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The new concept of collaboration as a strategy for strengthening the linkage between theory and practice in teacher education programs is one of the cornerstones of the Professional Development School (PDS) model. This article presents a critical analysis of collaborative partnerships between teacher educators and K-12 practitioners involved in establishing PDSs, using institutional experiences at the University of Louisville as well as a review of selected teacher education programs elsewhere that have attempted to or are in the process of creating PDSs. It poses some critical questions for further research and evaluation.

Professional Development Schools:
Practices, Problems, and Responsibilities

Introduction

For almost two decades, schools of education have been under pressure to shape up their programs in order to improve teacher quality and K-12 student achievement. They are expected to participate more actively in upgrading the quality of instruction in our public schools, which is perceived to be highly correlated with student achievement. The pressure is exemplified by the proliferation of published reports during the 1980s that called for closer coupling of public school professionals and teacher educators in colleges and universities.

The call for restructuring colleges/schools of education--particularly teacher education programs--was to many long overdue. The traditional approach to teacher preparation had been characterized by limited student teaching assignments of six to ten weeks during which there was little to no interaction between the cooperating teacher and the faculty supervisor. A growing number of observers deemed this approach wholly inadequate in helping to improve the instructional quality in our public schools. But this criticism seemed

only to increase the tensions between teacher educators and public school professionals and further to decrease the poor linkage between these groups. There is a record of failure in attempts to bring together colleges of education and public schools. In the past, one of the critical factors in such joint ventures was the problem of conflicting viewpoints on what collaboration is and how to use it to improve teacher preparation. Many attempts lacked true collaboration, in that neither party treated the other as an equal, which led to sequential rather than simultaneous reciprocity.

It is against this background that between 1988 and 1990, three major reform proposals all emphasized the value of collaboration. The first of these was a report entitled, *A Nation Prepared: Teachers for the 21st Century* and issued by the Carnegie Forum on Education and the Economy in 1986. As stated in this report:

> A fundamental redesign of the system of public education is needed, a redesign that will make it possible for those who would reform from the outside and those who would do so from the inside to make common cause (p. 43-44).

In 1990, John Goodlad published his influential book, *Teachers for our Nation's Schools*, and the Holmes Group consisting of deans of education from a number of leading universities issued its first report, *Tomorrow's Schools: Principles for the Design of Professional Development Schools.* Both envisioned a set of secondary schools, designated as Professional Development Schools (PDS), as the nexus of a new kind of collaboration between school systems and institutions of higher education.

At the epicenter of this arrangement are education faculty and teachers—those responsible for carrying out collaborative relationships. Both groups must invest in exploring and designing strategies for putting such relationships into practice within the PDS context. Public school professionals and education faculty have had to rethink the rules that guide their roles and relationships in working together. Traditionally, the public schools and schools and colleges of education have always enjoyed some linkage, mainly for the purpose of placing student teachers. But the new approach goes much further, because it provides a new conceptual model according to which, as expressed in one recent report, Professional Development Schools are working models of restructured schools developed and operated by local school

and university educators functioning as colleagues. They have also been described as exemplars of practice, builders of knowledge, and vehicles for sharing professional learning among educators with an emphasis on putting research into practice--and practice into research.

One of the core components of the Professional Development School movement is the challenge of linking school restructuring and the redesign of teacher education programs. The major goal of many PDS partnerships is to work toward designing and implementing curricular reforms at both levels--K-12 and the university. For example, at the K-12 level a school's desire to address professional development needs in terms of increasing student achievement, or put together a plan for organizational and administrative restructuring. At the university PDS work has facilitated the redesign of teacher preparation programs and enhanced efforts to improve teaching university wide.

One of the most distinctive features of the PDS approach is its team-like organizational structure. A team is set up either to address an immediate problem, in which case its formation is temporary, or it may be organized to address an issue over time, resulting in its permanent existence. For most established and emerging PDSs, both types of teams--short- and long-term--are used. Typically, teams are comprised of partnerships among teachers and university education faculty, graduate interns, and teacher candidates (Metcalf-Turner, 1993). The ideal instructional team appears to have four to five experienced teachers, two to three university professors involved on a regular basis, five to ten graduate student interns, and several teacher candidates, as well as others whose expertise in a particular subject area may warrant their temporary participation.

As one examines the research in this area, it is increasingly apparent that, in many cases, a multitude of assumptions underlie the concept of collaboration. It is equally obvious that collaboration between education faculty and public school professionals is in an evolutionary stage of development-- the concept is valued, yet questions remain as to how to practice, sustain, and recruit more participants to invest in it. At this juncture of educational reform, the critical issue is whether the assumptions that inform these collaboratives have translated into improvements in the professional development of teachers and in student achievement ratios.

In this article we describe some of the significant lessons we have learned to date at the University of Louisville from six years of collaboration with local schools, and the implications of our experience for the future.

Critical Components of the PDS Approach

Framers of the PDS model believed that the development of a blueprint would inhibit true linkage between school teachers and university faculty based on the principles of reciprocity. They did, however, describe a set of components they considered to be critical to education reform within the PDS context. They projected that collaboration could and would help to implement reforms aimed at:

- increasing student achievement,
- improving teacher preparation and professional development,
- sharing resources,
- creating a community of lifelong learners, and
- developing participatory leadership.

Student Achievement

A major commitment undergirding PDS collaboratives is to improve the academic achievement for all students in K-12 programs with particular attention to underachieving children from minority groups. In a PDS collaborative, school teachers and university faculty typically identify together critical issues that adversely influence the teachers' instructional effectiveness and the subsequent impact on student learning. Next, those involved in creating the collaborative usually develop some form of a plan that specifies the necessary resources (i.e. human, financial, and/or time). Usually the collaborative is perceived as providing the necessary resources to implement strategies aimed at reaching the targeted improvements in student achievement.

Teacher Preparation and Professional Development

Many in the PDS movement believe that teacher preparation and the professional development of current practitioners can be improved by linking theory with practice via a site-based (PDS) teacher preparation and professional development program. PDS faculty and teachers share the viewpoint that modeling is essential for development of future teachers. Furthermore, the collaborative partnership provides opportunities for frequent interaction that puts current practitioners in touch with the most recent research-based practices. Underlying these views is the assumption that prospective teachers gain competence by connecting content to reality by means of application of theoretical constructs, and that education faculty could inform their in-

struction with experiences based on real classrooms in real schools. The expectation is that the substantial contact between pre-service teachers and practitioners will lead to stronger, more competent teachers.

Shared Resources

Although sharing resources was not the central theme in the push for collaboration in the reports from the 1980s, it was in some cases a major impetus for the two groups to come together. The assumption was that together they could and would share their expertise as practitioner and educator with the potential for role-integration and jointly developed curriculum at both levels. The Holmes Group characterized the two groups as having the potential to increase each other's expertise as well as efficacy. In the past, public school professionals criticized education faculty for being removed from the day-to-day life of a classroom teacher. Thus, collaboration between these two groups places teacher educators in schools so that they are better informed about real-world problems. Their research and discussions at the college level would reflect the real world. On the other hand, practitioners are able to analyze their practices in a supportive and constructive manner and possibly try out new instructional practices introduced by the teacher educator.

Creating A Community of Learners: Including Everybody 's Children

Yet another premise is that the partnership's mutually designed and developed curricula would help increase understanding and competence in teaching students from diverse cultural, linguistic, and socioeconomic backgrounds. The collaborative designed to be implemented within the PDS context is expected to address the disparities frequently reported to exist between the school achievement ratios of minority-group and mainstream students. The PDS sites, programs, and course offerings would provide opportunities for pre-service teachers to learn more about students from diverse backgrounds and develop effective practices in working with these children. This focus on social justice in education would prepare teachers to celebrate diversity with instructional practices that meet the needs of diverse learning styles and ability levels; reflect multiple perspectives; and maintain sensitivity to the feelings and opinions of others.

Supportive Leadership

Creating stronger linkage between schools and colleges of education and public schools requires various levels of support. The education dean, superintendent, and school administrator are critical participants in the overall effectiveness of PDS collaboratives. Support at these levels facilitates joint meetings between the two groups. In many cases, administrative decisions are made in advance of establishing the partnership with regard to who participates in the early phases of planning and who is responsible for critical functions. Still, other factors in terms of garnering and allocating how human and financial resources (e.g., alternative load assignments) are determined at the administrative level.

The Louisville Experience: The Professional Development of Teachers

Collaboration in Secondary Education

During the past six years, Fairdale High School and Iroquois High School and the University of Louisville's Secondary Education Department have worked to establish the two schools as PDSs. Beginning with informal conversations between selected university faculty, administrators at both levels, and teachers, the two groups rethought, redesigned and implemented organizational, curricular, and administrative reforms.

At the university level, the pre-service teaching field experience served as a catalyst for bringing the two groups together. By offering the course on site at the two urban high schools and sharing the instructional responsibilities of the field experience course with the teachers, each site has become a laboratory for the high school professional development experience instead of the university classroom. The six goals that define the important outcomes of the field experience were determined collaboratively by the university instructors and faculty at the high schools, as well as by students who previously completed the sixteen-week course in both the alternative and regular certification programs. These goals are the following:

- Understanding the complex lives of students and adults in the school.
- Planning, organizing, and teaching lessons in a positive classroom environment.
- Designing and administering assessment strategies and methods.
- Nurturing personal growth and professional development.

- Improving self-assessment and peer feedback processes.
- Organizing for student teaching.

The pre-service teaching experience course emphasizes teaching and direct, systematic experiences with adolescents rather than observation only. The pre-service teachers act on their knowledge of content, their emerging roles as teachers, and their growing relationships with learners by organizing at least four teaching events in the high school classroom context. They support the high school's reform efforts by fully involving themselves in the life of the school and by completing school reform projects that assist in restructuring efforts. For example, a cohort of pre-service teachers meet in team planning sessions, assist teachers and students with writing portfolio assessments, participate in School-Based Decision- aking Council (SBDM) meetings, and facilitate interdisciplinary cooperative learning projects.

Collaboration in Primary Education

Since 1993, the University of Louisville's Department of Early and Middle Childhood Education has worked collaboratively with selected teachers at five urban and two metropolitan elementary schools to design and establish them as PDS sites. Using the Holmes Group model of PDSs, four-member teams comprised of the principal and three teacher representatives came together to create a collaborative partnership that would strengthen the linkage between theory and practice in the areas of teacher education, preparation, and continuing professional development.

The initial phases of the partnership involved the two groups meeting together on a bimonthly basis over a period of eight months to discuss the potential focus of their emerging relationship. For each site, an education faculty member was chosen to serve as the university liaison between the school and the department. The university liaison's role involved multiple responsibilities: developing working relationships with the PDS planning team, establishing rapport with other teachers to broaden and deepen the linkage, serving as a resource for grant development and professional development activities, and exchanging information between the department and the school.

The initial focus on school-centered issues created a context in which trust and respect could develop between the university liaison and the PDS planning team. Thus, the first phase of our working together created a foundation upon which we could begin to design the implementation strategies of

a site-based teacher preparation program. As the second year began, attention shifted to implementing the new teacher preparation program. This led to the expansion of the number of teacher participants who served as mentor teachers ranging from three to nine at each of the sites where three graduate students would be assigned for a year-long internship. Supervision of the students was a shared responsibility between the university liaison and the mentor teachers.

Lessons Learned

Based on six years of experience with conceptualizing, planning, and creating PDSs, we have identified the following questions that are, in our estimation, critical to the expansion and institutionalization of the PDS as a model to improve the initial preparation and professional development of teachers. Equally significant, we provide a brief analysis of the lessons learned as we have attempted to create school-university collaboratives.

Are we capable of collaborating among ourselves, within schools and colleges of education, well enough to sustain a PDS partnership with public school professionals?

The socialization process for entering the academy does not provide university faculty with many opportunities for collaboration. Consequently, a substantial number of them are unused to working together and have experienced difficulty developing collaborative ties within their own units as well as with others. Such is often the case with education faculty assigned to work in PDS sites. The model calls for collaborative planning at both levels, preparation of a mutually agreed-upon agenda for restructuring and/or reform, shared decision-making and responsibility for implementation, and evaluation of outcomes. Individuals involved in PDS collaboratives must learn to connect their work, to some extent, to that of others in the department, and to build bridges with faculty in other departments.

Lessons Learned:

· In-fighting among university faculty and institutional politics sometimes create awkward circumstances for PDS faculty. This is especially true when the interests of schools are in conflict with the direction of the university. Our experience reveals that only when the two groups work together in teams at a site and share the responsibility for PDS activities and outcomes is it possible to transcend the "my school, my administration, and my students"

mentality.

· Typically, only a minority of the faculty are actively involved in creating and maintaining the PDS. As collaboration evolves, there is increasing potential for tension to emerge between those so-called field-based faculty and those who consider themselves campus-based. Thus, there is the need for improved communication and a more definitive and interdisciplinary approach to recruitment of faculty from programs other than teacher education to be involved and responsible for developing and maintaining the PDS.

Is it possible to alter the rules that seem to guide relationships in our collaboration with public school professionals without changing more fully our roles?

One of the most rewarding outcomes of collaboration between education faculty and public school professionals is the new linkage that has developed. Joint planning and sharing in preparing future teachers for real-life classrooms has strengthened the vision that both groups do a *better* job when teacher preparation is tightly linked to field training. Also, significant are the new rules (albeit in most cases these are not articulated) that have emerged to guide the formation of collaborative relationships. To be sure, PDS participants experience tensions related to the new role integration.

Lessons Learned:

· Blurred roles seem to be a natural consequence in collaboratives, and those individuals responsible for sustaining such an arrangement are challenged to serve multiple masters. Unfortunately, the outcome is multiple levels of frustration centered on an identity clash between being neither a teacher or teacher educator in the traditional sense. This can be particularly stressful for new faculty working in PDSs from the beginning of their careers in the academy.

· The expectations related to PDS work and projected improvements in changing traditional practices are slow to materialize. PDS colleagues are attempting to model best teaching practices informed by current research while at the same time working within the organizational structures of school districts and universities. Although these organizations expect change, we have discovered that, typically, the rate of change is glacial, at best. Thus, the impact of PDS work on the overall organizational structures appears to be minimal to those carrying out the work of change.

· Education faculty assigned to facilitate the achievement of PDS goals

for both institutions many times must do so at the expense of their other professional interests or at least put those desires on hold. Despite a commitment to linking research to practice there are times when PDS participants desire to work on other projects. This is especially true for university faculty involved in the PDS effort. However, central administration has not seen the issue of attracting additional faculty participation as a priority. This implies that those involved also are expected to find ways to include other colleagues.

Can education faculty make formative changes to meet the goals of the relationship without sacrificing collaboration?

The future of the PDS initiative is tied to our ability to change our practices via constructive and supportive criticism. Yet, how strong are these new collaboratives in terms of withstanding formative evaluations that call for revision and additional modifications? Is there a way to avoid jeopardizing the newly formed trust between the two groups while radical change is implemented?

Lesson Learned:

· Due to their substantial investment of time and energy, PDS faculty tend to be reluctant to conduct formative evaluations on whether outcomes are achieved. Without valid data on the success of the PDS efforts future decision-making will be based on tacit beliefs and perceptions rather than documentation.

· Decision-making processes need to be inclusive, especially when the outcome affects those working in PDS sites. Very often that also includes those who may not be actively involved in PDS work.

· Trust is essential. The day-to-day issues that arise are more difficult to resolve when there are credibility issues. Three components seem critical to creating a feeling of mutual trust and respect among PDS participants. These include: consistent follow-through by all involved, appreciation for the value added by each participant's contribution of expertise, and allowing sufficient time for the work to evolve—believing that it will happen.

Can we make the changes in our own teaching at the same rate as the schools ?

The reform reports of the 1980s and the current pressure from all sectors of society have caused several major changes in K-12 practices. In contrast, the traditions and bureaucracies often associated with universities continue to make it difficult for public schools and colleges of education to move

toward a more constructivist approach to teaching.

Lessons Learned:

· Course release time is critical for those involved in the implementation of the PDS reform agenda. These faculty need time to reflect, share, and engage in scholarly inquiry that will support their PDS work.

· Logistical issues such as grant procedures, scheduled meeting times, and substitute procedures complicate a simple effort of bringing the two groups together for a meeting.

· Productivity issues such as load and FTE make it difficult to characterize PDS work compared to traditional scholarly research. More clarification is needed with regard to how to describe PDS work as part of one's research agenda.

· Defensiveness is increasingly likely to occur among education faculty with regard to what individual or department receives administrative support (e.g., funding, release time, etc.). This must be addressed by the leadership at both levels to maintain support for PDS work. Otherwise progress will be threatened.

How do we assess the impact of PDS work on schools and on teacher preparation ?

Generally, the schools selected as PDS sites are undergoing a multitude of changes related to implementing state and national reform measures. For most of these schools, the PDS model is only one among several components of the change process. In reality, the attention of K-12 professionals engaged in reform is pulled in many different directions. Education faculty are challenged to meet the expectations associated with other reforms--a result of their new collaborative relationships--as well as those of the PDS model. In some cases, the PDS agenda becomes the back burner project and is not the prominent reform measure around which activities are developed. Yet it is risky for education faculty not to continue to participate in non-PDS efforts in order to maintain the relationship.

Equally important is the selection of sites to become PDSs and the idea that they are exemplars of best practices. In many cases, the sites selected for PDS partnerships are not necessarily different from other schools in the district with the exception of the staff and/or administration's desire to implement education reform measures and their belief that support from the university would be beneficial. Also, PDS site selections seemed to be influ-

enced by previous historical relations between individual faculty members and the school, proximity to the university, special sociocultural factors, and the like.

Lessons Learned:

· As schools restructure themselves, multiple changes will occur, concurrently. Establishing PDSs will in all likelihood be one of the reform measures undertaken, but not the only one. As a result, efforts will need to focus on linkage of the PDS tenets with other reform practices.

·In any school there are exemplary features. The PDS planning teams and others responsible for implementation of reform measures typically are risk takers, innovators, and have been recognized by their peers as such.

· Any type of evaluation or analysis of progress must take into account where the school began--prior to the PDS effort and implementation of other reforms. PDS faculty deliberately strive to work with schools that desire to become better places for children or exemplars of best practices. The notion of standards for PDS sites are still in the embryo stage.

Can PDSs survive long term when participating teacher educators and/or K-12 professionals seek to fulfill non-PDS opportunities?

Those faculty who are deeply involved in PDS work are committed to achieving its goals and supporting its activities. However rapid burnout is a constant concern as veteran PDS faculty began to show signs of fatigue and overextension. Moreover, with only one-third of most teacher education faculty participating in PDS-related activities within a given school or college of education, the challenge becomes how to recruit replacements to sustain the work and take the initiative to its next level of implementation (Metcalf-Turner, 1993).

Lessons Learned:

· The intensity of the multidisciplinary activities is a chronic issue frequently associated with PDS activities. Groups need to plan how to balance work loads and provide the appropriate level of support.

· There comes a time when faculty will desire to move on to another body of work not necessarily related to previous PDS activities. Throughout the process of creating the PDS, efforts must be directed at recruiting more faculty and making the smooth transition to bring new faculty on board.

· The cornerstone of the collaborative partnership between PDS faculty

and K-12 professionals is reciprocal trust and acceptance of roles to which each has grown accustomed. The stability of the partnership is threatened when key participants are no longer actively involved.

The documentation of successful school-university collaboration is sporadic at best, offering little in terms of guidance for identifying criteria for a comparative and evaluative analysis. The literature primarily presents case studies that cover a number of collaborative strategies used to create PDSs. The most useful of these studies are listed at the end of this article. The existing descriptions and analyses generally bear out the lessons we have learned from our own experiences at the University of Louisville.

Conclusions

In spite of the fact that, at the time of this writing, evaluation of strategies leading to successful collaboration is not available, education faculty and public school professionals involved in PDS work continue to express their support for its continuance.

A redefinition of collaboration appears to be emerging. Education faculty who have initiated a sustained dialogue with public school professionals in fact created a new arrangement for these two groups. The very nature of these conversations is characterized less by the university's need for research and more by the school's needs to improve student achievement (Metcalf-Turner & Smith, 1995). The interaction has led to different roles and a new level of relationship quite distinctive from traditional school-university partnerships. These new roles have promoted the perception that each group has valuable knowledge and expertise to bring to the effort. Education faculty are beginning to see public school practitioners as their colleagues, and vice versa. The PDS context has cultivated the view that the task of teacher preparation is a joint venture and is no longer considered to be the domain of the university alone. In several cases presented in the literature, the input from public school professionals was solicited and used in restructuring teacher education programs.

Another potential benefit is the extended field placement and the value of having both public school professionals and teacher educators mentor pre-service teachers. In many of the cases the field experience has been extended two to three times longer than in traditional programs. The pre-service teacher spends substantially more time with the public school team and certainly engages in more sustained interaction than is possible with the education fac-

ulty member. Thus, the PDS creates an environment in which better communication can occur, and pre-service teachers get more direct interaction and support from both public school practitioners and education faculty.

In addition, public school PDS participants indicate that the effort has created a direct line to the university that provides additional resources such as access to current research-based practices, grants to support innovation, and professional development opportunities. In the past, teachers complained that they were required to provide their classrooms as research laboratories with very little opportunity to benefit from the experiment. Moreover, it was difficult for them to seek new information without formally enrolling in a college course, which, given their demanding schedules and limited ability to leave the classroom, greatly hampered efforts to improve their knowledge base and expertise. In selected cases, public school practitioners also reported that having pre-service teachers in their classrooms over a longer period motivated them to put forth their best practices as role models.

Education faculty who work in PDSs report that they, too, have increased their knowledge base about the realities of teaching in today's public schools. Equally important is the perception that their credibility with public school professionals has increased. In most PDS sites an assigned faculty member is the designated liaison between the university and the public school. The relationship is intended to develop over time and provide a communication link that may involve the university and the school, the student and the teacher, the mentor teachers and department faculty and others. Each group relies on the liaison who moves between the two groups.

The PDS movement has been under way for almost a decade and the verdict is still out. Formative and informative, quantitative and qualitative research needs to address some of the main issues raised in this articleand to evaluate the underlying assumptions of the PDS model.

There is little doubt as to the advantage of efforts to link theory to practice through collaborative partnerships between teachers and teacher educators. But it is critical that such examinations focus on the new relationship emerging between education faculty and public school practitioners involved in PDS work and on the tensions identified by education faculty and public school professionals. What are the patterns? How are roles determined, clarified, and integrated? What strategies have been employed to deal with burn-out? How are new PDS faculty and practitioners identified and socialized? These are just a few of the questions to be examined. We also need

more information about the variables considered to be highly correlated with improved student achievement, quality of instruction, and teacher preparation in the PDS setting.

Suggested Readings

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