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ABSTRACT

As part of the evaluative process of a program at a professional development site (PDS), 30 participating elementary and middle school teachers were surveyed about their attitudes as participants in a field-based education program partnership. Each teacher was mentor to a preservice teacher for a semester before student teaching, while 10 continued as cooperating teachers during student teaching. Using a Likert-like scale, 32 items sought information on: (1) practical knowledge passed from university instructors through preservice university students to the classroom teacher; (2) differences in instruction and management when more than one adult is in the classroom; (3) teachers' perceptions of students' awareness of teacher training; (4) reflectiveness in professionalism as a teacher educator; (5) difficulties in teaching required skills for state-mandated testing because of involvement as a PDS mentor; (7) the university's role at the collaboration site; and (8) enjoyment of having a PDS preservice teacher. General findings indicate a positive attitude towards participating in a PDS partnership. Results also suggest that teachers were actively interested in integrating university ideas delivered through their PDS preservice teachers. (Contains one table and nine references.)
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Evaluating Teacher Attitudes in Professional Development Sites

ABSTRACT

by

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As part of the evaluative process of our PDS site, 30 site-based elementary and middle school teachers were surveyed for their attitudes as participants in a field-based education program partnership. Each teacher mentored a preservice teacher for a semester for pre-student teaching, while 10 continued as cooperating teachers during student teaching. Using a Likert-like scale, thirty-two items sought information on (1) practical knowledge passed from the university instructors through preservice university students to the classroom teacher, (2) differences in instruction and management when more than one adult was in the classroom, (3) teachers' perception of their students' awareness of teacher training, (4) reflectiveness in professionalism as a teacher educator, (5) difficulties in teaching required skills for state-mandated testing because of involvement as a PDS mentor, (6) efficacy as a PDS mentor, (7) the quality of the university's role at the collaboration site, and (8) enjoyment of having a PDS preservice teacher. General findings indicate a positive attitude towards participating in a PDS partnership.

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**Evaluating Teacher Attitudes
in Professional Development
Sites**

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The number of Professional Development (PDS) Sites throughout the country has rapidly grown during the 90s. Teitel's (1996) review of the literature on PDS sites shows a total of almost 200 Professional Development Site studies--the vast majority of which were published or presented after 1990. Recently, calls for teacher education to move into professional development programs have been overwhelming (Wise, 1996; Darling-Hammond, 1996; Wise and Leibbrand, 1996; Shanker, 1996). Wise and Leibbrand report that "NCATE colleges and universities are expected to enter into partnerships with the schools, thereby linking preparation and practice more closely than ever before." (p. 204). Because many colleges of education are just beginning to reorganize into field-based programs, studies that are already analyzing information from established sites would seem to be of great value.

One area of interest in these new programs naturally centers on evaluation of the total Professional Development Site concept. Because most PDS programs are multi-goal oriented, conceivably, evaluation should include several different groups of people--teachers, university personnel, preservice teachers, students, and so forth. Therefore, program evaluation may take many paths. One path in judging the effectiveness of our PDS program was to examine perspectives of teachers who hosted preservice teachers in their classrooms. The basis of examination in this arena was the desire of this PDS program to affect an overall school where a site was located--particularly in the areas of instruction and environment. In addition, this study also wished to determine attitudes of professionalism

based upon the growing role of mentors in a learning community (Buday & Kelly, 1996). It was also felt that in order to make improvements, to keep our PDS program running smoothly, and to be able to collaborate in the most effective manner, it would be of the utmost importance to determine teachers' overall reactions to several different areas of the program. The objectives of this study, therefore, were to gain a wide view of classroom teachers' attitudes on various facets of their participation and partnership in this Professional Development Site program. The findings would be used for evaluation. Thus, they would aid in making decisions for any future direction or needed adjustments that this and, perhaps, other programs might take.

Methods

Participants

The participants were 30 School-based Teacher Educators (SBTEs) located in a one-year old PDS cluster site. This cluster consisted of one elementary and one middle school. Twenty-one teachers were based in an ethnically diverse elementary school located in a large south/central urban/suburban district, while 9 teachers were from a comparable middle school within that same district. Each teacher surveyed had a university PDS preservice teacher for at least one semester during the 1995-96 school year and, during that time, had mentored the preservice teacher in his or her classroom for approximately 4 hours each day. Ten of these teachers retained their PDS student for a second semester in student teaching at these two sites. Therefore, 10 of these SBTEs had two professional development experiences, serving first as an SBTE with preinterns and later as a cooperating teacher during the second semester with a student teacher.

University personnel conducted five on-site classes during each semester. These consisted of a beginning generic teaching course and four methods courses. Many of these university instructors integrated public school students from mentors' classroom into their instruction by holding classes in a teacher's room or by bringing students into the designated university classroom located at the elementary school.

During the first semester, preservice interns moved rapidly from observations to being an involved helper to finally designing and teaching his or her own designed integrated unit. During the second semester, university preservice interns moved into student teaching, if they were designated as ready.

Procedures

A survey of 32 items was administered to classroom teachers during the final week of school. Teachers were asked to mark their feeling about each item using a 1-5 scale, with 5 indicating "to a great extent" and 1 indicating "very little", while 0 indicated "none" or "never". This anonymous survey was designed to discover teachers' attitudes regarding: (1) practical knowledge passed from the university instructors through preservice university students to the classroom teacher, (2) differences in instruction and management when more than one adult was in the classroom, (3) teachers' perception of their students' awareness of teacher training, (4) reflectiveness in professionalism as a teacher educator, (5) difficulties in teaching required skills for state-mandated testing because of involvement as a PDS mentor, (6) efficacy as a PDS mentor, (7) the quality of the university's role at the collaboration site, and (8) enjoyment of having a PDS preservice teacher. Means were calculated for each item and for 8 scales. Correlations were also calculated.

As stated above several scales were created. The following indicates survey items designed to gain information on each scale. Items included for gathering information on Scale 1 (Knowledge Passed from University to School) looks at ideas passed from the university instructors through preservice university students to the classroom teacher. Those items included are (a) I got new lesson ideas from my PDS student, (b) I plan to use my PDS student's unit in the future, and (c) I plan to use ideas brought to me through my PDS student in my class next year. Items aimed at Scale 2 (Differences When More than One Adult is in the Classroom) include: (a) It was easier to maintain classroom discipline when both of us were in the room, (b) I was able to do lessons which required more structure, hands-on learning, etc. (messy art projects, labs, etc.) more often because 2 people were in the room, (c) I was more of a risk-taker in my teaching because there

were 2 people in the room, (d) My PDS student offered my student(s) one-on-one attention in more personal matters as a friend/counselor, (e) My PDS student offered my student(s) one-on-one attention in remediation, and (f) My PDS student offered my student(s) one-on-one attention to help in challenging a more gifted student(s). Another scale investigated Teachers' Perception of Student Awareness of Teacher Training--Scale 3. Items which measured this area are: (a) My students knew that my PSD student was studying to be a teacher, and (b) My students became interested in teaching as a career through my PDS student. Scale 4 was designed to collect information on Teacher Reflectiveness in Professionalism as a Teacher Educator. Items contained in this scale include: (a) I was more conscientious about my lesson delivery because of my PDS student, (b) I was more conscientious about my student assessment because of my PDS student, (c) I was more conscientious about my lesson planning because of my PDS student, (d) I became more reflective about my teaching as a result of having my PDS student, and (e) I did more interesting lessons because my PDS student was watching me. State mandated testing for students is extremely important to school districts in Texas. Therefore, for Scale 5, it was desired to determine if SBTEs had Concerns in Teaching State Required Skills for TAAS (state-mandated testing) because of involvement as a PDS mentor. Those items include: (a) Having a PDS student prevented me from teaching all the TAAS skills I needed to teach, and (b) My PDS student integrated the TAAS skills I needed to teach into his/her unit. Efficacy as a PDS Mentor, Scale 6, was another important area to investigate. Items measuring this include: (a) I contributed to the education of my PDS student, (b) My PDS student reaffirmed my choice to become a teacher, and (c) I enjoyed sharing my teaching ideas with a teacher-to-be. (c) The role of the SBTE (School-based Teacher Educator) is an important one, (d) I felt very empowered as an SBTE, and (e) I played an important role in my PDS student's preservice professional development. To succeed well, the university must maintain a presence of support in partnerships. Items that studied the Quality of the University's Role at the PDS Site (Scale 7) are: (a) The university maintained enough "quality control" on my PDS student, (b) I was happy with the University of Houston's role during this experience. Scale 8 measured Enjoyment of Having a PDS Preservice Teacher. This scale included the following items: (a) I enjoyed having a PDS student in my

class, (b) My students enjoyed having my PDS student in the room, (c) It was easy to give my PDS student control of my class, (d) I would like to have another PDS student, and (e) my PDS student came well-prepared as a preservice teacher into my class.

Results

Several individual items indicate very high ratings (See Table 1). All of the following were reported to be given a score above 4.0 where 5 was the highest available positive choice: (1) teacher enjoyment of his/her students working with the PDS preservice teacher, (2) teacher discernment of the PDS preservice teacher offering students one-on-one attention in more personal areas much like a friend/counselor, (3) teacher awareness of students understanding that the PDS university student was in a teacher training program, (4) feelings of the role of the SBTE being an important one, (5) enjoyment in having a PDS student, (6) feelings about the quality control of the university at the PDS site, (7) attitudes towards sharing ideas with teachers-to-be, and (8) attitudes towards repeating a mentorship with another PDS preservice teacher in the future.

Table 1. Survey for Attitudes of Teachers Serving as Mentors in a PDS Sites.

	5 "to a great extent to 0 ("not at all"	
	<u>Mean</u>	<u>SD</u>
<u>Knowledge Passed from University to School</u>		
I got new lesson ideas from my PDS student.	3.53	1.17
I plan to use my PDS student's unit in the future.	3.3	1.51
I plan to use ideas brought to me through my PDS student in my class next year.	3.43	1.33

(table continues)

Table 5 (continued)

Differences When More than One Adult is in the Classroom

It was easier to maintain classroom discipline when both of us were in the room.	2.7	1.5
I was able to do lessons which required more structure, hands-on learning, etc. (messy art projects, labs, etc.) more often because 2 people were in the room.	3.87	1.25
I was more of a risk-taker in my teaching because there were 2 people in the room.	2.76	1.65
My PDS student offered my student(s) one-on-one attention in more personal matters as a friend/counselor.	4.07	1.14
My PDS student offered my student(s) one-on-one attention in remediation.	3.67	1.21
My PDS student offered my student(s) one-on-one attention to help in challenging a more gifted student(s).	3.3	1.44

Teachers' Perception of Student Awareness of Teacher Training

My students knew that my PDS student was studying to be a teacher.	4.4	0.89
My students became interested in teaching as a career through my PDS student.	2.24	1.38

Teacher Reflectiveness in Professionalism as a Teacher Educator

I was more conscientious about my lesson delivery because of my PDS student.	3.53	1.48
I was more conscientious about my student assessment because of my PDS student.	3.3	1.39
I was more conscientious about my lesson planning because of my PDS student.	3.43	1.36
I became more reflective about my teaching as a result of having my PDS student.	3.87	1.41
I did more interesting lessons because my PDS student was watching me.	2.93	1.25

Concerns in Teaching State Required Skills for TAAS (state-mandated testing)

Having a PDS student prevented me from teaching all the TAAS skills I needed to teach.	1.25	1.35
My PDS student integrated the TAAS skills I needed to teach into his/her unit.	3.79	1.08

Efficacy as a PDS Mentor

I contributed to the education of my PDS student.	4.4	0.56
My PDS student reaffirmed my choice to become a teacher.	3.77	1.54
I enjoyed sharing my teaching ideas with a teacher-to-be.	4.67	0.60
The role of the SBTE (School-based Teacher Educator) is an important one.	4.16	0.83
I felt very empowered as an SBTE.	3.63	0.99
I played an important role in my PDS student's preservice professional development.	4.17	0.83

(table continues)

Table 5 (continued)

Quality of the University's Role at the PDS Site

The university maintained enough "quality control" on my PDS student.	4.27	0.9
I was happy with the university's role during this experience.	4.43	0.77

Enjoyment of Having a PDS Preservice Teacher

I enjoyed having a PDS student in my class.	4.2	1.16
My students enjoyed having my PDS student in the room.	4.23	0.089
It was easy to give my PDS student control of my class.	3.36	1.16
I would like to have another PDS student.	4.3	1.08
My PDS student came well-prepared as a preservice teacher into my class.	3.87	1.22

One item was of particular interest. This item asked if teachers felt that they had not been able to teach all the necessary TAAS skills needed for the mandated state test (of basic skills in Texas) because of having a PDS preservice teacher. This was an extremely important item due to emphasis placed upon testing in this state. During this year many classroom teachers had indicated concern to our on-site personnel about this, particularly as the time neared for giving up their own teaching time to PDS preservice teachers. The reported score (1.3) indicated that classroom teachers felt secure in that having a PDS student did not, in fact, compromise their students' test readiness eased university anxiety that teachers might not accept another PDS student for the following year.

Other items which were rated below the average of three ("about half the time" to "infrequently") included the teacher perception that it was easier to maintain discipline when both the teacher and the preservice teacher were in the room (2.7) and teacher perception that he/she did more interesting instruction because the PDS student was observing (2.9). It is believed, through further conversation about this item with SBTEs, that teachers perceived their discipline and instruction was always of a good standard, so that having another person in the room may have made little difference in the normal high standard to which they hold themselves. Finally, the teacher perception that his/her students became interested in teaching as a career

through having a preservice teacher in the classroom (2.2) was also a low item.

Only one scale means fell below the average of 3. This scale examined Teachers' Perception of Student Awareness of Teacher Training as a career (2.4). This showed that teachers perceived that their students were not being influenced as to interest in teaching careers through having a preservice teacher in the room. All other scales were found to be 3.36 or higher. The highest scale, teacher empowerment, reached 4.42.

The scales were each measured for item correlation and then checked for reliability. Scale 1 (Practical Knowledge Passed from University to School), Scale 4 (Teacher Reflectiveness in Professionalism), and Scale 5 (Concerns in Teaching State Required Skills) showed a high degree of correlation ($p < 0.01$) on each item. The majority of items correlated to that degree on Scale 2 (Perceived Differences in Having Two Adults in the Classroom), while 2 other items on Scale 2 were above $p < .05$. Items on Scale 3 (Teacher Perception of Student Awareness of Teacher Training) indicated a very weak correlation. Further research would need to investigate why these items do not seem to correlate as well. Scale 6 (Efficacy as a Mentor) had items that correlated strongly, but of interest were two items which did not correlate with any other items. One item asked teachers to indicate that helping a teacher-to-be worked to reaffirm their commitment to teaching and another sought to question whether having a preservice intern helped in feelings of empowerment. Further investigation as to why teachers do not feel that their part in a future teacher's is an efficacy issue would be needed. The items in Scale 7 (Quality of the University's Role on the PDS Site), correlated at $p < .01$, as did all 5 items in Scale 8 (Enjoyment of Having a PDS Preservice Teacher) except one which showed a slight correlation with the others (My PDS student came well-prepared.). All scales were tested for reliability and it was found that Scales 1, 2, 4, 5, and 7 were all above 0.7, while Scale 6 was at 0.4 and Scale 3 at 0.2.

Generally, scores of middle school teachers reflected more critical attitudes. The frequencies in ratings of ones, twos, and threes were much higher.

Discussion/Educational Importance

The impact of this PDS program during the first year on this site seems to be an encouraging one. The first important gain is demonstrated in the area of university influence on instruction. Stoddard (1993) believed that PDS sites would be one way to avoid the theory-practice dichotomy. Outside the bounds of this study, it was obvious that preservice teachers thankfully did not seem to experience this dichotomy through this PDS program. However, one concern foremost in the minds of university personnel was that preservice teachers would take ideas from university classes directly into their assigned rooms where their classroom teachers would immediately state that the ideas were unworkable. From evidence collected during this study, however, teachers seemed to be actively interested in integrating university ideas delivered through their PDS preservice teachers.

Another area often questioned is the adversarial role of university personnel and classroom teachers during field experience (Ellsworth and Albers, 1995). However, in this study classroom teachers were happy with the university's role at this site and with the quality control maintained by the university personnel. Perhaps the emphasis of university personnel on maintaining continuous contact with all School-based Teacher Educators and being on campus everyday helped to gain advances in teacher attitudes in this area. This is often very different from the four to six hour-long semester visits often made field supervisors in student teaching. Hopefully, this is indicative of a solid relationship and partnership formed to aid preservice teachers in becoming their best.

One strength of PDS programs has been noted (Collinson, 1994) for the expanded role of teachers in professionalism and professional development. Several recent articles on teacher quality assurance (Darling-Hammond, 1996) call for an increase in encouraging teachers to develop or use growing expertise, particularly with mentoring opportunities. In this study, teachers report that they are indeed becoming more reflective in their thinking about teaching. This increase in reflection on practice has been seen as an indicator of advancing professionalism in teaching. In sharing the partnership of educating teachers-to-be, most of the teachers involved also strongly indicated their feelings of empowerment on the item in question.

Interestingly, this may not be a part of their feelings of efficacy as a mentor, however.

The scale which measured means of teacher enjoyment in having a PDS preservice teacher in their classroom was also encouraging for the program. If teachers do not enjoy having our students in their classrooms, the pressure and negative feelings will eventually drive the program from schools. In addition, it is not fair for colleges of education to demand that teachers be forced to take a preservice intern into their classrooms where they are not wanted. It was, therefore, very positive to see through this scale that overall teachers did seem enjoy having their preservice teacher very much. Enjoyment of having a PDS student does seem to help insure that PDS students will be invited back into experienced teachers' classrooms, and the program as a whole would not have difficulty continuing in public school districts.

Certainly, analysis of teacher attitudes offers only a piece of the program evaluation which would show the overall effectiveness of PDS sites. However, it is felt that this part of the picture is a very important one if a goal of overall site growth is to be examined and maintained. In addition, the attitudes of teachers in these areas could grow into a tool to help chose effective and enthusiastic School-based Teacher Educators (mentors) for the following year. Finally, it offers confirmation of program components that should remain intact, while identifying other areas on which to concentrate for greater growth in the overall teacher climate within a collaborative partnership.

Resources

Buday, M. C., & Kelly, J. A. (1996). National board certification and the teaching profession's commitment to quality assurance. Phi Delta Kappan, 78(3),215-219.

Collinson, V. (1994). Changing context for teacher roles: Teachers as learners and leaders in universities, professional development schools and school districts. (ERIC Document Reproduction Service No. ED 374 091)

Ellsworth, J., & Albers, C. M. (1995). Tradition and authority in teacher education reform. In High G, Petrie, (Ed.), Professionalization, partnership, and power: Building professional development schools (159-176). Albany, NY: State University of New York Press.

Darling-Hammond, L. (1996). What matters most: A competent teacher for every child. Phi Delta Kappan, 78(3), 193-200.

Shanker, A. (1996). Quality assurance. Phi Delta Kappan, 78(3),220-224.

Stoddart, T. (March, 1993). The Professional Development School: Building bridges between cultures. Educational Policy, 7(1), 5-23.

Teil, L. (1996). Professional development schools: A literature review. Prepared for the Professional Development School standards Project National Council for Accreditation of Teacher Education. University of Massachusetts at Boston.

Wise, A. (1996). Building a system of quality assurance for the teaching profession. Phi Delta Kappan, 78(3), 191-192.

Wise, A, & Leibbrand, J. (1996). Profession-based accreditation: A foundation for high-quality teaching. Phi Delta Kappan, 78(3), 202-206.

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