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Pre-Service Teachers' Teacher Efficacy Beliefs and the Perceived Relationship with their University Supervisor

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PRE-SERVICE TEACHERS' TEACHER EFFICACY BELIEFS AND THE
PERCEIVED RELATIONSHIP WITH THEIR UNIVERSITY SUPERVISOR

A Dissertation

Submitted to the School of Graduate Studies and Research

in Partial Fulfillment of the

Requirements for the Degree

Doctor of Education

Dawn Michelle Detruf Turkovich

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Title: Pre-Service Teachers' Teacher Efficacy Beliefs and the Perceived Relationship
         with their University Supervisor
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The purpose of this study was to investigate the levels of teacher efficacy reported by

student teachers upon completion of the student teaching experience and to better

understand the perceptions held by the student teachers regarding the roles the university

supervisor played. The roles played by the supervisor focused on the levels of support

and challenge. These two concepts (levels of support and challenge) refer to the types of

actions of the university supervisor which either affirms the actions of the preservice

teacher or identifies an area in which the preservice teacher needs to improve. The

perceptions held by the student teachers were examined along with the reported beliefs

about teacher efficacy to determine if any correlations existed. The information from the

students teachers was obtained at the completion of the student teaching experience using

online surveys. The surveys were completed by 121 student teachers. This resulted in a

27% response rate. The relationship between the preservice teachers' beliefs of efficacy

and their perception of their university supervisors was studied. Data analysis established

that there was no statistical significance or relationship with beliefs of efficacy and either

levels of support or challenge. Since there was no statistically significant relationship

between support and efficacy or challenge and efficacy, an ideal combination of levels of

support and challenge to result in a maximum level of efficacy beliefs cannot be

established from the regression model.

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This work is dedicated to my family without whom I would never been able to accomplish any of my goals. To my husband, James, thank you for encouraging me to continue even when I was ready to quit and for reminding me that I am capable of completing this process. To my parents, Andrea and Paul Detruf, who in addition to being the best babysitters, have always been supportive and encouraging in all that I ever wanted to do. Finally to my children, Lauren and Joey, thank you for sacrificing so much time with me so that I could finish my "homework". I love you both more than anything and appreciate you more know. So, to all of you: Yes, I am finally done with my homework!

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CHAPTER 1

THE PROBLEM

Educators are constantly seeking ways to improve the educational system.

However, in a constant effort to improve the state of education, it is important to note that

the quality of education will not improve unless the quality of the teaching force

improves (Haskins & Loeb, 2007). As educators seek ways to improve the education

received by students, the focus must be on how to make the teaching force stronger and

more confident in their abilities beginning with their student teaching internships.

Preservice teachers who are enrolled in a student teaching experience are in the

midst of a unique journey. They have reached a point where, although they have

acquired a substantial knowledge base, they are lacking the practical knowledge that can

only be acquired in a school setting. Their view of the classroom is changing from that of

a student to that of an educator while their focus is changing from concern for self to

concern for the learning of the students (Nolan & Hoover, 2004).

As part of the teacher preparation process, conventional teacher education

programs typically contain a variety of field experiences that consist of a mix of both

observational and tutorial experiences. These experiences lead to a student teaching

experience that normally lasts one full semester in either one or two field placements.

During this student teaching placement, the student teacher relies on both the cooperating

teacher in the school and the university supervisor for support, guidance, and evaluation

(Darling-Hammond & Cobb, 1996).

Because teaching is a complex activity that can be described as recursive,

multifaceted, and non-linear, the supervision of teachers is also a complex activity that

cannot simply be reduced to a checklist of desired behaviors (Nolan & Hoover, 2004).

Supervising preservice teachers involves three unique challenges. First, supervisors are

working with student teachers who have gained formal academic knowledge regarding

teaching, but are in the process of acquiring the practical knowledge that needs to

accompany it. This places them in a position where they often become responsible for

assisting the student teacher in making connections between the guiding principles of the

education department and the experiences from the classroom (Koerner & Rust, 2002;

LaBoskey & Richert, 2002). Second, supervisors need to be aware of the transition that

the preservice teachers are experiencing as they develop from university students and

grow into becoming classroom teachers. Third, supervisors of preservice teachers must

function as part of a triad. Part of the supervisor's responsibility includes ongoing

communication and collaboration with both the preservice teacher and cooperating

teacher (Nolan & Hoover, 2004).

Statement of the Problem

The concept of teacher efficacy embodies the beliefs held by a teacher regarding

the ability to affect student performance based on his or her teaching capacity (Bandura,

1997; Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998) and is believed to be somewhat

resistant to change once the beliefs have been formed. Previous research has shown that

a teacher's sense of efficacy is strongly related to their students' level of achievement and

motivation, as well as the teacher's behavior in the classroom (Tschannen-Moran,

Woolfolk-Hoy, Hoy, 1998). According to other research (Guskey, 1988; Tschannen-

Moran, Woolfolk-Hoy, 2001), it may be possible to gain insight into the effort they put

into learning to teach, the goals that they set, and their level of aspiration by studying the

level of efficacy reported by preservice teachers. It is also important to study the level of efficacy experienced by preservice teachers because, as Tschannen-Moran, Woolfolk-Hoy, and Hoy (1998) note, greater levels of efficacy lead to increased effort and persistence which leads to better performance, in turn, leading to even greater levels of efficacy. On the other hand, low levels of efficacy can lead to a decreased level of effort creating an even lower sense of efficacy.

Research on teacher efficacy has evolved from two conceptual strands: Rotter's social learning theory and Bandura's social cognitive theory. Using both theories, an integrated model has been proposed by Tschannen-Moran, Woolfolk-Hoy, and Hoy (1998). Based on the work of Bandura, the development of a sense of efficacy comes from four sources as identified by Bandura (1986, 1997): mastery experience, physiological and affective state, vicarious experience, and verbal persuasion. Each of these sources contributes to the sense of efficacy in different ways. Bandura (1986, 1997) asserts that mastery experiences are the most influential of the four sources and that success or failure influences the efficacy level accordingly. These mastery experiences are associated with physiological arousal through which emotions affect the perceived level of competence. Further, vicarious experiences experienced as a student, observer, or through professional readings can influence a teacher's sense of efficacy by comparing oneself to others. Finally, verbal persuasion influences efficacy levels by taking the form of general or specific feedback about performance. The feedback can come from a variety of sources including university supervisors, cooperating teachers, and even students.

Although studies (Hoy & Woolfolk, 1990; Spector, 1990) have shown that it is common for general teaching efficacy to decrease during the student teaching experience, these beliefs are more likely to change during college learning experiences that expose them to vicarious learning experiences or social persuasion (Watters & Ginns, 1995).

This study seeks to describe characteristics of the relationship (in terms of levels of challenge and support) between the university supervisor and student teacher as it relates to the level of efficacy as reported by the student teacher. These two concepts (levels of support and challenge) refer to the types of actions of the university supervisor which either affirms the actions of the preservice teacher or identifies an area in which the preservice teacher needs to improve (Daloz, 1986). Directing this study is the desire to describe what may be an ideal mix of the levels of challenge and support so as to create an optimum level of efficacy experienced by the student teacher.

Purpose of the Study

The purpose of this study was to examine the perceptions held by the student teacher regarding the role of the university supervisor and the level of teacher efficacy reported by the student teacher. The description of the student teacher's perception of the relationship focused on the levels of support and challenge offered by the supervisor as described by Daloz (1986).

By understanding the extent to which the university supervisor plays a role in the development of a sense of efficacy experienced by preservice teachers, the relationship that exists between the two can be developed to obtain the maximum level of benefit. According to Daloz (1986), a successful relationship between a supervisor and student is built on two main factors: the level of support and the level of challenge. It is a mixture

of the support and challenge that influences the extent of growth experienced by the student teacher. During student teaching and field experience placements, preservice teachers need a mix of supportive environments and a challenge of striving for academic achievement (Hoy & Woolfolk, 1993).

An examination of the Integrated Model of Teacher Efficacy (Tschannen-Moran, Woolfolk-Hoy, Hoy, 1998) clearly shows that the relationship with the university supervisor is one factor which influences the development of the sense of efficacy experienced by preservice teachers. This aspect of the model supports the purpose of this study to examine the correlation, if any, that exists between the level of teacher efficacy reported by the student teacher and the relationship that exists between the preservice teacher and the university supervisor.

The role of the university supervisor is included in the category of verbal persuasion. This persuasion, whether it is general or specific, has the potential to provide encouragement and feedback regarding performance. However, the impact of this relationship depends upon how the persuader (in this case, the university supervisor) is perceived. The level of credibility, trustworthiness, and expertise all affect how the feedback is received.

<div align="center">

Research Questions

</div>

The research questions that are addressed in this study are as follows

1. How strong is the relationship, if it exists, between the preservice teachers' beliefs of efficacy and their perception of their university supervisor?

2. To what degree do the reported beliefs of efficacy differ between preservice teachers who view their supervisors in a more supportive role (high support) than those who view their supervisor in a more challenging role (high challenge)?

3. To what extent is there a difference in the reported beliefs of efficacy between preservice teachers who perceive their supervisor in a positive manner (high support and high challenge) than those who perceive their supervisor in a negative manner (low support and high challenge)?

4. If it exists, what is an ideal combination of levels of support and challenge that is associated with positive efficacy beliefs?

Significance of the Study

By understanding the extent to which the university supervisor plays a role in the development of preservice teachers' level of efficacy, the relationship that exists between the two can be observed to obtain the maximum level of benefit. Successful relationships between a supervisor and student are built on two main factors: the level of support and the level of challenge. Striving to maintain an appropriate balance of identifying gaps in the knowledge of the preservice teacher (challenge) and providing suggestions to close the gap (support), the supervisor influences the level of efficacy experienced. It is a mixture of the support and challenge that influences the extent of growth experienced by the student teacher and influences the formation of a collaborative partnership (Daloz, 1986; Tang, 2003).

This relationship between the supervisor and preservice teacher contains an interesting mix of both support and challenge which influences the level of efficacy

experienced by the preservice teacher. This relationship was studied through the use of quantitative research to better understand the connection that exists (if there is one) between the relationship of the supervisor and the preservice teacher and the level of efficacy reported.

This study strived to add to the understanding of the concept of self-efficacy particularly as it pertains to student teachers. Although this is not new, recent research regarding the self-efficacy of student teachers has focused on acquiring a better understanding of either the relationship with the cooperating teacher (Hamman, Fives, & Olivarez, 2007), the student teaching triad (Charalambous, Philippou, & Kyriakides, 2008), or other contributing factors such as such as content knowledge or classroom management (Poulou, 2007). Rarely, was the relationship between the student teacher and supervisor studied exclusive of the cooperating teacher and with a focus on self-efficacy. This research aimed at contributing to a fuller understanding of teacher self-efficacy in its beginning stages during the student teaching process.

<div align="center">**Definition of Terms**</div>

For the purposes of this study key terms are defined as follows:

1. Challenge. Acts through which a university supervisor identifies a gap in the preservice teacher's knowledge and introduces an assignment or discussion to assist the preservice teacher in closing the gap (Daloz, 1986).

2. Cooperating teacher. Cooperating teachers are experienced teachers who serve as mentors to preservice teachers during the student teaching experience. They help guide the preservice teachers in their development and model pedagogical thinking and actions (Borko & Mayfield, 1995).

3. Preservice teacher. A teaching candidate in a certification program. Specifically, in this study, the focus is on preservice teachers who are completing their student teaching internship. The term student teacher may be used interchangeably.

4. Teacher efficacy. A construct that describes the extent to which a teacher believes that he or she is able to influence student motivation and learning (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998).

5. Student teacher. A teaching candidate in a certification program who is completing his/her student teaching internship. The term preservice teacher may be used interchangeably.

6. Support. Acts through which a university supervisor affirms the actions of the preservice teacher (Daloz, 1986).

7. University supervisor. The faculty member from the student teacher's college or university that has the responsibility of observing the student teacher in the classroom, conferencing with the student teacher and cooperating teacher, and offering feedback and guidance.

Limitations of the Study

There are four important limitations of this study. First, the group of student teachers involved was limited to those completing their student teaching experience while enrolled in one state university in Pennsylvania. Other institutions of higher education were not included. Second, data were collected only over two semesters. Only the opinions of students completing their student teaching during the spring 2006 or fall 2006 semester were invited to complete the questionnaires.

Third, the data represented in this study reflect only the perceptions held by the student teacher with regard to their relationship with the university supervisor. There was no attempt to monitor the relationships first hand, nor were the perceptions of the supervisors sought out in any way. There was also no attempt to label the supervisors as full time faculty members or adjunct faculty members. This factor may play a role in the relationship because supervisors who are not full time faculty members may not always be as well informed of the principles of the education program and may not link the experience to the program (LaBoskey & Richert, 2002).

Fourth, it is necessary to acknowledge that the efficacy levels reported by the student teachers are, in reality, affected by a number of factors including, but not limited to, the relationship that they form with their university supervisor. These other factors were not addressed in this study.

Summary

This chapter has served as an introduction to the possible effect that the actions of the university supervisor could potentially have on the efficacy of the student teacher. Research questions, definitions, and a discussion of the limitations of the study have been included. The following chapter will explore relevant literature as it relates to the student teacher – supervisor relationship as well as the construct of efficacy.

CHAPTER 2

REVIEW OF RELEVANT LITERATURE

The purpose of this study was to examine the perceptions held by student teachers regarding the role of the supervisor and the level of teacher efficacy reported by the student teachers. The study involved examining the perceptions of student teachers at the conclusion of the student teaching experience as related to the relationship with the supervisor and the current reported level of efficacy. This chapter begins with a discussion of self-efficacy and its sources which leads into an examination of the construct of teacher efficacy. Then the Integrated Model of Teacher Efficacy is presented. Next, eight measurements of teacher efficacy are reviewed. Also, the supervision of student teachers is included focusing on the roles involved in supervising student teachers. A discussion of common supervision practices including post-observation conferencing is provided. Finally, the relationship between efficacy and supervision in terms of support and challenge is discussed.

Self Efficacy

One way of improving performance at a task is to reflect on past successes and failures. Teachers can engage in this as a means of growing professionally. The construct of self-efficacy has grown out of the Social Cognitive Theory described by Bandura (1997) and is defined to be the perception a person holds regarding their capabilities to make choices and implement a plan of action toward a goal. These beliefs influence a person's feelings, thoughts, internal motivation, and behaviors.

Influences, regardless of form, that contribute to the development of a sense of self-efficacy function through one or more of the four main sources: mastery experience,

physiological arousal, vicarious experience and verbal persuasion (Bandura, 1997). First, mastery experience is believed to be the most influential based on the idea that success builds belief in oneself and that failure undermines it. However, not all successes have the same outcome. Success that is obtained too easily or accompanied by too much assistance can lead to discouragement and later to failure. Consequently, in order to create strong and generalized efficacy beliefs along with the ability to learn through difficult situations, it is important to learn perseverance through a maintained effort.

The second source of influences on self-efficacy beliefs is the physiological and affective state. This refers to the physical status, stress level, and emotional state of a person and how it influences the current situation. A high level of stress and the associated physical manifestations can bring about a lower sense of efficacy. In general, feelings of excitement or anxiety add to the perception of mastery or ineffectiveness.

The third source of self-efficacy is vicarious experience and involves making judgments regarding one's own abilities based on the observed performance of others. Although, generally not as strong of an influence as mastery experiences, vicarious experiences can have a significant impact on self efficacy levels especially if the observer maintains a high degree of similarity to the model. Through comparison, the observer essentially judges the likelihood of their success at a task based on the level of success of others.

The fourth source of self-efficacy is verbal persuasion, which is believed to be limited in its power. However, when provided correctly it can provide a necessary boost to persevere through a difficult challenge. Verbal reassurance of a person's ability to succeed at a task can sustain them through a challenging portion of the task by helping

them maintain focus and overcome feelings of self-doubt. Conversely, if the feedback is unrealistic regarding personal capabilities, it only encourages failure; thus, discrediting the source of the verbal persuasion. The potential power of verbal persuasion is directly related to the reputation of the persuader.

Each of the four sources introduced above can be identified in the student teaching experience thereby creating an environment that is influential in the development of the sense of self-efficacy. First, mastery experiences are especially important for novice teachers because they are the most powerful of the four sources. If the teaching experience results in feelings of success, future teaching experiences will be viewed with optimism. On the other hand, if a teaching experience results in feelings of failure, future experiences will be met with low efficacy beliefs (Mulholland & Wallace, 2001). For example, when a student teacher experiences success in explaining a concept to a struggling student, efficacy beliefs for similar situations typically increase. However, if the student teacher was having difficulty explaining a concept and the cooperating teacher needed to provide assistance, feelings of failure could possibly be experienced by the student teacher leading to lower efficacy beliefs (Charalambous, Philippou, & Kyriakides, 2007).

Because student teachers have limited mastery experiences on which to reflect, vicarious experiences are particularly important for developing teacher efficacy beliefs. Although Bandura (1997) asserted that the strength of these experiences depends upon the extent to which the observer identifies with the model, in student teaching the cooperating teacher serves as the model and the observed lessons can be interpreted by the student teacher in several ways. Upon observing an effective lesson by the

cooperating teacher, a student teacher may feel inspired to live up to the expectation or intimidated feeling as though the standards are too high (Charalambous, Philippou, & Kyriakides, 2007).

Finally, verbal persuasion can come in many forms during the student teaching experience. Although it is thought to be limited in its impact, it may provide a boost to offset a setback. Similar to vicarious experiences, the strength of the impact depends upon the credibility of the persuader (Bandura, 1997). Feedback may be received from not only the cooperating teacher and supervisor (Mulholland & Wallace, 2001) but also students (Charalambous, Philippou, & Kyriakides, 2007). When a cooperating teacher expresses disapproval over a student teacher's choice of teaching strategy the effect is much different than when the cooperating teacher offers support and guidance for a student teacher to experiment with a variety of teaching strategies (Charalambous, Philippou, & Kyriakides, 2007).

Self efficacy beliefs impact a person's emotions and decisions regarding choosing actions to pursue a goal, facing hardships, and recovering from failures. However, merely obtaining the information is not sufficient. In order for the information to be influential, it must be processed through reflective thought in order to impact the development of a sense of efficacy (Bandura, 1993, 1997). This complicated process involves identifying the influences, but also assigning them weights and integrating all the sources of information into one sense of efficacy.

Teacher Efficacy

The concept of teacher efficacy grew out of the idea of self-efficacy by applying it to education (Ashton, 1985) and can be defined as a construct that describes the extent to which a teacher believes that he or she is able to influence student motivation and learning (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). It also involves making judgments about one's own capabilities to design effective instruction (Onafowora, 2004). Some have divided the concept of teacher efficacy into two components: general teaching efficacy and personal teaching efficacy (Gibson & Dembo, 1984; Hoy & Woolfolk, 1993). General teaching efficacy has to do with teachers' general attitudes toward education and its power to reach children regardless of other factors. Personal teaching efficacy refers to teachers' beliefs that they can have an influence on student learning and is considered to be the more closely related to a teacher's personal sense of efficacy (Hoy & Woolfok, 1993; Poulou, 2007).

For example, a teacher who has a high level of general teaching efficacy has confidence that, despite external factors, teachers can reach students and the students can experience success. Teachers who have high levels of personal teaching efficacy believe that their actions and choices influence the achievements of the students.

The importance of teacher efficacy has been well documented (Gibson & Dembo, 1984; Poulou, 2007; Tschannen-Moran, WoolfolkHoy, & Hoy, 1998). The benefits of having a high sense of teacher efficacy includes the ability to spend more class time on academics rather than on discipline and the ability to reach students who are experiencing difficulty (Gibson & Dembo, 1984). Others have linked teacher efficacy to the effective use of practices including cooperative learning and a more humanistic approach to

classroom management (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). Still others have even defined its importance as broadly as suggesting that, in order for any reform to be successful, it must address teacher efficacy (DeMesquita & Drake, 1994; Sarason, 1990).

Studies have linked teachers' sense of efficacy to a number of other items. A teacher's efficacy level can influence their students' own sense of efficacy (Anderson, Green, & Lowewn, 1988). High teacher efficacy has also been linked to higher levels of student motivation (Midgley, Feldlaufer, & Eccles, 1989). Teachers who report higher levels of efficacy often display a willingness to persist with struggling learners and criticize less frequently after incorrect answers (Gibson & Dembo, 1984). They are also less likely to refer students to special education (Meijer & Foster, 1988, Soodak & Podell, 1993), tend to be open to new methods of instruction, seek out new teaching methods and are typically willing to explore the possibilities of various instructional materials (Allinder, 1994; Guskey, 1988; Stein & Wang, 1988). Others have linked high teacher efficacy with effective classroom management skills, positive attitudes towards children (Woolfolk & Hoy, 1990), and a general enthusiasm for teaching (Ashton, 1984).

Recently, researchers studied the extent to which content courses that also included pedagogy influenced the levels of self-efficacy reported by in-service teachers (Swackhamer, Koellner, Basile, & Kimbrough, 2009). They found that the reported levels of personal efficacy were high and that the levels of general teaching efficacy increased after increasing content knowledge and learning about associated teaching methods.

Others studies have also focused on increasing levels of efficacy. Two recent studies have focused on preservice teachers. Swars (2005) studied preservice elementary teachers focusing on their perceptions of mathematics teaching effectiveness and found that it is important for math methods courses to include an examination of past experiences with mathematics and a discussion on how it can affect teaching. Palmer (2006) also focused on the efficacy levels of preservice teachers with regard to teaching science. Levels of science teaching self-efficacy were recorded at the beginning of a methods course, at the end of the methods course, and 9 months after the completion of the course to determine the extent to which positive changes were maintained. The pre-test and post-test results showed that the completion of the course increased their science teaching self-efficacy. This increase was maintained when reexamined 9 months later.

Other studies involving teacher efficacy include Lewandoski's study (2005) which focused on the relationship between teachers' efficacy beliefs and their opinions of the school leadership's characteristics. Contrary to Lewandowski's expectations, the schools identified with having low efficacy beliefs rated their principal as higher in exhibiting leadership characteristics than schools labeled as having high efficacy beliefs. Reasons for this finding are given and include the effects of a previous administration, undergraduate program, amount of experience, and feedback received.

Ross (1998) summarizes the common belief that teacher efficacy matters and is important, but maintains it is not yet known when, how, or how much it matters. Along the same line of thought, Soodlek and Podell (1998) asserted that, although it may be common and appropriate to conclude that increased teacher efficacy will bring about positive changes in teacher effectiveness, research has yet to support this belief.

Although the study of teacher efficacy over the last approximately thirty years has so far been beneficial to understanding sources and results of high efficacy, it is now at a point where the future of this line of research is being debated. Several in this field of study (Henson, 2002; Labone, 2004; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998) are exploring the need for further research regarding both the meaning and measure of teacher efficacy so that the study of this construct may continue to mature and further our understanding.

Teacher Efficacy and Student Teachers

Research has also been conducted to better understand the construct of teacher efficacy in student teachers. When exploring factors influencing student teachers' level of efficacy, Poulou (2007), found that student teachers stressed several factors. This included personal motivation, fondness for students and their aspiration to become effective teachers as contributing factors to the development of a higher sense of teacher efficacy. This supports the findings of Woolfolk and Hoy (1990) that showed that prospective teachers who had a high teaching efficacy employed effective classroom management practices and had a more positive attitude. Erdem and Demirel (2007) further discussed the importance of studying efficacy beliefs in student teachers based on the belief that efficacy beliefs are rather resistant to change once they have been established. Although general teaching efficacy tends to increase during college coursework, it often declines during the student teaching experience as they often underestimate the complexities of teaching and managing multiple tasks simultaneously.

The sources of efficacy previously described from the work of Bandura (1997) have been further described by others in an attempt to better understand how teacher

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efficacy develops during student teaching experiences. A study by Woolfolk Hoy (2008) investigated the sources of efficacy in student teachers by examining the relationships with mentors and other factors. The findings of the study suggested support for three of Bandura's (1997) sources of efficacy and the Tschannen-Moran, Woolfolk-Hoy, and Hoy's. model of teacher efficacy (1998). First, verbal persuasion could be identified with the student teachers in the form of support and feedback received from mentors and the findings of Woolfolk Hoy and Burke-Spero(2005) suggest that student teachers have much to gain from considering the responses from mentors and university supervisors.

Second, it has been suggested (Woolfolk Hoy 2008) that mastery experiences during the student teaching internship and the early years of teaching strongly influence a teacher's sense of efficacy. Although, it is generally believed that student teaching is the most practical aspect of the teacher preparation program (Borko & Mayfield, 1995), research has detailed that the experience can be either positive or negative depending on the specifics of the field placement.

Third, vicarious experiences may also influence a student teacher's development of a sense of efficacy. As a student teacher observes others, including the cooperating teacher, it can influence the level of efficacy. However, as Bandura (1997) explained, the observed successes and failures are more likely to hold influence if the observer closely identifies with the model. In the case of the student teacher, it is possible for a student teacher to not closely identify with the cooperating teacher enough for the vicarious experiences to play a significant role in the development of a sense of efficacy. Contributing factors to this could include the disparity in the level of experience or differences in teaching style (Woolfolk Hoy 2008).

An Integrated Model of Teacher Efficacy

Tschannen-Moran, Woolfolk-Hoy, and Hoy (1998) proposed the Integrated Model of Teacher Efficacy which they represented with figure 1. As described by the authors, they took the two conceptual strands and brought them together. The first strand, Rotter's (1960) social learning theory, described teacher efficacy as the belief that factors that can be controlled by the teacher have a greater impact than the factors that are beyond the control of the teacher (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). In the second strand, Bandura's social cognitive theory, Bandura defined self-efficacy as the belief that it is possible to choose and execute a plan of action necessary to achieve a goal. These beliefs influence the thoughts and emotions that sustain a person while working toward a goal even in the face of setbacks (Bandura, 1997).

The model brings together the conceptual strands of both Rotter's social learning theory, which acted as a theoretical base for the original study of teacher efficacy conducted by the RAND organization, and Bandura's construct of self-efficacy. According to Tschannen-Moran, Woolfolk-Hoy, and Hoy (1998), these two concepts were brought together in an attempt to lessen the confusion that existed with regard to the meaning of teacher efficacy.

This model views the development of teacher efficacy as a cyclical event. Starting in the upper left, the sources of efficacy information (mastery experiences, physiological arousal, vicarious experiences, and verbal persuasion) all play important roles in the formation of efficacy beliefs; however, they are not equally powerful. Following to the right, cognitive processing is how this information is analyzed and interpreted. This influences the efficacy levels by weighing the sources of information and making a

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Figure 1 An integrated model of teacher efficacy (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998)
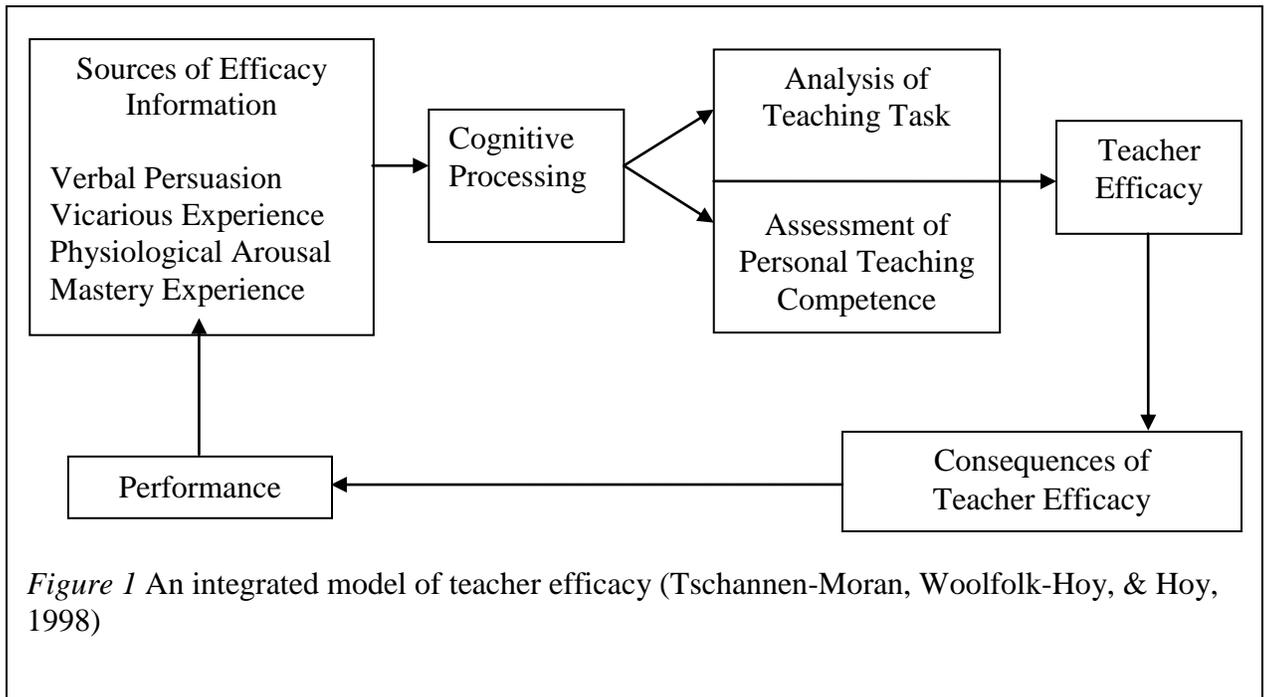
judgment regarding the extent to which the sources will influence the analysis of the

teaching task and the assessment of personal teaching competence.

These two factors, located to the right of cognitive processing, are influenced by the

four sources of efficacy through cognitive processing. It is through this cognitive

processing that an analysis of the teaching task and context and an assessment of the level

of personal teaching competence occur. This division is necessary because teacher

efficacy varies according to the context. For example, an urban elementary teacher may

not report high levels of efficacy beliefs in a rural setting or a secondary mathematics

teacher, accustomed to teaching calculus, may not welcome the opportunity to move to a

middle school position (Ross, Cousins, & Gadalla, 1996; Tschannen-Moran, Woolfolk

Hoy, Hoy, 1998).

While analyzing the teaching task, it is necessary to identify what will be required

in the specific teaching situation. These factors may include student ability and

motivation, appropriate instructional strategies and materials, and school climate. This

process is typically more explicit for newer teachers as more experienced teachers tend to

rely on past experiences.

Tschannen-Moran et al (1998) have noted that this analysis has some similarity to

what others (Gibson & Dembo, 1984; Hoy & Woolfolk, 1993) have named general

teaching efficacy (GTE). General teaching efficacy typically refers to teachers' beliefs

regarding the power of external factors compared to the influence a teacher or school has

on students. By contrast, the analysis in the model also includes some specific

characteristics of the situation; thereby, illustrating that the GTE is only part of the

analysis.

Along with the analysis of the teaching task, the model includes an assessment of

personal teaching efficacy (PTE). There is a difference noted here between teacher

efficacy and this sense of personal teaching competence. Although it is common to see

personal teaching efficacy equated with self-efficacy, within this model, PTE is only part

of teacher efficacy. These two factors (analysis of the teaching task and assessment of

personal teaching efficacy) come together creating an assessment of the level of teacher

efficacy for the teaching task at hand.

According to the authors (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998), this is

a unique aspect of the model. As a teacher forms an opinion regarding personal

competence while taking into consideration the specific task and situation, the result is a

fuller description of the level of teacher efficacy. At this point of the model, both the

situational aspect and the developmental aspect of teacher efficacy are highlighted.

Moving downward in the figure, the level of teacher efficacy experiences comes along with consequences of that level. For example, greater levels of efficacy will lead to better performance. Lower levels of efficacy will lead to poor outcomes. These performances (moving along the bottom of the figure) become the source of additional experiences; thus, beginning the cycle again. Through repeated cycles, a stabilization of efficacy beliefs will occur. Although eventually the efficacy beliefs developed over time become relatively stable, for preservice teachers, who have fewer mastery experiences on which to reflect, beliefs of efficacy are most malleable (LaBone, 2004).

An examination of the Integrated Model of Teacher Efficacy (Tschannen-Moran, Woolfolk-Hoy, Hoy, 1998) clearly shows that the relationship with the university supervisor is one factor that influences the development of the preservice teachers' sense of efficacy. This is because the influence of the supervisor is included under the category of verbal persuasion as one source of efficacy information. Then it builds on the assumption that teacher efficacy is not a constant. Rather, it varies according to situation, subject, setting and class characteristics and is influenced by a teacher's own strengths and weaknesses with regard to the immediate task.

Considering Bandura's sources of efficacy (verbal persuasion, vicarious experience, physiological arousal, and mastery experience), which were discussed previously in this chapter, along with this assumption that teacher efficacy levels are neither stagnant nor consistent, this model suggests that in order to make a judgment regarding efficacy it is necessary to also include considerations regarding both the task and context.

The inclusion of the current task influencing the level of efficacy is the feature of this model that makes it unique. The cyclical nature of this model also is powerful.

Referring back to the sources of efficacy, at the completion of the teaching task, the level of mastery experience and the feelings that accompany it now again are influencing the process as it begins to repeat. Over time, past events become sources for future efficacy beliefs. For example, as a teacher gains feedback from a supervisor, colleague, or students and adjusts the instruction accordingly in future teaching experiences, the efficacy beliefs adjust accordingly.

Measuring Teacher Efficacy Beliefs

It has been approximately 30 years since researchers at the RAND organization added questions to an existing questionnaire and, through the interesting results, began to study what became to be known as teacher efficacy (Armor, Conroy-Oseguera, Cox, King, McDonnell, Pascal, Pauly, & Zellman, 1976). Since then the majority of the instruments used to measure this construct have been quantitative in nature and have mostly explored the correlations with high degrees of efficacy (Labone, 2004). Tschannon-Moran, Woolfolk-Hoy, and Hoy (1998) discussed the importance of understanding the limitations of these studies to further expand the understanding of efficacy. Specifically, they aimed toward improving our understanding of the formation of efficacy beliefs by focusing on the specific contexts and examining the tools used to measure it.

Studying the measurement of teacher efficacy began by the Rand researchers who asked teachers to indicate their level of agreement with two statements as part of a larger questionnaire. They did this through the use of a 7-point Likert scale. The score was calculated by adding the two sums. These items ended up being among the most powerful factors identified by the Rand researchers studying teacher characteristics and

student learning. However, they were concerned about the reliability of a two item scale and attempted to develop a measurement that was lengthier and more comprehensive.

The early 1980s brought about several different attempts to create a more useful instrument. Guskey (1981, 1988) is known for the Responsibility for Student Achievement (RSA) instrument. It consists of 30 items and requested participants to read groups of two statements in which one stated that the teacher was the cause for a specific event and the other stating that the factors outside the teacher's immediate control caused the event. Each participant then distributed 100 percentage points accordingly. This 100 point scale was considered to be cumbersome and was later reduced to ten. Guskey's work (1981) offered four types of causes for success or failure: specific teaching ability, effort put into the teaching, the task difficulty, and luck.

Meanwhile, Rose and Medway (1981) developed the Teacher Locus of Control (1981). This 28 item instrument presented the teacher with a situation and two competing explanations for the situation and asked each participant to assign responsibility for student success or failure by choosing between the statements. The items were split evenly describing student successes and failures. For each set of explanations, one attributed the outcome internally to the teacher and the other to external factors. Although this instrument did not receive wide acceptance, the authors did use it to predict teachers' willingness to implement new instructional strategies.

Also in the early 1980s, Ashton and others (1982) developed the Webb Scale, a seven-item forced choice format. Participants were presented with two statements and had to agree with one of them. The researchers sought to expand the Rand efficacy

questions to increase their reliability. There was not wide acceptance beyond the original study.

The Ashton Vignettes (Ashton, Buhr, & Crocker, 1984), based on the assumption that teacher efficacy is context specific, also attempted to measure teachers' sense of efficacy. This instrument contains 50 items describing problem situations related to teaching (motivation, discipline, instruction, planning, evaluation, and working with parents). Participants make a judgment regarding their effectiveness in dealing with the situation. There are two frames of reference for judgments. First, each participant would describe how well they would perform in the situation on a scale from *extremely ineffective* to *extremely effective*. These were the self-referenced items. Second, there were also an equal number of norm-referenced items where participants made a comparison to other teachers from *much less effective than most teachers* to *much more effective than most teachers*. The norm-referenced items were significantly correlated with the Rand items but the self-referenced items were not. Despite the correlation, only one study other than the original used this scale (Tschannen-Moran & Woolfolk Hoy, 2001).

Gibson and Dembo (1984) proposed the Teacher Efficacy Scale consisting of 30 items which participants rated on a 6-point Likert scale ranging from strongly disagree to strongly agree. A global measure was obtained by using a sum of all the items. Two subscales also resulted from factor analysis. The first they called personal teaching efficacy which they related to Bandura's self-efficacy. The second subscale was called general teaching efficacy and was related to Bandura's (1986) outcome expectancy. This instrument was more widely used than the others previously discussed. Also, noting that

teacher efficacy beliefs are both context and subject-matter specific, some researchers have modified this instrument to focus on teachers' sense of efficacy relating to a particular curriculum area including science (Riggs & Enochs, 1990), classroom management (Emmer & Hickman, 1991), and special education (Coladarci & Breton, 1997). However, concerns were raised by other researchers regarding conceptual and statistical issues. There were inconsistencies identified including that several items on the instrument were loaded on both factors. Others omitted these items and shortened the instrument and still found inconsistencies across the studies (Soodak & Podell, 1993; Hoy & Woolfolk, 1993).

Although others continued to work on the above instruments, an unpublished measure by Bandura (1997) began to be used by some. This measure consists of 30 items with a nine-point scale anchored at nothing, very little, some influence, quite a bit, and a great deal. The following subscales emerged from this measure: influence on decision making, influence on school resources, instructional efficacy, disciplinary efficacy, enlisting parental involvement, enlisting community involvement, and creating a positive school climate. Recognizing that teacher efficacy is not necessarily constant with regard to the variety of tasks teachers perform or across subject matter, Bandura sought to discover a multifaceted picture of teachers' efficacy beliefs without being too narrow or specific. Two concerns, however, exist with this measure. First, there are concerns regarding the accuracy with which the items reflect the typical tasks of a teacher's typical work load. The second concern is that there is no available reliability or validity information (Tschannen-Moran & Woolfolk Hoy, 2001).

After having reviewed the above instruments and considering the strengths and weaknesses of each, Tschannen-Moran and Woolfolk Hoy (2001) proposed a new measure of teacher efficacy based on their Integrated Model of Teacher Efficacy. Originally known as the Ohio State Teacher Efficacy Scale (OSTES), the Teachers' Sense of Efficacy Scale (TSES) has both a long form with 24 items and a short form with twelve items. Participants assessed each of the items along a 9-point Likert scale anchored at nothing, very little, some influence, quite a bit, and a great deal. Tschannen-Moran and Woolfolk Hoy (2001) describe the strength of this instrument as having a "unified and stable factor structure and assesses a broad range of capabilities that teachers consider important to good teaching, without being so specific as to render it useless for comparisons of teachers across contexts, levels, and subjects (pp.801-802)."

The Teachers' Sense of Efficacy Scale has been used in a variety of studies. While examining the factor structure of the TSES, Fives and Buehl (2010) worked with both in-service and preservice teachers and found that the efficacy beliefs of the preservice teachers were not as varied as those of the in-service teachers. Practicing teachers expressed distinct efficacy beliefs with regard to classroom management, instructional practices, and student engagement. The beliefs of the preservice teachers were not as distinct probably due to their lack of experience. Among the practicing teachers, the strongest efficacy beliefs were reported for classroom management responsibilities and the lowest for student engagement. Middle and high school level teachers reported lower efficacy beliefs for student engagement than the elementary teachers.

Brady and Woolfson (2008) used the TSES as part of a study which examined the relationships of several factors including teacher efficacy with teachers' attributions for learning difficulties experienced by students with special needs. They found that teachers with higher levels of teaching efficacy were more likely to place responsibility for students' learning difficulties on factors that were external to the child, making them more likely to accept some responsibility for the difficulties and adjust their teaching methods to help meet student needs.

Recently, preservice teachers have been the participants in three studies that explored the concept of efficacy. First, in 2007, the TSES was used to study burn-out during the student teaching experience and efficacy levels (Fives, Hamman, & Olivarez, 2007). As levels of efficacy increased during the student teaching experience, the level of burnout symptoms decreased. Some of the contributing factors included strong guidance from the cooperating teacher, a perception that the supervisor was increasing the student teacher's level of autonomy as the experience progressed, and the opportunity to participate in professional development opportunities that increased the feelings of efficacy.

A second study by Ng, Nicholas, and Williams (2010) focused on understanding how school placement experiences influenced how student teachers defined a good teacher and examined how the placements influenced the development of self-efficacy beliefs. The authors suggested that it is necessary to address the building of self-efficacy beliefs as part of the teacher education program. They also identified two interrelated needs of the student teachers. First, student teachers identified the need to have better classroom management practices. Second, they identified the need to be able to better

manage student learning. As the ability to manage student learning improved, the need to manage student behavior decreased.

The third study focused on the efficacy beliefs of preservice teachers in a physical education field placement (Gurvitch & Metzler, 2009). The authors, based on their work with 59 students, suggest that engaging in authentic teaching situations prior to student teaching increase self-efficacy levels. These experiences must be ongoing, authentic and appropriate in order to form stable and lasting levels of efficacy.

The scale has also been used internationally. Cheung (2008) used a modified version of the TSES to examine the teacher efficacy levels of in-service teachers in Hong Kong and Shanghai, China. He found that the Chinese teachers reported higher levels of efficacy. Teachers with more years of experience reported higher levels of efficacy. Cheung also discussed the possibility that the cultural differences may have influenced the findings due to the high level of respect that teachers in China receive.

This overview of the Teachers' Sense of Efficacy Scale will be further developed in Chapter 3 by discussing the factor structure, reliability, and validity.

Supervision

The student teaching experience is undoubtedly affected by the complex role played by the university supervisor. Although the relationship between the supervisor and student teacher has not been studied as extensively as the relationship the student teacher forms with the cooperating teacher, research suggests that the supervisor is vital to the success of the experience (Koerner & Rust, 2002).

Although some supervisors are full-time members of the education department, others are retired teachers or principals or graduate students with some teaching

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experience. As described by Koerner, Rust, and Baumgartner (2002), some of the most important activities of the supervisor include serving as a liaison between the university and school, functioning as an advocate for the student teacher, and combining instruction with the supervision.

The supervisor is required to play multiple roles. Henry and Beasley (1996) discuss nine roles that university supervisors typically assume with regard to both the student teacher and the cooperating teacher as listed in figure 2. Orienting and advising the student teachers is often the first interaction and when done well can ease the first few days in the placement. As part of this role, the supervisor is able to promote adjustment to the teaching role (Metcalf, 1991). Along with serving as an advisor, the supervisor, in many programs continues this role by acting as a seminar director meeting regularly with student teachers to facilitate the discussion of ideas and the providing of resources (Henry & Beasley, 1996).

One of the most important roles is as an instructor. This includes presenting ideas or strategies as well as meeting with student teachers to analyze instruction and provide feedback (Henry & Beasley, 1996). Some of the responsibilities included with this role are encouraging the use of specific instructional techniques and promoting effective planning (Metcalf, 1991). It is also common for a student teacher to approach the supervisor looking for answers to questions when he or she may not feel comfortable asking the cooperating teacher. The supervisor may also ensure opportunities for the student teacher to learn about aspects of teaching including record keeping, conference preparation, grade books, and text selection (Winter & Prokosch, 1995). This role is probably most closely linked with the role of supervisor. In this role, it is expected that

Role	Sample Responsibility
Placement consultant	Locate suitable settings
Orient and advise students	Prepare student teach to enter the classroom
Instructor	Provide instructional analysis and feedback
Seminar Director	Provide opportunity to meet and share ideas
Counselor	Help with personal and professional problems
Liaison	Intermediary between university and school
Supervisor	Conduct observations and offer feedback
Consultant	Provide information to the school site
Evaluator	Provide formative and summative evaluation

Figure 2. Typical roles of supervisors.

the university supervisor uses lesson plan analysis, classroom observation, and

conferencing to work with a student teacher to improve instruction and document the

growth and development of the student teacher (Henry & Beasley, 1996).

Because of the relationship that forms between the supervisor and student teacher,

often the supervisor also serves as a counselor and may provide assistance with problems

(personal or professional) experienced by the student teacher. This affects the student

teacher's attitude. Through this assistance, the supervisor can help the student teacher

work through any barriers that may be preventing him/her from being successful (Henry

& Beasley, 1996; Metcalf 1991).

Although supervisors have various roles, they are typically viewed as evaluators.

In addition to providing formative evaluations, the supervisor is also a key figure in

deciding if the university requirements have been met and assigning the final evaluation

of the student teacher. Serving in this role also involves promoting opportunities for self-

evaluation on the part of the student teacher and providing feedback regarding

performance (Henry & Beasley, 1996; Metcalf 1991). Not all of these roles are evident in every supervisory relationship and depending upon the situation, it is possible that some of these roles may be in conflict with each other.

In addition to serving as a resource person to the student teacher, the supervisor can also be useful to the cooperating teacher. In some programs, it is the supervisor who makes initial contact with a school regarding the placement of student teachers. As a representative of the university program, the supervisor acts as a liaison between the teacher education program and the school. This fosters communication between the university and the school. The supervisors are also able to provide information regarding what other teachers and schools are doing. Throughout the experience, the supervisor may be required to explain the university program and goals to the school and bring an understanding of the cooperating school's program back to the university. It may also be necessary at times to resolve conflicts between a cooperating teacher and a student teacher. Performing well in this role strengthens the relationship between the university and the school and when this relationship is strong, the supervisor may be called upon to serve as a consultant. Schools may, at times, call upon the supervisor to provide new ideas and evaluations. A supervisor, then, should always strive to remain up to date with current research regarding methods, materials, and resources (Henry & Beasley, 1996; Metcalf 1991; Winter & Prokosch, 1995).

Koerner, Rust, and Baumgartner (2002) asked student teachers, cooperating teachers, and supervisors to describe the characteristics of good student teachers, cooperating teachers, and supervisors. Although the role of mentor was assigned to both the cooperating teacher and the supervisor, it was primarily associated with the

supervisor. The supervisor was also described as being an advocate for the student

teacher and a liaison.

Supervision Practices

The complexity of the supervisor's role in the student teaching experience

underscores the importance of employing effective supervision strategies. According to

Jonson (2008), many strategies are suggested for teacher mentors of beginning teachers

and are also practical and useful for the university supervisor of a student teacher.

Several of the categories of mentoring strategies suggested for beginning teachers echo

the responsibilities of supervisors discussed above including offering direct assistance,

providing demonstrations of particular strategies, completing observations and offering

feedback, and providing opportunities for professional growth. Some specific strategies

suggested for mentoring new teachers are also strategies typically employed by

supervisors of student teachers. Like mentors, supervisors routinely offer advice

regarding lesson planning, offer tips on classroom management, encourage observations

of other teachers, provide specific feedback, share resources, and encourage reflection.

Figure 3 summarizes some of the strategies suggested for supervising student teachers or

new teachers.

Conferencing between the supervisor and student teacher is a necessary

occurrence during the student teaching experience. According to Henry and Beasley

(1996) the focus of a conference should be on the professional growth of the student

teacher and may include analysis of a lesson, the sharing of information and ideas, as

well as evaluation. Although, before conferencing about an observed lesson, it is

important for the student teacher to reflect on the teaching, new and beginning teachers

typically have difficulty self-analyzing and lack confidence and therefore the supervisor

needs to guide the conference by asking leading questions, listening actively, and using

the perceptions of the observation to facilitate meaningful discussion (Reiman & Thies-

Sprinthall, 1998).

Direct assistance	Demonstrate Strategies
Observe and offer feedback	Provide opportunities for professional growth
Advice on lesson planning	Provide tips for classroom management
Encourage observations of other teachers	Share resources
Encourage reflection	

Figure 3. Strategies for supervising student teachers.

According to Jonson (2008), the feedback given during a conference should not

only address specific and concrete behaviors, but should also be focused, nonjudgmental

and evidence based. In addition to providing specific guidelines for professional growth,

the conference is also an opportunity to provide resources for exploring or expanding

instructional strategies. For reasons discussed above related to the efficacy beliefs of the

student teacher, it is important that the information presented during the conference be

credible and presented with caring intentions and in understandable terms.

In an attempt to further understand the role played by the supervisor and how the

feedback is perceived, Cameron-Jones and O'Hara (1999) developed the instrument The

Roles Your Supervisor Played. This instrument consists of a listing of eight possible

roles which the supervisor may have played. Four of these descriptions represent

supportive roles (friend, supporter, intermediary, door-opener) and four represent

challenging roles (model, assessor, coach, standard-prodder). Each role is followed by a

description for clarification and a seven point scale. Participants use this scale to

describe the extent to which the supervisor represented that role. The scale's range goes

from very little or not at all (1) to a great deal (7).

This instrument has been used in a variety of studies by the authors. It has been

used to study supervisors' self-perceptions in the field of nurse education and teacher

education (Cameron-Jones & O'Hara, 1995).

Cameron-Jones and O'Hara (1999) attempted to identify a balance of challenge

and support by using the measure with 669 students from four different courses in teacher

education programs. The students had just completed a school based experience that was

supervised by a classroom teacher. The students reported that the two roles they saw

most in the classroom teacher, who was also the supervisor, were those of supporter and

model. Standard prodder was the least recognized role in this study.

Figure 4 shows that students who reported having the least desirable kind of

supervision (low support and high challenge) experienced the highest rate of drop outs.

Students who reported having the most desirable kind of supervision (high support and

high challenge) experienced the lowest number of drop outs. Based on these data, the

authors assert that their findings are empirically related to the students' real-life decision

to stay with or withdraw from the course.

The second part of the authors' study consisted of administering the Roles your

Supervisor Played survey along with a 14-item questionnaire about student satisfaction

with their placement to 91 students who had just completed a school based field

experience. The results from the satisfaction survey were split at the median to create

two groups (more satisfied or less satisfied). Figure 5 summarizes the findings. The

theoretically best combination of high support and high challenge was reported by 39 of

		Support	
		Low	High
Challenge	High	13% (retreat) mostly from group with 9.7% dropout	38% (Growth) mostly from group with 1.8% dropout
	Low	32% (stasis) mostly from group with 4.2% dropout	17% (Confirmation) mostly from group with 4.2% dropout

Figure 4. Drop out rates with regard to levels of challenge and support.

the students. Thirty of the 39 also reported to be more satisfied with their placement.

The theoretically worst combination of low support and high challenge was reported by 7

students. Six of the 7 also reported to be less satisfied with the placement. This

instrument will be further discussed in Chapter 3.

		Support	
		Low	High
Challenge	High	7 total 1 more satisified 6 less satisfied	39 total 30 more satisfied 9 less satisfied
	Low	24 total 6 more satisfied 18 less satisfied	21 total 10 more satisfied 11 less satisfied

Figure 5 Results of satisfaction survey with regard to challenge and support

Support and Challenge

Cameron-Jones and O'Hara (1999) used the work of Daloz (1986) as a theoretical base for the development of their instrument. Through the study of mentoring, Daloz (1986) was able to identify two factors that are important to creating successful supervisory relationships. The two factors, known as support and challenge, and the perceived mixtures of the two, influence the potential for growth by the student teacher. Support refers to acts through which a university supervisor affirms the actions of the preservice teacher. Challenge refers to acts through which a university supervisor identifies a gap in the preservice teacher's knowledge and introduces an assignment or discussion to assist the preservice teacher in closing the gap.

The dynamic of these two factors has been represented as four quadrants created by the intersection of two axes as in figure 6. The axes represent the level of each factor, support and challenge. First, the theoretically optimum mixture is when both the levels of support and challenge are high (upper right quadrant). This provides the opportunity for professional growth. The second possibility is when the level of challenge is high, but the level of support is low (upper left quadrant). In this type of situation, the student teacher will likely experience a retreat or feeling of withdrawal from the situation. Theoretically, this is the least desirable mix of support and challenge. The third possible mix is high level of support and low level of challenge (lower right quadrant). This results in a feeling of confirmation. The student teacher feels supported and cared about, but not challenged to extend their learning. The fourth possibility is low levels of both support and challenge (lower left quadrant). This situation can be described as a stasis. The situation for the student teacher seems to be at a standstill. Since there is nothing to

which to respond, the student teacher neither grows nor retreats; thereby, the student

teacher is simply passing time.

		Support	
		Low	High
Challenge	High	Retreat	Growth
	Low	Stasis	Confirmation

Figure 6. Daloz's theory of challenge and support.

When considering that it is the supervisor who controls the levels of support and

challenge experienced by the student teacher, the importance of the role played by the

supervisor becomes even clearer. It is these factors, support and challenge, that serve as

the basis for the eight roles described in Cameron-Jones and O'Hara's (1999) instrument

used in this study to help identify how the roles played by the supervisor are perceived by

the student teacher. Cameron-Jones and O'Hara (1999) concluded that those who report

a high level of both support and challenge are more likely to experience growth through

the experience and report being satisfied. At the other extreme, those who report low

levels of support and high levels of challenge are more likely to experience retreat and

report being less satisfied with their experience.

Others have also conducted research based on the concepts of support and challenge. Certo (2005) interviewed three sets of partners made up of a first year teacher and the mentor at intervals throughout the school year. Identifying characteristic actions typical of support and challenge through interviews with both the new teachers and the mentors, Certo suggested several considerations for making such pairings successful. These suggestions include promoting reflection by the beginning teacher, providing opportunities for mentors to develop questioning skills, and encouraging beginning teachers to observe the mentors at regular intervals.

Summary

The purpose of this chapter was to explore relevant literature as it related to the student teacher – supervisor relationship and the construct of efficacy. In order to accomplish this, Bandura's work regarding self-efficacy and how others elaborated on it to study teacher-efficacy was examined. The importance of studying teacher efficacy levels of student teachers was established and linked to Bandura's sources of self-efficacy. The Integrated Model of Teacher Efficacy was also discussed to clarify the construct of teacher efficacy as a concept that is influenced by both the task and context. This led to a brief history of the measurement of teacher-efficacy. Several instruments were reviewed and the measure used for this study was introduced. A discussion of how the role of the supervisor has been described by various researchers was next leading into the development of the second instrument used in this study, The Roles Your Supervisor Played. Finally, the chapter concluded with a brief review of Daloz's work regarding how the levels of challenge and support presented by the supervisor are perceived by the student teacher.

CHAPTER 3

DESIGN AND METHODOLOGY

The purpose of this study was to examine student teachers' perceptions about the supervision they received during their student teaching experience and the beliefs they hold about their teacher efficacy. The perceptions held by the student teachers were examined along with the reported beliefs about teacher efficacy to determine if any correlations existed. The study was carried out by requesting that student teachers complete two surveys at the completion of their student teaching experience. These surveys were completed anonymously online through a secure website. Quantitative and qualitative methods were both used in this study. This chapter includes the methodology of the study including descriptions of the participants, setting, and instruments. The procedures followed in this study are also discussed.

Two types of data were collected during this study. Participants were asked to use a Likert scale for the Teachers' Sense of Efficacy survey and the Roles Your Supervisor Played survey. These two surveys yielded numerical data from answers reported on the Likert scale and were analyzed with quantitative methods. According to Gall, Gall, and Borg (2003), these are numerical data on observable behaviors and could be analyzed to characterize social environment.

In an attempt to understand more fully the views of the student teachers regarding their experiences, qualitative methods were also used to analyze responses to two open-ended questions. Participants responded to two open-ended questions regarding the strengths and weaknesses of the supervision aspect of the student teaching experience. According to Gall, Gall, and Borg (2003), qualitative research allows a researcher to

understand how an individual perceives a situation and to gain verbal information which represents the situation.

These two types of research can complement each other in a study. By including both quantitative and qualitative research methods, it is possible that qualitative methods can provide a sense of discovery in attempting to understand the situation and the quantitative methods can provide confirmation of the information (Gall, Gall, & Borg, 2003).

Participants

The participants were student teachers who had completed of their student teaching experience. All participants were completing their student teaching internship through the same state university in Pennsylvania. Invitations to participate were sent to a total of 449 student teachers (both secondary and elementary) over two semesters. Completed surveys (Teachers' Sense of Efficacy Scale and Roles Your Supervisor Played Survey) were received from 121 student teachers.

Age Range

Participants were college students who were over the age of 18 and were completing a teacher certification program. Of the 121 participants who completed the surveys 111 also provided their age. Based on this, the mean age of the participant was 23 and the ages ranged from 21 to 43 years of age. Those who did not supply their age were not dropped from the study.

Gender

Teacher candidates of both genders were invited to participate. Based on 116 participants who supplied an answer regarding gender, 16 identified themselves as male and 100

identified themselves as female. Those who did not report their gender were not dropped from the study.

Number

This study was conducted over two semesters. During the spring 2006 semester, email invitations were sent to 279 student teachers. During the fall 2006, 170 invitations were sent. Of the total 449 possible participants, the researcher received 121 complete surveys. This resulted in approximately a 27% return rate.

Certification Area

Of the 115 participants who responded to the question regarding certification area, 93 stated that they were seeking elementary certification and 58 reported that they were seeking secondary certification. Note that the numbers (93 and 58) add up to more than the actual total of participants (115). This is because some participants were seeking certification in an area which prepares them to teach kindergarten through twelfth grade.

Major

A variety of majors were represented by the participants of this study. One hundred eight participants identified their major when completing the survey. Fifty-four of the participants listed themselves as elementary education majors. Other majors represented include music education (14), business education (9), special education (8), health and physical education (7), English education (4), social science education (4), math education (3), art education (2), family and consumer science education (2), science education (1), and Spanish education (1). Some participants listed more than one major.

Grade Point Average

There were 113 participants who listed their grade point average. Of those who responded, 16 reported a 4.0 grade point average. A grade point average of at least 3.5 but less than 4.0 was reported by 76 participants. A grade point average of less than 3.5 but at least 3.0 was reported by 20 participants. The mean grade point average of the 113 participants was 3.69.

Gender of Supervisor

One hundred fifteen participants listed the gender of their university supervisor. A male supervisor was listed by 32 of the participants and 83 participants listed their supervisor to be a female.

Summary of Demographics

The information presented above is summarized in the following table (table 1).

Table 1

Summary of Demographics

Number of Participants			
Number of invitations sent	449	Number of completed surveys	121
Age of Participants			
Range of ages	21 - 43	Age mean	23
Gender of Participants			
Female	100	Male	16
Certification Area			
Elementary	93	Secondary	58
Major			
Elementary Education	54	Music Education	14
Business Education	9	Special Education	8
Health and Physical Education	7	English Education	4
Social Science Education	4	Math Education	3
Art Education	2	Family and Consumer Science Education	2
Science Education	1	Spanish Education	1
Grade Point Average			
Mean Grade Point Average	3.69		
4.0 gpa	16	4.0 > gpa > 3.5	76
3.5 > gpa > 3.0	20	gpa < 3.0	0
Gender of Supervisor			
Female	83	Male	32

Setting

This study was conducted in the College of Education of a state university in Pennsylvania. Student teachers from the university used a secure website, StudentVoice, to respond to the survey by clicking on a link provided in an email.

Instrumentation

Participants in this study completed two surveys, the long form of the Teachers' Sense of Efficacy Scale (Appendix A) and The Roles Your Supervisor Played (Appendix B). They also answered two open-ended questions added by the researcher (Appendix C). Participants also provided information to seven questions regarding demographics (Appendix D).

Teachers' Sense of Efficacy Scale

The level of efficacy was measured using the long form of the Teachers' Sense of Efficacy Scale (Appendix A). This instrument consists of 24 Likert scale items to be rated on a 9-point scale. Subscales can be determined for efficacy in student engagement, efficacy in instructional practices, and efficacy in classroom management. For preservice teachers, however, it is recommended that only the total score be examined, rather than the subscales, due to the fact that preservice teachers have not yet gained enough experience with real teaching responsibilities (Tschannen-Moran, & Woolfolk-Hoy, 2001). See figure 7 for a sample of items.

The authors of the Teachers' Sense of Efficacy Scale (Tschannen-Moran & Woolfolk-Hoy, 2001) report on the validity and reliability of the instrument. They examined the construct validity of both forms of the survey by examining the correlation between this measure and other existing measures of teacher efficacy. The long form of the survey was positively related to both items ($r = 0.18$ and 0.53, $p < 0.01$) used by researchers at the RAND organization who originally added two questions to an existing questionnaire in the first attempt to study teacher efficacy. It was also positively related to the personal teaching efficacy (PTE) factor measured by Gibson and Dembo ($r = 0.64$, $p < 0.01$). Similar results were found for the short form. The Teachers' Sense of Efficacy Scale goes beyond previous measurements by including a wider range of tasks typically associated with teaching.

	How much can you do?				
	Nothing	Very Little	Some	Quite a Bit	A Great Deal

1. How much can you do to get through to the
most difficult student   (1) (2) (3) (4) (5) (6) (7) (8) (9)

2. How much can you do to help your students think
critically?   (1) (2) (3) (4) (5) (6) (7) (8) (9)

3. How much can you do to control disruptive behavior in
the classroom?   (1) (2) (3) (4) (5) (6) (7) (8) (9)

4. How much can you do to motivate students who show
 low interest in school work?   (1) (2) (3) (4) (5) (6) (7) (8) (9)

Figure 7. Sample items from Teachers' Sense of Efficacy Scale.

The Roles Your Supervisor Played

The students' perceptions of their relationships with their university supervisor

were studied by administering The Roles Your Supervisor Played instrument (Appendix

B) developed by Cameron-Jones and O'Hara (1999). It presents, in random order, four

supportive roles (friend, supporter, intermediary, door opener) and four challenging roles

(model, assessor, coach, standard-prodder) along with descriptions of each to be rated on

a 7-point scale. Figure 8 below provides some sample items from the instrument.

The theoretical basis of the instrument is based on the work of Daloz (1986) and

his theory that support and challenge are critical to the development of a successful

supervisory relationship and that a mix of the two can produce one of four outcomes:

retreat, growth, stasis, or confirmation as shown in figure 9.

.

The roles your supervisor might have played	What a student might say about each role	Circle one number on each line 1 (very little or not at all) to 7 (a great deal)
Friend	"he/she befriended me"; "was personally kind to me"	1 2 3 4 5 6 7
Model	"I have learned from his/her ability to. . ."	1 2 3 4 5 6 7
Assessor	"let me know where I stood, compared with where I should have been"; "said what he/she thought about my work"	1 2 3 4 5 6 7

Figure 8. Sample Items from Roles Your Supervisor Played.

		Support	
		Low	High
Challenge	High	Retreat	Growth
	Low	Stasis	Confirmation

Figure 9. Daloz's Theory of Challenge and Support.
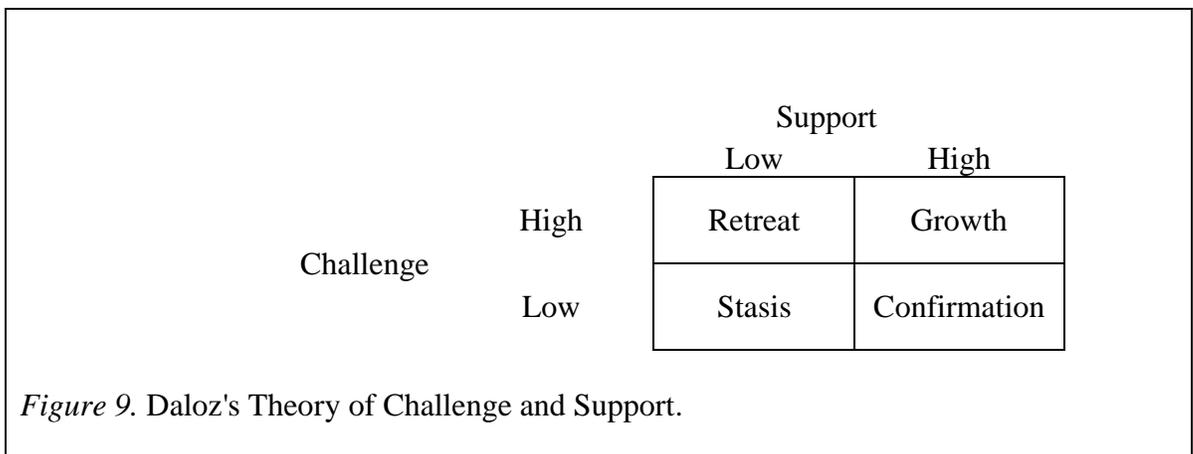
According to Cameron-Jones and O'Hara (1999), the instrument was analyzed in

a study with 578 higher education students enrolled in teacher education courses with a

field placement. Through factor analysis, the researchers showed that the instrument

does contain two factors which correspond to the concepts of support and challenge and are represented by the roles defined. Table 2 displays the factor loadings that confirm the existence of both support and challenge. Based on this information, the support roles are most clearly defined by the roles of door-opener, intermediary, and friend and the challenge roles are most clearly defined by the roles of assessor, coach, and standard-prodder.

Through the examination of the mean, rank, standard deviation, and factor loadings, the researchers were confident that the instrument was capable of measuring the degree to which a student perceived the supervisor providing support and challenge (Cameron-Jones & O'Hara, 1999).

Cronbach's alpha tests can be used to determine the extent to which items measuring the same thing will be highly correlated (Welch & Comer, 1988) and it has been suggested (George & Mallery, 2003) that the following rules can be used to evaluate

Table 2

Factor Loadings (% variance explained) of Teachers' Sense of Efficacy Scale

	Factor loadings (% variance explained)	
	F1	F2
	58%	13%
Door-opener	0.81	0.3
Intermediary	0.81	0.21
Friend	0.84	0.19
Supporter	0.74	0.39
Model	0.54	0.49
Assessor	0.26	0.81
Coach	0.28	0.85
Standard-prodder	0.24	0.82

alpha coefficients. An alpha value of greater than 0.9 represents an excellent level of correlation, greater than 0.8 is good, greater than 0.7 is acceptable, greater than 0.6 is questionable, greater than 0.5 is poor and less and 05 is unacceptable.

Cameron-Jones & O'Hara (1999) calculated alpha coefficients for all eight of the items, for the six most clearly defined roles, and for the two subscales. Because alpha is being used to make a judgment regarding the estimated internal consistency of this instrument, a larger decimal number indicates a high level of reliability (George & Mallery, 2003; Huck & Cormier, 1996). This information is represented in table 3 and shows that alpha coefficients ranged from a low of 0.84 to a high of 0.89. According to the guidelines suggested by George and Mallery (2003) these levels of coefficient are good. Column A uses all 8 items and shows a alpha coefficient for the entire instrument of 0.89. Column B documents the alpha coefficient to be 0.86 using the six most clearly defined items (3 support and 3 challenge). Columns C and D display the alpha coefficient for the subscale of Support. Column C shows the calculated vale of 0.87 using all four support items. Column D used the three most clearly defined support items to arrive at an alpha coefficient of 0.84. Similarly, columns E and F display the alpha coefficient for the subscale of Challenge. Columns E's alpha coefficient value of 0.84 was calculated using all four challenge items. Column F's alpha coefficient value was also calculated to be 0.84 using the three most clearly defined challenge items.

In addition to the information presented above, Cameron-Jones and O'Hara (1999) assert that, based on their use of the instrument in several different occupational fields, the instrument has face validity based on their observations that ratings obtained

Table 3

Alpha Coefficients for Roles Your Supervisor Played

	A Total	B Total	C Support	D Support	E Challenge	F Challenge
Number of items	8	6	4	3	4	3
Alpha	0.89	0.86	0.87	0.84	0.84	0.84
Relevant items	Door-opener	Door-opener	Door-opener	Door-opener		
	Intermediary	Intermediary	Intermediary	Intermediary		
	Friend	Friend	Friend	Friend		
	Supporter		Supporter			
	Model				Model	
	Assessor	Assessor			Assessor	Assessor
	Coach	Coach			Coach	Coach
	Standard-prodder	Standard-prodder			Standard-prodder	Standard-prodder

from military personnel consisted primarily of challenge ratings and ratings from higher education faculty responsible for working with new colleagues primarily consisted of support ratings.

Other Information

Two open-ended questions were used to gather additional information from each participant by asking them to describe how the supervision could be improved and to describe the strengths of the current supervision program. Additionally, each participant was also asked to state their gender, age, whether they are seeking elementary or secondary certification, their major, their grade point average, and the gender of the university supervisor. This information was not used to attempt to identify any student teacher or university supervisor. Nor was it used to attempt to link any student teacher to a university supervisor. The purpose of this information was to identify any possible

trends if they existed. At no time did the researcher attempt to identify anyone associated

in any way with this study or the university.

Procedure

A list of email addresses for all 449 students who were completing their student teaching

during the spring 2006 semester was obtained from the College of Education at the university

site. The email addresses were given to StudentVoice. Each student received an email

(Appendix E) explaining the study and requesting them to click on a link that led them to a

survey on the secure website provided by StudentVoice. The survey consisted of the following

documents: informed consent form, demographics survey (Appendix D), Teachers' Sense of

Efficacy Scale (Tschannen-Moran & Woolfolk-Hoy, 2001) (Appendix A), The Role Your

Supervisor Played survey (Cameron-Jones, & O'Hara, 1999) (Appendix B) and two open-ended

questions (Appendix C). One week after the initial email had been sent, a follow-up email was

sent as a reminder to complete the survey before the end of the semester (Appendix F). This

process was then repeated for the fall 2006 semester in the same manner.

Confidentiality and security of the data collection process were guaranteed. All

responses to the survey were confidential. No information was linked to any email address.

There was no way of identifying any respondent and there were no identifiers attached to any

respondent. All information gathered was then available to the researcher through

StudentVoice.

Data Analysis

Correlational statistics were used to determine the strength of the relationship that

existed between the level of efficacy reported by the student teachers and the role which they

associated with their university supervisor and to determine if the student teachers who viewed

their supervisor in a more supportive role had a higher level of reported self-efficacy. Also, the data were examined to attempt to identify an ideal mix of challenge and support associated with a high level of self-efficacy.

The qualitative data gathered through the open-ended questions were analyzed by identifying common categories for each of the two questions. Responses were sorted according to themes regarding the strengths of the supervision program and ways in which the supervision could be improved.

Finally, the demographics information was used to identify any possible trends in the data with regard to gender, age, certification area, grade point average or gender of supervisor. The advantages of using correlational research methods include being able to examine, within one study, the relationship between multiple variables and studying the degree of the relationship (Gall, Gall, & Borg, 2003). Analysis will be discussed in further detail in Chapter 4.

Summary

The purpose of this chapter was to describe the procedures used to conduct this study. In addition to a discussion of the instruments used, descriptions of the participants and setting were also included. Chapter four contains the results of the study including more detailed information about the statistical analysis of the data.

CHAPTER 4

DATA ANALYSIS

The purpose of this study was to examine student teachers' perceptions of their

supervisor's role during their student teaching experience and their reported level of

teacher efficacy beliefs. They reported this information at the conclusion of their student

teaching experience by completing a survey consisting of items related to their

perceptions of the roles played by their supervisor and their opinions regarding their

teaching efficacy beliefs. Student teachers used a Likert scale to report their answers.

They also responded to two open-ended questions regarding the strengths the supervision

program and how the program could be improved.

The purpose of this chapter is to present an analysis of the data as they pertain to

the research questions. The first part of this chapter reports on the analysis of the

quantitative data gathered from the two instruments. The first instrument focused on the

self-reporting of efficacy beliefs held by the student teachers. The second instrument

focused on the perceptions held by the student teachers regarding the roles played by the

supervisor. These roles can be separated into two categories: support and challenge.

Analysis of the quantitative data is organized around the four research questions. The

second part of the chapter attempts to identify any trends, if they exist, with regard to the

efficacy beliefs of the student teachers and the demographics information provided. The

third part of the chapter discusses the analysis of the qualitative data gathered from the

open-ended questions regarding the strengths of the supervision during student teaching

and how the supervision could be improved from the point of view of the student teacher.

At the end of each of two semesters, student teachers at a state university in Pennsylvania were invited to participate in this study. Of the 449 student teachers, 121 completed both surveys. This resulted in a 27% response rate. All but 6 of these student teachers who completed the surveys also supplied at least some of the requested demographic data including age, gender, certification area, major, grade point average, and gender of the supervisor.

Descriptive Statistical Data

The Teachers' Sense of Efficacy Scale (Tschannen-Moran & Woolfolk-Hoy, 2001) was the first of the two instruments completed by the student teachers. Twenty-four questions were presented asking how much they could do with relation to teaching situations. Participants responded on a 9 point Likert scale ranging from 1 meaning nothing to 9 meaning a great deal. This instrument was completed by 121 of the participating student teachers resulting in a mean efficacy score of 7.62 with a standard deviation of 0.87, indicating a relatively high level of self-reported efficacy.

The Roles Your Supervisor Played Scale (Cameron-Jones & O'Hara, 1999) was the second of the two instruments used in this study. Eight statements were presented each representing a possible role that the supervisor may have played and a description of how that role may have been exhibited. Each statement required a response on a Likert scale ranging from 1 meaning very little or not at all to 7 meaning a great deal. The correlations between efficacy and support and between efficacy and challenge were calculated using a Pearson's Product-moment correlation. Four of the statements represented supportive roles and four represented challenging roles. This instrument was completed by 121 student teachers. The responses for the supportive roles were averaged

and resulted in a mean score of 5.52 with a standard deviation of 1.53, indicating that, overall, supervisor's roles were relatively supportive. The responses for the challenging roles were averaged and resulted in a mean score of 5.89 with a standard deviation of 1.31, indicating that, overall, supervisors were relatively challenging. Table 4 summarizes this information.

Table 4

Descriptive Statistical Data for Efficacy, Support and Challenge

	Mean	SD	N
Efficacy (Calculated from TSES)	7.62	0.87	121
Support (Calculated from RYSP)	5.52	1.53	121
Challenge (Calculated from RYSP)	5.89	1.31	121

The combinations of support and challenge as perceived by the student teachers are described by four categories: low support/ low challenge, low support/ high challenge, high support/ low challenge, and high support/ high challenge. Using the same criteria for defining low or high for support or challenge as the authors of the instrument (Cameron-Jones & O'Hara, 1999), the student teachers were placed into one of the four groups. A mean score of 5 or higher on the support items related to high support. A mean score of 5 or higher on the challenge items related to high challenge. A mean score of fewer than 5 on the support items related to low support. A mean score of under 5 on the challenge items related to low challenge.

Sixteen student teachers reported a combination of low support and low challenge. Overall, this group had a mean support score of 2.81, a mean challenge score of 3.14, and a mean efficacy score of 7.86. Low support and high challenge was reported by sixteen student teachers. This group had a mean support score of 3.98, a mean

challenge score of 5.75, and a mean efficacy score of 7.32. Two student teachers were in

the high support and low challenge category. This group had a mean support score of

5.50, a mean challenge score of 4.25, and a mean efficacy score of 7.23. Eighty-seven

student teachers reported high support and high challenge. This group had a mean

support score of 6.30, a mean challenge score of 6.46, and a mean efficacy score of 7.64.

Table 5 summarizes this. An analysis of variance was performed to compare the efficacy

means of the four groups. The overall F-test was 1.234 with a p-value of .300. There

were no differences between the group means. See table 6.

Table 5

Means of the Four Categories

Category	N	% of total	Mean Support	Mean Challenge	Mean Efficacy
Low Support and Low Challenge	16	13.22	2.81	3.14	7.86
Low Support and High Challenge	16	13.22	3.98	5.75	7.32
High Support and Low Challenge	2	1.65	5.50	4.25	7.23
High Support and High Challenge	87	71.9	6.30	6.46	7.64

Table 6

ANOVA - Efficacy of 4 Groups

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.7171	3	0.924	1.234	0.3
Within Groups	87.553	117	0.748		
Total	90.324	120			

Results of Data Analysis According to Research Questions

The first research question of this study investigated the relationship between the preservice teachers' beliefs of efficacy and their perception of their university supervisors. In order to answer this question, the correlations between efficacy and support and between efficacy and challenge were calculated using a Pearson's Product-moment correlation. Between efficacy and support, an r value of 0.035 was obtained and between efficacy and challenge an r value of -0.018 was obtained with respective p values of .705 and .842. Thus, there is no statistical significance or relationship in either case. See Table 7 for a summary of the correlation values.

Table 7

Correlations

		support	challenge
efficacy	Pearson Correlation	0.035	-0.018
	Sig. (2-tailed)	0.705	0.842
	N	121	121
support	Pearson Correlation		0.847
	Sig. (2-tailed)		0
	N		121

The second research question examined whether the reported beliefs of efficacy differed between preservice teachers who viewed their supervisors in a more supportive role (high support) compared with those who viewed their supervisor in a more challenging role (high challenge). The group that reported high levels of support (n=89) had a mean support score of 6.28, a mean challenge score of 6.41, and a mean efficacy score of 7.63. The group that reported high levels of challenge (n=104) had a mean support score of 5.88, a mean challenge score of 6.29, and a mean efficacy score of 7.52.

Note that it was possible for a student teacher to report both a high level of support and a high level of challenge. This is summarized in Table 8.

Table 8

Means of Support, Challenge, and Efficacy

	N	Mean Support	Mean Challenge	Mean Efficacy
High Support	89	6.28	6.41	7.63
High Challenge	104	5.88	6.29	7.52

The third research question investigated the difference in the reported beliefs of efficacy between preservice teachers who perceive their supervisor in a more positive manner (high support and high challenge) than those who perceive their supervisor in a negative manner (low support and high challenge).

In order to answer the second and third research questions, a regression model was used to assess the ability of support and challenge taken together to predict efficacy (Table 9). Support and challenge accounted for only 0.9%, (R^2=.009) of the variability in efficacy. When running an ANOVA test to determine if a significant amount of the variability was being explained by the model, an F value of 0.552 was obtained with a p value of 0.577 showing that not a significant portion of the variability can be explained by this model. Neither the coefficient for support (value) nor the coefficient for challenge (value) were significantly different from zero, t=1.031, p=.304 and t=-.980, p=.329 respectively.

The second research question asked whether beliefs in efficacy differed between teachers who rated their supervisors higher in support and teachers who rated their

supervisors higher in challenge. Since neither support, nor challenge was associated with efficacy, there was no difference in their level of association with efficacy.

Similarly, the regression model was used to test the third research question, whether levels of support and challenge together were associated with efficacy. The overall regression model including both support and challenge as independent variables was unable to account for a significant portion of the variability in efficacy.

Table 9

Regression Model Parameter Estimates and Hypothesis Tests

Coefficent	Value	t-value	P-value
Support	0.101	1.031	0.304
Challenge	-0.112	-0.98	0.329

The fourth research question investigated what ideal combination of levels of support and challenge would be associated with positive efficacy beliefs, if it exists. As established with research questions one and two, since there is no statistically significant relationship between support and efficacy or challenge and efficacy, an ideal combination of levels of support and challenge to result in a maximum level of efficacy beliefs cannot be established from this regression model.

Trends

The data were also examined to identify possible trends. Efficacy was examined with each of the following age, grade point average, certification level, gender, and gender of supervisor by calculating the Pearson product-moment coefficient. No relationship between efficacy and age was found as evident with an r value of 0.04. Similarly, when efficacy was correlated with grade point average an r value of 0.19 was obtained indicating no relationship. When examining the correlation of efficacy with

certification level, an r value of -0.45 was obtained. This showed that those who

indicated that their certification level would be elementary had higher reported levels of

efficacy beliefs. No relationship was found between efficacy and gender as evident with

an r value of 0.04. Finally, the correlation between efficacy and the gender of the

supervisor resulted in an r value of 0.03 indicating that there was no relationship.

An independent samples *t*-test was used to compare the mean efficacy scores in

the cases of gender and gender of supervisor since there were two different groups of

people. In neither case was there a statistically significant difference. A one-way analysis

of variance was used in the other cases to determine if there were significant differences

in the mean efficacy at the $p<.05$ level. There was no statistical significance found when

examining age. However, a statistical significance was established with regard to grade

point average and with regard to certification level when considering $p<0.05$. Table 10

summarizes this information.

Table 10

Efficacy and Other Factors

	N	R	Significance
Efficacy and age	116	0.04	0.65
Efficacy and grade point average	113	0.19	0.05
Efficacy and certification level	115	-0.45	0.00
Efficacy and gender	116	0.04	0.65
Efficacy and gender of supervisor	115	0.02	0.77

Overall, the influences of age, gender and the gender of the supervisor seemed to

not have any statistical significance with regard to the reported beliefs of efficacy. Of the

influences examined, only certification level and grade point average may be related to

the reported beliefs of efficacy.

Open Ended Questions

At the conclusion of the survey, the student teachers were asked to respond to two questions. The first question was related to how the supervision could be improved. The second question prompted student teachers to describe the strengths of the current supervision program. Seventy-five student teachers responded to the first question and sixty-seven provided responses to the second questions.

The answers to the question "How could the supervision be improved?" fell into three categories. Some described suggested improvements to the program itself. The majority suggested changes regarding the university supervisors. A few described improvements with regard to the cooperating teachers.

With regard to the student teaching program, suggestions included offering opportunities for professional development during student teaching and providing more assistance in job hunting. The handbook was discussed in several responses. It was suggested that there should be a checklist of assignments with due dates, a clearer expectation of the expectations and the process for creating the required binder, evaluation forms that are relevant for all certification areas, and less required paperwork. A couple of suggestions referred to the placement of the student teacher. One suggested that placements needed to be closer to the university. Another suggested that the student teacher should receive from the cooperating teacher a list of what lessons the student teacher would be required to teach during the experience.

The majority of the responses regarding improvement to the supervision program were concerning the supervisor. Six students mentioned the professionalism of the supervisor. Ideas represented in those responses included the need for punctuality,

professional dress, a professional and friendly attitude, and the necessity to be a mentor. Others suggested that supervisors needed to have a better understanding of the handbook, be more knowledgeable about the electronic portfolios, and adhere to the deadlines for accepting assignments.

Five students expressed concern on how student teachers were assigned to supervisors. Two would have preferred to have been assigned to a supervisor that they had met prior to student teaching. The other two expressed the suggestion that the students who are part of the Urban Experience should be assigned to the director of that program as supervisor. One suggested that student teachers in the same building should have the same supervisor.

The subject of visits by the supervisor was listed in thirteen responses. Eleven of those students expressed the need to increase the minimum number of visits by the supervisor. Two responses also included making the visits scheduled as opposed to unannounced. Eleven other student teachers suggested that the supervisors should be more consistent with their expectations and requirements. One other student teacher suggested that the feedback from the visits should focus on progress not just evaluation. Another seven expressed the need for more specific feedback to be offered during the post-teaching conference. One other suggested that the cooperating teacher not be included in this conference. Five others expressed that the supervisor needs to have better communication with the student teacher and cooperating teacher.

Six other responses were broad but related to the supervisor's role in the student teaching experience. They suggested that each supervisor should be responsible for fewer student teachers. They believed that this would result in the supervisor being more

flexible with observation dates and that the supervisor would be able to offer more assistance.

Two other responses suggested that the supervisor should provide more assistance to the student teachers. One suggested that supervisors should provide assistance finding jobs and applying for them. The other suggested that the supervisor should provide resource materials to student teachers who are struggling.

Six responses provided suggestions for the cooperating teacher. Three responses encouraged the university to more closely monitor who serves as a cooperating teacher and to be sure that the teacher is truly willing to accept a student teacher. Two responses suggest that the cooperating teacher have a better understanding of the handbook. One response suggests that the university make the cooperating teacher more accountable in providing feedback and fair assessment to the student teacher.

The second question prompted student teachers to describe the strengths of the supervision program. Several student teachers responded with praise for the general organization of the program. They appreciated that the program was scheduled to make the best use of the time and that cooperating teachers were chosen who also served as mentors. They appreciated the opportunity to form relationships with both the cooperating teacher and the university supervisor.

The majority of the responses presented reasons why they believed that the supervisor was effective in providing support to the student teacher. Student teachers described their supervisor as being friendly, helpful, and caring (5 responses) along with being a model of professionalism (6 responses). Aspects mentioned include being accessible in person and via email (5responses), being able to clearly communicate high

expectations (3responses), and requiring meaningful paperwork and assignments (1 response). Others reported that they had a strong communication system with the supervisor who also helped them set goals and provided assistance (6 responses). It was reported that student teachers respected the supervisor's knowledge, not only of the field of education, but also of the process and requirements of student teaching (9 responses).

Four responses described the relationship that formed between the student teacher and the supervisor or the cooperating teacher to be a strength to the program. Their perception of the relationship is that the control is given to the cooperating teacher and that the supervisor accepts the suggested grade.

The most frequently mentioned strengths of the program were related to the number of visits and the feedback received from the visits. Fifteen students expressed that they felt that they were visited by the supervisor an appropriate number of times. Sixteen others responses described the feedback as being relevant and helpful.

Summary

The purpose of this chapter was to analyze the quantitative data to answer the following research questions:

1. How strong is the relationship, if it exists, between the preservice teachers' beliefs of efficacy and their perception of their university supervisor?

2. To what degree do the reported beliefs of efficacy differ between preservice teachers who view their supervisors in a more supportive role (high support) than those who view their supervisor in a more challenging role (high challenge)?

3. To what extent is there a difference in the reported beliefs of efficacy between preservice teachers who perceive their supervisor in a positive manner (high support and high challenge) than those who perceive their supervisor in a negative manner (low support and high challenge)?

4. If it exists, what is an ideal combination of levels of support and challenge that is associated with positive efficacy beliefs?

It was found that there was no relationship between either levels of support or challenge with the reported levels of efficacy. There was also no difference in the efficacy beliefs of those who viewed their supervisor in a more supportive role (high support) than those who viewed their supervisor in a more challenging role (high challenge). Nor was there a difference in the beliefs of efficacy between those who perceived their supervisor in a positive manner (high support and high challenge) than those who perceived their supervisor in a negative manner (low support and high challenge). Lastly, from the regression model it is not possible to identify ideal levels of support and challenge that is associated with positive efficacy beliefs.

This study also attempted to identify trends related to beliefs of efficacy and age, grade point average, certification level, gender, and gender of supervisor. Of these influences, only certification level and grade point average may be related to beliefs of efficacy.

Lastly, two open-ended questions were analyzed to report on the thoughts of the student teachers regarding areas for improvement and the strengths of the supervision program as perceived by the student teachers. The student teachers offered suggestions for improvement with regard to the certification program, with regard to the supervisors,

and with regard to the cooperating teachers. Areas of improvement, as perceived by the

student teachers, included aspects of the certification program and the relationships

formed with the supervisor and cooperating teacher.

Implications and suggestions for further research will be presented in Chapter 5.

Chapter 5

CONCLUSION AND DISCUSSION

The purpose of this study was to investigate the levels of teacher efficacy reported by student teachers upon completion of the student teaching experience and to better understand the perceptions held by the student teachers regarding the roles the university supervisor played. The roles played by the supervisor focused on the levels of support and challenge. These two concepts (levels of support and challenge) refer to the types of actions of the university supervisor which either affirms the actions of the preservice teacher or identifies an area in which the preservice teacher needs to improve (Daloz, 1986). The perceptions held by the student teachers were examined along with the reported beliefs about teacher efficacy to determine if any correlations existed. The information from the students teachers was obtained at the completion of the student teaching experience using online surveys.

This chapter includes an overview of the study, results and conclusions of the study, implications for educational practice, and recommendations for further research.

Overview of the Study

This study was conducted at a state university in Pennsylvania over two semesters. At the end of each semester, student teachers were invited via email to participate in the study. The email provided a link to an anonymous online survey. The survey consisted of two existing instruments, demographics information, and two open-ended questions. Of the 449 student teachers, 121 completed both surveys. This resulted in a 27% response rate.

A Likert scale was used by the participants to complete the Teachers' Sense of Efficacy survey (Tschannen-Moran & Woolfolk-Hoy, 2001) and the Roles Your Supervisor Played survey (Cameron-Jones & O'Hara, 1999). Quantitative methods were used to analyze the numerical data from these surveys. The demographics information included gender, age, certification level, major, grade point average, and the gender of the supervisor. Demographics information was collected with of purpose of identifying any possible trends. The two open-ended questions asked how the supervision program could be improved and asked participants to describe the strengths of the supervision program.

Results and Conclusions

This study was based on the following four research questions:

1. How strong is the relationship, if it exists, between the preservice teachers' beliefs of efficacy and their perception of their university supervisor?

2. To what degree do the reported beliefs of efficacy differ between preservice teachers who view their supervisors in a more supportive role (high support) than those who view their supervisor in a more challenging role (high challenge)?

3. To what extent is there a difference in the reported beliefs of efficacy between preservice teachers who perceive their supervisor in a positive manner (high support and high challenge) than those who perceive their supervisor in a negative manner (low support and high challenge)?

4. If it exists, what is an ideal combination of levels of support and challenge that is associated with positive efficacy beliefs?

Relationship Between Efficacy and Perceptions of the Supervisor

How strong is the relationship, if it exists, between the preservice teachers' beliefs of efficacy and their perception of their university supervisor? The study concluded that there was not a statistical significance or relationship between the preservice teachers' beliefs of efficacy and their perception of their university supervisor. The perception of the supervisor held by the student teacher was analyzed according to levels of support and challenge as reported by the student teacher on the Roles Your Supervisor Played survey (Cameron & O'Hara, 1999). Using a Pearson's Product-moment correlation, it was determined that there was no statistical significance to the relationship between efficacy and level of support or efficacy and the level of challenge.

This lack of significance could possibly be because that the relationship between the student teacher and the university supervisor is based largely on the feedback given by the supervisor. According to the sources of efficacy as outlined by Bandura (1997), this would be classified as verbal persuasion which is believed to be the weakest of the four sources.

When reviewing the results of this research question in conjunction with the Integrated Model of Teacher Efficacy (Tshcannen-Moran, Woolfolk-Hoy, & Hoy, 1998), the influence of the supervisor is only one source of efficacy information. The model acknowledges that there are other factors that also influence the development of efficacy beliefs including the specific teaching situation. In fact, the model also suggests, that in order to make a judgment regarding efficacy, it is necessary to also include considerations regarding both the task and context. Perhaps studying other influences on efficacy beliefs along with the perception of the supervisor would be useful.

Although it is believed that the supervisor plays a vital role during the student

teaching experience (Koerner & Rust, 2002) and performs a variety of functions, they are

most commonly viewed as evaluators (Henry & Beasley, 1996). It is possible that this

influences how a student teacher processes the information given by the supervisor. If

the student teacher views the supervisor as being unrealistic with the suggestions for

future practice or if the student teacher regards the feedback as less reliable than that

from the cooperating teacher, then the feedback does not provide much influence. Based

on Bandura's (1997) discussion of the strength of verbal persuasion, the student teacher

needs to believe that the supervisor is credible.

Differences in Efficacy Beliefs (High Support and High Challenge)

To what degree do the reported beliefs of efficacy differ between preservice

teachers who view their supervisors in a more supportive role (high support) than those

who view their supervisor in a more challenging role (high challenge)? The second

research question examined the reported beliefs of efficacy differed between preservice

teachers who viewed their supervisors in a more supportive role (high support) compared

with those who viewed their supervisor in a more challenging role (high challenge). It

was possible for a student teacher to report both a high level of support and a high level

of challenge. Since neither support, nor challenge was associated with efficacy, there

was no difference in their level of association with efficacy.

Although no relationship between beliefs of efficacy and a perception of a

supportive supervisor was found in this study, Jonson (2008) detailed how and what

information a supervisor should share during a conference including focused,

nonjudgmental, evidence-based information regarding specific behaviors. Discussing

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instructional strategies and professional growth in caring and understandable terms helps the student teacher see the supervisor as credible and supportive.

According to Daloz's (1986) Theory of Challenge and Support, those who report high levels of support are more likely to experience either confirmation of their actions or professional growth depending on the level of challenge. Those who report high levels of challenge are more likely to report either retreat from the experience or professional growth depending on the level of support. Those who report high levels of both support and challenge are more likely to experience growth.

Cameron-Jones and O'Hara (1999) studied the effects of field-based experiences by examining how supportive roles (friend, supporter, intermediary, and door-opener) and challenging roles (model, assessor, coach, and standard-prodder) influenced drop-out rates and satisfaction levels using these categories presented by Daloz (1986). Although this study, did not support these findings, it may be because of the smaller number of participants or possibly due to the fact that the descriptors of retreat, stasis, confirmation and growth are not able to be identified through the construct of self-efficacy.

Differences in Efficacy Beliefs (High Support/ High Challenge and Low Support/ High Challenge)

To what extent is there a difference in the reported beliefs of efficacy between preservice teachers who perceive their supervisor in a positive manner (high support and high challenge) than those who perceive their supervisor in a negative manner (low support and high challenge)? The third research question investigated the difference in the reported beliefs of efficacy between preservice teachers who perceive their supervisor in a more positive manner (high support and high challenge) than those who perceive

their supervisor in a negative manner (low support and high challenge). Using a regression model that included support and challenge as independent variables, this study was unable to account for a significant portion of the variability in efficacy. Therefore, no difference was found in this study.

According to Daloz's Theory of Challenge and Support (1986), reports of low levels of support and high levels of challenge should result in feelings of retreat or withdrawal from the experience. When this was explored by Cameron-Jones and O'Hara (1999), their findings supported Daloz. However, using efficacy, this study was unable to identify retreat in terms of low efficacy levels. Similarly, the Theory of Challenge and Support (Daloz, 1986) shows that high levels of support and high levels of challenge should result in feelings of growth. This too was supported by Cameron-Jones and O'Hara (1999), but not by this study.

Ideal Combination of Support and Challenge

If it exists, what is an ideal combination of levels of support and challenge that is associated with positive efficacy beliefs? The fourth research question investigated what ideal combination of levels of support and challenge would be associated with positive efficacy beliefs, if it existed. This study was unable to identify an ideal level combination of support and challenge that would result in higher levels of beliefs of efficacy based on the results of the previous research questions.

The Theory of Challenge and Support (Daloz, 1986) presents the ideal combination as being high levels of challenge accompanied by high levels of support resulting in feelings of professional growth. Cameron-Jones and O'Hara (1999) verified this by examining levels of satisfaction of students in field based experiences and the

number of student dropouts. This study, however, was unable to verify this ideal combination using levels of efficacy beliefs as the result of measuring perceived levels of support and challenge.

Other Trends

In addition to answering the research questions, this study also attempted to identify any trends that may have been evident by looking for correlations between beliefs of efficacy and information provided on the demographics questionnaire. The influences of age, gender and the gender of the supervisor seemed to not have any statistical significance with regard to the reported beliefs of efficacy. Certification level and grade point average may be related to the reported beliefs of efficacy with those reporting elementary certification and a higher grade point average also reporting higher levels of efficacy beliefs.

Implications

Considering the results of this study, three implications for educational practice will be addressed. First, since verbal feedback is considered to be the weakest of four influential factors regarding the development of beliefs of efficacy (Bandura, 1997), then in order to better understand the development of the beliefs of efficacy other factors need to be examined. Second, effects of building high levels of efficacy beliefs during student teaching may have an effect for the beginning years of teaching following the student teaching experience. Third, as we examine the influence held by a supervisor during student teaching, if it is not as strong as a supervisor might hope, it may be necessary to find ways to increase the level of influence.

Influence of Verbal Feedback

The first implication of this study discusses the extent to which feedback provided by the supervisor influences the development of the efficacy beliefs of a student teacher. Considering Bandura's (1997) theory regarding the sources of efficacy, the role played by the supervisor is identified with the source of verbal persuasion which is described to be the weakest of the influences. Mastery experiences (teaching lessons and directly working with students), vicarious experiences (observing others teach), and the physiological and affective state (stress level and emotional state) all typically carry more influence that verbal persuasion (feedback) (Bandura, 1997; Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). According to the Integrated Model of Teacher Efficacy (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998), these other experiences typically carry more weight than verbal persuasion when the student teacher is reflecting on the experiences. Also, since the student teachers only have a limited number of experiences on which they are able to reflect, their beliefs of efficacy are more malleable (Labone, 2004).

When considering the responses to the open ended questions in conjunction with the first research question, it is not surprising that there was no relationship between beliefs of efficacy and the role of the supervisor. When asked for suggestions regarding the improvement of the supervision program, student teachers often mentioned the need for more observations, more detailed feedback, and placement with a supervisor familiar with the student teacher's program.

These suggestions made by the student teachers are related to suggestions given by other researchers (Henry & Beasley, 1996; Jonson, 2008; Reiman & Thies-Sprinthall,

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1998) including analyzing lessons and discussing professional growth in relation to evaluating teaching, encouraging reflection by guiding the conference with leading questions and listening actively, providing specific relevant feedback regarding performance in understandable terms and by encouraging the exploration or expansion of instructional strategies. Caires and Almeida (2007) also found that preservice teachers value a supervisor's involvement, proximity and support.

A recent study (Charalambous, Phillippou, & Kyriakides, 2008) involving the development of teacher efficacy beliefs in preservice teachers asserts that enactive experiences do indeed hold more weight than verbal feedback. However, the suggestions and feedback from mentors (either cooperating teachers or supervisors) were considered by the preservice teachers. The amount of influence, though, varied according to extent to which the mentor's beliefs aligned with the student teacher's beliefs. Although the cooperating teacher offers suggestions and assistance much in the same way the supervisor does, because the student teacher spends more time with the cooperating teacher this influence may be stronger than that of the supervisor especially if the student teacher identifies more strongly with the cooperating teacher (Borko & Mayfield, 1995; Charalambous, Phillippou, & Kyriakides, 2008; Li & Zhang, 2000).

With teacher preparation programs commonly including field experiences prior to the student teaching semester, it may be possible that these enactive experiences are creating a strong influence on the efficacy beliefs of the preservice teachers which may be overshadowing the effects of the supervisor's influence during student teaching. Building on the work of Bandura (1997), Tschannen-Moran and Woolfolk-Hoy (2007) assert that, as the number of mastery experiences increase, the influence of the other

sources decrease and found tha,t when studying novice teachers, verbal persuasion was not correlated with beliefs of efficacy. Poulou (2007), though, when studying the sources of efficacy beliefs of preservice teachers found that some types of verbal persuasion did influence the formation of beliefs of efficacy. Although feedback from students did have a strong influence, feedback from colleagues did not.

Relationships have been shown by other researchers (Li & Zhang, 2000) between participation in early field experiences and efficacy beliefs. Li and Zhang (2000) also found relationships between preservice teachers' levels of efficacy beliefs and their perceived cooperating teacher's beliefs of efficacy.

High Levels of Efficacy Beliefs

The second implication to be discussed involves understanding the high level of beliefs of efficacy. Even if the influence of the supervisor may not be correlated with the efficacy beliefs in this study, the levels of beliefs of efficacy reported by the student teachers make sense considering that many preservice teachers have reported having increased levels of efficacy after student teaching (Hoy & Spero, 2005; Knoblauch & Hoy, 2008). However, it is important to note that the level of efficacy beliefs reflects the self-perception of competence not an actual external assessment of competence (Tschanneon-Moran & Woolfolk-Hoy, 2007). Since the student teaching experience is a sheltered environment compared to the first years of teaching and some (Fernandez & Erbilgin, 2009) believe that much of the feedback given by cooperating teachers is affirmative of the student teachers' actions, reports of efficacy levels may be understandably high. Some even view the student teaching experience as a time when efficacy is built so as to cushion the possible decrease in level of efficacy beliefs that may

be experienced in the following years (Fives, Hamman, & Olivarez, 2007; Podell &

Soodak, 1993). Others, however, (Wheatly, 2005) assert that it is common for new and

preservice teachers to pretend to have higher levels of confidence; thereby, reporting

false high efficacy scores which are not authentic. This artificially high level of

confidence can be problematic, such as falling victim to the shock of reality when facing

the first independent teaching job. This concludes that a lower sense of efficacy can

promote a continued effort to learn and improve. This can be problematic for a teacher

education program in trying to balance developing a sense of confidence while at the

same time promoting the concept that teachers need to continue to learn from challenges.

This seems to lead back to forming appropriate levels of both support and challenge to

preservice teachers to best prepare them for the real world of teaching.

Increasing the Influence

Perhaps, in order to increase the influence of the feedback from the supervisor, a

stronger relationship could be developed between the supervisor and the cooperating

teacher. Student teachers may be more willing to consider feedback from the cooperating

teacher due to the amount of time spent together. However, the information provided to a

student teacher during a post-teaching conference by a cooperating teacher differs from

that provided by the university supervisor (Fernandez & Erbilgin, 2009). These

differences may be attributed to a variation in their approach to supervision. Fernandez

and Erbilgin (2009) found that cooperating teachers were more evaluative in their

comments and were more likely to be positive and to affirm the actions of the student

teacher. On the other hand, conferences conducted by a university supervisor were more

likely to contain open-ended questions, to include questions intended to probe the student

teacher's thinking, and to connect the practice in the classroom to the theories from the teacher preparation program. These characteristics are supported by other research calling for the student teachers to be engaged in discourse where they examine their own teaching practices (Blanton, Berenson, & Norwood, 2001). Since others have established that the feedback from a university supervisor is important, perhaps it is necessary to explore ways in which student teachers can come to value it more. Since another study (Fives, Hamman, & Olivarez, 2007) found that student teachers who received high levels of guidance from their cooperating teachers tended to report high levels of efficacy, perhaps there may be value in finding ways of strengthening the relationship between the university supervisor and the cooperating teacher.

Some (Tschannen-Moran & Woolfolk-Hoy, 2007) believe tha,t as the number of mastery experiences increase, the influence of verbal feedback decreases. Based upon this assumption, perhaps the supervision of early field experiences could be examined. Perhaps if preservice teachers become accustomed to early conferences with a supervisor, as they move into student teaching at the end of their preparation, they will come to value their input more.

Some (Banks & Burbank, 2008) also believe that, in the current state of education influenced by the No Child Left Behind legislation, it is becoming more difficult for supervisors to have a meaningful lasting influence on student teachers. They assert that it has become more difficult to offer feedback to student teachers that takes advantage of teachable moments, focuses on the personalized needs of the student teacher, and strives to encourage critical thinking. Because the role of the supervisor is, at times, being transformed into that of an evaluator more than anything else it may be more difficult to

engage in meaningful ongoing dialogue. Banks and Burbank (2008) were left questioning the effects on the student teachers when the focus of communication was related to a checklist of standards. Considering these concerns along with the results of this study, this researcher is left wondering if, as the communication between supervisor and student teacher focuses more on checklists and forms and less on personalized happenings in the student teacher's classroom, is there a correlation with beliefs of efficacy.

Recommendations

Research involving beliefs of efficacy and the supervision of student teachers continues to grow. In order to continue to address the concerns brought about in the research questions, it may be beneficial to examine the following questions to guide further research. The following recommendations for future research are suggested.

- A long term study over more semesters so that a larger number of participants were involved may yield a statistical significance in terms of the correlation between the verbal feedback of the supervisor and the level of efficacy beliefs.

- Since cooperating teachers may have a stronger influence on the efficacy beliefs of the student teachers, a study similar to this one but repeated with cooperating teachers instead of university supervisors may show a stronger correlation between beliefs of efficacy and the influence of verbal feedback.

- A study of the differences between the reported perception of levels of support and challenge as reported by both the student teacher and by the university supervisor may also add to this discussion.

- A qualitative study designed to identify who and what factors (classroom management skills, ability to plan instruction, etc.) influence the beliefs of efficacy could also be useful. This could be used to build or refine a model of influences.

- Other related research could also include a longitudinal study which measures beliefs of efficacy of preservice teachers as college freshmen, at several times throughout their time in the program and finally again at the end of their student teaching experience.

- This study could also be replicated but with the following change. The researcher could measure the beliefs of efficacy at the beginning of the student teaching semester and then, at the end, measure the beliefs of efficacy a second time along with the student perception of the supervisor's role. The change in the efficacy beliefs could be used instead of a single measurement.

The following recommendations for practice are also suggested.

- In order to enhance the relationship between the supervisor and student teacher, fewer student teachers could be assigned to each supervisor in order to do more observations, gain better understanding of the teaching situation (context), and become more integrated in the experience and with the cooperating teacher.

- Departments of Education could carefully examine to what level they emphasize the importance of having high levels of beliefs of efficacy so that they may balance the levels of support and challenge to do the most good for future teachers.

Concluding Remarks

Those who become teacher educators typically do so out of a love of the profession and the sincere desire to influence and assist the next generations of teachers (Henry & Beasley, 1996). On a day to day basis, supervisors see a wide range of abilities and levels of motivation. As professionals, supervisors strive to do the greatest good by encouraging and supporting future teachers in a variety of ways. Although, this study found that a supervisor's actions do not influence the beliefs of efficacy, some believe that the role of the supervisor is vital to the success of a student teacher (Koerner & Rust, 2002). So, to all student teachers – remember that supervisors can provide a wealth of knowledge; it is important to be open to listening. And to the supervisors – sometimes it takes time for a seed to take hold and blossom. Know that in time your work will bear fruit.

References

Allinder, R. (1994). The relationship between efficacy and the instructional practices of special education teachers and consultants. *Teacher Education and Special Education, 17*(2), 86-95.

Anderson, R., Greene, M., & Loewen, P. (1988). Relationships among teachers' and students' thinking skills, sense of efficacy, and student achievement. *Alberta Journal of Educational Research, 34*(2), 148-165.

Armor, D., Conroy-Oseguera, P., Cox, M., King, N., McDonnell, L., Pascal, A.,. . . & Zellman, G. (1976). *Analysis of the school preferred reading programs in selected Los Angeles minority schools.* Retrieved from ERIC database.

Ashton, P. (1982). *A study of teachers' sense of efficacy: Final Report Volume 1* (ERIC Document Reproduction Service No. ED231834).

Ashton, P. (1984). Teacher efficacy: A motivational paradigm for effective teacher education. *Journal of Teacher Education, 35*(5), 28-32.

Ashton, P., Buhr, D., & Crocker, L. (1984). Teachers' sense of efficacy: A self- or norm-referenced construct? *Florida Journal of Educational Research, 26*(1), 29-41.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist, 28*(2), 117-148.

Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York, NY: W.H. Freeman.

Bates, A., & Burbank, M. (2008). Effective Student Teacher Supervision in the Era of "No Child Left Behind". *Professional Educator, 32*(2), 18-28.

Blanton, M. L., Berenson, S. B., & Norwood, K. S. (2001). Using classroom discourse to understand a prospective mathematics developing practice. *Teaching and Teacher Education, 17,* 227-242.

Borko, H., & Mayfield, V. (1995). The roles of the cooperating teacher and university supervisor in learning to teach. *Teaching and Teacher Education, 11*(5), 501-518.

Brady, K., & Woolfson, L. (2008). What teacher factors influence their attributions for children's difficulties in learning?. *British Journal of Educational Psychology, 78*(4), 527-544.

Caires, S., & Almeida, L. S. (2007). Positive aspects of the teacher training supervisors: The student teachers' perspective. *European Journal of Psychology of Education, 22*(4), 515-528.

Cameron-Jones, M., & O'Hara, P. (1995). Mentors' perceptions of their roles with students in initial teacher training. *Cambridge Journal of Education, 25*(2), 189-199.

Cameron-Jones, M., & O'Hara, P. (1999). Student perceptions of the way that they are supervised during work experience: An instrument and some findings. *Assessment & Evaluation in Higher Education, 24*(1), 91-103.

Certo, J. (2005). Support and challenge in mentoring: A case study of beginning elementary teachers and their mentors. *Journal of Early Childhood Teacher Education, 26*(4), 395-421.

Charalambous, C. Y., Philippou, G. N., & Kyriakides, L. (2008). Tracing the

    development of preservice teachers' efficacy beliefs in teaching mathematics during

    fieldwork. *Educational Studies in Mathematics, 67*(2), 125-142.

Cheung, H. Y. (2008). Teacher efficacy: A comparative study of Hong Kong and

    Shanghai primary in-service teachers. *The Australian Educational Researcher,*

    35(1), 103-123.

Coladarci, T., & Breton, W. A. (1997). Teacher efficacy, supervision, and the special

    education resource room teacher. *Journal of Educational Research, 90*(4), 230-239.

Daloz, L. (1986). *Effective teaching and mentoring*. San Francisco, CA: Jossey-Bass.

Darling-Hammond, L., & Cobb, V. L. (1996). The changing context of teacher education.

    In F. B. Murray (Ed.), *The teacher educator's handbook: Building a knowledge*

    base for the preparation of teachers (pp. 14-62). San Francisco, CA: Jossey-Bass.

DeMesquita, P. B., & Drake, J. C. (1994). Educational reform and the self-efficacy

    beliefs of teachers implementing nongraded primary school programs. *Teaching*

    and Teacher Education, 10(3), 291-302.

Emmer, E., & Hickman, J. (1991). Teacher efficacy in classroom management and

    discipline. *Educational and Psychological Measurement, 51*(3), 755-765.

Erdem, E., & Demirel, O. (2007). Teacher self-efficacy belief. *Social Behavior and*

    Personality, 35(5), 573-586.

Fernandez , M. L., & Erbilgin, E. (2009). Examining the supervision of mathematics

    student teachers through analysis of conference communications. *Educational*

    Studies in Mathematics, 72(1), 93-110.

Fives, H., & Buehl, M. M. (2010). Examining the factor structure of the Teachers' Sense of Efficacy scale. *The Journal of Experimental Education, 78,* 118-134.

Fives, H., Hamman, D., & Olivarez, A. (2007). Does burnout begin with student-teaching? Analyzing efficacy, burnout, and support during the student-teaching semester. *Teaching and Teacher Education, 23*(6), 916-934.

Gall, M., Gall, J. P., & Borg, W. (2003). *Educational research: An introduction.* Boston, MA: Allyn and Bacon.

George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference.* (4th ed.). Boston, MA: Allyn & Bacon.

Gibson, S., & Dembo, M. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology, 76,* 569-582.

Gurvitch, R., & Metzler, M. W. (2009). The effects of laboratory-based and field-based practicum experience on preservice teachers' self-efficacy. *Teaching and Teacher Education, 25*(3), 437-443.

Guskey, T. R. (1981). Measurement of the responsibility teachers assume for academic successes and failures in the classroom. *Journal of Teacher Education, 32*(3), 44-51.

Guskey, T. R. (1988). Teacher efficacy, self-concept and attitudes toward the implementation of instructional innovation. *Teaching and Teacher Education, 4*(1), 63-69.

Hamman, D., Fives, H., & Olivarez, A. (2007). Efficacy and pedagogical interaction in cooperating and student teacher dyads. *Journal of Classroom Interaction, 41/42,*(2/1), 55-63.

Haskins, R., & Loeb, S. (2007). A plan to improve the quality of teaching in American
schools. *Future of Children, 17*(1), 1-7.

Henry, M. A., & Beasley, W. W. (1996). *Supervising student teachers the professional
way* (5th ed.). Terre Haute, IN: Sycamore Press.

Henson, R. K. (2002). From adolescent angst to adulthood: Substantive implications and
measurement dilemmas in the development of teacher efficacy research.
Educational Psychologist, 37(3), 137-150.

Hoy, W. K., & Woolfolk, A. E. (1990). Socialization of student teachers. *American
Educational Research Journal, 27,* 279-300.

Hoy, W. K., & Woolfolk, A. E. (1993). Teachers' sense of efficacy and the
organizational health of schools. *The Elementary School Journal, 93*(4), 355-372.

Huck, S. W., & Cormier, W. H. (1996). *Reading statistics and research* (2nd ed). New
York, NY: Longman.

Jonson, K. F. (2008). *Being an effective mentor: How to help beginning teachers succeed.*
Thousand Oaks, CA: Corwin Press.

Knoblauch, D., & Woolfolk Hoy, A. (2008). "Maybe I can teach *those* kids." The
influence of contextual factors on student teachers' sense of efficacy. *Teaching and
Teacher Education, 24*, 166-179.

Koerner, M., & Rust, F. O. (2002). Exploring roles in student teacher placements.
Teacher Education Quarterly, 29(2), 35-58.

Koerner, M., Rust, F. O., & Baumgartner, F. (2002). Exploring roles in student teaching
placements. *Teacher Education Quarterly, 29*(2), 35-58.

LaBone, E. (2004). Teacher efficacy: Maturing the construct through research in

alternative paradigms. *Teaching and Teacher Education, 20*(4), 341-359.

LaBoskey, V. K., & Richert, A. E. (2002). Identifying good student teaching placements:

A programmatic perspective. *Teacher Education Quarterly,29*(2), 7-34.

Lewandowski, K. (2005). *A study of the relationship of teachers' self-efficacy and the*

impact of leadership and professional development.(Doctoral dissertation, Indiana

University of Pennsylvania). Retrieved from http://www.iup.edu/library

Li, X., & Zhang, M. (2000, April). *Effects of Early Field Experiences on Preservice*

Teachers' Efficacy Beliefs--A Pilot Study. Paper presented at the Annual Meeting of

the American Educational Research Association New Orleans, LA.

Meijer, C., & Foster, S. (1988). The effect of teacher self-efficacy on referral chance.

Journal of Special Education, 22(3), 378-385.

Metcalf, K. M. (1991). The supervision of student teaching: A review of research.

Teacher Educator, 26(4), 27-42.

Midgley, C., Feldlaufer, H., & Eccles, J. S. (1989). Change in teacher efficacy and

student self- and task-related beliefs in mathematics during the transition to the

junior high school. *Journal of Educational Psychology, 81*(2), 247-258.

Mulholland, J., & Wallace, J. (2001). Teacher induction and elementary science teaching:

Enhancing self-efficacy. *Teaching and Teacher Education, 17*(2), 243-261.

Ng, W., Nicholas, H., & Williams, A. (2010). School experience on preservice teachers'

evolving beliefs about effective teaching. *Teaching and Teacher Education, 26*(2),

278-289.

Nolan, J., & Hoover, L. (2004) *Teacher supervision and evaluation: Theory into practice.*
New York, NY: John Wiley and Sons/Jossey-Bass.

Onafowora, L. (2005, June). Teacher efficacy issues in the practice of novice teachers.
Educational Research Quarterly, 28(4), 34-43.

Palmer, D. (2006). Durability of changes in self-efficacy of preservice primary teachers.
International Journal of Science Education, 28(6), 655-671.

Podell, D., & Soodak, L. (1993). Teacher efficacy and bias in special education referrals.
Journal of Educational Research, 86, 247–253

Poulou, M. (2007). Personal teaching efficacy and its sources: Student teachers'
perceptions. *Educational Psychology, 27*(2), 191-218.

Reiman A. J., & Thies-Sprinthall, L. (1998). *Mentoring and supervision for teacher
development.* New York, NY: Longman

Riggs, I. & Enochs, L. (1990). Toward the development of an elementary teacher's
science teaching efficacy belief instrument. *Science Education, 74*(6), 625-638.

Rose , J. S. & Medway, F. J. (1981). Measurement of teachers' beliefs in their control
over student outcome. *Journal of Educational Research, 74*(3), 185-190.

Ross, J. A., Cousins, J. B., & Gadalla, T. (1996). Within-teacher predictors of teacher
efficacy. *Teaching and Teacher Education, 12*(4), 385-400.

Ross, J. A. (1998). Antecedents and consequences of teacher efficacy. In J. Brophy,
Advances in research on teaching, vol. 7 (pp. 49-74). Greenwich, CT: JAI Press.

Rotter, J. B. (1960). Generalized expectancies for internal versus external control
reinforcement. *Psychological Monographs, 80,* 1-28.

Sarason, S. (1990). *The predictable failure of educational reform.* San Francisco, CA:

    Jossey-Bass.

Soodak, L. & Podell, D. (1993). Teaching efficacy and student problem as factors in

    special educational referral. *Journal of Special Education, 27*(1), 66-81.

Spector, J. E. (1990, April). *Efficacy for teaching preservice teachers*. Paper presented at

    the Annual Meeting of the American Educational Research Association, Boston,

    MA.

Stein, M. K., & Wang, M. C. (1988).Teacher development and school improvement: The

    process of teacher change. *Teaching and Teacher Education, 4*, 171-187

Swackhamer, L. E., Koellner, K., Basile, C., & Kimbrough, D. (2009). Increasing the

    self-efficacy of inservice teachers through content knowledge. *Teacher Education

    Quarterly,36*(2), 63-78.

Swars, S. L. (2005). Examining perceptions of mathematics teaching effectiveness among

    elementary preservice teachers with differing levels of mathematics teacher

    efficacy. *Journal of Instructional Psychology, 32*(2), 139-147.

Tang, S. (2003, July). Challenge and support: The dynamics of student teachers'

    professional learning in the field experience. *Teaching & Teacher Education*, 19(5),

    483.

Tschannen-Moran, M., & Woolfolk-Hoy, A. (2001). Teacher efficacy: Capturing an

    elusive construct. *Teaching and Teacher Education, 17*(7), 783-805.

Tschannen-Moran, M., Woolfolk-Hoy, A., & Hoy, W. K. (1998). Teacher efficacy: Its

    meaning and measure. *Review of Educational Research, 68*(2), 202-248.

Watters, J. J., & Ginns, I. S. (1995, April). *Origins of and changes in preservice teachers' science teaching efficacy*. Paper presented at the annual meeting of the National Association for Research and Science Teaching, San Francisco, CA.

Welch, S. & Comer, J. C. (1988). *Quantitative methods for public administration: Techniques and applications.* Chicago, IL: Dorsey Press.

Wheatley, K. (2005). The case for reconceptualizing teacher efficacy research. *Teaching and Teacher Education: An International Journal of Research and Studies, 21*(7), 747-766.

Woolfolk, A., & Hoy, W. K. (1990). Prospective teachers' sense of efficacy and beliefs about control. *Journal of Educational Psychology, 82*(1), 81-91.

Woolfolk Hoy, A. (2008). What motivates teachers? Important work on a complex question. *Learning and Instruction, 18*(5), 492-498.

Woolfolk Hoy, A., & Burke-Spero, R. (2005). Changes in teacher efficacy during the early years of teaching: A comparison of four measures. *Teaching and Teacher Education, 21*(4), 343-356.

March 2006

Dr. Tom Meloy
Associate Dean
College of Eduation
Indiana University of Pennsylvania
Indiana, PA 15705

Dear Dr. Meloy:

Please accept this letter as my request to obtain the IUP email addresses for the 281 students who are currently completing their student teaching internship. I would like to request their voluntary participation in the research study I am conducting for my dissertation.

The purpose of the study is to examine the relationship that develops between the student teacher and the university supervisor and study the correlation (if any) that exists between this relationship and the level of teacher efficacy reported by the student teacher.

Participants will be made aware that their participation is voluntary and in no way have any impact on the grade they receive for their student teaching internship or any other course in which they may be enrolled.

If you have any questions or require additional information, I can be reached via email at dturkovich@comcast.net or by phone. Thank you for your assistance in completing this study.

Principal Investigator: Faculty Sponsor:
Mrs. Dawn Turkovich   Dr. George Bieger
Doctoral Candidate   Indiana University of Pennsylvania
Indiana University of Pennsylvania   Professional Studies in Education
Professional Studies in Education Department   Department
                                                                114 Davis Hall
                                                                Indiana, PA 1575
                                                                (724)357-3285

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724/357-7730)

APPENDIX B

COLLEGE OF EDUCATION AND HUMAN ECOLOGY

Anita Woolfolk Hoy, Ph.D.   **Professor** Psychological Studies in Education

Dear
You have my permission to use the *Teachers' Sense of Efficacy Scale* in your research. A copy of both
the long and short forms of the instrument as well as scoring instructions can be found at:
http://www.coe.ohio-state.edu/ahoy/researchinstruments.htm
Best wishes in your work,

Anita Woolfolk Hoy

Anita Woolfolk Hoy, Ph.D.
Professor

Teachers' Sense of Efficacy Scale (long form)

Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.

Teacher Beliefs   **How much can you do?**

	Nothing	Very Little	Some	Quite a Bit	A Great Deal

1. How much can you do to get through to the most difficult students?
   (1) (2) (3) (4) (5) (6) (7) (8) (9)

2. How much can you do to help your students think critically?
   (1) (2) (3) (4) (5) (6) (7) (8) (9)

3. How much can you do to control disruptive behavior in the classroom?
   (1) (2) (3) (4) (5) (6) (7) (8) (9)

4. How much can you do to motivate students who show low interest in school work?
   (1) (2) (3) (4) (5) (6) (7) (8) (9)

5. To what extent can you make your expectations clear about student behavior?
   (1) (2) (3) (4) (5) (6) (7) (8) (9)

6. How much can you do to get students to believe they can do well in school work?
   (1) (2) (3) (4) (5) (6) (7) (8) (9)

7. How well can you respond to difficult questions from your students?
   (1) (2) (3) (4) (5) (6) (7) (8) (9)

8. How well can you establish routines to keep activities running smoothly?
   (1) (2) (3) (4) (5) (6) (7) (8) (9)

9. How much can you do to help your students value learning?
   (1) (2) (3) (4) (5) (6) (7) (8) (9)

10. How much can you gauge student comprehension of what you have taught?
   (1) (2) (3) (4) (5) (6) (7) (8) (9)

11. To what extent can you craft good questions for your students?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

12. How much can you do to foster student creativity?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

13. How much can you do to get children to follow classroom rules?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

14. How much can you do to improve the understanding of a student who is failing?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

15. How much can you do to calm a student who is disruptive or noisy?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

16. How well can you establish a classroom management system with each group of
    students?   (1) (2) (3) (4) (5) (6) (7) (8) (9)

17. How much can you do to adjust your lessons to the proper level for individual
    students?   (1) (2) (3) (4) (5) (6) (7) (8) (9)

18. How much can you use a variety of assessment strategies?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

19. How well can you keep a few problem students from ruining an entire lesson?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

20. To what extent can you provide an alternative explanation or example when students
    are confused?   (1) (2) (3) (4) (5) (6) (7) (8) (9)

21. How well can you respond to defiant students?   (1) (2) (3) (4) (5) (6) (7) (8) (9)

22. How much can you assist families in helping their children do well in school?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

23. How well can you implement alternative strategies in your classroom?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

24. How well can you provide appropriate challenges for very capable students?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

APPENDIX D
The Roles Your Supervisor Played Survey

Below are 8 roles which your supervisor might have played when you were on placement. (Examples of what a student might say about each role are given alongside each one.)
How much did your supervisor play each role?
To show this you should circle one number on each line.
The scale goes from 1 (very little or not at all) to 7 (a great deal).

The roles your supervisor might have played	What a student might say about each role	Circle one number on each line
Friend	"he/she befriended me"; "was personally kind to me"	1 2 3 4 5 6 7
Model	"I have learned from his/her ability to. . ."	1 2 3 4 5 6 7
Assessor	"let me know where I stood, compared with where I should have been"; "said what he/she thought about my work"	1 2 3 4 5 6 7
Supporter	"willing to listen and help"; "available to me if I got discouraged and wondered if I was doing the right thing"	1 2 3 4 5 6 7
Coach	"said 'Let's see how you could have done that better'"; "pushed me to improve"	1 2 3 4 5 6 7
Intermediary	"helped my relationships with other people working in the school"; "oiled the wheels with other parties"	1 2 3 4 5 6 7
Standard-prodder	"very clear what I should aim for and kept prodding me"; "made sure I kept up to the mark"	1 2 3 4 5 6 7
Door-opener	"included me in school life generally"; "put me in touch with other people who were helpful/important"	1 2 3 4 5 6 7

Open ended Questions

How could the supervision be improved?

What are the strengths of the current supervision program?

APPENDIX F
Demographics Information

1. Are you male or female?   1._____

2. What is your age?   2._____

3. Are you seeking elementary certification?   3._____

4. Are you seeking secondary certification?   4._____

5. What is your major?   5._____

6. What is your grade point average?   6._____

7. Was your university supervisor male or female?   7._____

APPENDIX G
Email to participants

Dear Student Teacher:

Your assistance is needed to study the relationship between student teachers and their university supervisor.

Please take a few minutes to respond and comment on your student teaching experience. Your honest opinions are welcome. This anonymous survey will only take a few minutes and will help to continue the study of improving the student teaching experience.

The purpose of this survey is to examine the relationship that develops between the student teacher and the university supervisor and study the correlation (if any) that exists between this relationship and the level of teacher efficacy reported by the student teacher. Your participation is and important. This survey has been approved by IRB and there are no known risks or discomfort associated with participation.

To access the survey please click HERE. If the survey does not open automatically, please copy and paste the following link to your internet browser's address bar.

link to survey

Thank you for taking the time to share your experience.

Principal Investigator: Mrs. Dawn Turkovich   Faculty Sponsor: Dr. George Bieger
Doctoral Candidate   Indiana University of Pennsylvania
Indiana University of Pennsylvania   Professional Studies in Education
                                                      Department
Professional Studies in Education Department   114 Davis Hall
                                                      Indiana, PA 1575
                                                       (724)357-3285

APPENDIX H
Follow up email to participants

Dear Student Teacher:

This is a reminder to participate in the on-line survey about your student teaching experience.

Your assistance is needed to study the relationship between student teachers and their university supervisor.

Please take a few minutes to respond and comment on your student teaching experience. Your honest opinions are welcome. This anonymous survey will only take a few minutes and will help to continue the study of improving the student teaching experience.

The purpose of this survey is to examine the relationship that develops between the student teacher and the university supervisor and study the correlation (if any) that exists between this relationship and the level of teacher efficacy reported by the student teacher. Your participation is important. This survey has been approved by IRB and there are no known risks or discomfort associated with participation.

To access the survey please click HERE. If the survey does not open automatically, please copy and paste the following link to your internet browser's address bar.

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Thank you for taking the time to share your experience.

Principal Investigator: Faculty Sponsor:
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