provided released time for PDS responsibilities.

Description of the PDS

SL Elementary School (K–6) was located in a low income, priority-needs school district adjacent to a northeastern city and was one of the two most economically disadvantaged schools in the district. It was considered a low-performing school. The total student body was 450, with 59% on free or reduced lunch, 80% minority, 15% English language learners (ELLs), and 26% transient. Only 45% of fourth graders attained “mastery” on the state standardized test in reading.

The goal set by this particular school district was for each school to increase the percentage of students at mastery by 10% each year on the state standardized tests. This particular state reports, in addition to raw test scores, the percentage of students who have reached one of three levels of attainment: 1) *Mastery*—students who are at or above the state goal; 2) *Proficiency*—students who are slightly below the state goal; and 3) *Intervention*—students who are well below the state goal. For example, in reading, the mastery (or “at goal”) level is 50, and the intervention level is 41. Students who receive a score of 50 or above are identified as being “at mastery.” Students who receive a score of 41 or below are identified as being “at intervention.” Students in between (42–49) are identified as being “at proficiency.” Each year, reports sent by the state to each school and district include the percentage of students at mastery, proficiency, and intervention in reading, writing, and math. In addition, it is these percentages that are reported in local newspapers to inform the public about student achievement in particular schools.

During PDS leadership team discussions, the principal noted that moving students from proficiency up to mastery was a challenge, but one that could be met since these students were close to the goal and generally needed only individual or small-group review or remediation of content and skills. The bigger challenge was to move students from intervention up to mastery; these students were significantly below grade-level expectations and often had learning difficulties that would require

intensive, individualized interventions. PDS discussions of student learning focused increasingly on what needed to happen in the school in order to move proficiency and intervention students to mastery. Because of these challenges, the district's 10% goal, and reporting of percentages to the public, the PDS leadership team decided to use the level of attainment percentages to investigate the impact of the PDS on student learning and to compare the changes in percentages to a control school in the same district. This decision was in line with Teitel's (2004) call for research citing learning gains.

"PDSness"

PDSs differ in their level of implementation. The PDS standards ratings (NCATE, 2000a) provide context for the level of "PDSness" present in a school. This network was promoting the use of the PDS standards for systematic assessment after several years of using them for reflection and reporting. Thus, the leadership team at the school in the current study initiated and conducted a modified version of the NCATE PDS self-study process (NCATE, 2000b) at the beginning of its 4th year as a PDS. Each member of the team completed the PDS self-assessment instrument, which included rating the school based on PDS standards on a developmental continuum, and then substantiating the ratings with evidence. The team members then discussed their ratings in order to seek agreement. The leadership team's self-assessment was shared at an end-of-year faculty meeting to solicit additional input and to confirm the ratings. After agreement was reached, the ratings formed the basis for goal setting and action planning for the next year.

The results of the PDS self-study showed that the faculty rated their PDS on Collaboration as "at standard," on Structures and Roles as "developing," on Learning Community as "at standard," on Accountability as "developing," and on Diversity and Equity as "developing" (Table 1). They rated three subelements as "beginning," eight elements as "developing," eight elements as "at standard," and two elements as "leading." Thus, in their 4th year as a PDS, they perceived themselves as being at or above standard on about half of the elements with only three at the beginning level. The results showed particular strengths on two standards: Learning Community and Collaboration. Thus, based on the description of PDS development and the standards ratings, the school could be considered a mature and full-service PDS.

Table 1
Ratings on PDS Standards

Standard	Element	Rating
Collaboration		At standard
	Engages in joint work	At standard
	Designs roles and structures	At standard
	Recognizes joint work and individual contribution	Beginning
Structures		Developing
	Establishes governance and support structures	Developing
	Ensures progress toward goals	Developing
	Creates PDS roles	Developing
	Resources	Leading
	Uses effective communication	Developing

Table 1 (continued)

Standard	Element	Rating
Learning community		At standard
	Supports multiple learners	At standard
	Inquiry-based and focused on learning	At standard
	Shared professional vision	Leading
	Instrument of change	At standard
	Extended learning community	Developing
Accountability		Developing
	Develops professional accountability	At standard
	Assures public accountability	Beginning
	Sets PDS criteria	Developing
	Develops assessments, collects, and uses data	At standard
	Engages with PDS context	Developing
Diversity and equity		Developing
	Ensures equitable opportunities to learn	Beginning
	Evaluates practices to support equitable learning	At standard
	Recruits and supports diverse participants	Beginning

Method

Selection of a Control School

A control school was identified by the school district based on: 1) percentage of students on free and reduced lunch; 2) percentage of students representing ethnic minorities; 3) percentage of ELLs; 4) percentage of transient students; and 5) percentage of students at mastery on the fourth-grade state standardized test in reading. None of these factors differed between the PDS and control school by more than 4%. It was considered a low-performing school, as was the PDS, and had the same district mandate of increasing the percentage of students at mastery by 10%.

Data Collection and Analysis

Data sources. Levels of attainment on the state standardized tests were used in reading, writing, and math for fourth and sixth grades for 6 years: 2 pilot PDS years and 4 full PDS years. The school district provided individual student results by school on a data disk. The data were then transferred to SPSS files and checked for accuracy, consistency, and missing data.

This particular state's standardized test, the Connecticut Mastery Test (CMT), has been shown to possess strong reliability and validity. In the construction of the CMT, the State Department of Education initiated a rigorous and systematic process that involved various phases of standards-setting and norm-setting, as well as implementation of a pilot test year. The results reveal consistently high test-reliability indices and content validity across the various subtests of the reading, writing, and math tests (Connecticut State Department of Education [CSDE], 1999a, 1999b, 2004). During the 6-year period of this study, two different test forms were used: Generation 2 spanned 1993–1999, and Generation 3 spanned 2000–2004. These two versions were compared with confidence since the different generations

were constructed to ensure that “all test forms must be parallel or equivalent so that appropriate comparisons can be made from one form on the CMT to another” (CSDE, 1999b, p. 26).

Data analysis. The percentages of students at mastery and at intervention on the state standardized tests were calculated and compared descriptively. The percentage of students at each of the three levels was obtained from the data files for the PDS, the control school, and the district. These percentages were charted over time, comparing the percentage of students at mastery and intervention in the PDS, the control school, and the district in reading writing, and math. The percentages were charted, comparing the same cohort of students in fourth and sixth grades. This enabled identification of the percentage of students who moved to the mastery level between the 2 testing years. Changes in the percentage of students at mastery and intervention were calculated.

Results

Percentage of Students at Mastery

Table 2 shows the percentage of students at mastery and compares the PDS, the control school, and the district. The PDS increased the percentage of students at mastery to a greater extent than the control school on 9 of the 12 tests (75%): all 4 reading tests, 2 of the writing tests, and 3 of the math tests. In addition, the PDS increased the percentage of students at mastery to a greater extent than the district on 5 of the 12 tests (42%): 2 of the reading tests, 1 of the writing tests, and 2 of the math tests. The PDS met the district goal in increasing the percentage of students at mastery on 4 of the tests (2 reading and 2 writing); the control school met the goal on 2 of the tests (1 reading and 1 writing); and the district, as a whole, met the goal on 5 of the tests (3 reading and 2 writing).

Table 2

Change in Percentage of Students at Mastery Between Fourth and Sixth Grades in the PDS, Control School, and District by Subject and Year

Subject	Pilot 1	Pilot 2	Year 1	Year 2	Year 3	Year 4	Change
Reading							
PDS	15		50				+35**
Control	38		51				+13
District	34		52				+18
PDS		31		46			+15*
Control		39		36			- 3
District		45		61			+16
PDS			40		48		+ 8*
Control			38		36		- 2
District			43		55		+12
PDS				30		37	+ 7**
Control				34		38	+ 4
District				42		46	+ 4

Table 2 (continued)

Subject	Pilot 1	Pilot 2	Year 1	Year 2	Year 3	Year 4	Change
Writing							
PDS	40		21				-19
Control	37		51				+14
District	40		46				+6
PDS		38		60			+22**
Control		38		37			- 1
District		40		54			+14
PDS			29		39		+10*
Control			52		35		-17
District			48		59		+11
PDS				61		41	-20
Control				49		40	- 9
District				58		47	-11
Math							
PDS	60		42				-18
Control	50		42				- 8
District	46		42				- 4
PDS		40		44			+ 4**
Control		58		52			- 6
District		52		49			- 3
PDS			32		26		- 6**
Control			50		33		-17
District			48		40		- 8
PDS				41		22	-19*
Control				57		28	-29
District				49		33	-16
Greater increase for PDS than Control							9/12
Greater increase than District							5/12

*PDS had greater increase than control

**PDS had greater increase than PDS and district

Note. The first number on each line is the percentage of students at mastery in the fourth grade; the second number on the line is the percentage of students at mastery for the same group of students in the sixth grade.

Table 3 shows the mean and range of the increases in percentages of students at mastery for the PDS, control school, and district averaging the 6 years. In reading, the PDS had the highest mean at +17%, indicating that over 6 years, the PDS had moved 17% more students to the mastery level. The district mean was +13, and the control school mean was +3. In writing, the district had the highest mean of +5. The PDS and control school both had negatives means, but the PDS showed a smaller decrease than the control school. The same pattern was evident in math.

Table 3
Average Increase in Percentage of Students at Mastery for PDS, Control School, and District over 6 Years

	Mean	Range	% of Tests with Increase
Reading			
PDS	+17	-7 to +35	100
Control	+3	-2 to +13	50
District	+13	+4 to +18	100
Writing			
PDS	-1.75	-20 to +22	50
Control	-3.25	-17 to +14	25
District	+5	-11 to +14	75
Math			
PDS	-9.75	-19 to +4	25
Control	-15	-29 to -6	0
District	-7.75	-16 to -4	0

Percentage of Students at Intervention

The mastery results showed clear indications that the PDS had moved more students to mastery than the control school. These students could have moved to mastery from the proficiency or intervention levels. In order to analyze the impact of the PDS on the lowest achieving students, the intervention data were analyzed (Table 4). The PDS reduced the percentage of students at intervention to a greater extent than the control school on 9 of the 12 tests (75%): 2 in reading, 3 in writing, and all 4 in math. Table 5 shows the mean and range of the decreases in percentage of students at intervention for the PDS, control school, and district averaging the 6 years. In reading, the PDS had the highest mean (moving the highest percentage of students off intervention) at -12%, with the district at -11%, and the control school at -7%. In writing, the district was higher than the PDS (-3 and -1, respectively), while the percentage of students at intervention actually increased in the control school (+2). In math, the PDS had the highest mean (-10%), moving considerably more students off intervention than the district (-1%) or the control school (+1%).

Table 4
Change in Percentage of Students at Intervention Between Fourth and Sixth Grades in the PDS and Control School by Subject and Year

Subject	Pilot 1	Pilot 2	Year 1	Year 2	Year 3	Year 4	Change
Reading							
PDS	46	--	18				-28*
Control	25	--	23				-2
PDS		40	--	19			-21*
Control		28	--	8			-20
PDS			36	--	30		-6
Control			46	--	39		-7
PDS				34	--	41	+7
Control				40	--	41	+1
Writing							
PDS	18	--	24				+6
Control	18	--	3				-15
PDS		7	--	4			-3*
Control		12	--	16			+4
PDS			13	--	2		-11*
Control			8	--	17		+9
PDS				2	--	6	+4*
Control				3	--	11	+8
Math							
PDS	23	--	9				-14*
Control	16	--	11				-5
PDS		22	--	4			-18*
Control		12	--	10			-2
PDS			29	--	17		-12*
Control			14	--	15		+1
PDS				20	--	26	+6*
Control				17	--	26	+9
Greater Reductions for PDS							9/12

Note. The first number on each line is the percentage of students at intervention in the fourth grade; the second number on the line is the percentage of students at intervention for the same group of students in the sixth grade.

Table 5
*Average Decrease in Percentage of Students at Intervention for PDS, Control School,
 and District over 6 Years*

	Mean	Range	% of Tests with Decrease
Reading			
PDS	-12**	+7 to -28	75
Control	-7	+1 to -20	75
District	-11	+1 to -17	75
Writing			
PDS	-1*	+6 to -11	50
Control	+2	+9 to -15	25
District	-3	+6 to -9	75
Math			
PDS	-10**	+6 to -18	75
Control	+1	+9 to -5	50
District	-1	+9 to -6	75

*greater decrease for PDS than control

**greater decrease for PDS than control and district

Discussion

This study examined the impact of the PDS model on student learning by comparing a PDS and a control school. The PDS increased the percentage of students at mastery and decreased the percentage of students at intervention to a greater extent than the control school on 75% of the comparisons. This indicates higher levels of student learning in the PDS, particularly for those students at the lowest levels of achievement. If PDSs do indeed have the power to impact the lowest performing students through joint efforts, then a strong case can be made for PDS work in high-needs schools.

PDS Development

One of the difficulties of PDS research is explaining why an identified impact occurred (Teitel, 2004). In order to attempt to explain PDS factors that impacted student learning in this study, it is important to describe the PDS's development in terms of activities and decision points (Table 6).

Pilot. The PDS participated in a pilot project for 2 years. The school began taking student teachers, and a small group of teachers conducted a pilot math project.

Year 1. After 2 pilot years, the school became an official school-wide PDS. All of the major players were new, including the principal, the university facilitator, and the instructional resource teacher (IRT). Initial efforts were directed toward identifying a PDS focus and creating formal structures for sharing and decision making. This began by involving the entire faculty in identifying a vision, mission, and goals for the school. The principal, IRT, and university facilitator convened this process, providing the opportunity for them to "gel" as a leadership team and for all faculty members to be involved in identifying future directions.

Table 6
PDS Development Organized by Year and PDS Standards Student Learning Pyramid

Year	Partnership Foundations	Teaching and Learning	Teaching Outcomes	Students at Mastery
4	Goals 2000 money* Research: student learning* Research: instruction* School improvement committee Collaboration: at standard*	Assessment and flexible grouping Tutors* IRT support Teacher-conversation groups* Learning Community: at standard*	Flexible grouping 92%	Reading +7
3	Goals 2000 money* Research survey* Research: student learning* New university facilitator*	Assessment and flexible grouping Tutors* IRT support Peer coaching*	Flexible grouping 50%	Reading +8 Writing +10
2	Goals 2000 money* Research group established* IRT support Goal groups*	Assessment and flexible grouping Flexible grouping tutors*	Flexible grouping 25%	Reading +15 Writing +22 Math +4
1	PDS began* Leadership team established Vision, mission, goals rewritten* Goals 2000 grant money obtained	Assessment and flexible grouping District professional development IRT support Goal groups*		Reading +35
Pilot	Student teachers	Small math project		

* unique to PDS; not evident in control school

The district had just announced the goal that each school would increase the percentage of students at mastery by 10% a year and mandated a focus on student assessment and flexible grouping in literacy to help achieve that goal. This became the PDS agenda. District-wide professional development provided a knowledge and skill-base on which to build. Goal groups were created to study and design initiatives on each of the school's six goals. In addition, the state began offering Goals 2000 grants for new and continuing PDSs. Joint grant writing involved the principal, the IRT, and the university facilitator. By the end of the 1st year, PDS organizational structures were in place, and a joint focus had been established with money to support it.

Year 2. Year 2 of the PDS partnership focused on initial implementation of assessment and flexible grouping. One key use of the Goals 2000 grant money targeted hiring tutors to assist teachers in conducting flexible group instruction. The tutors worked with classroom teachers to support the instructional needs of students as evidenced in the assessments. The small-group tutors and goal-group faculty became two primary avenues for impacting student learning.

The research agenda started to evolve during the spring. Additional Goals 2000 money became available for small research grants, and the jointly written proposal was funded. A research group of school and university faculty identified research aims and strategies—new territory for the teachers. Four teachers volunteered to join three university faculty. The principal empowered the group to work independently, but he asked the group to keep him informed and to solicit his input at key decision points.

A potential obstacle emerged when the university facilitator accepted a job at another university for the following fall. The members of the partnership contributed to the decision about how to make an effective transition with regard to future university involvement. The university responded quickly by involving two additional faculty members with the research effort; one of the members was designated as the future university facilitator. A smooth transition occurred as a result of anticipation of a change in the leadership team and the need for proactive planning. Furthermore, the original university facilitator was retained as the primary researcher supported by the Goals 2000 funds. Clarity of roles, responsiveness, and a team commitment to moving the partnership forward were critical factors at this juncture.

Year 3. The research group began to study the impact of flexible grouping on student learning. They developed a questionnaire (not reviewed in this paper) and surveyed the school faculty about the progress of the goal groups and other factors that supported and thwarted the implementation of assessment-driven flexible grouping. The research group teachers acted as liaisons to other faculty and worked with the university researcher in collecting and analyzing data. The survey gave them false expectations that all of the answers they sought would be forthcoming. Instead, they realized the limitations of the survey. It did, however, highlight what the teachers and the leadership team were already observing: The goal groups were not having the intended impact. Not all of the groups were meeting on a regular basis, and teachers were feeling that the time spent was not entirely worthwhile. The survey highlighted the need to find more innovative, sustaining structures that could support improvement to classroom instruction.

One of the important roles the teachers served in the research group was to keep the agenda focused on specific, practical needs of the school. The teachers sought research that would help them understand their students and classrooms and design meaningful improvements. The teachers came with concerns about making a difference with transient students. They also came with weariness of responding defensively to the traditional whole-school reporting of achievement data when large numbers of their students had entered the school a month before the testing. Thus, the research agenda was broadened to include tracking those students who remained in the school over a consistent period of time. Standardized tests and additional assessments were used to track these students. At the end of the school year, the university researcher collected student data from multiple assessments, going back 3 years to the 1st year of flexible grouping and to the start of the PDS partnership. The researcher presented the results to the school faculty the following fall.

As flexible grouping continued, teachers sought ways to implement it more effectively. The goal groups were terminated since they did not appear to be having any impact. The leadership team responded by inviting teachers to participate in a peer coaching pilot that would enable veteran teachers to coach beginning teachers on the implementation of flexible grouping. Three pairs of teachers volunteered, participated in initial training, and designated times to observe and coach each other. Based on the feedback received from these teachers, the research group recommended expanding the opportunities for peer coaching.

This provided an important milestone for the PDS partnership's ability to focus more specifically on supporting changes in classroom practices. During Year 2, the IRT estimated that 25% of teachers were using flexible grouping on a consistent bases; during Year 3, her estimate rose to 50%. District professional development on flexible grouping had ended, yet the teachers still had questions about how to implement it. Despite the IRT's presence in classrooms, providing direct assistance and modeling, teachers still had many "how" questions. At this point, several things came together. Given the positive response to peer coaching, the leadership team felt that it was time to situate professional development more broadly within the school. This meant establishing collaborative structures in which teachers could share their expertise, investigate their questions, and problem solve around implementation issues that focused on their specific challenges and successes. Therefore, teacher-conversation groups were started in Year 4. This put classroom instruction at the heart of teachers' discussions about their practice and professional development.

Year 4. Teacher-conversation groups began to meet every 2 weeks for 2 hr in their grade-level teams. The principal, IRT, and university facilitator each assumed responsibility for convening grade-level meetings. The presence of the leadership team members indicated the importance of dedicating time to teacher conversations. Another Goals 2000 grant provided the substitute coverage necessary for teachers to meet together during school. The leadership team created an agenda and a format for keeping minutes that focused the conversations. The teachers supported the continuation of teacher conversations into Year 5.

The Goals 2000 grant provided the necessary resources for the PDS to continue tracking student learning and changes in teaching practice. At periodic points, research reports were presented and discussed at faculty meetings. This increased faculty involvement in making data-driven decisions. In addition, the results were reported to the assistant superintendent. By Year 4, teachers seemed quite comfortable using research to guide instructional decisions in the school. At the same time, the leadership team used the research as a catalyst to form a school improvement committee that was charged with formulating recommendations based on input from all of the school's stakeholders, including students.

Salient factors. It was clear that the strides in teaching and learning made at this PDS could not have been made by any one partner alone. Critical contributions from the partners included principal support and leadership and an unflagging commitment to improving instruction; the expertise of the IRT and her consistent presence in classrooms; smooth leadership transitions; university support (load credit in particular) for PDS work; joint school-university grant writing; PDS-funded flexible group tutors; data collection and analysis focused on the needs of the school; the impact of school and university perspectives on the direction of the research; and jointly designed goals and activities at each step along the way. While the control school had the same district-based resources and support, it did not have a university partner involved in planning, implementation, professional development, and research; grant writing support and PDS grant money; PDS standards to focus work on professional development and student learning; data-driven, whole-faculty decision making; or continuous, professional development through peer coaching and teacher-conversation groups (Table 6).

Results on the PDS Standards Student Learning Pyramid

Organizing PDS activities and outcomes around the PDS Standards Student Learning Pyramid (Teitel, 2003) helps to make sense of the findings (Table 6). Beginning with Year 1 and moving upward

through Year 4, Partnership Foundations, Teaching and Learning activities, and Student Outcomes can be tracked. As collaboration, joint research activities, and school-based professional development increased, so did the percentage of students at mastery to a greater extent than in the control school.

In terms of Partnership Foundations, the PDS rated itself as “at standard” on Collaboration and as “developing” on Structures and Roles. Collaboration was particularly strong in terms of joint work with roles and structures to support it. Structures and Roles was particularly strong in terms of resources for university load credit for PDS work and jointly obtained Goals 2000 grant money. The description of PDS development shows a focus on improving instruction and substantial contributions from each partner. It also shows a growing commitment to research and to using data to design school-based professional development and to track teacher and student progress. This indicates a strong and growing partnership foundation that was collaborative, focused on learning, and inquiry-based. Table 6 shows Goals 2000 money, research, PDS standards by which to assess collaboration and university involvement as unique to the PDS.

Moving up the pyramid to Teaching and Learning, the PDS rated itself as “at standard” on Learning Community. It was particularly strong on having a shared professional vision, as well as support for and a focus on learning. The description of development shows a focus on instruction and assessment, professional development to support the focus, regular grade-level conversations that provided structured forums to discuss teaching and learning concerns, and research activities to assess impact on instructional effectiveness and student learning. Changes in teaching practice were evident in the increasingly pervasive and consistent implementation of flexible grouping. The teachers attributed student learning gains, at least in part, to instruction based on student needs and to helping students stay focused in small groups. As a group, the teachers increased their ability to provide assessment-based, student-centered instruction. The findings indicate a strong learning community that was able to design and implement school-based initiatives that led to improved teaching. Table 6 shows the Goals 2000-funded tutors and school-based professional development in the form of goal groups, peer coaching, and teacher-conversation groups as unique to the PDS.

At the same time, the PDS rated itself as “developing” on Accountability and on Diversity—the sides of the pyramid that keep the PDS focused. As far as Accountability, the PDS was particularly strong in using results to inform decisions. Diversity showed strength in evaluating practices, again showing a focus on inquiry-based decision making, which kept the PDS focused and served as the “glue” for partnership work. However, all three elements rated at the beginning level were within these two standards. Beginning levels for assuring public accountability and recruiting diverse participants suggest the need for more attention to external aspects of PDS work.

Moving up to the top of the pyramid, the data showed improved Student Outcomes, particularly in reading. The percentage of students who moved to mastery and the percentage of students who moved out of intervention changed to a greater extent than in the control school, even though the control school was also focused on the district-mandated flexible grouping and received the same professional development from the district. This indicates that something vital was added by the PDS.

Following the logic model framed by the pyramid, we can conclude that, over the course of PDS development, a collaborative, inquiry-oriented partnership foundation supported a student-focused learning community that impacted student learning. As the partnership collaboration became stronger and more data-based, the focus on school-based professional development and teaching effectiveness gathered momentum (see Castle & Rockwood, 2002 for a study of teacher effectiveness), and the partners were able to respond to the particular needs of the teachers and students in a spiraling fashion that built on previous learning. Money, school-designed professional development, and joint, data-based decision making were unique to the PDS as compared to the control school, indicating factors important to the PDS in impacting student learning.

Most schools have instructional improvement initiatives. Some are school-based, and some are externally mandated. External mandates are often met with skepticism by teachers who do not have passion for the particular mandate, had no voice in its creation, or have been through mandates they

feel made no difference. For this school, the PDS partnership enabled the faculty to turn the mandate into a shared vision for student learning, and it gave them tools to design and track the impact of instructional changes through a focus on inquiry. The PDS partnership provided strength to their school improvement work through mobilization of critical resources (personal and monetary) that the control school did not have and that were directed toward common, school-based goals. These resources included a shared vision; Goals 2000 money; university facilitation; professional development targeted at the specific needs of the teachers and students; student teachers to assist with assessment and flexible group instruction; and school and university inquiry supporting data-based decision making. What came to be a joint responsibility for mandated improvements shared by the school and university enabled the participants to impact student learning to a greater extent than might have occurred otherwise.

The findings indicate that PDS work may have particular impact on the lowest achieving students. If this is indeed the case, then a strong case can be made for PDSs as an avenue for improving teaching and learning in low-achieving schools. The findings also suggest that PDS impacts may be strongest when PDS-supported initiatives are tied to the priorities of the school, the needs of the teachers in implementing new approaches to teaching, and the particular needs of the student population. The findings resonate with school improvement literature that emphasizes the direct connection between school-based professional development and student learning (Fullan, 2001; Lambert, 2003). They indicate that professional development must produce instructional improvements that occur across classrooms and grade levels in order to impact student learning over more than 1 year, making a case for the kind of school-wide focus characteristic of “at standard” PDSs. The findings support the notion of PDSs as school-wide, long-term partnerships that are focused on student learning, professional development, and inquiry in order to impact student learning.

Limitations and Implications

While the findings are positive, there are limitations to the study that impact the strength of the conclusions. Levels of attainment percentages show changes that favor the PDS in a way that is easy to see and is meaningful to the school and the district. However, statistical methods, such as a repeated measures design, would provide statistically stronger results. The inclusion of the details of PDS development illuminate factors that might have contributed to greater student learning in the PDS, but tracking the development of the control school in parallel with the PDS would enable a more exact comparison and better highlight the differences.

The positive findings from this study point toward continued research that seeks to identify the specific factors inherent in PDS work that impact student learning. Research using standardized test results has been largely unsuccessful (Teitel, 2004); the current study suggests that other measures and procedures, such as the levels of attainment percentages and following students who are in the PDS consistently over a period of time, may be more successful at uncovering impact on learning. Future research must continue to focus on finding outcome measures that are simultaneously robust and sensitive. Learning outcome measures must be coupled with levels of PDSness, descriptive information about the unique PDS factors and interventions, and measures of impact on teaching practice as well as learning.

Author note: The study was partially funded by a Connecticut State Department of Education Goals 2000 Grant for Professional Development Schools and by the NEA Professional Development School Research Project. The authors wish to thank Dot Gavalis, Richard Quinn, Jean Ross, and Lynda Green.

References

- Abdal-Haqq, I. (1998). *Professional development schools: Weighing the evidence*. Thousand Oaks, CA: Corwin Press.
- Book, C. (1996). Professional development schools. In J. Sikula, T. J. Buttery, & E. Guyton (Eds.), *Handbook of research on teacher education* (pp. 194–210). New York: Simon & Schuster/Macmillan.
- Castle, S. (2001). *The Teacher Education Initiative student achievement study*. Paper presented as part of a symposium entitled “Seven-site longitudinal study of restructured teacher education programs: Five-year results” at the annual meeting of the American Educational Research Association, Seattle.
- Castle, S., & Rockwood, K. (2002). *Tracking student progress in a Professional Development School*. Paper presented at the annual meeting of the American Association of Colleges of Teacher Education, New York.
- Connecticut State Department of Education. (1999a). *Connecticut Mastery Test: 1999 CMT Program Overview*. Hartford, CT: Author.
- Connecticut State Department of Education. (1999b). *1999 Connecticut Mastery Test Technical Report*. Hartford, CT: Author.
- Connecticut State Department of Education. (2004). *Connecticut Mastery Test Technical Bulletin*. Hartford, CT: Author.
- Fullan, M. (2001). *The meaning of educational change* (3rd ed.). New York: Teachers College Press.
- 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. 55–73). New York: Teachers College Press.
- Lambert, L. (2003). *Leadership capacity for school improvement*. Alexandria, VA: ASCD.
- Levine, M. (1992). A conceptual framework for professional practice schools. In M. Levine (Ed.), *Professional practice schools: Linking teacher education and school reform* (pp. 8–24). New York: Teachers College Press.
- National Council for Accreditation of Teacher Education. (2000a). *Standards for professional development schools*. Washington, DC: Author.
- National Council for Accreditation of Teacher Education. (2001b). *Handbook for assessment of professional development schools*. Washington, DC: Author.
- Pine, G. J. (2003). Making a difference: A professional development school’s impact on student learning. In D. L. Wiseman & S. L. Knight (Eds.), *Linking school-university collaboration and K–12 student outcomes* (pp. 31–47). Washington, DC: American Association of Colleges of Teacher Education.
- Teitel, L. (1998). Professional development schools: A literature review. In M. Levine (Ed.), *Designing standards that work for professional development schools* (pp. 33–80). Washington, DC: National Council for Accreditation of Teacher Education.
- Teitel, L. (2003). *The professional development schools handbook*. Thousand Oaks, CA: Corwin Press.
- Teitel, L. (2004). *How professional development schools make a difference: A review of research* (Rev. 2nd ed.). Washington, DC: National Council for Accreditation of Teacher Education.
- Trachtman, R. (1998). The NCATE professional development school study: A survey of 28 PDS sites. In M. Levine (Ed.), *Designing standards that work for professional development schools* (pp. 81–110). Washington, DC: National Council for Accreditation of Teacher Education.
- Valli, L., Cooper, D. & Frankes, L. (1997). Professional development schools and equity: A critical analysis of rhetoric and research. In M. W. Apple (Ed.), *Review of Research in Education* (22) (pp. 251–304). Washington, DC: American Educational Research Association.

Swimming Upstream: Shifting the Purpose of an Existing Teaching Portfolio Requirement

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Abstract

As teacher-education institutions implement portfolios across contexts and for multiple purposes, assessment of their effectiveness specific to shifting programmatic goals often takes place. At the institution where this research is based, an effort is underway to shift the focus of the current teaching portfolio requirement from an exit or employment focus, summative in nature, to a formative focus where the students' professional growth and development can be represented over time. This paper presents the initial findings from a multiyear study when the Master of Arts in Teaching (MAT) Elementary Certification Program began making this conceptual shift from a summative to formative teaching portfolio requirement. Working within a collaborative partnership model of teacher education, elementary education faculty and seminar instructors worked together to promote such a conceptual change, while serving the needs of both the teacher candidates and the schools in which the teacher candidates complete their fieldwork. Successes and challenges toward this goal focus on communication, knowledge, and support needs of the MAT students, department goals and current practices specific to implementing teaching portfolios, and institutional structures impacting the MAT program and the teaching portfolio requirement. These successes and challenges are discussed in this paper, along with suggestions for how the department will continue to promote the shift in the portfolio's purpose in future years.

Introduction

As teacher-education institutions implement portfolios across contexts and for multiple purposes, assessment of their effectiveness specific to shifting programmatic goals often takes place. At the institution where this research is based, an effort is underway to shift the purpose of the current teaching portfolio requirement from an exit or employment focus, summative in nature, to a formative focus where the students' professional growth and development can be represented over time. Traditionally, exit or employment portfolios are designed to show "best practices" in regard to a teacher candidate's readiness to teach. However, reflective- or growth-and-development portfolios are typically designed to enhance the teacher candidates' understanding of their own development as beginning teachers as they create their portfolios over time. This paper presents the initial findings from a multiyear study when the Master of Arts in Teaching (MAT) Elementary Certification Program began making this conceptual shift from a summative to formative teaching portfolio requirement. Working within a collaborative partnership model of teacher education, elementary education faculty and seminar instructors worked together to promote such a conceptual change, while serving the needs of both the teacher candidates and the schools in which the teacher candidates complete their fieldwork. Additionally, graduate students became partners in this initiative as they communicated their concerns and needs in relation to the new portfolio focus, as well as how the department could best address them during a time of programmatic change. The successes and challenges toward the shift of the portfolio's purpose focus on the knowledge and support needs of the MAT students, department goals and current practices specific to implementing teaching

portfolios, effective communication, and institutional structures impacting the MAT program and the teaching portfolio requirement. The paper concludes with a discussion of how the department will continue to promote the shift in the portfolio's purpose in future years.

Portfolios in Teacher Education

Many preservice teacher-education programs have transitioned to a performance-based mode of assessment in recent years, resulting in the increased use of teaching portfolios (Diez, 1998; Percheone, Pigg, Chung, & Souvney, 2005). Broadly speaking, "teaching portfolios" are defined as a collection of documents and evidence of a teacher's knowledge, experience, and ability. Teaching portfolios have been used to assess the readiness of prospective teachers to receive initial teaching license (Porter, Youngs, & Odden, 2001), as criteria for admission to student teaching (Zeichner, 2000), to support student-teaching experiences (Borko, Michalec, Timmons, & Siddle, 1997), and across entire teacher-education programs (e.g., Snyder, Lippincott, & Bower, 1998). Moreover, given the importance of reflective teaching (Zeichner & Liston, 1996), many teacher educators are using portfolios as a vehicle for preservice teacher reflection (Lyons, 1998). In addition, portfolios are integral to the process of gaining "master teacher" certification via the National Board for Professional Teaching Standards (NBPTS), and portfolios are often examined by states within the process of relicensure of teachers (Zeichner & Wray, 2001). With the increased use of teaching portfolios by teacher-preparation programs, the need to shift and adjust the portfolio's existing purpose to ensure that it complements and reflects programmatic goals could become more commonplace.

Portfolio Definitions

Adapted from professions such as art, photography, fashion, advertising, and architecture, portfolios have historically been comprised of "best practice" samples of professional work, organized and stored in folders, notebooks, and attaché cases (Bird, 1990). The teaching portfolio, while building upon the concept of best practices, expands its boundaries when incorporated as a tool by which to capture the complexity of learning to teach. As Shulman explained in his article, "A Union of Insufficiencies" (1988), teaching portfolios, while holding promise of becoming a more authentic form of evaluation, are but one essential element in a holistic vision for teacher assessment.

Multiple definitions of a teaching portfolio have helped frame an understanding of their purpose and use. From portfolios being seen as a container of documents that provide evidence of someone's knowledge, skills, and dispositions (Bird, 1990), to portfolios being "filled with the evidence of the events of lives in classrooms" (Lyons, 1998, p. 117-8), these definitions stress the nature of the portfolio as a product. However, the definition provided by Wolf and Dietz (1998) embraces a summative approach to teaching portfolios by stating that "a teaching portfolio is a structured collection of teacher and student work created across diverse contexts over time, framed by reflection and enriched through collaboration, that has as its ultimate aim the advancement of teacher and student learning" (Wolf & Dietz, 1998, p. 13). This expanded definition stresses the critical elements of support and collaboration necessary when considering the successful development of a teaching portfolio. The importance of providing support to preservice teachers as they create their teaching portfolios is a central theme of this research and will be discussed later in this article in greater detail.

Types of Teaching Portfolios

There are multiple purposes connected to a teaching portfolio's construction process and product completion (Simmons, 1996). Establishing a clear purpose for the portfolio determines the type of portfolio to be created, facilitates the selection of artifacts and the forms of evidence included, helps to direct the organization and structure of the portfolio, and assists in determining the type of support required (Barton & Collins, 1993; Simmons, 1996; Wolf & Dietz, 1998; Wray, 2007a; Zidon, 1996). Without a defined purpose, the entire process is at risk of turning into a meaningless assignment for both the students and faculty involved. In short, a clearly defined purpose can serve as a guidepost to both students and university faculty in that "once they [the portfolio's purpose(s)] are established, students seek to find and create practices that meet the needs" (Barton & Collins, 1993, p. 202). Several types of teaching portfolios, structured around various purposes, have been identified within the literature and can be classified into three broad categories: the learning portfolio, the certification portfolio, and the employment portfolio. Table 1 illustrates the different types of teaching portfolios, including their purpose and suggestions for content.

Table 1
Types of Teaching Portfolios

Name	Purpose	Contents
<ul style="list-style-type: none"> Entrance portfolio (Zeichner, 1997) 	Used to inform program admission decisions Used to evaluate students' readiness to begin student teaching	Work samples representing students' previous coursework and professional experiences Documents speaking to students' qualifications (i.e., transcripts, letters of recommendation)
<ul style="list-style-type: none"> Developmental/ learning portfolio (Barton & Collins, 1993) 	Documents student learning, growth, and development over time	
<ul style="list-style-type: none"> Inquiry-based portfolio (Grant & Huebner, 1998) 	Focus is on self-designed pedagogical questions	Primarily self-selected evidence: journal entries, observation notes, classroom artifacts including lesson plans, reports, course assignments, assessment tools, and video/ audiotaped lesson instruction
<ul style="list-style-type: none"> Thematic portfolio (Dollase, 1998; Scanlan & Heiden, 1996) 	Narrow focus on one main concept, area of interest, discipline, or issue	Primarily self-selected evidence: journal entries, observation notes, classroom artifacts including lesson plans, reports, course assignments assessment tools, and video/ audiotaped lesson instruction

(table continues)

Table 1 (continued)

Name	Purpose	Contents
<ul style="list-style-type: none"> Reflective portfolio (Lyons, 1998; Snyder, Lippincott, & Bower, 1998) 	Inclusive of the teacher's process of thinking through connections between prior and new knowledge and experiences	Primarily self-selected evidence: journal entries, observation notes, classroom artifacts including lesson plans, reports, course assignments, assessment tools, and video/ audiotaped lesson instruction
<ul style="list-style-type: none"> Certification/ assessment portfolio (Ryan & Kuhs, 1993; Snyder, Lippincott, & Bower, 1998; Wolf & Dietz, 1998) 	Establishes preservice teachers' readiness to receive a course/program grade or certification Coupled with local, state, and national standards and criteria Also can inform programmatic and institutional assessment	Contents are dependent on purpose and institutional requirements and goals Combination of self-selected and prescribed evidence: best practice work examples including lesson plans, assessment tools, educational philosophy statements, video/ audiotape of classroom interactions, formal evaluations, and recommendations from university and school supervisors
<ul style="list-style-type: none"> Employment portfolio (Montgomery, 1997; Wolf & Dietz, 1998) 	Illustrates a teacher's strengths, abilities, qualifications, and experiences to prospective employer	Self-selected evidence representing best practices with documentation similar to certification portfolio Course transcripts and curriculum vitae may also be included
<ul style="list-style-type: none"> Professional portfolio (Montgomery, 1997) 	Informs promotion, relicensure, and national certification of in-service teachers Representative of a teacher's professional capabilities, responsibilities, and professional development	Evidence selected reflects local, state, and national requirements Combination of prescribed and self-selected evidence including lesson plans, assessment tools, video/ audiotape of classroom interactions, reflection statements, formal evaluations, and recommendations from school supervisors

The purpose of a learning portfolio is to enable preservice teachers to develop and become aware of their own identity as teachers and learners (Wolfe & Dietz, 1998). Various forms of learning portfolios exist, including an inquiry-based portfolio, a thematic portfolio, and a growth-and-development or reflective portfolio. These types of portfolios deliberately engage preservice teachers in critical reflection and inquiry about their knowledge and ability specific to teaching, while documenting their growth in teaching over time. The common thread among all forms of learning portfolios is that they promote an in-depth view of the preservice teacher's process of thinking about his or her professional identity and classroom practice. This is accomplished when teachers make connections between prior knowledge, experiences,

skills, and new knowledge (Dollase, 1998; Grant & Huebner, 1998; Lyons, 1998; Scanlan & Heiden, 1996; Snyder, Lippincott, & Bower, 1998).

The notion that portfolios should contain a reflective component is frequently mentioned as an essential characteristic of portfolio design and process within the literature on teaching portfolios. The benefits of reflection within portfolios include the opportunity for students to learn about their own learning process (Paulson, Paulson, & Meyer, 1991), and this portfolio process promotes awareness of students' knowledge of practice and of themselves as teachers (Lyons, 1998). In short, the portfolio process should inspire reflection more than anything else; without a strong focus on reflection, the portfolio could be little more than a document gathering exercise (Wolf & Dietz, 1998). Clearly, reflection should be an integral part of any teaching portfolio; however, the quality of such reflection needs thoughtful consideration. The importance of reflection within a teaching portfolio will be discussed in more detail later within this article.

The purpose of a credential or certification portfolio is to determine whether preservice teachers have demonstrated a level of proficiency on a set of teaching standards as a method of assessing prospective teachers' readiness to teach (Snyder, Lippincott, & Bower, 1998). Thus, the portfolio might contain a combination of self-selected and prescribed evidence focusing on best practice work (e.g., lesson plans, assessment tools, educational philosophy statements, and video/audiotape of classroom interactions). However, even when teacher-education programs require preservice teachers to include evidence of proficiency on a set of teaching standards, there is still much variation in the portfolio. For example, the visions of good teaching embedded in the standards vary across programs, as does the nature of the requirements for the kinds of evidence that show mastery of a set of standards. Some programs encourage the presentation of a preservice teacher's best work in relation to the standards, while others may require preservice teachers to show evidence of growth over time, resulting in the inclusion of less-than-exemplary examples of teaching and learning in the portfolio. Still other programs require preservice teachers to show evidence of K-12 student learning (e.g., McConney, Schalock, & Schalock, 1998).

An employment portfolio, often called a best practice portfolio (Montgomery, 1997; Wolf & Dietz, 1998), can illustrate a preservice teacher's strengths, experiences, abilities, and qualifications to a prospective employer. An employment portfolio might contain self-selected evidence representing best practice with documentation similar to a certification portfolio. Course transcripts and curriculum vitae, as well as formal evaluations and recommendations from university and school supervisors, may also be included.

At least three distinct purposes around the use of teaching portfolios exist; some teacher-education programs have attempted to combine different purposes within a single teaching portfolio, while others have required separate portfolios for different purposes (see Snyder, Lippincott, & Bower, 1998). Regardless of the portfolio's purpose, teaching portfolios adopt one of two main formats: paper or electronic. Paper teaching-portfolio formats involve the creation and housing of documents and artifacts within a traditional storage device such as a notebook or attaché. An electronic teaching portfolio is created by accessing and using a variety of technology supports and devices such as an electronic database system, electronic templates, and web-based authoring systems (Wray, 2007a).

At the institution where the research reported in this article was conducted, an effort is underway to shift the purpose of the current teaching-portfolio requirement from

employment, summative in nature, to learning, where students' professional growth and development can be represented over time, resulting in a more formative focus. This article presents findings from the first year of a multiyear study that is documenting how the MAT elementary certification program is making a conceptual shift from a summative to formative teaching-portfolio requirement for preservice teacher-education students. The questions guiding this research include:

1. What mechanisms of communication and support are needed to promote a shift in the portfolio's purpose from employment to growth and development?
2. What curricular and instructional decisions are needed to promote the implementation of a growth-and-development portfolio?
3. How do departmental and institutional guidelines and mandates enable or hinder the teaching portfolio's shift in focus?

This article focuses on the first phase of this study. In this phase, activities and discussions specific to the development of a growth-and-development teaching portfolio were integrated into a yearlong seminar course. Activities and discussions centered on how such support enabled or hindered the preservice teachers' understanding of the portfolio's purpose, as well as the development of their teaching portfolios.

Context of the Study

This study took place within the Early Childhood, Elementary, and Literacy Education Department (ECELE) at a mid-size public university in the eastern United States. The mission statement of the department is to "prepare critical professionals who possess the knowledge, skills, and dispositions to transform early childhood, elementary, and life-long literacy education in the service of social justice and democratic ideals" (ECELE New Faculty Handbook, 2005). Additionally, the College of Education and Human Services, with the ECELE department as one of seven departments, has adopted a document titled *The Portrait of a Teacher* as a conceptual framework to guide the development and assessment of all teacher candidates. *The Portrait of a Teacher* states that good teachers "continue to inquire into the nature of teaching and learning and reflect upon their own learning and professional practice." *The Portrait of a Teacher* also encourages the use of multiple forms of assessment from which to base evaluations regarding a student's readiness to teach. These goals require that our teacher-preparation programs offer students regular and ongoing opportunities to discuss, reflect upon, and critique teaching practices and experiences.

The Department of Early Childhood, Elementary, and Literacy Education houses the MAT program for elementary education. The MAT program, graduating an average of 55 students a semester, is a 36–37 credit program leading to state certification for elementary education (grades K–5) and a master's degree. The MAT program consists of core foundation and research courses, content methods courses, and a professional sequence of courses accompanied by a fieldwork component that places students in schools concurrent with professional seminars. Prior to the professional course sequence, students are required to observe and work within a variety of school settings to gain knowledge about systems of schooling in general and to learn about and work with specific student populations in conjunction with course foci. During the professional sequence, students engage in a "clinical year," equivalent to a year-long student-teaching experience, where students are placed in the

same school over two semesters. Students combine observation and teaching in the first semester of their clinical practicum, where the focus is on becoming familiar with the curriculum and school standards while creating relationships with cooperating teachers and students. The second semester, or student-teaching semester, continues the previous semester's foci while increasing the preservice teacher's responsibility for planning and implementing lessons and assessing student learning. Students are required to register for the corequisite seminar course, which meets once a week over 10 weeks, for both clinical semesters.

Currently, MAT students are required to create an employment portfolio upon completion of their student-teaching semester. Discussion of the teaching portfolio requirement generally takes place during the student-teaching semester within the corequisite seminar course. Directives specific to the portfolio requirement up to this point have, in the past, been relatively cursory and limited to discussing artifacts to include and reviewing sample portfolios completed by past graduates. With no formal requirements specific to content or organization, the portfolios have typically contained a selection of best-practice artifacts from coursework and field experiences (e.g., lesson plans, assessment tools, and samples of parent communication), documents specific to certification and program completion requirements (e.g., coursework transcripts, Praxis test scores, and fieldwork evaluation documents), and personal information documents (e.g., resume and letters of recommendation).

Theoretical Framework

This study is shaped by *social constructionism*. Social constructionism assumes that learning and knowledge are understood through the "complex world of lived experiences," where meaning is fashioned out of "events and phenomena through prolonged, complex processes of social interaction involving history, language, and action" (Schwandt, 1994, p. 118). This study revolved around students' developing understanding of a teaching portfolio—its purpose, structure, and content—via their social and professional interactions, resulting in the "collective generation of meaning" (Wray, 2007b, p. 1143) around the portfolio requirement. By situating this study within the context of a two-semester seminar, the preservice students and I were able to develop a relationship over time that encouraged thoughtful discussion and reflection upon the portfolio.

Methodology

This study took place over the course of a two-semester pilot program where coursework and field experiences were linked to the development of a growth-and-development teaching portfolio. The course selected was a clinical seminar consisting of 22 elementary MAT students who met 20 times during the fall and spring semesters for a total of 30 hours. In addition to core course objectives specific to classroom management and effective teaching strategies, topics specific to creating a growth-and-development teaching portfolio were regularly integrated into the course content. The course content specific to the portfolio focused on understanding multiple, and often conflicting, purposes of the portfolio, the process of artifact selection, navigating the shift of artifacts to evidence, how to develop reflective narratives, how to make connections to personal educational philosophy statements, strategies for organizing the portfolio, and how to use the teaching portfolio during a job interview. These topics were integrated into the course through a variety of strategies including large- and small-group work; reading and discussion of portfolio literature (e.g., Lyons, 1998; Campbell,

Dignetti, Melenyzer, Nettles, & Wyman, 1997); and peer and instructor reviews of portfolio artifacts, reflective narrative statements, and the portfolios in progress. Additionally, examples of artifacts to be included in a teaching portfolio, examples of reflective narrative statements, and examples of completed portfolios were used to provide insight and to help frame instruction on the process of developing a teaching portfolio.

Data sources used in the study include a preinventory questionnaire, student exit interviews, a student exit questionnaire, a review of completed portfolios, and a researcher reflection log. The preinventory questionnaire that I developed for this study asked questions about students' understanding of teaching portfolios and their development. The students' responses on the preinventory questionnaire were used to frame our seminar discussions, and activities and were also used during the exit interviews as a way for students to reflect on their developing understanding of a teaching portfolio as a product and a process. The semistructured exit interview and exit questionnaire that I developed and conducted included open-ended questions specific to students' understanding of the portfolio's requirements and purpose and whether (and in what ways) the portfolio offered support during the seminar and was beneficial to the development of their growth-and-development portfolios. The researcher's log, used to record reflections on the course content, discussions, and activities, helped with the process of rethinking and clarifying future course plans.

Data analysis included transcribing the interviews (a form of initial analysis [Graue & Walsh, 1998]) and reviewing the interview transcripts, questionnaire responses, completed student portfolios, and research reflection logs. Coding was used to identify themes represented in the data, and the emergence of multiple codes across each of the previously described data sources was sought out in reference to the research questions. The themes revealed as a result of the data analysis include making personal and professional connections, issues of portfolio support, and multiple purposes.

Considering that I was the seminar instructor at the heart of this study, as well as the study's principle investigator, possible limitations of the study are situated around issues of coercion and power. It would be reasonable that students might feel that by participating in the interviews and portfolio review would please me or that their participation would influence a better course grade. These concerns were addressed by having a colleague recruit students to the study and by scheduling interviews and portfolio reviews after the course grades had been submitted.

Research Findings

Personal and Professional Connections

The articulation of personal connections specific to the complexity of teaching and learning is a form of professional development, a seminal benefit of the portfolio process. Many argue that the act of creating a portfolio helps students think about their work in more specific and critical ways, leading to enhanced understanding of teaching and learning (see Borko, Michalec, Timmons, & Siddle, 1997; Freidus, 1998; Lyons, 1998). This study supports the literature in this regard. The selection of artifacts and the process of shifting the artifacts to warranted evidence helped students make connections to who they were as novice teachers. The students and I spent many seminar sessions discussing different types of portfolio artifacts, what they might communicate about the students, and how to shape artifacts into warranted evidence. For example, during one seminar session, students shared artifacts that were being considered for inclusion in their portfolios. During the activity, the students were

to provide a context for the artifacts, telling how the artifacts connected to their educational philosophy and how they represented them as novice teachers. The discussion that ensued helped with the students', as well as their peers', understanding of how artifacts shift to warranted evidence and how to represent such evidence within the portfolio. Subsequently, the students brought in the same artifacts and their written narrative statements, and both were again discussed, providing the students with additional feedback and suggestions prior to the final placement of both into their teaching portfolios. These and other similar activities helped students make connections to their teacher preparation and to themselves as beginning teachers. Figure 1 contains one student's reflective narrative, articulating how she was able to make connections between the portfolio artifact and her educational philosophy. This particular narrative focuses on a social studies map unit, student work samples, and photographs of the classroom community map.

Context

This lesson was created and implemented during my student-teaching semester in a first-grade classroom. The neighborhood map and the writing prompt that follow were the culminating projects at the end of my social studies map unit.

Philosophy

This project reflects the following beliefs in my teaching philosophy:

- *In my classroom...every aspect of the child is valued. Their culture, their communities, their home life, their families, their dialect, and language are all interwoven into the fabric of the classroom community.*

The neighborhood map project was one that reflects my belief that learning should be tied to each child's experience both inside and outside of the classroom. Every child who participated in its creation felt that he or she was an expert in what was being asked. This was a representation of their home, of their school. They were proud of their hard work and were proud about displaying their map.

- *I believe that authentic learning must come from within each individual and be intrinsically motivated. Through the exploration of a child's existing knowledge and ideas, a teacher may then begin to provide appropriate connections and pathways to new understanding. These connections and pathways foster children's desire to learn.*

This lesson speaks to the value of tapping into every child's existing knowledge and then building upon that knowledge. I created paths to new learning by challenging the students to create an aerial map of the surrounding neighborhood. This required that they grasp the concepts of aerial mapping, spatial relationships, and understand and create their own map legend. The writing prompt extended the learning through to writing techniques and using a compass rose.

Reflection

From start to finish, this entire unit was reflective of each child's own community and environment. Because of this, the children were engaged in the learning at each step. The unit solidified my belief in the importance of connecting the classroom to the lives of the children. It was the first time that I had implemented an entire unit that lent itself so well to making connections with prior knowledge. The success of each lesson only made my understanding of this importance that much stronger. Another strong point of the unit is that it can easily be adapted to any grade level. The complexity of the map can be adjusted depending on the objectives and skills to be acquired. There is no doubt in my mind that I will be using this unit in my future classroom.

Figure 1. Student narrative statement—first-grade social studies map lesson.

The data show that the students identified the process of creating reflective narratives within their portfolio as contributing to their professional development in that it required articulation of their beliefs as beginning teachers in a way that might not have come to light without the experience. Comments such as “it was an exercise in making careful and intelligent choices and justification” and “it forced me to solidify my ideas on teaching and on myself as an educator” illustrate the power of developing reflective narratives as a requirement of the portfolio-development process. The following student comment, given during an exit interview, is representative of the students’ responses overall: “While I had various ideas about why and how I want to teach, the process forced me to think about my practice and why I chose to place certain artifacts in the portfolio over others.” These comments strongly support claims that growth-and-development portfolios coupled with in-class support can indeed promote reflective practice and contribute to the professional development of preservice teachers.

Portfolio Support

Many students found the discussion of the portfolio during their seminar classes to be one of, if not the most, valuable component of the two-semester seminar course. Statements such as “I was able to gain a clearer understanding of the portfolio” and “the discussions in class and with my classmates helped me create a portfolio that I’m proud to show family and potential employers” illustrate that support specific to the development of teaching portfolios is crucial to its success for both the teacher-education institution and the students. One student stated that “activities that forced me to explain ‘how and why’ make me grow as a person and as a teacher,” illustrating that the process of discussing and creating a teaching portfolio, in conjunction with coursework, was a personally and professionally valuable experience resulting in a product that is an authentic representation of the student’s development as a teacher.

An interesting subtheme, visible across the majority of students’ responses, was an interest in continuing to add to the portfolio beyond the students’ seminar coursework. This student’s comment illustrates this theme: “I am proud of my portfolio. I think it really shows the journey that I have made as a teacher.... It is something that I hope will grow and change in the future because I recognize that mine is a profession that is always changing.” This, too, suggests that the work we did in class contributed to the students’ overall understanding of the purpose of a growth-and-development portfolio and how the portfolio-development process can contribute to the students’ growth as teaching professionals.

However, not all students felt that the portfolio-development process provided new insight into their development as beginning teachers, as this statement illustrates: “I have always had a strong opinion and clear view of my practice of teaching, and the development of my portfolio really did not alter or enhance that in any major way.” Statements such as this help us to realize that the development of a teaching portfolio is a unique process and one that does not affect all students in the same way. Additionally, the above statement suggests a possible need to establish baseline data at the start of the program for each student. For example, students could write a draft educational philosophy statement and then revisit it toward the end of their clinical practicum. This process could help them see how they’ve developed and grown as a novice teacher. If one of the purposes of creating a growth-and-development portfolio is for students to reflect on how they have developed over the course of a professional teacher-preparation program, then it is important that students have artifacts that

represent their thinking and abilities at various points throughout the program. Writing a draft educational philosophy statement early on would be one such document.

In addition, these data suggest the need to adjust certain activities and discussions focused on supporting portfolio development. Students struggled with organizing their artifact selections into portfolio sections; at times, the students remained stuck on the quantity and type of artifacts to include rather than on the content of the artifacts and how to shape the accompanying narrative. In an exit interview, one student commented on the need for more guidance overall: "I needed more direction on what to put into my portfolio. I liked the discussions we had about how to decide what to put in and how to connect that with what I want my portfolio to say about me, but I just think giving some sort of list on what has to be included upfront would help with some of these questions we all had."

Research suggests (see Barton & Collins, 1993; Simmons, 1996; Ryan & Kuhs, 1993) that the struggle over artifact selection links directly to the benefits of creating a portfolio; data in the present study suggest that providing a framework from which to select artifacts and organize the portfolios can assist students with this difficult task.

In addition to the organizational challenge, the limited amount of time students had to complete their teaching portfolio was also a challenge for many, an issue well documented in the current literature on teaching portfolios (see Grant & Heubner, 1998; Lyons, 1998). Even though the discussion of teaching portfolios was integrated into the seminar course right from the beginning, it was not until midway through the fall semester that students were required to bring in potential artifacts for inclusion in their portfolio. Additionally, the portfolio was due in April (a program requirement), one month prior to the completion of their student-teaching semester. Realistically, these two time constraints contributed to a very short development timeframe.

Multiple Purposes

As the literature states, without a clear understanding of what the purpose is, the process of creating a teaching portfolio can cause stress and, for many, becomes a meaningless activity (Simmons, 1996; Snyder, Lippincott, & Bower, 1998). Rather than contributing to the students' professional development, the portfolio process is seen as just another program requirement. I worked with my students to focus on shifting the purpose of the portfolio from employment to one that represents growth and development. Students' statements such as "it definitely charts the journey that I have traveled" and "it became a portfolio that reflected a fair amount of my growth and development" reflect how the students made connections with the portfolio's growth-and-development purpose. Additionally, when asked about the purpose of their portfolio, most students also stated that they wanted to use it to represent their knowledge and skills to potential employers. The following statement, taken during an exit interview, illustrates this thinking: "My teaching portfolio will be largely used for employment purposes, something I can offer to show to my possible employer to help them see a snapshot of what I believe, how I teach, and my idea of good learning."

Many teaching institutions implement teaching portfolios to which multiple purposes are attached. And with employment a primary goal for students completing a teacher-preparation program, it is understandable why employment remained a seminal purpose for the students involved in the study. Clearly, a teaching portfolio that represents a student's knowledge and skills specific to teaching and learning is one that should also be shown to prospective employers. Yet, some artifacts contained in a growth-and-development portfolio are ones

typically not considered example of best practices. For example, a number of lesson plans created at different points in the professional sequence might be selected for the purpose of showing a student's evolution regarding planning effective learning experiences. However, students might be motivated to select only their best lesson plans when employment is a salient focus. While illustrating growth over time, represented in a variety of artifacts, is exactly the purpose and benefit of this type of portfolio, showing such artifacts to prospective employers could be difficult for some students and could contribute to their vulnerability and resistance to selecting artifacts that do not reflect their current abilities.

Implications and Next Steps

As the use of teaching portfolios within teacher-preparation programs continues to grow and mature, the process of shifting and adjusting the portfolio's existing requirements and purpose to ensure that it compliments and reflects programmatic goals could become more commonplace. However, there is little to be gained from shifting an existing portfolio's purpose without attending to the challenges that face this process.

The themes and patterns articulated in the data suggest three possible responses to furthering the shift of the ECEL department's portfolio requirement from employment to growth and development: early introduction, increasing support, and communication.

Early Introduction

The first possible response, and the largest challenge that these data suggest, is that the portfolio must be introduced much earlier in the professional sequence in order for students to realistically represent their growth and development over time in a teaching portfolio. Offering support or mentoring during the final student-teaching semester is not early enough. Students need to engage in ongoing structured conversations specific to the development of their growth-and-development teaching portfolios at the same time that they are developing into beginning teachers through coursework and field experiences. Students in this study talked about not having saved work from previous courses, resulting in limited artifacts from which to choose and reflect upon, thus reinforcing the need for earlier intervention. The following student comment illustrates the importance of giving students adequate time to develop a growth-and-development portfolio: "I think that teaching portfolios need to be started SIGNIFICANTLY earlier than they were introduced to me and my classmates. It was too late to really accumulate and represent true growth and development, and instead they took on the role of being largely for employment purposes."

Without the benefit of time, it is impossible for students to engage in thoughtful reflection on their growth and development. One obvious way to address this issue is to begin the portfolio-development process earlier in the professional sequence by integrating portfolio directives and guidance into courses that are taken at various stages in the professional sequence. However, a significant structural roadblock that impacts this suggestion is that the ECEL program employs a loosely structured course sequence. While a *suggested* course sequence is provided to students during orientation and advising meetings, students are not required to follow these recommendations when registering for courses. Consequently, it is not unusual for students to take the introduction to education course (listed on the course sequence document as one of the first courses to be taken) while enrolled in the final curriculum-development course (taken just prior to student teaching). This example suggests that students could have received instruction specific to their portfolios during a course taken

previously, which would have made the framing of such support activities difficult at best. As a result, during the second year of this study, the department will be offering a variety of portfolio workshops intended to offer support to students who are at various points in the development of their teaching portfolios.

Another option would be to offer a portfolio-development course as part of the program sequence, which would afford students time to discuss issues in a regularly structured environment. However, this suggestion raises issues of context, timing, resources, and credit load, and it implies a one-time support format. The development of faculty- and student-mentor relationships is another way some teacher-education institutions have addressed student support needs. Suggestions include monthly meetings of mentor groups, pairing of critical friends for the purpose of sharing one-on-one communication about the portfolio's purpose and the portfolio-development process, support in weekly practicum or student-teaching seminars, and assigned faculty mentors to whom students can turn with questions, concerns, or issues raised during the creation of their portfolios. While these relationships have proved helpful for the students and informative for the teacher educators, their voluntary nature also can be problematic, resulting in sporadic participation and lack of clarity and understanding of the portfolio's purposes and requirements; thus, the relationships tend to offer uneven benefits to students.

Increasing Support

The second possible response highlights the need to expand the use of the two-semester seminar as a primary form of support to all seminar sections. To accommodate this, all seminar instructors will need training in the following year. The training needs to be implemented in stages with the first phase focusing on the large issues of the portfolio's shifting purpose, artifact selection, and development of reflective narratives. The forms of support that were implemented during the 1st year of the study also will need to be modified. One issue to address is the need to provide students additional support specific to artifact selection. Additional support in this area could ensure that the artifacts more clearly illustrate the students' growth and development over time. Students' need for such guidance in subsequent years will be accommodated with a list of required artifacts; such a list is often called a "prescribed evidence list," containing the type and number of specific artifacts required for each portfolio. The list might contain such items as the number of lesson plans, student work samples, assessment tools, personal documents (e.g., curriculum vitae, observation evaluations, transcripts), photographs, and narrative statements to include. However, the selection of the specific artifact from this list (e.g., which lesson plan) will then be left to the student, a practice that supports the importance of struggling with artifact selection previously discussed.

The issue of reflection—its purpose, the process, and the development of reflective narrative statements—will also require attention and support in subsequent years. It is important to remember that the mere act of reflection is not sufficient evidence that a student is a reflective practitioner (Schön, 1983) or even a good teacher. Student comments can have the tendency to be "rich in description but generally lack thoughtful analysis and interpretation" upon which "explicit guidelines for the reflection statement" were implemented (Wolf, 1991, p. 132). During the two-semester seminar course, the importance of reflection was discussed, and the students regularly engaged in open, reflective dialog about

their teaching portfolios. However, additional guidelines and reflective narrative samples are needed to help students engage in increased critical reflection upon their work and development overall. Finally, while the portfolio has a growth-and-development focus, using it to gain employment remains important to the students. Therefore, future seminars will discuss the use of the portfolio during the interview process. These suggestions will be implemented in subsequent years of this multiyear study.

Communication

The third possible response highlights the importance of communication among the department faculty, as well as with students responsible for completing the portfolio requirement. Generally, most faculty members in my department are not engaged in discussions with their students regarding the proposed shift in the portfolio's purpose. However, if we are to be successful in shifting the existing portfolio's purpose, the faculty will need to embrace the proposed changes in focus and process. Without faculty buy-in toward a new purpose for the teaching portfolio, resulting in new ways of implementing, supporting, and assessing the portfolio requirement, faculty and students will continue to think of the portfolio as an employment tool rather than a tool that can promote students' professional development as well as illustrate such growth to university faculty and K-5 school administrators. Conversations among the department's faculty and chair, specific to promoting a change in thinking, have already started through discussions of this study's research findings to date. Additional conversations among the faculty, as well as others within the College of Education and Human Services, will continue in the second year of this multiyear study.

Finally, with our program employing a loosely structured course sequence, it will be a challenge to communicate the shift in the portfolio's purpose to students. Ideas for communicating these goals earlier in the program include offering portfolio workshops each semester, including information on the portfolio requirement during student orientations and open houses, including information on the portfolio requirement on the department Web site, and listing the portfolio requirement on course information documents and during student advising. While these options will most likely contribute to an increase in knowledge among the students regarding the portfolio's adjusted purpose, they rely on student involvement, which might result in a hit-or-miss approach. However, it is hoped that a multifaceted approach to student communication will ensure that all students receive the message regarding the portfolio's shifting purpose. The suggestions addressed thus far will be adopted and studied during the second year of this multiyear study, with an understanding of these possible challenges.

Conclusion

The next steps in our department's journey to shift the existing teaching portfolio's requirement are many. Increasing student support, improving communication, and expanding the implementation of the teaching-portfolio requirements are issues to be addressed in the next year of this study. Additionally, the assessment of the teaching portfolio (e.g., specifying assessment criteria, creation of assessment tools, tracking student portfolio grades) will need attention. My colleagues and I feel that good progress has been made; however, we also recognize that much work remains. It is integral to the success of this initiative that the department chair and faculty members continue to discuss the portfolio requirement and the

challenges we face specific to shifting the portfolio's current purpose to one that reflects how our teacher candidates are developing over time and how such development contributes to their readiness to becoming beginning teachers. At the heart of these discussions is that a long-range structured approach is needed if we are to be successful in shifting the purpose of our existing teaching-portfolio requirement.

References

- Barton, J., & Collins, A. (1993). Portfolios in teacher education. *Journal of Teacher Education, 44*(3), 200–210.
- Bird, T. (1990). The schoolteacher's portfolio: An essay on possibilities. In J. Millman & L. Darling-Hammond (Eds.), *The new handbook of teacher evaluation: Assessing elementary and secondary teachers* (2nd ed., pp. 241–256). Newbury Park, CA: Sage Publications.
- Borko, H., Michalec, P., Timmons, M., & Siddle, J. (1997). Student-teaching portfolios: A tool for promoting reflective practice. *Journal of Teacher Education, 48*(5), 345–357.
- Campbell, D., Dignetti, P., Melenyzer, B., Nettles, D., & Wyman, R. (1997). *How to develop a professional portfolio: A manual for teachers*. Boston: Allyn and Bacon.
- Department of Early Childhood, Elementary, and Literacy Education (2005). *New faculty handbook*. College of Education and Human Services: Montclair State University.
- Diez, M. (1998). The role of standards and assessment: A dialogue. In M. Diez (Ed.), *Changing the practice of teacher education: Standards and assessment as a lever for change*. Washington, DC: American Association of Colleges for Teacher Education.
- Dollase, R. (1998). When the state mandates portfolios: The Vermont experience. In N. Lyons (Ed.), *With portfolio in hand: Validating the new teacher professionalism* (pp. 220–236). New York: Teachers College Press.
- Freidus, H. (1998). Mentoring portfolio development. In N. Lyons (Ed.), *With portfolio in hand: Validating the new teacher professionalism* (pp. 51–68). New York: Teachers College Press.
- Grant, G., & Huebner, T. (1998). The portfolio question: A powerful synthesis of the personal and professional. *Teacher Education Quarterly, 25*(1), 33–43.
- Graue, M. E. & Walsh, D. (1998). *Studying children in context*. Thousand Oaks, CA: Sage Publications.
- Lyons, N. (Ed.). (1998). *With portfolio in hand: Validating the new teacher professionalism*. New York: Teachers College Press.
- McConney, A., Schalock, M., & Schalock, H. (1998). Focusing improvement and quality assurance: Work samples as authentic performance measures of prospective teachers' effectiveness. *Journal of Personnel Evaluation in Education, 11*, 343–363.
- Montgomery, K. (1997). Student teacher portfolios: A portrait of the beginning teacher. *Teacher Educator, 32*(4), 216–225.
- Paulson, F., Paulson, P., & Meyer, C. (1991). What makes a portfolio a portfolio? *Educational Leadership, 48*(5), 60–63.
- Percheone, R., Pigg, M., Chung, R., & Souvney, R. (2005). Performance assessment and electronic portfolios: Their effect on teacher learning and education. *Clearing House, 78*(4), 164–176.
- Porter, A., Youngs, P., & Odden, A. (2001). Advances in teacher assessments and their uses. In V. Richardson (Ed.), *Handbook of research on teaching* (4th ed., pp. 259–297). Washington, DC: American Educational Research Association.

- Ryan, J., & Kuhs, T. (1993). Assessment of pre-service teachers and the use of portfolios. *Theory Into Practice*, 32(2), 75–81.
- Scanlan, P., & Heiden, D. (1996). External review of portfolios in pre-service teacher education: Studying our own practice. *Reading Horizons*, 36(4), 297–316.
- Schön, D. (1983). *The Reflective Practitioner*. London: Temple Smith.
- Schwandt, T. (1994). Constructivist, interpretivist approaches to human inquiry. In N. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research* (pp. 118–137). Thousand Oaks, CA: Sage Publications.
- Shulman, L. (1988). A union of insufficiencies: Strategies for teacher assessment in a period of educational reform. *Educational Leadership*, 46(3), 36–41.
- Simmons, J. (1996). Control the purpose, not the contents: Coaching the creation of teaching portfolios. *Action in Teacher Education*, 18(1), 71–81.
- Snyder, J., Lippincott, A., & Bower, D. (1998). The inherent tensions in the multiple uses of portfolios in teacher education. *Teacher Education Quarterly*, 25(1), 45–60.
- Wolf, K. (1991). The schoolteacher's portfolio: Issues in design, implementation, and evaluation. *Phi Delta Kappan*, 73(2), 129–136.
- Wolf, K., & Dietz, M. (1998). Teaching portfolios: Purposes and possibilities. *Teacher Education Quarterly*, 25(1), 9–22.
- Wray, S. (2007a). E-portfolios in a teacher education program. *E-Learning*, 4(1), 40–51.
- Wray, S. (2007b). Teaching portfolios, community, and pre-service teachers' professional development. *Teaching and Teacher Education*, 23(7), 1139–1152.
- Zeichner, K. (2000). Ability-based teacher education: Elementary teacher education at Alverno College. In L. Darling-Hammond (Ed.), *Studies of excellence in teacher education: Preparation in the undergraduate years*. Washington, DC: American Association of Colleges for Teacher Education.
- Zeichner, K., & Liston, D. (1996). *Reflective teaching*. Mahway, NJ: Erlbaum.
- Zeichner, K., & Wray, S. (2001). The teaching portfolio in US teacher education programs: What we know and what we need to know. *Teaching and Teacher Education*, 17(2001), 613–621.
- Zidon, M. (1996). Portfolios in pre-service teacher education: What the students say. *Action in Teacher Education*, 18(1), 59–70.

Growing Teacher Leaders in a Culture of Excellence

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Abstract

Viewing teachers as leaders requires a paradigm shift about the concept of leadership in a school system. The Teachers as Leaders program of the Mountain Brook, Alabama Schools represents that shift and is empowering teachers to utilize their leadership skills and contribute to the system as it fulfills its mission to offer education to its students that is effective, challenging, and engaging.

The Mountain Brook Schools established the Teachers as Leaders program in order to develop a culture of continuity in leadership as many administrator retirements were predicted for the near future. The program, however, was not designed as a “Teachers as Future Administrators” program. Rather, it was an intentional plan to prepare teachers for continued leadership, whether that is demonstrated in their classrooms or in administrative roles. The school system partnered with private consultants, a restaurant business, and the University of Alabama at Birmingham to deliver the Teachers as Leaders program. This article, a report from the field, allows the reader a glimpse of the culture of excellence in the Mountain Brook Schools through the description of the Teachers as Leaders program and reflections of several participants.

How do you create a district pool of future principals who understand and honor the culture of a school community? How do you also increase the leadership capacity of teachers so that they can effectively lead from the classroom? The central administration and elected board of the Mountain Brook, Alabama school system sought to answer this question as a continuity plan for leadership that was being developed. The answer was to continue to shift the paradigm about the concept of leadership in the school system and intentionally promote a culture that would empower teachers to lead at all levels. The Teachers as Leaders program of the Mountain Brook, Alabama Schools represents that shift and is training teachers to utilize their leadership skills and contribute to the system as it fulfills its mission to offer education to its students that is effective, challenging, and engaging. This article describes their exemplary program.

Background

Growing teacher leaders needs to be an intentional act in our nation’s school systems. The principal’s job in schools is becoming more complex, and it has been established that school leadership can no longer reside in one person (Ballek, O’Rourke, Provenzano, & Bellamy, 2005). Further evidence for the urgency to grow teacher leaders is the fact that public school principals are leaving the profession in increasingly high numbers. According to the Educational Research Service, nearly 40% of all principals will retire or leave the position for other reasons before 2010, causing vacancy numbers to soar (Ballek et al., 2005). Principals nearing retirement must prepare to pass the torch of leadership to those who come after them (Weller & Weller, 2002); those who will carry the torch in the future are the classroom teachers of today. It is imperative that schools invest in the leadership capacity of the teaching staff.

Schools that have high leadership capacity are those that amplify leadership for all. The guiding paradigm is that the principal is only one leader in the school community (Lambert, 2005). Schools in which teachers are becoming significant leaders have structures in place that provide opportunities for broad participation in teams, study groups, vertical communities, and action research teams. According to Danielson (2007), there are three main areas of school life in which teacher leaders can have a role: within a department, across the school, and beyond the school. In an extensive study on the work of

teacher leaders, Lieberman, Saxl, and Miles (1988) focused on what teachers actually did when they took on leadership positions. While the evidence proved that the work of teachers as leaders was varied and highly dependent on the individual context of the school, Lieberman et al. did discover that it was necessary for teachers to learn an array of leadership skills while on the job. These skills include the ability to build trust and develop rapport, diagnose organizational conditions, deal with learning processes, manage the work itself, and build skills and confidence in others. Lambert, Collay, Dietz, Kent, and Richert (1996) examined the importance of “leader behaviors” that classroom teachers can exhibit, even though they are not in formal leadership roles. “Teachers emerge into new and continually expanding roles by the very nature of learning to see themselves differently and therefore behaving differently. They also do not sabotage those in other leadership roles” (p. 29). Extending this concept, Dr. Charles Mason, superintendent of Mountain Brook Schools, developed a list of how teachers could lead without being in a formal leadership position:

1. Leaders ask the right, tough questions.
 2. Leaders can set the tone for meetings and discussions with their energy level, attitudes, and encouragement.
 3. Leaders are mentors, one-on-one, to others.
 4. Leaders anticipate needs and meet them without being asked.
 5. Leaders support other leaders emotionally and professionally.
 6. Leaders establish their own credibility through competence.
 7. Leaders learn what they need to know and are willing to share it.
 8. Leaders interpret reality for others.
 9. Leaders always ask, “What is our purpose?”
 10. Leaders ask the question, “Is this consistent with our values and beliefs?”
- (C. Mason, personal communication, October 16, 2006).

The Teachers as Leaders program sought to encourage teachers to see themselves in those expanding roles of leadership.

The District’s Rationale for Growing Teacher Leaders

The Mountain Brook school district, desiring to enhance the leadership capacity of its teaching staff, initiated a program that will prepare teachers for leadership roles both now and in the future. The Teachers as Leaders program was established in order to develop continuity in leadership as many administrator retirements were predicted for the near future. The program, however, was not designed primarily as a “Teachers as Future Administrators” program. Rather, it was an intentional plan to prepare teachers for continual leadership, whether that would be in their classrooms or in administration. In the Mountain Brook school system, the teacher-leader program was part of an aggressive plan developed to enhance the expectation of excellence that exists in this school system. According to Mason, the origination of the Teachers as Leaders program was conceptually tied to the culture of collaboration in the district. “All the important work we do in our district depends on teachers, and this forms our philosophy behind the Teachers as Leaders program. In our culture, there is a belief that the experts are those that are doing the job; thus, teacher leadership is extremely important. If teachers are going to collaborate effectively in groups, teacher leadership is necessary. Therefore, we needed a structure to intentionally help teachers develop their leadership skills” (C. Mason, personal communication, January 16, 2008).

The Mountain Brook Schools have been recognized with a number of state and national awards for excellence, but the culture of the district does not allow it to become complacent. Under the leadership of Mason, the district has developed a strategic plan for boosting the achievement of students who are already performing at the highest levels in the state of Alabama. The district’s continuity plan

acknowledges that the teachers are the most important players in that pursuit of continued excellence. The Teachers as Leaders program was designed to ensure that there would be outstanding leaders in each of the schools who would take the initiative with their peers in preserving this culture of high expectations and bring to life the three words that characterize that culture: effective, challenging, and engaging.

However, the program was also set in the context of a district with leaders who have given thought to the fact that there are principals in the school system who are getting older. The district is intentionally planning for how to retain the culture that has been developed so carefully over the last decade when those who created and fostered it start to retire. District leaders want to look for individuals who have the potential to be future administrators and have an understanding of the vision and mission of Mountain Brook Schools. According to Mason, “the district is challenged to hire the best new leaders we can, and we want to encourage teachers to consider formal leadership roles such as reading coaches and assistant principals” (C. Mason, personal communication, January 16, 2008). The three goals of the Teachers as Leaders program, therefore, were:

1. to develop a cadre of teachers who have a deep understanding and commitment to the vision of the school system—that it would be effective, challenging, and engaging.
2. to give participants the opportunity to assess and develop their own leadership skills.
3. to encourage participants to provide positive leadership wherever they find themselves serving.

Description of the Teachers as Leaders Program

District principals were asked to nominate two or three teachers from each building who demonstrated leadership potential. Belinda Treadwell, principal of Mountain Brook Elementary, shared her criteria for selecting teachers from her building to be involved in the program:

I listened to the comments of teachers in my building when they talked about what they want to do in the future. I looked for the pioneers and those who were engaged in continuous action research, trying new things in their classrooms. I watched for who was comfortable with collaboration. I chose teachers who were risk takers (B. Treadwell, personal communication, October 20, 2006).

Treadwell also concurred with research that cited the fact that exemplary teachers bring certain skills to the leadership role, which make it easy for others to trust them. Such skills include relational skills, assistance in maintaining a school’s sense of purpose, and the ability to improve instructional practices (Donaldson, 2007). This criterion further influenced her selection of the teachers who would become a part of the 2006–2007 Teachers as Leaders cadre.

The 2006–2007 cohort of 15 teacher leaders consisted of 13 females and 2 males, representing each of the six schools in the district. Three participants were early in their teaching careers (1 to 5 years of experience), five were mid-career teachers (6 to 15 years of experience), and six were veteran teachers (16 to 30 years of experience). There were five elementary teachers, three junior high teachers, and three high school teachers. Their ages ranged from 24 to 55, with a large cluster between the ages of 26 and 31. Eleven of the 15 participants had earned master’s degrees, two had educational specialist certificates, and two were National Board Certified teachers.

Dr. David Stiles, director of Organizational Development for the Mountain Brook Schools at the time, was charged with developing the Teachers as Leaders program. He designed a protocol through which the selected teacher leaders met six times during the year for full-day experiences in understanding themselves and expanding their awareness of leadership issues. The district provided substitute teachers for the participants in the Teachers as Leaders program, allowing the participants to leave their classrooms during the school day. The first four sessions were devoted to activities that led to a great deal of self-awareness for the participants. They each completed an extensive personality

inventory, and a trained consultant led the group of teachers in learning about their relationship styles, how they behaved when they were most productive, how they operated under stress, and how they would typically lead. One participant, responding anonymously in the program evaluation, shared the following:

I am amazed at how much I learned about myself. I have always considered myself a motivated, energetic person. Going through this personality inventory, I learned that while I would make a good leader, I have so much to learn about how to “become” a good leader. This process really made me more aware of how I think of myself and how others view me as a leader.

In addition to the intense personality inventory activities, the participants had informative sessions such as an education legislation update and a presentation on how the power of personal reflection assists in developing leadership skills. Team-building activities were also an integral part of the Teachers as Leaders training. The teachers met in the summer to experience a ropes course, during which a trained facilitator led them through the challenges of working together to achieve difficult physical feats. The culminating team-building activity was a cooking challenge, held at a local restaurant that housed a corporate cook-off kitchen designed for organizations to practice working in teams. The teachers divided into two groups and were given instructions to prepare an elaborate Italian meal together in 90 minutes. They were judged on how well they cooperated, how creative they were with the recipes, and on the presentation and taste of the food. Of course, their reward was the opportunity to enjoy the gourmet lunch they had prepared! In both of these activities, the concepts of teamwork, negotiation, compromise, time management, delegation, handling crises, and dealing with multiple perspectives were explored and discussed by the teachers under the leadership of a facilitator.

Evaluation of the Teachers as Leaders Program

An evaluation of the Teachers as Leaders program was conducted by one of us (Dr. Searby), a professor of Educational Leadership at the University of Alabama at Birmingham. A survey (see appendix A) was given to each participant at the conclusion of the 2006–2007 cohort activities to gather qualitative data on how the participants perceived the program. The survey consisted of a series of 11 open-ended statements for participants to complete, such as “Since participating in Teachers as Leaders, I ...”; “The most significant learning occurred for me when...” Teachers who participated in the program gave it high marks; in fact, there were no negative comments made about the program at all. Participants shared comments on how much they had grown both personally and professionally through the program. Many noted that they had changed their opinions about leadership. One participant shared the following in her survey:

Having been in the classroom for more than 15 years, I have seen teachers move from teaching in isolation to being true leaders who enact change. In the past, teachers have thought that becoming a leader in their building meant that they must come out of the classroom and become an administrator. The Teachers as Leaders program made me realize that not only can I be a leader in the classroom, but through my professional development, my sphere of influence can reach beyond the classroom and into schoolwide leadership activities.

This teacher realized that her previous opinion of leadership was based on a faulty philosophy that leaders are born, not made (Lunenburg & Ornstein, 2004). “I have always looked at leadership as something that people had or didn’t have. I hadn’t ever really thought that leadership is something that can grow in a person. This process really made me more aware of how I think of myself and how others view me as a leader.”

As a part of the final evaluation survey, participants in the Teachers as Leaders program were asked to identify where their leadership abilities were currently being demonstrated, as well as where they would like to extend their leadership work in their school or the system. They set 1- to 5-year goals for themselves and stated what encouragement and support they would need to reach those goals. Over half of the 2006–2007 group of 17 participants stated a desire to pursue a leadership position at a different level than their current assignment.

The teachers were extremely appreciative of being selected for this program, as is depicted in the following survey comments:

Teachers as Leaders is the best professional development I have been to in a long, long time. It has been a privilege to be a part of this group. I hope we can continue as a group—a think tank—on other projects. Put us to work for the system!

Thank you for giving me the opportunity to learn more about myself and my leadership abilities. Affirmation of these skills is important to me and has presented the need to use them more in my school and system.

Although the Mountain Brook school system has graduated just two cohorts from the Teachers as Leaders program, it has already reaped the benefits of encouraging teachers to take more responsible leadership roles. For example, several National Board Certified teachers have emerged from the first cohort of Teachers as Leaders. Others have become new teacher mentors, chairpersons of their grade levels or departments, chairpersons of professional learning community committees, or student-teacher supervisors. In addition, one teacher became a staff development specialist, two were chosen to work on statewide curriculum committees, and one became an assistant principal. One of us (Shaddix) was a 2006–2007 Teachers as Leaders participant and has demonstrated leadership by becoming an advisor/mentor to new teachers, facilitating professional development activities, serving on school-based leadership teams, and serving on instructional support teams. Shaddix noted that, “by serving in these various leadership roles, I have noticed that my skills and knowledge about best practices in education have increased. I am much more confident, and I feel a renewed commitment to teaching and learning.”

Schlechty (1990) defined teachers as leaders when they strive to influence peers to become more effective in classrooms and when they themselves become active in school governance. Shaddix advised teachers about how to take leadership roles by stating:

I would encourage teachers who are looking to revitalize their careers to become more involved in leadership opportunities. Obtain a clear picture of the vision at your school, and take the initiative and become a vital part of that vision. Use your expertise and support and encourage other teachers. Facilitate reflection among your coworkers. Help your team make better decisions about teaching and learning. Be patient and realize that not everyone will be on the same learning curve as you, but the time you invest in people will be well worth it.

The Future of the Teachers as Leaders Program

Viewing teachers as leaders requires a paradigm shift about the concept of leadership in a school system. As Dufour, Dufour, Eaker, and Many (2006) state, these shifts often make teachers uncomfortable. Such paradigm shifts associated with developing teachers as leaders may include moving from isolation to collaboration, from privatization of practice to open sharing of practice, and from independence to interdependence. The designers of the Teachers as Leaders program of the Mountain Brook Schools acknowledged that these paradigm shifts are important, and they will continue to refine the program components as Teachers as Leaders will be offered every other year in

the district. Mason, dedicated to the continuous improvement of the program, stated, “in future years we need to make sure that the components of the Teachers as Leaders program more tightly align to the goals of our system and that we help participants grasp the big picture and overarching purpose of the program, seeing the connectedness in all that we do” (C. Mason, personal communication, January 16, 2008).

We would like to make some additional suggestions for refining the Teachers as Leaders program in subsequent years. First of all, although it is important to spend time helping future leaders enhance their self-understanding through a personality inventory, we would advise that the time spent on the accompanying interpretive activities be reduced so that a varied list of leadership topics can be covered in the course of the year’s program. A possible list would include how to lead the change process, how to conduct action research in a school, and how leaders can develop resiliency. Each of these topics could be translated into creatively designed, practical experiential activities.

Secondly, teachers who are considering expansion of their leadership need opportunities to stretch their skills. We would suggest that the designers provide teachers with authentic problem-based leadership tasks that have the potential to make a significant difference in the work of the system. It was noted that one participant in this cohort said, “Put us to work for the system!” Teacher leaders want to contribute; they welcome new challenges. Perhaps each cohort of teacher leaders could be given a specific assignment that they could work on collaboratively, developing their teamwork skills and making a significant impact systemwide.

Finally, we would suggest that teacher leaders receive coaching in how to develop a professional portfolio that would highlight their leadership abilities. We would also suggest that these teachers be given the option of participating in a mock interview for an administrative position. Teachers who aspire to leadership at the principal level need encouragement to start thinking like an administrator.

The Mountain Brook school system has demonstrated its commitment to growing teacher leaders in a culture of excellence. The Teachers as Leaders program will likely continue to empower teachers to utilize their leadership skills and contribute to the Mountain Brook Schools at a higher level as it fulfills its mission to offer education that is effective, challenging, and engaging.

References

- Ballek, K., O’Rourke, A., Provenzano, J., & Bellamy, T. (2005). Keys in cultivating principals and teacher leaders. *National Staff Development Council Journal*, 26(2), 42–49.
- Danielson, C. (2007). The many faces of leadership. *Educational Leadership*, 65(1), 14–19.
- Donaldson, G. A. (2007). What do teachers bring to leadership? *Educational Leadership*, 65(1), 26–29.
- Dufour, R., Dufour, R., Eaker, R., & Many, T. (2006). *Learning by doing*. Bloomington, IN: Solution Tree.
- Lambert, L., Collay, M., Dietz, M., Kent, K., & Richert, A. (1996). *Who will save our schools? Teachers as constructivist leaders*. Thousand Oaks, CA: Corwin Press.
- Lambert, L. (2005). What does leadership capacity really mean? *National Staff Development Council Journal*, 26(2), 39–40.
- Lieberman, A., Saxl, E., & Miles, M. (1988). Teacher leadership: Ideology and practice. In A. Lieberman (Ed.), *Building a professional culture in schools*. New York: Teachers College Press.
- Lunenburg, F. C., & Ornstein, A. C. (2004). *Educational administration: Concepts and practices*. Belmont, CA: Thomson/Wadsworth Learning.
- Schlechty, P. C. (1990). *Schools for the twenty-first century: Leadership imperatives for educational reform*. San Francisco: Jossey-Bass.
- Weller, L. D., & Weller, S. J. (2002). *The assistant principal: Essentials for effective school leadership*. Thousand Oaks, CA: Corwin Press.

The one thing I'll never forget about Teachers as Leaders is ...

The most significant learning occurred for me when ...

One thing I could have done without in Teachers as Leaders was ...

Something that surprised me was ...

As a result of participating in Teachers as Leaders, I have had a change of heart/mind in regard to ...

My leadership abilities are currently being demonstrated in ...

I have the interest and expertise and would like to be given time to engage in the following leadership work in my school or in the Mt. Brook system ...

My 1–5 year goals include ...

I would like to pursue a leadership position at a higher level than my current position:

Yes No Undecided

Possibilities:

I need the following support/encouragement to reach my goals:

My advice to future Teachers as Leaders participants would be ...

I would like to nominate the following Mt. Brook staff member(s) for future Teachers as Leaders programs:

Feedback I wish to give Dr. Mason and Dr. Stiles about Teachers as Leaders is ...

Additional comments:

You have my permission to use any of my comments in presentations or articles about Teachers as Leaders

Please do not use my comments

Your Name is Optional