The Impact of an Urban Professional Development School Model on Attitudes and Self-efficacy of Developing Preservice Teachers

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ABSTRACT: The purpose of this study was to investigate the impact of an 8+ million dollar U.S. Department of Education grant on the climate of a Professional Development School (PDS) network where pre-service candidates in the Urban Education (UE) option were placed for their clinical internship experiences. The setting for the study was a network of seven vertically aligned Professional Development Schools (five elementary schools, one middle school, and one high school) in a southeastern school district and an institution of higher education (IHE) from the same geographic area. Three online surveys specifically developed by the PDS partnership's Research Academy were focused on measuring attitudes about urban education, self-efficacy, and PDS climate. The findings suggested that candidates in the UE option held a developing sense of self-efficacy more closely aligned with that of inservice teachers than those perceptions of candidates prepared in a traditional campus-based program. Additionally, candidates in the UE option were more likely than traditional candidates to hold high expectations for student achievement.

NAPDS Essentials Addressed: #1/A comprehensive mission that is broader in its outreach and scope than the mission of any partner and that furthers the education profession and its responsibility to advance equity within schools and, by potential extension, the broader community; #2/A school–university culture committed to the preparation of future educators that embraces their active engagement in the school community; #3/Ongoing and reciprocal professional development for all participants guided by need; #4/A shared commitment to innovative and reflective practice by all participants; #5/Engagement in and public sharing of the results of deliberate investigations of practice by respective participants; #7/A structure that allows all participants a forum for ongoing governance, reflection, and collaboration; #8/Work by college/university faculty and P–12 faculty in formal roles across institutional settings

Introduction

Professional Development Schools (PDS) offer promising opportunities for shaping and transforming teacher preparation programs. Sustainable PDS partnerships provide the context for authentic field-based learning where developing teachers establish and maintain supportive relationships as they grow into their professional identities. The purpose of this study was to investigate the impact of an 8+ million dollar U.S. Department of Education grant on climate in a Professional Development School (PDS) network where pre-service candidates in the Urban Education (UE) option were placed for their clinical internship experiences.

Review of Literature

Broadly defined, a Professional Development School (PDS) is a unique structure where P-12 schools and institutions of higher education share the responsibility for preparing teachers, providing for faculty development, improving practice, and promoting greater student achievement (Brindley, R., Field, R., & Lessen, E., 2008 ; NCATE, 2001). More specifically, there are five defining characteristics of a PDS: Learning Community; Accountability and Quality Assurance; Collaboration; Equity and Diversity; and Structures, Resources, and Roles (NCATE, 2001, p. 1). A number of recent studies have explored the success and sustainability of PDS models on teacher preparation (Castle, Fox, & Souder, 2006; Epanchin & Colucci, 2002; Ridley, Hurwitz, Hackett, & Miller, 2005; Walling & Lewis, 2012).

Instruction

In a study comparing the effectiveness of teacher candidate preparation in a PDS versus a campus-based program and specifically with respect to knowledge, lesson planning skills, effective teaching, and reflective practitioner skills, those placed

in an urban inner city PDS demonstrated greater ability to capture and sustain students' attention, relate teaching to students' prior experience, focus students' attention on objectives and purposes of lessons, and engage students in learning (Ridley et al., 2005). A similar study by Castle et al. (2006), measured the impact of a Professional Development School on preservice teachers by comparing PDS and non-PDS teachers' ability to engage in planning, instruction, management, assessment, professionalism, and reflection. Findings revealed that PDS preservice teachers scored higher on their student teaching evaluations and demonstrated greater involvement in their students' learning.

Professional Identity and Self-Efficacy

A PDS program evaluation model employed by the University of Texas at Tyler focused on preservice teachers' development of professional identity. Questionnaires were administered to PDS and non-PDS teacher candidates at three different points in their program. Findings revealed that PDS preservice teachers held a greater awareness of school challenges and revealed more fully developed perceptions of professional identity. They also developed personal goals more oriented to careers than jobs in teaching. (Walling & Lewis, 2012).

Studies of the impact of a PDS on teacher self-efficacy and professional identity have suggested that school climate plays an important role. A study examining the evolving beliefs of thirty-seven preservice teachers in Australia revealed the importance placed on good teaching attributes such as caring, dedication, organization, compassion, commitment, and enthusiasm (Ng, Nicholas, & Williams, 2010). In a survey of school climate factors in British Columbia and Ontario, 664 respondents to a survey distributed to 17 school districts noted that if teachers have confidence in their ability to effectively deliver instruction and manage student behavior, job satisfaction does not appear to be negatively impacted by student behavior stress. However, a "reduced sense of self- efficacy" coupled with student behavior stress did impact job satisfaction (Collie, Shapka, & Perry, 2012, p. 1199). According to Petty, Fitchett, and O'Connor (2012), a caring school environment that promotes collegiality and provides strong administrative support is central to attracting and keeping teachers in high-need schools. For some teachers who work in high need schools, their ability to assume responsibility in a supportive climate empowers them to enhance their personal learning (Halvorsen, Lee, & Andrade, 2008).

Researchers have explored a possible relationship among climate, task-content, and self-efficacy. Tschannen-Moran & Hoy (2007) employed the Teacher Sense of Self-Efficacy Scale to examine factors such as environment and resources as related to teachers' perceptions of competence. Contextual factors such as resources and verbal persuasion appeared to have greater influence on self-efficacy for novice teachers than for inservice teachers.

Culturally Responsive Self-Efficacy

Thirty-four candidates in a teacher preparation program whose placements included elementary, middle, and high schools responded to a culturally responsive self-efficacy scale designed to measure their perceived ability to teach in urban schools in comparison to suburban schools. Findings from the study suggested that these teacher candidates felt unprepared to teach African American students, Hispanic students, and English Language Learners (Siwatu, 2011). Likewise, in another study, five female student teachers placed in an inner city school participated in a qualitative study examining their journey from conflict to growth. Findings from interviews suggested that the teachers moved through phases: shock, followed by a period of cognitive dissonance, transition, and finally an emerging sense of self-efficacy. The teachers demonstrated confidence in their ability to take risks. The researcher postulated that placements forcing student teachers to learn in challenging environments actually accelerated and promoted self-efficacy as opposed to placements that protected and shielded them from what they might perceive to be a threatening climate (Rushton, 2000).

Research findings support the notion that context and climate are important factors for developing inservice teachers. The literature reviewed suggests that the supporting climate in a PDS model offers promising benefits for developing instruction focused on improved student learning and self-efficacy. However, the literature also suggests further studies would broaden the knowledge base for teacher education embedded in an urban climate in the United States. According to Milner (2012), research is needed to explore and expand our "knowledge construction in both teacher education and urban education." (p. 702). The PDS model in this study provides a context for such an investigation.

Purpose of the Study

The purpose of this study was to investigate the impact of an 8+ million dollar U.S. Department of Education grant on climate in a Professional Development School (PDS) network where pre-service candidates in the Urban Education option were placed for their clinical internship experiences. The setting for the study was a network of seven vertically aligned schools (five elementary schools, one middle school, and one high school) in a southeastern school district and an institution of higher education (IHE) in the same geographic area. The problem, research design, and data analysis were linked to a theoretical framework undergirding the interrelationship between teacher self-efficacy and school climate (Tschannen-Moran & Hoy, 2007) and to the "Nine Essentials" of a Professional Development School (Brindley et al., 2008, pp. 2-3).

The major goal of the grant was to develop a transformative urban model for teacher preparation characterized by yearlong internship placement in the same school setting; co-teaching between pre-service candidates and P-12 collaborating teachers; PDS onsite delivery of courses with co-instruction offered by P-

12 collaborating teachers and university instructors; and coaching visits in addition to supervision visits provided to the pre-service candidates by the university.

The UE option was offered as an alternative to the traditional teacher preparation program at the institution of higher education. Potential candidates applied for admission and met academic requirements for entry into Teacher Education as required by the state and the institution of higher education. Additionally, applicants to the UE option were interviewed and selected by a committee jointly representing school district instructional staff and faculty from the institution of higher education. Three research questions guided the study:

(1) To what extent did the PDS UE option impact pre-service candidates' attitudes about teaching in an urban school?
(2) To what extent did the PDS UE option impact pre-service candidates' self-efficacy?
(3) To what extend did the PDS UE option impact pre-service candidates' attitudes about teaching in a Professional Development School?

Methodology

Participants in the study were the pre-service candidates enrolled in the PDS UE option for teacher preparation, pre-service candidates enrolled in the traditional campus-based teacher preparation program, and PDS certified K-12 teaching and non-teaching school staff. The administration of three online surveys provided study data. The surveys were developed by the PDS partnership's Research Academy comprised of representatives from both the district and the university. District personnel held positions in administration, counseling, and classroom teaching. University faculty research expertise covered the areas of both qualitative and quantitative methodologies. The survey instruments focused on measuring attitudes about urban education, self-efficacy, and PDS climate. The surveys were titled Teacher Attitudes about Students in Urban Schools Survey (AU), Self-Efficacy for Urban Schools Survey (SEUS), and Professional Development Schools Survey (PDS). All surveys were administered together during February. The reliability tests completed on the three surveys indicated consistent index measures for each survey. The Cronbach's alpha values were 0.78 (AU), 0.73 (SEUS), and 0.84 (PDS) respectively. All of these figures were adequate and suggested that the instruments were internally consistent.

Teacher Attitudes about Students in Urban Schools Survey

Survey participants responded to 14 items using a 6-point Likert scale with ranges from 1 (*completely disagree*) to 6 (*completely agree*) and an option to choose 0 (*don't know*). The 'don't know' responses or those items left unanswered were dropped from the analysis. Items that remained included the following statements,

"I do not feel safe in urban schools," "I am comfortable talking to someone of another race, ethnicity, and/or culture," "It is my responsibility to meet the language and literacy needs of all students," and "It is my responsibility to find ways to engage students in learning regardless of the life conditions the students face" (see Appendix A for full survey).

Self-Efficacy for Urban Schools Survey

The Research Academy members searched for an instrument that measured self-efficacy specifically for urban settings and subsequently developed the Self-Efficacy for Urban School Survey. The research team deemed it necessary to develop a survey tailored to meet the unique needs of the UE option. Participants responded to 15 items on a 9-point Likert scale with selections ranging from 1 (*nothing*) to 9 (*a great deal*). Items measured perceptions related to culturally responsive practice and school climate. Questions included: "How well can you infuse the diverse cultural experiences of your students into your instruction?" and "To what extent can you motivate students to learn when the students face difficulties at home?" (see Appendix B for full survey).

Professional Development School Survey

The Professional Development School Survey contained 26 items and employed a 6-point scale ranging from 1 (*completely disagree*) to 6 (*completely agree*) with an option to choose 0 (*don't know*) and measured the effects of the PDS on the climate in the partnership's network of seven vertically articulated Professional Development Schools. The "don't know" and unanswered responses were dropped from the surveys. Survey items aligned with the "Nine Essentials" of a Professional Development School (Brindley et al., 2008, pp. 2-3). For example, survey item "At my school, technology is effectively utilized to maximize student learning" aligned with PDS Essential #4, "A shared commitment to innovative and reflective practice by all participants." Survey item "The adults in our school have a shared understanding of what students need to succeed academically" aligned with PDS Essential #7: "A structure that allows all participants a forum for ongoing governance, reflection, and collaboration" (see Appendix C for full survey).

Data Analysis

Independent t-tests examined the hypothesis that differences would be found among candidates in UE option, traditional teacher preparation candidates, and the PDS certified K-12 teaching and non-teaching staff with respect to attitudes about teaching in urban schools, perceptions of self-efficacy, and school climate. Findings varied across all surveys but suggested areas of significance with respect to items related to expectations for students, self-efficacy, and support for Professional Development Schools (see Tables A, B, and C).

Teacher Attitudes about Students in Urban Schools Survey

The attitude scale means were 5.47 for candidates in the UE option, 5.20 for traditional teacher preparation candidates, and 5.32 for the PDS certified teaching and non-teaching staff. Significant differences ($t = 4.118$, $p = 0.000$) were found among the mean scores, suggesting that the candidates in the UE option were more motivated to teach in urban schools than traditional candidates. Significant differences ($t = 2.261$, $p = 0.029$) in the participants' response to an item on the socio-economic status subscale suggested that candidates in the UE option were more likely than traditional candidates to perceive that economically disadvantaged students can meet high expectations (see Table A).

Self-Efficacy for Urban Schools Survey

A t-test for independent samples revealed a statistically significant difference between traditional candidates ($M = 7.17$, $SD = 1.21$) and the PDS certified teaching and non-teaching staff ($M = 7.41$, $SD = 1.12$), [$t(248) = .97$, $p > .05$]. The self-efficacy scores of the candidates in the UE option ($M = 7.24$, $SD = .83$) were larger than for traditional candidates and remained closer to the efficacy demonstrated by the PDS inservice teachers. Open-ended items solicited responses related to professional development opportunities. Those topics mentioned three times or more by both candidates in the UE option and the PDS certified teaching and non-teaching staff as being valuable were as follows: Co-Teaching Seminars, Writers Workshop, Thinking Map Training, and ESOL Training (see Table B).

Professional Development School Survey

Statistically significant evidence suggests that the PDS certified teaching and non-teaching staff ($M = 6.03$, $SD = .69$), [$t(229) = 5.00$, $p < .001$, two-tailed] held higher levels of agreement on the high efficacy of Professional Development Schools than candidates in the UE option did, suggesting that inservice teachers demonstrate greater understanding and value for the PDS. Responses from the PDS certified teaching and non-teaching staff indicated they had more opportunities to advance their knowledge as aligned to the subscales of PDS "Nine Essentials" than candidates in the UE option (Brindley et al., 2008, pp. 2-3). Responses in all subscales of the PDS Nine Essentials indicated a significant difference in that the PDS certified teaching and non-teaching staff's efficacy scores were higher than candidates in the UE option except for PDS Essential #8. "Work by college/university faculty and P-12 faculty in formal roles across institutional settings" [$t(214) = .17$, $p =$ n.s., two tailed]. Although candidates in the UE option demonstrated a higher level of agreement on the opportunity of advancing knowledge through a PDS than traditional candidates, the difference was not statistically significant (see Table C).

Limitations and Implications for Practice

The data set was limited in that the PDS in this study was comprised of but one network of seven vertically aligned schools (five elementary schools, one middle school, and one high school) and was acquired through one year's group administration of the three surveys. For further study, administering the surveys to preservice candidates in a variety of settings at both the onset and completion of a teacher preparation program would provide opportunities to evaluate the impact of context on candidates' developing self-efficacy and on their evolving attitudes about teaching in urban schools. The findings from this study with preservice teachers hold promise for exploring the influence of climate and self-efficacy on the retention of inservice teachers who are prepared in similar environments.

Conclusions

The findings from the study suggest that candidates in the UE option held a developing sense of self-efficacy more closely aligned with that of inservice teachers than those perceptions of traditional candidates. The self-efficacy scores of the candidates in the UE option ($M = 7.24$, $SD = .83$) were larger than for traditional candidates and remained closer to the efficacy demonstrated by the PDS inservice teachers. The PDS may appear to provide a context closer to the realities of teaching. This notion is supported by Walling & Lewis (2012) whose study revealed that preservice teachers in a PDS appeared to have a stronger sense of self-identify. Additionally, the work of Tschannen and Hoy (2007) suggested that context factors such as resources and verbal persuasion play a greater role in self-efficacy for novice teachers than for veterans. Inservice teachers' perceptions of the value of the PDS appeared to be higher than all other groups, thus suggesting that their experience led to greater awareness of the advantages of the PDS environment. The higher level of motivation to teach in urban settings aligns with Rushton's (2000) postulate that exposing preservice teachers to challenging situations serves to promote self-efficacy. Candidates in the UE option appeared to be more motivated to teach in urban settings than traditional candidates. Inservice teachers demonstrated greater support and value for the PDS than candidates in the UE option.

The results from this research suggest that preservice teachers who have urban education clinical experiences develop their teaching skills in a supportive environment that fosters positive attitudes about teaching and a notable developing sense of self-efficacy. Their clinical experiences have the potential for developing attitudes and responses that more closely resemble the professional staff of urban schools, thus better preparing them for the contexts of real schools. SUP

Appendix A

Teacher Attitudes about Students in Urban Schools Survey: 14 items

Scale: (0) Don't Know; (1) Completely Disagree; (2) Mostly Disagree; (4) Slightly Agree; (5) Mostly Agree; (6) Completely Agree

1. I do not feel safe in urban schools.
2. I am motivated to teach in urban schools.
3. I enjoy teaching in a school where I can learn from the different cultures, backgrounds, and experiences of my students.
4. Students can succeed in schools regardless of disabilities.
5. I am comfortable talking to someone of another race, ethnicity, and/or culture.
6. It is difficult for students of certain ethnic or cultural backgrounds to be successful in school.
7. Economically disadvantaged students cannot meet high expectations because they do not have the resources to do so.
8. To be an effective teacher I must learn from the students' cultural and ethnic backgrounds.
9. I should use my knowledge about students' lives to inform my teaching practices.
10. I do not have lower classroom expectations for students who speak a language other than English.
11. It is my responsibility to meet the language and literacy needs of all students.
12. It is my responsibility to find ways to engage students in learning regardless of the life conditions the students face.
13. If the students fail to succeed in school it is because they are not working hard enough.
14. I should utilize an English language learner's home language in the classroom to support content learning.

Table A. Teacher Attitudes about Teaching in Urban Schools Survey

	Mean	Standard Deviation	N
Mean Scores of Teachers' Positive Attitude Towards Students in Urban Schools (Full Scale)			
UE option candidates	5.47*	0.61	19
Traditional education preparation candidates	5.20	0.62	48
K-12 certified teaching and non-teaching staff	5.32*	0.64	184
Mean Scores of Urban Education and Traditional Candidates for Motivation to Teach in Urban Schools (Item 2)			
UE option candidates	5.63	0.60	19
Traditional education preparation candidates	4.50	1.65	48
Mean Scores for Perceptions that Economically Disadvantaged Students Cannot Meet High Expectations Due to Insufficient Resources (Item 7)			
UE option candidates[a]	5.82**	0.53	17
Traditional education preparation candidates[a]	5.16**	1.26	45

[a]Invalid responses were dropped.
*p <.001, **p<.05

Appendix B

Teacher Sense of Self-Efficacy in Urban Schools Survey: 15 items

Scale: 1 -- 9; (1) Nothing; (3) Very Little; (5) Some Influence; (7) Quite A Bit; (9) A Great Deal

1. How well can you provide appropriate learning opportunities for English Language Learners?
2. To what extent can you involve families in the learning process when the families are economically disadvantaged?
3. How well can you integrate technology into your instruction?
4. To what extent can you help struggling readers to improve?
5. To what extent can you make a difference in students' lives in an urban school?
6. How effectively can you use assessment data to inform instruction?
7. To what extent can you provide opportunities for students to use technology in your classroom?
8. How well can you infuse the diverse cultural experiences of your students into your instruction?
9. To what extent can you address the needs of students with disabilities?
10. To what extent can you motivate students to learn when the students face difficulties at home?
11. How effectively can you differentiate instruction for students who struggle with reading?
12. How effectively can you differentiate instruction for students who struggle with writing?
13. How effectively can you differentiate instruction for students who struggle with mathematics?
14. To what extent can you involve families in the learning process when the student is an English language learner?

Table B. Self-Efficacy for Urban Schools Survey

Surveys	Mean	Standard Deviation	N
Mean Scores of Teachers' Self-efficacy on Classroom Instruction in Urban Schools (Full Scale)			
UE option candidates	7.24	.83	21
Traditional education preparation candidates	7.17	1.21	54
K-12 certified teaching and non-teaching staff	7.41	1.12	196

15. To what extent can you motivate students to learn when the students are of a different ethnic or cultural background from your own?

Appendix C

Professional Development Surveys: 26 items

Scale: (0) Don't Know; (1) Completely Disagree; (2) Most Disagree; (3) Slight Disagree; (4) Slightly Agree; (5) Mostly Agree; (6) Completely Agree

I have opportunities to advance my knowledge of (items 1-8):

1. How to involve families in their children's education.
2. How to teach English language learners.
3. How to use data to improve instruction.
4. How to meet the needs of students with disabilities.
5. How to teach literacy.
6. Content areas.
7. How to differentiate instruction.
8. How to effectively integrate technology into instruction.
9. Teachers at my schools are able to create differentiated assessments.
10. At my school technology is used to maximize student learning.
11. Adults at my school exhibit an understanding and appreciation of the culture of all students.
12. Teachers at my school are effective in teaching English language learners.
13. Teachers at my school are effective in teaching student with disabilities.
14. Teachers at my school are able to differentiate instruction to meet the needs of diverse learners.
15. Teachers at my school have a hard time involving families in their children's education.
16. I believe it is my responsibility to train future teachers.
17. At my school the results of instruction are used to redesign instruction.
18. Teachers at my school effectively promote the academic achievement of all learners.

19. Teachers at my school use a variety of formative assessments to monitor student progress.
20. Adults at my school have high expectations for all students.
21. I have opportunities to discuss teaching and learning with a variety of professionals at my school.
22. I have opportunities to share teaching strategies that I have found to be effective.
23. The adults in our school have a shared understanding of what students need to succeed academically.
24. I enjoy mentoring new teachers.
25. I enjoy mentoring student teachers.
26. Staff members at this school care about students.

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Table C.   Professional Development Survey

Surveys	Mean	Standard Deviation	N
Mean Scores of Efficacy of Professional Development Schools (Full Scale)			
UE option candidates	5.04	.49	21
Traditional education preparation candidates	4.94	.62	54
K-12 certified teaching and non-teaching staff	6.03*	.69	210

*p < .001

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