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Relationship Between Self-Efficacy Measured by the TSES scale and Teacher Participation in PDS Activity

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Our paper, *Relationship between self-efficacy measured by the TSES scale and teacher participation in PDS activity,* focuses on the collaboration between 19 professional development schools with whom Notre Dame of Maryland University has a partnership. The researchers surveyed in-service teachers in those 19 schools to determine if the collaboration was systemic and to investigate as to whether teacher self-efficacy was related to the likelihood that teachers would participate in PDS sponsored activities. With the use of the Teacher's Sense of Self-Efficacy Scale (TSES), the researchers found the higher the in-service teacher's self-efficacy; the greater the likelihood that they would participate in PDS sponsored activities.

Introduction

A major focus of school-university partnerships is the preparation of preservice teachers to embark on careers as certified educators. Each partner traditionally plays a specific role in the process. The university is often responsible for providing preservice teachers with the course work and theory-based knowledge they will need to inform their future teaching practices. The school is primarily responsible for assisting preservice teachers in gaining their required clinical field experiences in authentic, classroom environments. When schools and universities collaborate to engage in formal professional development school (PDS) partnerships, the relationship is supposed to become more reciprocal in nature. Universities are often expected to "give back" to the schools that host their preservice teachers, by supporting school improvement efforts identified by those schools. Universities typically support school improvement efforts by offering professional development opportunities such as workshops and graduate courses at reduced rates to in-service teachers at partner schools. While a great deal of PDS research has focused on the preparation of preservice teachers for the realities of the contemporary classroom, much less has been studied to determine the impact of university-sponsored, professional learning activities on in-service teacher growth in formal PDS partnerships.

Purpose

It is important for PDS partners to investigate not only the quality of the preservice teachers' internship experiences at host schools, but also whether in-service teachers working in PDS partnerships have grown as professionals as a result of the professional development opportunities afforded to them as part of this systematic collaboration. Focusing on the "Continuing Professional Development" component of the university's PDS state standards, the purpose of this study is to determine whether there is a relationship between in-service teacher self-efficacy and in-service teacher participation in professional development opportunities offered through the university's PDS network using Hoy's Teacher's Sense of Self-Efficacy Scale (Tschannen-Moran & Hoy 2001).

Theoretical Framework

Self-efficacy has been defined by Bandura as, "beliefs in one's capacity to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3). With reference to self-

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efficacy, there are two expectancies: self-efficacy and outcome efficacy. An outcome efficacy is defined as, "a person's estimate that a given behavior will lead to certain outcomes" (Bandura, 1977, p. 193). An efficacy expectation is, "the conviction that one can successfully execute the behavior required to produce the outcomes" (Bandura, 1977, p. 193). As Bandura notes,

> Outcome and efficacy expectations are differentiated, because individuals can believe that a particular course of action can produce certain outcomes, but if they entertain serious doubts about whether they can perform the necessary activities, such information does not influence their behavior (Bandura, 1977, p. 193).

Hora & Ferrare, (2012) further contend that a teacher's self-efficacy is an intrinsic motivational factor that influences her/his commitment and perseverance to a specific task.

For in-service teachers to choose to engage in their school's PDS-sponsored, professional development activities, both outcome and efficacy expectations have to be sufficiently positive for participation to occur. As an example, an in-service teacher can agree to mentor a preservice teacher to facilitate the development of the new teacher (a benefit to the profession), especially if the in-service teacher is confident in her /his skills in providing the necessary training for the preservice teacher to learn and mature under her/his tutelage. However, if an in-service teacher is not confident in her/his ability to develop a preservice teacher, that in-service teacher will pass on the mentorship opportunity. Likewise, an in-service teacher may elect to participate in professional development opportunities that focus on her/his desire to become more effective in educating her/his diverse student learners if she/he believes that by participating in the learning experience, she/he will be able to execute the behaviors that will produce better outcomes for her/his students. These examples provide a real-world context to show that when teachers positively possess both outcome and efficacy expectations, they are more likely to become active in participating in PDS-sponsored professional development activities.

Literature Review

Background on Professional Development Schools

Prior to the 1980s, universities and schools primarily acted in isolation to prepare preservice teachers for careers as certified educators in elementary and secondary classrooms. If any collaboration occurred, it was usually in the form of personal connections and relationships, not in the form of systematic, institutional partnering. Universities primarily worked to prepare teachers through coursework, and schools worked to prepare teachers through practical teaching experiences with students in classrooms. In an effort to promote the concept of collaboration between universities and schools, the Holmes Group acted as a forerunner in the Professional Development School (PDS) movement. It was their assertion that if the PDS model was promoted in a systematic way, teacher preparation and student achievement could be improved to benefit both parties (Teitel, 2008).

While wording and focus areas may vary across systematic PDS partnerships, advocates of PDSs generally agree on four overarching goals that drive the collaborative work of these partnerships: 1) improvement of student learning; 2) preparation of educators; 3) professional development of educators; and 4) research and inquiry focused on improving practice. When these components are collaboratively embraced, universities and schools could potentially learn from one another and improve their practices (Teitel, 2003). Furthermore, by explicitly defining the collaborative tasks of school-university partnerships, partners could engage in 'simultaneous renewal' when working together using a framework that promotes benefits for each (Teitel, 2008; Goodlad, 1999).

Inservice Teacher Self-Efficacy in Professional Development Schools

While much of PDS research has focused on the preparation of teacher candidates for the realities of the contemporary classroom, much less has been studied to determine whether in-service teachers currently working in PDS partnerships have grown as professionals as a result of the professional development opportunities afforded to them as part of this organized collaboration (Morris & Nunnery, 1994; Carpenter & Sheretz, 2012). Additionally, very little contemporary research has focused on the relationship between self-efficacy and in-service teachers in PDS partnerships. In fact, only one study related to in-service teacher efficacy in PDS partnerships appears in the research within the past decade. In their qualitative case study on one PDS site's activities in promoting teacher leadership, Carpenter and Sherretz (2012) found that three leadership themes emerged when in-service teachers participated in PDS

activity: greater opportunities for professional development, peer teaching, and collective teacher efficacy. Specifically, evidence of collective teacher efficacy was noted in the majority of teacher responses during interviews conducted on the subject. Thematically, teachers reported a commitment to the school and its students, a belief that they made a difference as informal leaders in their school, and a reliance on student achievement data as a necessity in helping them to reach the school's educational goals.

Morris and Nunnery's (1994) study of 32 in-service teachers in a PDS, revealed a positive influence and increased feeling of empowerment for these teachers. It was believed that the "enhanced empowerment along with the teaching self-efficacy may have been influenced by the school improvement planning and clinical professor training component of the program" (Morris & Nunnery, 1994, p.20). More than 70% of the in-service teachers in this study reported enhanced empowerment; 79% indicated a greater awareness of the influence they can had on improving their teaching and learning; and 81% indicated they had increased self-confidence after acting as a professional role model. Overall reports indicated that the in-service teachers participating fully in the PDS model felt more successful after their school became a formal PDS partnership.

Within the last decade, there were no quantitative studies found in the literature with a focus on the relationship between in-service teacher self-efficacy in PDS partnerships, and participation in PDS-sponsored activities across a network of schools.

Context

Maryland State Requirements for PDSs

In the state of Maryland, a PDS is defined in the Professional Development School Assessment Framework for Maryland, as a

> collaboratively planned and implemented partnership for the academic and clinical preparation of interns and the continuous professional development of both school system and institution of higher education (IHE) faculty. The focus of the PDS partnership is improved student performance through research-based teaching and learning. A PDS may involve a single or multiple school, school systems and IHEs and may take many forms to reflect specific partnership activities and approaches to improving both teacher education and PreK-12 schools (2006, p. 1).

PDSs in Maryland must adhere to a set of mandated, state standards based on the research of Teitel (2003). Embedded in 5 standards (*Learning Community; Collaboration; Accountability; Organization, Roles and Resources; Diversity and Equity*), across four components (*Teacher Preparation, Continuing Professional Development, Research and Inquiry, Student Achievement*), 58 indicators guide every university in the state in the development and implementation of successful PDS partnerships. (See Appendix A for Standards for Maryland Professional Development Schools).

Pertinent to this study is the *Continuing Professional Development* component which consists of 18 indicators that fall under each of Maryland's 5 standards. (See shaded indicators in second column of Appendix A: Standards for Professional Development Schools). These indicators primarily focus on the university's role in initiating reciprocal professional development opportunities for all PDS stakeholders serving in formal PDS partnerships. According to the state, every school-university PDS partnership is responsible for developing and evaluating efforts related to the continuing professional development needs of in-service teachers, as stakeholders, in partner schools. For example, under Standard II/Collaboration, Component/Continuing Professional Development, Indicator (c), it states, "PDS partners identify and address professional development needs of faculty and interns." Based on this indicator, it is expected that the university will support the school's efforts to develop professional learning opportunities for in-service and preservice teachers in the school. Another example, under Standard III/Accountability, Component/Continuing Professional Development, Indicator (a), states, "PDS partners assess the collaborative professional development provided in the PDS." Based on this indicator, it is assumed that the partnership will evaluate the quality of all professional development efforts offered at the school through the university. Sixteen additional indicators under the *Continuing Professional Development* component of Maryland's PDS Standards guide the collaborative efforts of the partnership in addressing PDS stakeholder professional growth in some way. For the purposes of this study, the researchers specifically concentrated on the professional growth of in-service teachers in the university's PDS network.

University PDS Partnerships: University Liaisons and School-based Site Coordinators

The School of Education at this university currently collaborates in formal professional development school

partnerships with 19 public schools across four different local school systems. These schools vary in size, level, student demographics, leadership, and teacher experience. It is within these 19 partner schools that the majority of the university's preservice teachers gain their required clinical field experiences before embarking on careers as certified educators. The university and each school in the partnership have signed a Memorandum of Understanding (MOU), solidifying their commitment to one another based on the state's PDS standards and requirements.

Furthermore, each school is assigned a university liaison and a school-based site coordinator to provide the leadership in that partnership. The university liaison is the contact person whose presence in the school building manifests the continuing and regular visibility of the university in the partnership. Responsibilities of the university liaison include, but are not limited to, attending school improvement team meetings in an effort to align PDS goals to school improvement goals; providing and/or securing needs-based, professional development opportunities for in-service teachers at the school; providing training for school-based mentors; and overseeing the quality of the internship experience for interns assigned to the school. The school-based site coordinator serves as the representative of the school in the PDS partnership. This individual is the designated representative for the school principal and leads the charge of implementing the PDS on behalf of the school administration. Responsibilities of the site coordinator include, but are not limited to, coordinating the introduction and integration of interns to the school; hosting activities to celebrate the intern/mentor experience; coordinating action research projects with interns and university faculty; and publicizing PDS partnership activities within the school and community. Working collaboratively, the liaison and site coordinator provide the front-line leadership to the PDS partnership, conducting quarterly planning meetings and end-of-year strategic planning to ensure the ongoing success of the PDS based on the indicators embedded in the state's required standards.

To support the professional development needs of in-service teachers in each school, the university liaison is primarily responsible for securing the professional development sought by the school as it relates to the school improvement plan, and/or an in-service teacher, needs-based assessment. The degree to which the in-service teachers in each of the PDS partner schools understand the role of the liaison, and the reciprocal relationship between the university and their school varies; it is usually dependent upon their involvement as mentors and/or in university-sponsored professional development activities in the past. As part of their 2012-2015 PDS strategic plan, the university placed much emphasis on two key actions related to the university-sponsored professional development that occurred in each partner school: 1) supporting liaisons in identifying, securing, and facilitating professional development opportunities in their schools; and 2) encouraging full-time faculty in the School of Education to identify topics related to their areas of expertise, and offer their services to the network of schools as needed, and as part of their service requirements to the university.

Hypothesis

The researchers formulated the following hypothesis H_1: The higher the level of self-efficacy, the greater the number of PDS activities in which an in-service teacher will engage.

Methodology

Participants

The university is a small, private, urban university that partners with 19 PDSs across four different public-school systems to certify teacher candidates in the State of Maryland. While the university does offer a traditional undergraduate teacher certification program, the majority of its initial certification programs cater to students who already possess a Bachelor's degree outside of the field of education, and are returning to higher education to obtain teaching certification in one of the university's four distinct programs designed to meet their needs.

The 19 schools in the university's PDS network are located in a combination of rural, suburban, urban fringe, and urban school districts. There are 11 elementary schools and 8 secondary schools in the PDS network. Each year, approximately 150 interns are placed in two different school settings related to their certification area(s) and complete a 10-week internship experience in each setting. One school-based site coordinator, and one university liaison are assigned to provide the PDS leadership in each school in the network. There are 19 site coordinators (one per school), and 12 university liaisons hired by the university to provide this leadership. Several of the university liaisons provide the leadership in more than one school.

Instrument

A 12-question Teacher' Sense of Efficacy Scale (TSES) (short form) (Tschannen-Moran & Hoy, 2001) survey was distributed to faculty members at each of the 19 PDSs. In addition to filling out the multiple choice survey, respondents were also asked to respond to the following prompts: the number of years that they had been teaching; the number of years they had been teaching at their present school; whether they were aware that they taught in a PDS; their opinion on the purpose of a PDS (an open ended question); and whether or not they had participated in any university-sponsored, professional development school opportunities in the previous academic year.

If respondents identified that they had participated in a university-sponsored professional development opportunity, respondents were also asked to identify in which opportunity they had participated. The final question of the survey asked respondents who answered "yes" to participating in a university sponsored PDS activity to clarify as to whether that activity contributed to their professional growth in a meaningful way.

Data Collection

The survey was distributed to all 19 PDS university liaisons, with instructions to distribute the survey through the principal to all in-service teachers at the school. Responses were received from 15 of the 19 professional development schools. Reasons for the lack of participation on the part of the four schools that did not return the surveys included lack of time, miscommunication between the liaison and school administration, and refusal to distribute the survey. The researchers received 310 surveys out of the 925 distributed to those 15 schools that participated, for a response rate of 33.5%.

Data Analysis

The authors of the TSES recommended a factor analysis to determine how a particular set of respondents responded to the questions. Additionally, reliabilities (Chronbach's alpha) were calculated, comparing the study's data with the authors' that constructed the scale.

Results

Reliability Analysis

Chronbach's alpha for our data matched (nearly perfectly) the reliabilities reported by Tschannen-Moran and Hoy (2001), as shown in Table 1.

Table 1.
Reliability Estimates of the TSES from this Sample, Compared to Reliability Estimates from the Scale's Developer

Scale	Chronbach's alpha Tschannen-Moran and Hoy (2001) data	Chronbach's alpha From this sample
Overall TSES Short Form	.90	.90
Student Engagement	.81	.85
Instruction Strategies	.86	.81
Classroom Management	.86	.87

Nunnally and Bernstein (1994) suggest .70 as an acceptable minimum criterion for a score reliability coefficient pertaining to affective measures. Using Nunnally and Bernstein's criterion for affective measures, the score reliability estimates for the Student Engagement, Instruction Strategies and Classroom Management scale were more than adequate, as was the estimate for the overall TSES scores (short form).

Factor Analysis

Tschannen-Moran and Hoy (2001) recommended conducting a factor analysis to determine how participants responded to the TSES questions. Tshannen-Moran and Hoy (2001) reported that they have consistently found three moderately correlated factors. Using a Varimax rotation and a criterion of .5 or greater for

deeming structure/pattern coefficients as being practically significant (Hair, Anderson, Tatham & Black, 1995), the maximum likelihood factor analysis revealed three interpretable factors with eigenvalues greater than 1.0. These three factors combined to explain 70.4% of the total variance.

The structure/pattern coefficients of items on each factor are presented in Table 2. Only items that met Hair et al.'s (1995) criteria of .5 or greater were presented. Table 2 shows that each of the 12 items loads on the factor predicted by the authors of the TSES (Tschannen-Moran &Hoy, 2001).

Table 2.
Factor Analysis of the TSES, Short Form

	Factor		
	Classroom Management	Student Engagement	Instructional Strategies
How much can you do to control disruptive behavior in the classroom?	.778		
How much can you do to motivate students who show low interest in schoolwork?		.778	
How much can you do to get students to believe they can do well in schoolwork?		.737	
How much can you do to help your students value learning?		.722	
To what extent can you craft good questions for your students?			.575
How much can you do to get children to follow classroom rules?	.832		
How much can you do to calm a student who is disruptive or noisy?	.688		
How well can you establish a classroom management system with each group of students?	.693		
How much can you use a variety of assessment strategies?			.817
To what extent can you provide an alternative explanation for example when students are confused?			.833
How much can you assist families in helping their children do well in school?		.792	
How well can you implement alternative strategies in your classroom?			.666

Correlations between the Components of the TSES

Tschannen-Moran and Hoy (2001) reported that they have consistently found three moderately correlated factors: efficacy in student engagement, efficacy in instructional practices, and efficacy in classroom management. These three factors were present in our findings. Table 3 presents the data from our survey regarding the moderately correlated component of the three factors. The researchers confirmed the finding of moderately correlated factors by Tschannen-Moran and Hoy (2001).

Table 3.
Correlations Between Subscales on the TSES

TSES subscale	Student Engagement	Instructional Practices	Classroom Management
Student Engagement		.47	.62
Instructional Practices			.61
Classroom Management			

Relationship between Self-efficacy and Participation in a PDS Professional Development Opportunity

Having confirmed the reliabilities, analyzed the factor structures of the respondents, determined that the participants' responses were very similar to those reported by the developers' of the TSES, and investigated the correlations between the scales of the TSES, the researchers analyzed the core research question, is there a relationship between in-service teacher self-efficacy in PDS partnerships and participation in PDS-sponsored activities?

Through the survey, the researchers discovered that 93% of the respondents knew that they taught at a PDS associated with the university. Additionally, the survey provided respondents with a set of 16 PDS activities that were offered to them by the university during the 2013-2014 academic year. Table 4 presents the number and percentage of teachers responding "yes" to participating in a particular activity or activities. Table 4 shows that three out of the 16 activities had participation rates of 10% or more and six of the 16 activities had participation rates of less than 2%.

Table 4.
Number and Percentage of Teachers Responding "yes" to Participating in a Particular PDS Activity

PDS Activity	Number saying "yes" to participating	Percentage saying "yes" to participating
Hosted a Teacher Candidate	78	25.2
Participated in a Mentor Training Session	52	16.8
Participated in a University Supported Workshop at my School	35	11.3
Taken a Graduate Class Offered by the University	23	7.4
Attended a Sharing or Gallery Walk Displaying Action Research Projects of Interns in my Building	22	7.1
Served on the Coordinating Council for our School/University Partnership	21	6.8
Attended a School System Based Professional Development Linked to PDS	20	6.5
Participated in a Book Study Sponsored by the University	14	4.5
Completed a Graduate Program Offered Through the University	9	2.9
Participated in a University Supported Workshop at my University	7	2.3
Attended at State PDS Conference	4	1.3
Hosted a Guest Speaker from the University in One of my Classes of School Events	3	1.0
Attended a Cultural, Sporting or School of Education Event at the University	3	1.0
Attended at National PDS Conference	2	0.6
Served as an Adjunct Faculty Member at the University	1	0.3
Team-Taught a class with a University Professor	1	0.3

A scale was created by adding the total number of university sponsored PDS activities in which in-service teachers reported participating (Table 5). Table 5 shows that 181 teachers or 58% did not report participating in any of the 16 activities reported in Table 4. Fifty-four teachers reported participating in one activity, 30 reported participating in two activities and so on until the two teachers who reported participating in seven PDS activities were reached. Many of the activities listed in Table 4 were ones which were identified as being part of the strategic plan of the PDS planning

council of the local school. This plan identified where the focus of the council remained during the year with regard to the PDS partnership. Given that most of these activities were the focus of this plan and were used as an intervention for the school in order to get more participation from the teachers, the results can be considered disappointing. While some of the activities, such as team teaching a course with a university professor or acting as an adjunct do not occur as frequently, the majority of the items listed are offered on a consistent basis and only take the time and effort of the teacher to participate.

Table 5.
Number of PDS Activities in Which Teachers Reported Participating

	Frequency	Percent	Cumulative Percent
No PDS Activity	181	58.4	58.4
One Activity	54	17.4	75.8
Two Activities	30	9.7	85.5
Three Activities	22	7.1	92.6
Four Activities	8	2.6	95.2
Five Activities	9	2.9	98.1
Six Activities	4	1.3	99.4
Seven Activities	2	.6	100.0
Total	310	100.0	

Next the number of PDS activities in which the teachers' reported participating was correlated with the three scale subscales of the TSES (Table 6). Small, but statistically significant correlations were found, showing the higher the self-efficacy of the teacher, the more PDS activities in which the teacher reported engaging and reciprocally, low self-efficacy was associated with zero PDS activities. As self-efficacy increased, so did self-reported participation in PDS activities. Thus, some support for H_1 was found. The relationship is strongest with respect to instructional practice (r=.19). The researchers note here that a similar analysis looking at the binary variable was run; did the teacher engage in any PDS activities (yes/no) and a very similar pattern of responses to those reported in Table 6 was found. It was also determined that a small (rho=.12, p<.05) Spearman's rank order self-efficacy correlation was found between teacher experience and self-efficacy – the greater the number of years a teacher taught, the higher the self-efficacy. However, there was no relationship between the number of years a teacher taught and PDS activity (rho=-.06, ns).

Table 6.
Correlations between Subscales on the TSES and PDS Activity

	PDS Activity
Student Engagement	.13*
Instructional Practices	.19*
Classroom Management	.12*
Overall TSES	.18*

Note: * means p<.05. In all correlations, the effect size was small, per Cohen (1988).

The researchers also wanted to determine whether in-service teachers currently working in PDS partnerships have grown as professionals as a result of the professional development opportunities afforded to them as part of this systematic collaboration. Table 7 presents the results of this analysis for the 117 respondents (37.7%)[1] who responded that they participated in any given university-sponsored professional development activity in the current school year. Table 7 shows that two-thirds of the teachers who participated in a professional development opportunity agreed that the opportunity contributed to her/his professional development in a meaningful way. The Spearman's Rank Order correlation between those who participated in a professional development opportunity and agreed that the opportunity contributed to her/his professional development in a meaningful way was .20 for the Instructional

[1] On table 5, 129 respondents reported participation in at least one activity associated with the PDS. Out of those 129, 117 answered this particular question

Strategies subscale of the TSES ($p<.01$), slightly larger than the Classroom Management or Engagement subscales (both rho=.14), or the overall TSES scale (rho=.19).

Table 7.
Of Those Reporting Participation in University-Supported Professional Development, Did the In-Service Teacher Think that Opportunity Contributed to His/Her Professional Development in a Meaningful Way?

	Frequency	Percent
No	38	32.5
Yes	79	67.5
Total	117	100.0

Inservice Teacher Definitions of Professional Development School Partnerships

Ninety-three percent of survey respondents reported that they were aware of the fact that they taught in a school which was part of a formal PDS partnership with a local university. Given this high percentage, researchers were interested in determining what depth of understanding respondents had as to the meaning of that relationship. Participants were asked to provide their definitions of what they believed professional development school partnerships to be. Results showed that many participants were unsure of the purpose of a PDS, and what it entailed, as exhibited by one participant's response "to train interns[2]?" Many who provided responses, provided partial responses, indicating that they did not have a full understanding of what it meant to collaborate with a university in a formal PDS partnership. An example of this is provided by one respondent who wrote, "To partner with the university in training future teachers to be ready to manage their own classroom and in successfully implementing curriculum to benefit students." This partial definition indicates that university liaisons and school-based site coordinators need to make greater efforts in ensuring that the reciprocal nature of the PDS is understood by all inservice teachers in each partnership school.

Another participant had a better understanding of what it meant to be part of the partnership:

> To further educate teachers and staff on educational shifts, and how these shifts can be implemented in our school and individual classrooms. Professional development provides opportunities for educators to collaborate across grade levels and with other teammates. Professional Development Schools also provide opportunities for future teachers to learn about educational shifts, as well as network with current educators and administration.

This response most likely came from an in-service teacher who shared a direct relationship with an intern or with the planning council at the school. It is the goal of the university to have this definition be understood by every in-service teacher at each PDS site.

Further study of participants' responses could have been included to code for specific trends, and to quantify responses, however this was not the focus of the study. This open response item was used to gain baseline data about participants' overall understanding about the purpose of a formal PDS partnership, and the reciprocal relationship that is supposed to exist between a school and a university in that partnership.

Conclusions

Through this study, the researchers have found that those teachers who have higher self-efficacy also participate more frequently in PDS opportunities. Thus, it can be argued that providing these opportunities for teachers has contributed to teachers' professional growth and development in a significant way. This can be especially helpful for teachers who are new to the profession or find themselves struggling in certain areas, which, in turn, can have an effect on their self-efficacy. Evidence of this can be seen in Table 7 where two-thirds of the teachers reported that participation in

[2] In the state of Maryland an intern is defined as teacher candidate who is fully integrated into the life of the school, experiencing more of the full range of school activities.

a PDS contributed to their professional growth and development in a meaningful way.

In addition to professional activity offerings, participant definitions of a PDS highlight the lack of understanding on the part of in-service teachers about what it means to be a member of a PDS community. This lack of understanding may be a reason for a lack of participation in the various PDS activities offered at individual schools. In light of this information, PDS liaisons and site coordinators should make it a priority to promote the true definition of what it means to be a member of a PDS partnership, and ensure that individuals within professional development schools have a clear understanding of the benefits associated with being a part of that community.

Lastly, the results show that teachers will under-report their participation in PDS activities. As shown in Table 7, 78 respondents reported that they hosted a preservice teacher, but only 52 reported that they participated in a mentor training session. Participating in a mentor training session is a university requirement that must be fulfilled before an in-service teacher can host a preservice teacher. It is therefore suspected that hosting a preservice teacher is more easily remembered than participating in a mentor training session due to the number of hours and intense interaction between the mentor teacher and preservice teacher. It may also be difficult to recall participation in other PDS activities, especially when teachers are presented with a list of 16 PDS activities at the end of the school year, and are asked to retrospectively recall all behaviors and activities in which they participated over a year's time.

Implications and Limitations

Inservice teachers may need to understand that their capacity to provide quality teaching experiences is sufficient before they will engage in professional development activity organized by a PDS partnership. As Goddard et al., (2004) concluded, "when applied to teaching, social cognitive theory predicts that the decisions teachers make about their classroom practices are directly influenced by their sense of efficacy for teaching" (p.4). Therefore, our findings which suggest that teachers who have higher levels of self-efficacy participated in more PDS activities (ultimately affecting their classroom practices), supports this theory.

However, these results need to be tempered with the recognition of the small effect sizes that are associated with these correlations. There are additional unknown and/or unmeasured variables that affect the relationship between self-efficacy and participation in university-sponsored activities in the PDS. Inservice teacher self-efficacy may be part of the development of an environment or culture of inclusiveness that predicts PDS participation. It must also be noted that levels of training, years of service, availability of time, among other factors should also be considered. This is an introductory study that was able to show that there is a relationship between self-efficacy and participation in university-sponsored activities in the PDS. Future studies might consider analyzing one or more of these additional factors in light of these results.

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Appendix A – Standards for Maryland Professional Development Schools

Components				
Standards	**Teacher Preparation**	**Continuing Professional Development**	**Research and Inquiry**	**Student Achievement**
I. Learning Community *The PDS recognizes and supports the distinct learning needs of faculty/staff, interns, students, parents, and community members.*	a. PDS partners collaboratively integrate PreK-12 instructional content priorities in the teacher education program and field-based experiences. b. Interns engage in the full range of teacher activities in the school community. c. Interns are placed in cohorts and reflect on learning experiences with their cohort peers and IHE and school faculty.	a. PDS partners collaboratively create, conduct and participate in needs-based professional development to improve instruction and positively impact student achievement. b. PDS partners plan and participate in activities where all school staff is encouraged to support and interact with interns. c. School and campus-based instructional activities are informed by PDS experiences.	a. PDS partners collaboratively engage in inquiry and/or action research. b. PDS partners disseminate results of research/inquiry activities.	a. IHE and school faculty model the use of state/local learning outcomes and assessments in coursework and field experiences. b. Interns demonstrate competency in using specified learning outcomes and assessments to plan, deliver and assess instruction.
II. Collaboration *PDS partners work together to carry out the collaboratively defined mission of the PDS.*	a. IHE and school faculty collaboratively plan and implement curricula for interns to provide authentic learning experiences. b. PDS partners share responsibility for evaluating interns. c. PDS partners collaboratively meet the needs of pre-service mentors. d. IHE teacher education, arts and science, and school faculty collaborate in planning and implementing content-based learning experiences for PDS partners.	a. PDS stakeholders collaborate to develop, implement, and monitor teacher education across institutions. b. IHE and school faculty engage in cross-institutional staffing. c. PDS partners identify and address professional development needs of faculty and interns. d. PDS partners provide ongoing support for all educators, including non-tenured and provisionally certified teachers.	a. PDS partners collaboratively examine the action research/inquiry process. b. PDS partners identify the research/inquiry agenda based on the data-driven needs of the PDS.	a. PDS partners use demographic and performance data to modify instruction to improve student achievement. b. Representatives of PDS stakeholder groups participate on the school improvement team. c. PDS partners collaborate to plan and implement PreK-12 performance assessments and use outcomes to guide instructional decisions.
III. Accountability *The PDS accepts the responsibility of and is accountable for upholding professional standards for preparing and renewing teachers in accordance with the Redesign.*	a. IHE and school faculty collaborate on the development of intern performance assessments. b. The teacher education program requires that interns be assessed through a standards-based portfolio. c. PDS partners develop and implement a collaborative agreement regarding exit standards for interns. d. IHE and school faculty solicit and use feedback from interns to modify the teacher education program	a. PDS partners assess the collaborative professional development provided in the PDS. b. IHE and school faculty collaboratively prepare to mentor and supervise interns. c. PDS partners work together to meet one another's professional development needs. d. PDS partners recognize one another's accomplishments.	a. PDS partners collect, analyze, and use data for program planning and implementation. b. PDS partners use results of research and inquiry to inform future practice within the PDS.	a. PDS stakeholders assume responsibility for improving PreK-12 student achievement. b. PDS partners collaborate to determine the impact of PDS on student achievement.
IV. Organization, Roles, and Resources *Partner institutions allocate resources to support the continuous improvement of teaching and learning.*	a. PDS partners communicate regarding roles, responsibilities and operating procedures and use continuous feedback to improve the operation of the PDS. b. PDS partners share resources to support the learning of PreK-12 students and PDS partners. c. PDS partners seek and assess feedback concerning PDS induction for interns and new faculty, making changes as needed.	a. IHEs recognize and reward the PDS work of IHE faculty and staff through organizational structures and incentives that fully integrate PDS work with the mission of the teacher education program. b. PDS stakeholders institutionalize recognition and rewards for pre-service mentors. c. PDS partners use the PDS as a vehicle for the recruitment and retention of teachers. d. A Memorandum of Understanding signed by PDS partners delineates the organization of the PDS and the resources to be provided.	a. PDS partners' model professional ethics and engage in substantive examination of ethical issues affecting research and practice. b. IHE and local school system partners provide joint resources to support collaborative school based PDS research/inquiry.	a. PDS stakeholders examine the impact of PDS on student achievement. b. PDS partners use performance data in strategic planning to design, implement, evaluate and revise PDS policies, roles and resources. c. The IHE and school district institutionalize resources to ensure the continuity of the PDS.
V. Diversity and Equity *The PDS supports equitable involvement of PreK-16 faculty/staff and interns to support equitable outcomes for diverse learners.*	a. The IHE provides all interns equitable access to an extensive internship of at least 100 days over two consecutive semesters in a PDS. b. Interns demonstrate skill in working with diverse student, parent, and staff populations. c. Interns demonstrate the ability to work with students with special needs and collaborate with special educators.	a. PDS partners provide equitable opportunities for stakeholder participation in PDS activities. b. PDS partners participate in, assess and refine training to support knowledge, skills and dispositions surrounding equity issues. c. PDS partners represent diverse backgrounds.	a. PDS partners plan and conduct action research/inquiry with attention to issues of equity. b. PDS partners disseminate research findings related to student equity and use these for program improvement.	a. PDS partners work with parents and community members in support of student learning. b. PDS partners collaborate to ensure that all education is multicultural. c. PDS partners focus on meeting the needs of diverse learners to eliminate achievement gaps.