A Collaborative Evaluation Model for Systemic Renewal of Teacher Education

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The National Commission on Teaching and America's Future and researchers (Darling-Hammond, 1997, 1999) have expressed the problematic condition of America's teaching force. States are now focusing on teacher education as an important means for improving student achievement and are enacting legislation that raises standards for admission to teacher education. Schools and colleges of education have enacted programs such as Professional Development Schools (PDS) to address the need for field-based preparation. In the contemporary debate on the quality of teacher education, the use of the PDS model has emerged as a highly acclaimed model of teacher preparation (Book, 1996). However, there is a notable absence of studies attempting to make direct links between these innovations and the performance of teachers prepared in such programs as well as the achievement of their students.

Abdal-Haqq (1998) has documented the scarcity of information available to those interested in knowing more about the impact of PDS schools on teachers and K-12 students. While PDS partnerships have proliferated (Darling-Hammond, 1994), the investment in these partnerships is based largely on theoretical assumptions about effective preparation of teachers; more studies attempting to make links between PDS and the performance of teachers prepared and the achievement of students are needed (Ducharme & Ducharme, 1996; Zeichner, 1999).

This article describes an evaluation model developed collaboratively by three partners that are important to the success of teacher education: university-based researchers, school district researchers, and representatives of a teacher union. In the process of conducting studies about PDS schools, the University of Louisville (UL) has developed a long-established research partnership with the Jefferson County Public Schools. The teacher union is also involved because they are committed to the advancement of the teaching profession.

The PDS are innovative institutions formed through partnerships between teacher education programs and K-12 schools. Their mission is professional preparation of candidates, faculty development, inquiry directed at the improvement of practice, and enhanced student learning (NCATE, 2001). As implemented by the UL, PDS involves teacher education students spending substantial amounts of time at a public school taking university classes, assisting

experienced teachers, and instructing students (Book, 1996; Holmes Group, 1995). This approach to teacher education contrasts with the traditional approach in which aspiring teachers take almost all of their classes on campus.

With the impetus of a grant from the National Education Association (NEA), an evaluation was designed for the Louisville PDS-based system of teacher education. The major purpose of the collaborative model was to gain insight into the impact of professional development schools on: (a) teacher behavior, attitudes, and opinions, and (b) student achievement, particularly in mathematics and science. Key features of the evaluation model developed for the PDS project are shown in Table 1. This model was developed for the relatively common situation of a program having *proximate* outcomes and *distal* outcomes (Rossi, Freeman, & Lipsey, 1999). According to Chen and Rossi (1983), the use of theoretical models in program impact assessment can heighten the power of experimental designs and compensate for some deficiencies in the quasi-experimental designs.

Table 1
Evaluation Model for Professional Development Schools (PDS)

Evaluation Component	**Proximate Outcomes: Teacher Behaviors and Attitudes**	**Distal Outcomes: Student Achievement**
Purpose of the evaluation	Information about PDS in the context of a teacher education program (formative)	Providing research data on ultimate impact of PDS
General evaluation question	Comparing teachers in PDS and non-PDS schools, are there differences in teacher instructional behaviors and attitudes?	Are there differences in achievement of K-12 students in PDS and non-PDS schools?
Data type	Quantitative and Qualitative	Quantitative
Data gathering	School visitation of individual teachers	Retrieval of archival data
Categories of variables	Data on teachers (PDS and non-PDS schools): Instructional behaviors and opinions about career and the profession	Data on students (PDS and non-PDS): Demographic, achievement, attendance
Analysis methods	Descriptive statistics (observational and survey data) and thematic analysis (interviews and observations)	Descriptive and inferential statistics (OLS regression, hierarchical linear modeling)
Reporting	Narrative and statistical summaries	Statistical summaries

Findings and Discussion

The evaluation model employed a mixed model approach by combining quantitative and qualitative data to gain insight into the impact of PDS schools on (a) teacher behavior, attitudes, and opinions, and (b) student achievement, particularly in mathematics and science. This model was developed for assessing program proximate outcomes and distal outcomes.

Observational data indicated that in five out of six of the variables selected, PDS classrooms had higher mean scores. The largest magnitude were on (a) the classroom facility and the classroom environment and (b) the quality of the instructional activity. Teachers from PDS and non-PDS schools were generally similar in classroom teaching; when differences were found, however, teachers in PDS schools had higher scores. Test scores data analyses indicated no statistically significant difference at the elementary school level, but a significant one at the high school level. Student attendance analyses did not show statistically significant differences.

In concluding this study, it is important to encourage educational researchers to continue studying the impact of teachers on student learning. Policy makers need enlightenment about the particularities (i.e., patterns of behavior and practice) of effective teachers in PDS and non-PDS schools. Teacher educators need to know what how to prepare effective teachers or help those who are less effective become more effective.

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