CONTEXTUAL FACTORS AND THE DEVELOPMENT OF
STUDENT TEACHERS' SENSE OF EFFICACY

DISSERTATION

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By

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ABSTRACT

This study investigated student teachers' efficacy beliefs, pupil control ideologies, collective teacher efficacy beliefs, and perceived cooperating teachers' efficacy beliefs. These student teacher beliefs were examined in conjunction with contextual factors, primarily the school setting (i.e., rural, suburban, and urban) but also the length and nature of the student teaching assignment, to determine if these contextual factors played a role in the development of the student teachers' efficacy beliefs and pupil control ideologies. The research participants included 108 student teachers: 29 student teachers in the rural group, 45 in the suburban group, 28 in the urban group, and 6 that switched school settings at the halfway point. Participants completed surveys before, during, and after a 16-week student teaching experience.

Results indicated that all three setting groups exhibited significant increases in teachers' sense of efficacy following student teaching. School setting did play a role in the student teachers' pupil control ideology (suburban student teachers were the only group to become more humanistic following student teaching) and perceived collective teacher efficacy (urban student teachers exhibited significantly lower perceived collective teacher efficacy scores than the rural and suburban student teachers). Additionally, a positive and significant relationship was found between student teachers' efficacy beliefs

and their perceived cooperating teachers' efficacy beliefs. As for the nature and length of the student teaching assignment, the group of student teachers that did not switch placements at the halfway point showed significantly higher efficacy scores in the second eight weeks than the group that switched placements. Finally, significant increases in student teacher efficacy beliefs occurred at both the 8-week and the 16-week point.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

In order to be effective, teachers need more than content and pedagogy knowledge. Compelling evidence indicates that the beliefs that teachers hold regarding their teaching capabilities have a powerful influence on their teaching effectiveness. Teachers' sense of efficacy has been defined as "the teacher's belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context" (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998, p. 233). It is now understood that teachers' efficacy beliefs have a profound effect on the educational process. Teachers' sense of efficacy has been linked to many positive teacher behaviors and attitudes (e.g., Bandura, 1997; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998), as well as student outcomes and attitudes (e.g., Henson, 2002; Midgley, Feldlaufer, & Eccles, 1989). In addition, it has been discovered that teacher efficacy beliefs become somewhat stable with years of experience (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998), so researchers have concentrated on the development of teacher efficacy in preservice teachers. Some of the most influential experiences on the development of teachers' sense of efficacy are mastery experiences during student teaching (Mulholland & Wallace, 2001).

Grounded within social cognitive theory, teachers' sense of efficacy can be viewed as self-efficacy beliefs directed toward a teaching context. These efficacy beliefs have been shown to powerfully predict choice of task, effort, persistence, and ultimately, level of success achieved (Bandura, 1977, 1986, 1997). Efficacious individuals choose challenging goals, expend considerable effort, and persist in the face of obstacles. Teachers with a strong sense of efficacy have been found to be less critical of student mistakes (Ashton & Webb, 1986), to work harder with struggling students (Gibson & Dembo, 1984), and to spend more time teaching subject areas in which they feel efficacious (Riggs & Enochs, 1990). Students of efficacious teachers have exhibited higher achievement (Ashton & Webb, 1986), motivation (Midgley, Feldlaufer, & Eccles, 1989), and self-efficacy (Anderson, Greene, & Loewen, 1988) than students of less efficacious teachers.

Bandura (1977, 1986, 1997) posited four sources of efficacy information. Teachers can garner efficacy information via mastery experiences, vicarious experiences, verbal persuasion, and physiological and affective indexes. For preservice teachers, coursework and field experiences provide self-efficacy information. Vicarious experiences and verbal persuasion are provided via the reading, listening, and interaction involved in the teacher education curricula, and all four efficacy sources, particularly mastery experiences, are available during field experiences.

Self-efficacy has been defined as a situation-specific construct, and many scholars have emphasized the importance of the context and the specificity of efficacy beliefs (Bandura, 1997; Pajares, 1996; Tschannen-Moran, Woolfolk Hoy, & Hoy 1998). One critical context variable in the nascent efficacy beliefs of student teachers is the setting of

2

the student teaching placement. The typical characteristics of a preservice teacher are White, female, and middle class, but their future classrooms will likely be much more diverse (Groulx, 2001; Pallas, Natriello, & McDill, 1989; Zeichner, 1996). This diversity in the classroom may be found in some student teaching settings but not in others. For preservice teachers, the student teaching setting may have a profound impact on their student teaching experience and subsequent teacher efficacy. Indeed, student teachers and novice teachers consistently report that they have been inadequately prepared to teach in urban schools (Dana, 1992; Ladson-Billings, 2000; Rushton, 2000, 2001), and many profess discomfort at the idea of teaching in urban settings (Groulx, 2001; Valli, 1996). Fry and McKinney (1997) postulated a cultural mismatch between the backgrounds of the typical teacher candidate and the increasingly culturally diverse student population. While many teacher educators advocate field experiences in diverse settings (Grant, 1994; Ladson-Billings, 2001; McIntyre, Bird, & Fox, 1996), little is known regarding the influence of setting on the efficacy beliefs of student teachers.

The setting of the student teaching experience may also affect the student teachers' classroom management orientation. Pupil control ideology has been conceptualized along a continuum with a humanistic approach at one end and a custodial view at the other end (Willower, Eidell, & Hoy, 1967). The humanistic approach features two-way communication between teacher and students, trusting relationships, and a democratic classroom. The custodial view to classroom management can be described as autocratic and punitive control. Communication is unidirectional and flows downward. Hoy and Woolfolk (1990) reported both an increase in custodial ideology as well as an increase in personal teaching efficacy in the student teachers in their study, following the

student teaching assignment. They surmised that the student teachers' efficacy beliefs were influenced by their ability to control students and maintain order in the classroom. The student teaching placements were all in suburban settings; what is not known is how student teachers' pupil control ideology might vary in relation to rural, suburban, or urban settings.

In terms of the larger context of the school itself, collective teacher efficacy may be an important variable in the development of the student teachers' sense of efficacy. Collective teacher efficacy, that is, the school faculty's shared perceptions that they can work together productively and effectively to promote student learning, can vary among schools (Bandura, 1993, 1997; Goddard & Goddard, 2001). More specifically, collective teacher efficacy may vary among rural, urban, and suburban schools. According to Zaccaro, Blair, Peterson, and Zazanis (1995), group size and group cohesion are two factors that affect collective efficacy beliefs. Group members commonly feel a lowered sense of collective efficacy as group size increases and as cohesiveness is challenged. The typical large size and overwhelming bureaucracy that is well documented in urban schools (Lomotey & Swanson, 1989) may negatively impact the collective teacher efficacy of urban schools. How does this affect the developing efficacy beliefs of student teachers placed in urban settings? There has been little research on the construct of collective efficacy (Bandura, 1997), and no research studies comparing the collective teacher efficacy beliefs by school setting were found.

Another critical context variable for student teachers is their cooperating teacher. It appears that the cooperating teacher, because of sustained, daily contact, is more influential with the student teacher than the college supervisor (Borko & Mayfield, 1995;

4

Calderhead, 1988; Richardson-Koehler, 1988). Cooperating teachers are an important source of efficacy information (both vicarious experience and verbal persuasion) for student teachers, and as such, they could play an essential role in the development of the student teachers' efficacy. According to Bandura (1997), competent models provide greater instructional influence than do incompetent models, particularly when the observer has much to learn. Moreover, verbal persuasion can have a strong impact if the persuader is credible and trustworthy. Thus, student teachers that view their cooperating teachers as competent and credible may pay closer attention to efficacy information from that source. Bandura (1986) also suggested that perceptions of an event could be more salient than the actual event itself. Therefore, the student teacher's perceptions of his or her cooperating teacher's efficacy may be strong influences on the development of their own efficacy beliefs. That remains an empirical question.

The length and nature of the student teaching assignment may also play a role in student teachers' developing efficacy beliefs. Although Imig and Switzer (1996) reported an increase in the amount of clinical and field experiences in teacher education programs, many scholars advocate a decrease in the length of time spent in field experiences. Proponents of increased field experiences and longer student teaching experiences argue that more time spent in schools results in a better connection between theory and practice (Imig & Switzer, 1996). Critics of field experience argue that student teaching perpetuates socialization and that student teachers, rather than trying new ideas learned from the university, slip into survival mode (Fuller & Bown, 1975; Goodlad, 1990) – so student teaching therefore should be shortened or abolished. It appears that the length of the student teaching internship is a matter of convenience; colleges and universities on

the quarter system offer 10-week student teaching experiences and institutions on the

semester system offer 15 or 16-week student teaching experiences. Furthermore, only one

study was found on split placements (switching grade level or subject area halfway

through student teaching), and it investigated anxiety and development, not efficacy

beliefs (Piland & Anglin, 1993). Little is known regarding the connection between

student teachers' sense of efficacy and the length and nature of the student teaching

assignment.

Purpose of the Study

The value and power of teachers' sense of efficacy has been well established in

the literature. What has not been established, however, is the validity and effect of the

sources of information on teacher efficacy (Henson, 2001). In particular, clarification is

needed regarding the impact of the teaching environment and setting on efficacy beliefs

(Tschannen-Moran & Woolfolk Hoy, 2001) and pupil control ideology, the role of

collective teacher efficacy as well as the cooperating teacher in the development of the

student teacher's efficacy beliefs, and the relationship between the length and nature of

the student teaching assignment and the student teachers' efficacy beliefs. Therefore, the

purpose of this study is to investigate the student teachers' sense of efficacy prior to and

following student teaching, and to analyze the relationships between setting, pupil control

ideology, collective teacher efficacy, and the perceived cooperating teachers' sense of

efficacy with the evolving efficacy beliefs of the student teachers. This study will also

examine the effect of the student teaching setting on the student teachers' pupil control

ideology. Finally, the impact of the length and nature of the student teaching assignment

on efficacy beliefs will be explored. Specifically, the following research questions will be addressed:

1. How does the student teachers' sense of efficacy and pupil control ideology change following the student teaching experience?
2. What are the factors that are predictive of the student teachers' sense of efficacy following the student teaching experience?
3. What are the factors that are predictive of the student teachers' perceived collective teacher efficacy following the student teaching experience?
4. To what extent does the perceived cooperating teacher's sense of efficacy correlate with the student teacher's sense of efficacy?
5. Is change in student teachers' sense of efficacy different for split placements vs. one 16-week placement?
6. How does the student teachers' sense of efficacy vary in regard to length of experience (i.e., 8 weeks vs. 16 weeks)?

Definition of Terms

The independent variables in this study will be operationally defined as follows: Student teachers will be defined as teacher education students involved in their culminating field experience; cooperating teachers will be defined as the mentor teachers with whom the student teachers have been placed; rural, suburban, and urban schools will be defined by diversity of student ethnicity and socioeconomic status, geographic location, and population; and split placements will be defined as the student teaching

format in which the student teachers experience two different 8-week student teaching placements.

One dependent variable, teachers' sense of efficacy, will be a self-reported measure of belief in one's ability to teach effectively, and it will be measured by the Teacher Sense of Efficacy Scale (Tschannen-Moran & Woolfolk Hoy, 2001). Another dependent variable, pupil control ideology, will be a self-reported measure of classroom management orientation, and it will be measured by the Pupil Control Ideology Form (Hoy, 2000). The third dependent variable, collective teacher efficacy, will be a self-reported measure of the student teachers' perceptions of the collective teacher efficacy of the school where they student teach, and it will be measured by the Collective Teacher Efficacy Scale (Goddard, 2002). The final dependent variable, perceived cooperating teachers' efficacy, will be a self-reported measure of the student teachers' perceptions of their cooperating teachers' efficacy beliefs. It will be measured by a modified version of the Teacher Sense of Efficacy Scale (Li & Zhang, 2000; Tschannen-Moran & Woolfolk Hoy, 2001).

CHAPTER 2

REVIEW OF THE LITERATURE

Research on teacher efficacy beliefs has been conducted for about a quarter of century now, and much has been discovered about this important construct. The focus of studies on teacher efficacy beliefs has ranged from its impact and outcomes, the characteristics of efficacious teachers, to its measurement and development. Research has been both quantitative and qualitative, and participants have included preservice teachers, novice teachers, and experienced teachers. In the following chapter I will discuss the theoretical origins of teachers' sense of efficacy, the definitions and dimensions of the construct, its positive correlates, the characteristics of efficacious teachers, its measurement, and the efficacy beliefs of preservice teachers. Additionally, I will explore school setting (i.e., rural, suburban, and urban) and extant studies specifically concerning the efficacy beliefs of urban teachers. This will be followed by an examination of the literature addressing pupil control ideology, collective teacher efficacy, the role of cooperating teachers in the student teaching experience, and the length and nature of the student teaching experience.

Theoretical Origins

Teachers' sense of efficacy was first conceptualized in 1976, as a result of a study conducted by the RAND organization. The RAND researchers, on the basis of an article by Rotter on his social learning theory, had added two efficacy questions to their survey (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). In that study, the two efficacy questions had a major impact – it was discovered that teacher efficacy was a significant predictor of student achievement (Armor, et al., 1976). Many other researchers followed the RAND researchers' lead, and they incorporated Bandura's self-efficacy theory to the teacher efficacy construct (Gibson & Dembo, 1984; Hoy & Woolfolk, 1990; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). Bandura's theory suggests that behavior is affected by two expectations – outcome expectations and efficacy expectations. Outcome expectations are beliefs that certain behaviors will produce certain outcomes, whereas efficacy expectations are beliefs that one can perform the behaviors to produce the outcome. Thus, a person may believe that an action will lead to a certain outcome (outcome expectation), but may not believe that s/he can effectively perform that action (efficacy expectation). Thus, two dimensions of teacher efficacy emerged, general teaching efficacy (considered the outcome expectations) and personal teaching efficacy (considered the efficacy expectations). It was Hoy and Woolfolk (1990) who augmented the labels to general teaching efficacy and personal teaching efficacy.

Definitions of the Construct

The RAND researchers initially defined teacher efficacy as "the extent to which the teacher believes he or she has the capacity to affect student performance" (Guskey & Passaro, 1994, p. 628). That definition was expanded by Guskey and Passaro (1994) to

the "teachers' belief or conviction that they can influence how well students learn, even those who may be considered difficult or unmotivated" (p. 628). Teacher efficacy can be viewed as a type of self-efficacy; it is the teachers' self-efficacy as it relates specifically to teaching. Bandura first identified self-efficacy in his seminal article in 1977, and the construct has become ubiquitous in the motivational literature (Pajares, 1997). Self-efficacy is grounded in social cognitive theory, in which one of the primary tenets is the proposition of reciprocal determinism. Triadic reciprocality refers to the conception that personal factors in the form of cognitive, affective, and biological events; behavior; and environmental influences work together as determinants that impact each other bidirectionally (Bandura, 1986, 1997). The result, then, is that individuals are considered both as "products and producers of their own environment and of their social systems" (Pajares, 1997, p. 3).

Self-efficacy is different from self-esteem and self-concept in that it is task specific (Bandura, 1997). Tschannen-Moran, Woolfolk Hoy, and Hoy (1998) offered an example of a person who may be inefficacious in a sport such as skiing, but still possesses high overall self-esteem, because that individual has not equated skiing well with self-worth. Self-efficacy beliefs, that is, "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3), have been postulated to powerfully influence the choices people make, the amount of effort they expend, and their level of persistence (Bandura, 1977, 1986, 1997). Individuals with high self-efficacy beliefs tend to view difficult tasks as challenges, remain committed to their goals, and increase their efforts when faced with failure. Their perseverance typically results in performance accomplishments. In contrast, individuals

11

who have low self-efficacy beliefs do not embrace difficult tasks because they are seen as personal threats. When confronted with difficult tasks, they focus on their weaknesses, the obstacles and negative outcomes, and they easily give up. Thus, efficacy beliefs are powerful determinants and predictors of the level of success that individuals can attain (Pajares, 1996).

According to Bandura (1986; 1997), self-efficacy beliefs are constructed from four sources: enactive mastery experiences, vicarious experiences, verbal or social persuasion, and physiological states. A mastery experience is the successful completion of a task (e.g., effectively leading a class discussion). In terms of self-efficacy judgments, mastery experiences carry the most weight, "…because they provide the most authentic evidence of whether one can muster whatever it takes to succeed" (Bandura, 1997, p. 80). Vicarious experience is efficacy information garnered by modeled attainments—that is, seeing others who are similar to oneself being able to successfully perform a task. Verbal persuasion is feedback and exhortation, trying to talk people into believing that they are capable of reaching a goal. Finally, physiological states refer to emotional and affective states (e.g., individuals who feel tense and agitated before a performance may not expect a successful outcome).

The information gathered from these four efficacy sources only becomes instructive through cognitive processing and reflective thought. Individuals select and assign differing weights to relevant information in order to gauge their personal capability to perform a task (Bandura, 1997). Thus, people view events and interpret them on the basis of information to which they attend and the rules they utilize for weighting and integrating them. As Pajares (1997) indicated, "the selection, integration,

interpretation, and recollection of information influence judgments of self-efficacy" (p.

6). Causal attributions also are involved; if a successful event is attributed to internal or

controllable dimensions, then self-efficacy is strengthened (Tschannen-Moran, Woolfolk

Hoy, & Hoy, 1998).

Understanding the Dimensions

The two dimensions, general teaching efficacy (GTE) and personal teaching

efficacy (PTE), have been salient entities within the construct. General teaching efficacy

refers to the relationship between teaching and learning (Hebert, Lee, & Williamson,

1998; Hoy & Woolfolk, 1990). Ross, Cousins, & Gadalla (1996) clarified it as "the belief

that the teacher population is able to bring about student change despite out-of-school

constraints" (p. 386). These environmental conditions include poverty, violence, the

value parents place on education, etc. (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998).

Soodak and Podell (1996) indicated that heredity and television violence were two more

environmental factors that affect teaching and learning. Personal teaching efficacy

applies to the individual teacher's belief in his or her own teaching ability (Hebert, Lee,

& Williamson, 1998; Hoy & Woolfolk, 1990). PTE is more specific than GTE, and it

indicates the confidence that a teacher possesses, based on training, experience or past

success (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). In short, GTE is the belief that

teachers can make a difference, and PTE is a self-efficacy belief: *I* can make a difference

(Edwards, Green, & Lyons, 1996).

These two dimensions are independent of one another, so a teacher may have a

strong belief that teachers in general can reach students, but at the same time, be less than

confident in his or her own teaching ability. Conversely, a teacher may have little faith in

13

the teaching profession, but still feel that he or she is an exceptional teacher (Coladarci, 1992; Guskey & Passaro, 1994; Woolfolk & Hoy, 1990).

Woolfolk and Hoy (1990) questioned the veracity of equating the general teaching efficacy dimension with outcome expectation in Bandura's theory. They contended that GTE (teachers can make a difference) was actually an efficacy expectation, not an outcome expectation, based on the fact that it is a belief about teachers in general. They wrote, "For Bandura, an outcome expectation is a judgment of the likely consequences of an action, whereas an efficacy expectation is a judgment about ability to perform an action" (Woolfolk & Hoy, 1990, p. 82). The judgment of the ability of a teacher to overcome negative out-of-school influences should therefore be considered an efficacy expectation.

Another interpretation was provided by Guskey and Passaro (1994). They suggested that the two dimensions were actually internal and external distinctions, instead of efficacy expectations. The internal component refers to teachers' "perceptions of *personal* influence, power, and impact in teaching and learning situations", and the external component refers to teachers' "perceptions of the influence, power, and impact of elements that lie *outside the classroom*…" (p. 639). The researchers emphasized, however, that these internal and external components are different from the "locus of control" concept that Rotter originated. The internal and external factors in Rotter's theory are opposite ends of a continuum, whereas in teacher efficacy, these factors are separate and they act independently (Guskey, 1998). Hebert, Lee, and Williamson (1998) compared experienced teachers to pre-service teachers, and their findings supported the notion of the internal and external components of teacher efficacy, as well as their

14

independence from one another. Thus, the GTE factor has been subject to debate, whereas the PTE factor is generally accepted among researchers (this will be discussed further in a later section).

An integrated model of teacher efficacy (see Figure 1) that intertwines the four sources of efficacy information with analysis of the specific teaching task and assessment of personal teaching competence was designed by Tschannen-Moran, Woolfolk Hoy, and Hoy (1998). The analysis of the teaching task (regarding resources and constraints in a teaching context) is similar to GTE, and the self-evaluation of teaching competence (a judgment of personal capabilities and deficiencies) is likened to PTE, and it is specific to the particular teaching context being considered. Tschannen-Moran, Woolfolk Hoy, and Hoy (1998) agreed with Guskey and Passaro's (1994) suggestion that GTE is a measure of external attributions for student failure. Their model adds a cognitive component whereby a combined consideration of the actual teaching task and personal strengths and weaknesses mediates between the sources of efficacy information and the perceived teacher efficacy. The interpretation of the efficacy information as well as the kinds of attributions formulated are important for the resultant teacher efficacy.

Tschannnen-Moran, Woolfolk Hoy, and Hoy (1998) contended that teachers' sense of efficacy is cyclical, which is one of the reasons it is so powerful. Higher efficacy leads to greater effort and persistence, which results in improved teaching/learning, which leads to higher efficacy. Unfortunately, the same cycle applies to low teacher efficacy. Lower efficacy leads to less effort and persistence, which results in poor teaching performance, which leads right back to lower efficacy.

Sources of Efficacy
Information

Verbal Persuasion
Vicarious Experience
Physiological Arousal
Mastery Experience

- - - - - - - - - - - - - - - -
New Sources of
Efficacy Information
- - - - - - - - - - - - - - - -

Cognitive
Processing

Analysis of
Teaching Task

Assessment of
Personal Teaching
Competence

Teacher
Efficacy

Performance

Consequences of
Teacher Efficacy

Goals, effort, persistence,
etc.
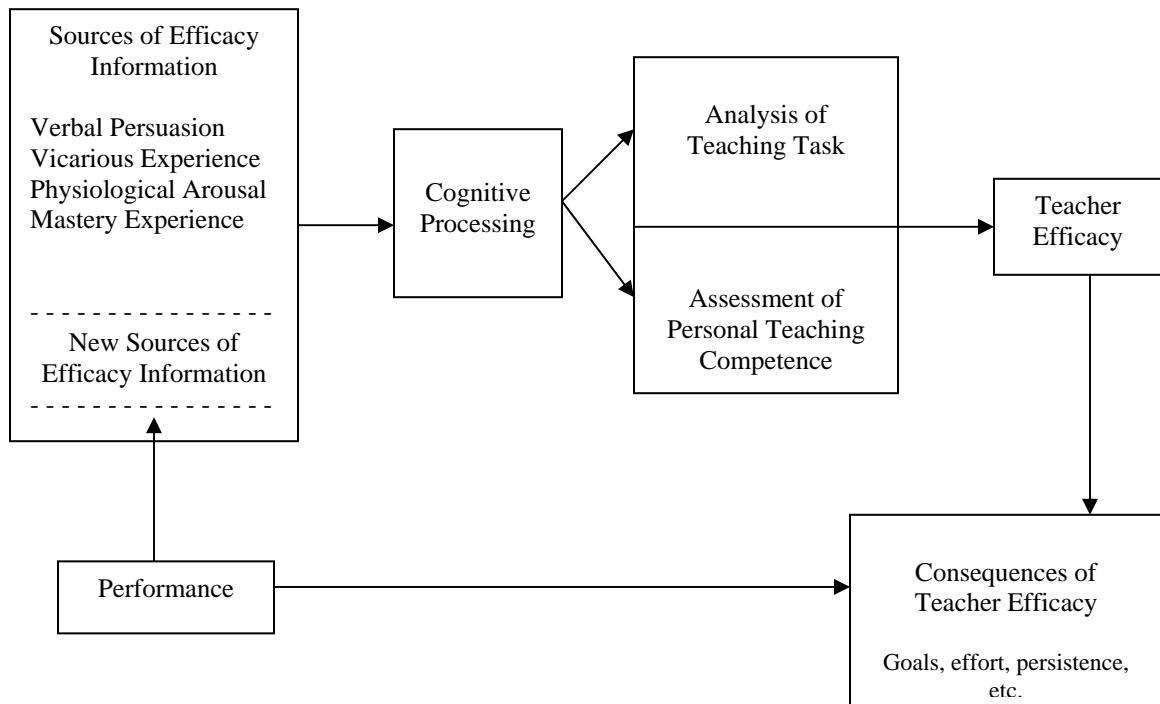
Figure 2.1. An Integrated Model of Teachers' Sense of Efficacy (Tschannnen-Moran,

Woolfolk Hoy, and Hoy, 1998).

Positive Correlates of Teacher Efficacy

While confusion reigns in the classification and substance of the two dimensions,

there is little ambiguity regarding the significance of the impact of teacher efficacy.

Teachers' efficacy beliefs have been related to instructional practices, classroom climate,

career satisfaction and commitment to the teaching profession, acceptance and use of

innovative techniques, parental involvement, and risk-taking. These teacher behaviors

and attitudes contribute in no small part to increased student achievement, efficacy, and

motivation.

16

Teacher outcomes. Gibson and Dembo (1984) observed many positive teaching practices related to efficacy. Teachers with a high sense of efficacy worked harder with struggling students, spent more time on academic activities, and were less critical. Efficacious teachers were more successful at keeping students on task (Ashton, Webb, & Doda, 1983). Bandura (1997) suggested that efficacious teachers tend to regard difficult students as "reachable and teachable" and that, with effort and strategy, the difficulties can be conquered (p. 242). Woolfolk and Hoy (1990) found that efficacy beliefs affect teachers' classroom management style. High efficacy related to a more humanistic orientation, whereas low efficacy related to a more custodial orientation that resulted in a rigid, controlling atmosphere. Allinder (1994) found a correlation between teacher efficacy and teacher enthusiasm. Efficacious teachers were also less likely to refer a problem student to special education (Soodak & Podell, 1993).

Teacher efficacy was discovered to be the strongest predictor of commitment to teaching, in a study performed by Coladarci (1992). He posed this question to the participants of the study: "Suppose you had it to do all over again: In view of your present knowledge, would you become a teacher?" (p. 328). Teachers with a high sense of efficacy were more committed to the teaching profession. Evans and Tribble (1986) reported similar results with preservice teachers. Ghaith and Yaghi (1997) noted that teachers with a high personal teacher efficacy level are more willing to accept novel instructional techniques, such as cooperative learning. Similarly, Ross, Cousins, and Gadella (1996) reported that efficacious teachers are more willing to take risks because of a reduced fear of failure. Consequently, they are willing to employ new strategies, such as small group techniques and activity-based learning. In a study designed to explore the

17

relationship between teachers' sense of efficacy and their propensity to develop trusting relationships with colleagues, da Costa and Riordan (1996) found that efficacious teachers tend to develop trusting professional relationships with both teachers and administrators. Finally, Bandura (1997) contended that teachers' sense of efficacy is in part responsible for parental involvement in the schools. He opined that teachers who feel secure in their teaching ability are likely to seek out and support parents' assistance. Indeed, Hoover-Dempsey, Bassler, and Brissie (1987) discovered a relationship between teachers' sense of efficacy and teachers' consultation and involvement of parents in their child's schooling.

   Student outcomes. Ashton and Webb (1986) utilized surveys, interviews, observations, and school documents in an extensive study of teacher efficacy. They concluded that their findings "strongly support the hypothesis that teachers' sense of efficacy is related to student achievement" (p. 138). High-efficacy teachers furnished more positive feedback to their students and professed responsibility for their students' success. Henson (2002) cited three achievement tests, the Iowa Test of Basic Skills, the Canadian Achievement Tests, and the Ontario Assessment Instrument Pool, in which teacher efficacy was predictive of higher student achievement. Thus, in terms of achievement, "students of efficacious teachers generally have outperformed students in other classes" (Henson, 2002, p. 138). Additionally, students of efficacious teachers tend to be more efficacious themselves (Anderson, Greene, & Loewen, 1988). Finally, in a study of self- and task-related beliefs in mathematics, Midgley, Feldlaufer, and Eccles (1989) found that teachers with a higher sense of efficacy had students who were more motivated regarding their performance in mathematics.

18

Ross (1998) summarized five ways that teachers' efficacy beliefs may impact student achievement and motivation. First, teachers with higher efficacy are more likely to learn and apply innovative teaching techniques (Ross, Cousins, and Gadella, 1996); the improved teaching may result in enhanced learning. Second, efficacious teachers employ classroom management strategies that encourage student autonomy and decrease custodial control (Woolfolk, Rosoff, & Hoy, 1990), and the extended academic learning time might increase student achievement. Third, teachers with higher efficacy work harder with lower ability students than teachers with lower efficacy (Ashton, Webb, & Doda, 1983), which may result in better learning outcomes for that group. Fourth, because students of efficacious teachers tend to exhibit higher self-efficacy (Anderson, Greene, & Loewen, 1988), these self-beliefs may result in increased enthusiasm and engagement, which will improve achievement (Ashton & Webb, 1986; Ashton, Webb, & Doda, 1983). Finally, efficacious teachers are likely to increase effort and persistence when challenged by struggling students. Bandura (1997) noted that teachers' sense of efficacy has an indirect impact on educational outcomes. That is, efficacy beliefs influence student behavior and achievement through the mediating impact of teacher behaviors, namely, effort and perseverance.

Characteristics of Efficacious Teachers

Myriad studies focusing on the predictors of teacher efficacy have been conducted. Gender is one such predictor – apparently female teachers typically feel more efficacious than male teachers (Edwards, Green & Lyons, 1996; Ross, Cousins, & Gadalla, 1996; Ross, 1994, 1998). Ross (1994, 1998) speculated that this phenomenon

19

could be a result of the teaching profession being viewed as a predominantly female occupation.

Experience is another predictor. In a study done by Benz, Bradley, Alderman, and Flowers (1992), PTE was discovered to be higher in preservice teachers than experienced teachers in terms of student motivation, but lower in terms of planning and evaluating lessons. The researchers concluded that the pre-service teachers had "preconceptions" about motivation that resulted in inflated efficacy scores. The usual trend is that PTE increases while GTE declines slightly with experience (Hoy & Woolfolk, 1990; Ross, 1994, 1998; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). The increase in PTE most likely happens when teachers realize that, with experience, they are becoming more proficient. The decline in GTE, which usually occurs in the early years of a teacher's career, probably occurs as the realities and difficulties in education become apparent (Hoy & Woolfolk, 1990; Ross, 1994, 1998).

A third predictor is teaching level. Edwards, Green, and Lyons (1996) reported that elementary school teachers felt more efficacious than both middle school and high school teachers. However, this could be attributed to the fact that females (who tend to have higher teacher efficacy than males) more commonly teach at the elementary level (Ross, 1994).

Measurement of the Construct

Hebert, Lee, and Williamson (1998) raised a valid point about the problems of measuring teacher efficacy: "Teacher efficacy remains a conceptually elusive construct, rendering it difficult to assess with certainty" (p. 224). The search for the proper assessment tool "has not suffered from a lack of effort," as Tschannen-Moran, Woolfolk

Hoy, and Hoy (1998) declared (p. 217). The measurement of teacher efficacy began with the two questions from the RAND studies. RAND Item 1: *"When it comes right down to it, a teacher really can't do much because most of a student's motivation and performance depends on his or her home environment."* RAND Item 2: *"If I really try hard, I can get through to even the most difficult or unmotivated students."* Item 1 became connected with GTE (an outcome expectancy), and item 2 became connected with PTE (an efficacy expectation).

In the early 1980s, three more measurement instruments were born: Teacher Locus of Control, developed by Rose and Medway (1981), Responsibility for Student Achievement, conceived by Guskey (1981), and the Webb Efficacy Scale, designed by Ashton, Olejnik, Crocker, and McAuliffe (1982). These three scales were based on Rotter's theory, and they were longer and more extensive than the original two questions in the RAND measure.

Ashton, Olejnik, Crocker, and McAuliffe developed the Ashton Vignettes in 1982, which consisted of 50 scenario-type items. An example of one situation is as follows: *"Because of repeated failure, one of your students confides to you that she has given up and will attend school only until she can find a way to drop out. How effective would you be in persuading her that she can be successful in school?"* The vignettes were categorized into six different areas: discipline, work with parents, planning, socialization, motivation, and evaluation.

Gibson and Dembo (1984) conceived the Teacher Efficacy Scale (TES), which became one of the most commonly used instruments to measure teacher efficacy (Henson, 2002; Tschannen-Moran & Woolfolk Hoy, 2001). Bandura's self-efficacy

21

theory, along with the two RAND items, were the foundation for the scale, and Gibson and Dembo verified the multidimensionality of the construct. The TES consisted of 30 items utilizing a 6-point Likert scale from "strongly disagree" to "strongly agree" (Gibson & Dembo, 1984). An example of a GTE item from the original scale is as follows: *"The hours in my class have little influence on students compared to the influence of their home environment."* An example of a PTE item from the original measure is as follows: *"When a student does better than usual, many times it is because I exerted a little extra effort"* (Gibson & Dembo, 1984, p. 581). Researchers have subsequently tinkered with the scale, using an abbreviated version of 16 of the original questions, or using an even more truncated rendition of only ten questions, five GTE and five PTE items (Tschannen-Moran, Woolfolk Hoy, and Hoy, 1998).

A more narrowly-focused efficacy scale was designed by Riggs and Enochs in 1990, called the Science Teaching Efficacy Belief Instrument (STEBI). This instrument consisted of 25 items on a 5-point Likert scale using efficacy questions concerning science teaching. An example of one such question is as follows: *"I understand science concepts well enough to be effective in teaching elementary science"* (Riggs & Enochs, 1990).

Bandura has developed his own Teacher Efficacy Scale, which is comprised of 30 items on a 9-point Likert scale with "nothing" and "a great deal" at the ends. An example of an item relating to GTE is, *"How much can you do to overcome the influence of adverse community conditions on student learning?"* An example of an item relating to PTE is, *"How much can you do to get children to follow classroom rules?"* (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998, p. 208). Bandura (1997) emphasized that teacher

22

efficacy varies from subject to subject, so that a teacher who feels efficacious in math may not be confident in language arts. Therefore, teacher efficacy measurements should focus on specific knowledge areas. He also asserted that a teacher's sense of efficacy encompasses not just instruction but the ability to manage the class, build an environment conducive to learning, and motivate students. He advocated "multifaceted teacher efficacy scales," and he encouraged researchers to pick and choose instruments that would be most appropriate for their research question (p. 243). Similarly, Pajares (1996) discussed the predictive power of the efficacy construct, and he argued that specific judgments of specific performances are more predictive than less task-specific judgments. Efficacy judgments are based on an individual's perception of his or her ability to perform a specific task, so these judgments are contextual. Measurement of efficacy beliefs without providing a specific context may in fact be measurement of a different construct, such as a personality trait (Henson, 2002).

It is obvious that the measurement of teacher efficacy needs clarification. Henson (2002) noted that the construct validity of scores from teacher efficacy instruments has been "severely questioned" (p. 168). Current researchers appear to be heeding Bandura's (1997) advice by selecting items that relate to the particular research question. For instance, Soodak and Podell (1996) used 16 items from Gibson & Dembo's teacher efficacy scale, plus 18 additional items concerning other research interests, such as student emotionality and the effects of heredity. Pajares (1996) advocated specificity of items to improve predictability, and an example of such an instrument is the Self-Efficacy Teaching and Knowledge Instrument for Science Teachers (SETAKIST) created by Roberts and Henson (2000). They eliminated the GTE items and replaced them with

23

knowledge efficacy items, such as: *I know the steps necessary to teach science concepts*

effectively.

Tschannen-Moran and Woolfolk Hoy (2001), in agreement with the notion that

external influences seem to be what the current GTE scale items are measuring, have

moved away from the two dimensional model with PTE and GTE. They have designed a

new teacher efficacy scale, based on Bandura's work and recommendations, that features

three dimensions of teacher efficacy: instructional strategies, student engagement, and

classroom management. They believed that the three dimensions better represent the vast

and varied tasks that teaching requires, and they incorporated the task analysis and the

personal competence evaluation components from the integrated model introduced in

Tschannen-Moran, Woolfolk Hoy, and Hoy's (1998) review. Originally called the Ohio

State Teacher Efficacy Scale (OSTES), it is now called the Teacher Sense of Efficacy

Scale (TSES). An example of an instructional strategies item is *"To what extent can you*

craft good questions for your students?" An example of a student engagement item is

"How much can you do to help your students value learning?" An example of a

classroom management item is *"How much can you do to get children to follow*

classroom rules?" The TSES has both a long form of 24 questions and a short form of

12 questions, and the measure utilizes a nine-point Likert scale with "nothing" and "a

great deal" as the anchors.

Henson (2002) assessed the TSES as a "promising development in the

measurement of teacher efficacy" (p. 145). Additionally, Deemer and Minke (1999)

provided some support for eliminating the GTE dimension from the teacher efficacy

construct. They tested Gibson and Dembo's (1984) teacher efficacy scale (TES) and

24

verified that wording confounds, that is, the positive and negative orientations attached to the internal and external influences on teaching, are responsible for the two dimensional structure (PTE and GTE). In other words, the GTE items on the TES were negatively worded (e.g., *Even a teacher with good teaching abilities may not reach many students)*, whereas the PTE items were positively worded (e.g., *When I really try, I can get through to most students).* They suggested that teacher efficacy is unidimensional, not two-dimensional. The TSES will be discussed in further detail in the chapter three.

The Student Teaching Experience and Efficacy Changes

Student teaching is typically the culminating experience of the teacher preparation program. It is an opportunity for preservice teachers to actually put their preparation into practice, demonstrate their developed skills and knowledge in teaching, and reflect upon their teaching abilities and progress. Student teaching is the "most widely accepted component of teacher preparation" (Guyton & McIntyre, 1990, p. 515), and prospective teachers routinely view it as the most valuable part of the teacher education program (Wentz, 2001; Zeichner, 1980). Typically, the cycle of the student teaching experience is one of observation, pre-teaching participation, and then teaching (Johnson, 2001; Wentz, 2001). The student teacher gradually accepts more responsibility in the areas of planning, teaching, and evaluation. During the latter part of the experience, the student teacher assumes full responsibility for the class. Thus, student teaching is an opportunity for enactive mastery experience, according to Bandura's social cognitive theory, and as such it is a prime source of efficacy information for the teacher candidate. The preservice teacher's efficacy may be either enhanced or reduced depending on the experience. In contrast, vicarious experience and verbal and social persuasion in the form of teacher

education coursework are less influential sources of efficacy (Tschannen-Moran, Woolfolk Hoy, and Hoy, 1998).

The ideal length of the student teaching experience has been subject to debate among teacher educators. Guyton and McIntyre (1990) indicated that most student teaching in the United States is a full-time internship for 10-12 weeks. In Ohio, the student teaching assignment generally ranges from 10 to 15 weeks (Ohio Department of Education, 2001). Some researchers recommend expanded experiences while other researchers advocate shorter assignments. Many teacher educators believe that the student teaching experience is the most valuable part of teacher education and that it should be lengthened, whereas other teacher educators believe that student teaching promotes socialization and that student teachers focus on survival rather than trying new ideas learned from teacher educators – so student teaching therefore should be shortened or abolished (Goodlad, 1990; Keith, 1987; Zeichner, 1980).

One reason that researchers have concentrated on the development of teacher efficacy in preservice teachers is because self-efficacy is most receptive to change early in the learning process (Bandura, 1977), and teacher efficacy beliefs become somewhat stable and more resistant to change with years of experience (Henson, 2002; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). Research has shown that teachers' sense of efficacy does change after the student teaching experience. Hoy and Woolfolk (1990) studied three groups of undergraduate students: student teachers, education students enrolled in methods courses, and students enrolled in a developmental psychology class. The student teaching experience was the independent variable, and all of the school placements were in suburban settings. The students completed a modified version of

Gibson and Dembo's Teacher Efficacy Scale at the beginning and end of the semester. Hoy and Woolfolk reported that the students engaged in only coursework had no significant change in their efficacy belief scores. The student teachers, however, experienced a significant increase in their personal teaching efficacy, but a significant decrease in their general teaching efficacy following the student teaching assignment. In a similar study measuring efficacy beliefs before and after student teaching primarily in suburban settings, Fortman and Pontius (2000) found a significant increase in personal teaching efficacy after completion of student teaching.

Other research examining efficacy beliefs following early field experiences also noted increases in personal teaching efficacy. Li and Zhang (2000) measured the efficacy beliefs of 52 sophomore education students, using Gibson and Dembo's (1984) Teacher Efficacy Scale, before and after a clinical experience involving six half-day field experiences at an elementary school. The preservice teachers' personal teacher efficacy was significantly higher following the clinical experience. In a study involving 82 prospective teachers, Cole (1995) discovered a significant increase in efficacy scores of students who participated in an extended (32 hours) clinical placement, but not in those students who participated in a brief (6 hour) clinical experience. Cole employed Enochs and Riggs' (1990) Science Teaching Efficacy Beliefs Instrument (STEBI-B), preservice version. Crowther and Cannon (1998) administered the STEBI-B on a weekly basis to prospective teachers enrolled in a science practicum. The students were in elementary classrooms three days a week from 8 am to noon for 10 weeks. They reported a significant increase in efficacy scores from the first week to the last week, as well as a continual increase in efficacy scores from week to week, except for the middle three

weeks where they remained constant. Crowther and Cannon acknowledged that test sensitivity was a major threat to internal validity because of the weekly administration of the scale.

The concern associated with assessing efficacy beliefs in preservice teachers is that they have little or no actual teaching experience upon which to base efficacy beliefs. Therefore, their sense of efficacy is grounded not in mastery experiences (which Bandura (1986, 1997) maintained are the most influential source of efficacy information), but rather in teacher education courses and observations of teachers and classrooms during early field experiences (vicarious experiences and verbal persuasion sources). Accordingly, Hebert, Lee, and Williamson (1998) interpreted preservice teachers' self-reported beliefs as "efficacy *aspirations*" (p. 223, italics added for emphasis). Benz, Bradley, Alderman, and Flowers (1992) examined personal teacher efficacy beliefs at different levels of teaching experience – teacher education students prior to student teaching, practicing teachers, teacher education faculty, and supervisors. They concluded that the preservice teachers in their study held an "unrealistically high sense of efficacy" (p. 284). They reasoned that preservice teachers possess preconceptions about teaching that are disparate from "the real world of the day-to-day classroom" (p. 284). Hebert, Lee, and Williamson (1998) investigated the differences between the efficacy beliefs of preservice and experienced teachers. They observed that the preservice teachers had a low perception of the influence of factors outside the classroom on students' performance and behavior, and that the experienced teachers perceived these external factors as more influential.

Wideen, Mayer-Smith, and Moon (1998) reviewed 10 studies conducted on various aspects of the student teaching experience, and they observed an apparent tension between the expectations of the teacher educators and the actual reality confronted by the student teachers. They described student teaching as a "sometimes dysfunctional experience" (p. 154), and asserted that it invokes more anxiety and conflict than any other part of the education program. The pressure associated with student teaching restrains the ability and desire of student teachers to do anything beyond merely survive. Moreover, student teachers perceived that they were not sufficiently prepared by their university coursework. Aitken and Mildon (1991), in a longitudinal study following four prospective teachers through their education program and into the beginning of their first year of teaching, concurred with the dissonance between university coursework and the demands of the classroom. For student teachers, the reality of the classroom is usually quite different from their expectations and presumptions (Kagan, 1992). For student teachers that are assigned to an urban school setting, the anxiety and lack of preparation may be exacerbated. The differences between rural, suburban, and urban school settings will be discussed in the next section.

School Setting

There are some marked differences between schools in rural, suburban, and urban school settings. According to Ducette, Sewell, and Poliner Shapiro (1996), "inequalities in school support have reached epidemic proportions" (p. 353). Compared to urban and rural schools, suburban schools appear to be relatively free of problems concerning academic achievement, discipline, and teacher quality and supply. The prevalence of upper and middle-income families in suburban areas may account for the higher

achievement; research has shown that achievement is related to socio-economic status (Lomotey & Swanson, 1989). Therefore, the focus of this section will be on rural and urban school settings.

Rural schools are confronted by some major issues, yet, according to Beckner (1996): "No other minority population has had so little attention given to its unique needs and potential as have the students of our rural schools" (p. 973). Poverty rates are high in rural America; in the 1980s they commonly equaled or surpassed the poverty rate in large cities (Stern, 1994). Unlike urban schools, where there is a more multicultural flavor, rural poor tend to be white (Lomotey & Swanson, 1989). Stern (1994) noted that 87% of the rural student population is white. Among the problems that rural schools face are: 1) lack of money for teacher salaries, resources, and facilities, 2) difficulty in attracting and retaining quality teachers and administrators, and 3) constraints on curriculum offerings (Beckner, 1996; Lomotey & Swanson, 1989; Stern, 1994). Teachers in rural schools typically have three or more different preparations daily, frequently teach classes outside of their content area, and have additional supervisory and extracurricular duties (Lomotey & Swanson, 1989).

The smaller size of rural schools also has its advantages. Rural schools have lower student-to- teacher ratios than larger schools (Stern, 1994; Beckner, 1996), and the teacher/student relationship is generally closer. The relationship between the school and the community as a whole is usually strong (Beckner, 1996). The school (along with the family and the church) has traditionally been the center of rural communities (Stern, 1994), and teachers are respected and valued as members of the community (Beckner, 1996). The strong sense of community within the school, as well as the support from the

rural community, has been interpreted as the salient feature of that which is good in terms

of rural education (Lomotey & Swanson, 1989). Personal relationships and a family

atmosphere tends to create a cooperative, accepting, and supportive environment in rural

schools (Skelly, 1988), which is related to positive student attitudes, behavior, and

achievement (Stern, 1994). Rural student achievement levels are generally higher than

urban student achievement levels; rural pupils commonly achieve at or above state

averages, despite their limited curricula and paucity of resources (Lomotey & Swanson,

1989).

Urban schools are another story. The valuable sense of community present in

many rural schools is often not apparent in urban schools, where the leadership is

hampered by large districts and a highly bureaucratic framework (Haberman, 1995;

Weiner, 2003). Corcoran, Walker, and White (1988) observed that strong teacher-student

relationships were not the norm in urban schools, and that urban teachers cited large class

sizes, discipline problems, and insufficient time for personal interaction as the causes of

the impersonality. Haberman and Post (1998, p. 96) declared that urban schools are "the

battleground of a culture war," and Lomotey and Swanson (1989) wrote that urban

schools are "increasingly in a state of deterioration" (p. 436). Although teacher salaries in

urban districts are usually comparable with other districts in their metropolitan area, the

neighborhoods in which urban schools dwell tend to be poor (Lomotey & Swanson,

1989). Additionally, urban schools commonly are beset with such issues as

overcrowding, unsatisfactory facilities and resources, and the specter of violence

(Williams & Williamson, 1992). Dryfoos (1998) observed that the presence of school

violence, use of drugs, and gang activity is much more prevalent in urban schools than

31

suburban and rural schools. When comparing urban and suburban districts, the amount of money spent per student can be grossly dissimilar (Ducette, Sewell, & Poliner; Kozol, 1991; Shapiro, 1996). The problems plaguing urban schools show up in achievement levels; urban students' achievement levels are "well below" rural and suburban norms (Lomotey & Swanson, 1989). Also, as mentioned above, urban schools tend to have high concentrations of students of color, often featuring a "minority majority" (Dana, 1992).

The phrase "cultural mismatch" is commonly used in the literature to describe the incongruity between an ethnically diverse urban student population, and the predominately white, middle class, monolingual, female teaching force. These predominately white, female teachers frequently have experienced little contact with diverse populations throughout their childhood and adolescence (Zeichner, 1993), and they generally hail from suburban or rural communities (Zimpher, 1989). Furthermore, prospective teachers acknowledge feelings of discomfort at the thought of teaching in urban schools (Gilbert, 1995; Groulx, 2001; Terrill & Mark, 2000; Valli, 1996). Zimpher (1989) reported that in a national study of teacher education students, only 15% indicated that they would like to teach in an urban setting. Zeichner (1996) contended that teaching in an urban school is more demanding than teaching in any other setting, and research indicates that student teachers and novice teachers believe that they have been inadequately prepared to teach in urban settings (Dana, 1992; Ladson-Billings, 2000; Pang & Sablan, 1998; Rushton, 2000, 2001). It appears that preservice teachers are neither prepared to teach in an urban setting nor comfortable with the idea of doing so.

Because perceived sense of efficacy is context-specific, the context is of no small consequence (Bandura, 1997; Henson, 2002; Pajares, 1996; Tschannen-Moran, Woolfolk

Hoy, & Hoy, 1998). Efficacy judgments are based in part on the analysis of the specific task to be performed. According to Tschannen-Moran, Woolfolk Hoy, & Hoy's (1998) integrated model of teachers' sense of efficacy, teachers must *analyze the teaching task* before they can render an accurate judgment of their ability to perform it. Teachers evaluate the requirements of the anticipated teaching event and estimate its difficulty and what it would take to succeed. In making this estimation, teachers consider such elements as the students' abilities and motivation, teaching strategies, resources available, and so forth. Bandura (1997) contended that teachers' sense of efficacy is not necessarily invariable across different subject areas. It seems likely that teachers' sense of efficacy is also not uniform across school setting (rural, suburban, and urban). Tschannen-Moran, Woolfolk Hoy, and Hoy (1998) asserted that teachers can feel more or less efficacious under various circumstances, for instance, "a very confident rural sixth grade teacher might shudder at the thought of teaching sixth graders in the city" (p. 228).

Researchers have identified many school characteristics that are related to teachers' efficacy beliefs. Moore and Esselman (1992) observed that teachers who viewed the school atmosphere as positive exhibited higher personal teaching efficacy and general teaching efficacy. Hoy and Woolfolk (1993) found that personal teaching efficacy was enhanced when teachers perceived that their colleagues set high goals and created an orderly and academically serious climate. A sense of community in the school was the strongest predictor of teacher efficacy in a study using the High School and Beyond Teacher Surveys (Lee, Dedrick, & Smith, 1991). Supportive relationships, shared beliefs and values about the school's mission, and feelings of acceptance and respect all contributed to a sense of community. Similarly, Chester and Beaudin (1996) reported that

the efficacy beliefs of newly hired urban teachers were enhanced by collaboration among teachers. Student characteristics, such as ability and orderliness, also contribute to efficacy beliefs (Ross, 1998). Teachers with students of higher ability exhibit higher teachers' sense of efficacy than those with students of lesser ability (Ashton, Webb, & Doda, 1983; Lee, Dedrick, & Smith, 1991). Newmann, Rutter, & Smith (1989) noted that orderly behavior by students was the most influential factor contributing to teachers' sense of efficacy.

School and student characteristics likely vary among rural, suburban, and urban settings. In urban schools, because of their large size and bureaucracy (Haberman, 1995, 1998; Lomotey & Swanson, 1989; Matus, 1999), the teacher turnover and shortages, as well as the large number of teachers who are alternately certified (Darling-Hammond, 1995), and the poor facilities and lack of resources (Ducette, Sewell, & Poliner Shapiro, 1996; Kozol, 1991), the school atmosphere and sense of community can frequently be problematic. Additionally, lower achievement and increased behavioral problems are common in urban schools (Lomotey & Swanson, 1989; Corcoran, Walker, & White, 1988). Thus, urban teachers' sense of efficacy could be challenged by some elements of their environment. According to Rosenholtz (1987), organizational conditions that facilitate or impede the accomplishment of personal work goals have a critical effect on teachers' efficacy beliefs.

For preservice teachers, the student teaching setting may have a profound impact on their student teaching experience and subsequent perceived teacher efficacy, but there is a dearth of literature regarding the setting's impact. Rushton (2000) conducted a qualitative study of five student teachers that had been placed in inner-city schools. The

34

five student teachers had specialized in urban/multicultural elementary education, which concluded with a fifth-year student teaching internship. According to Rushton, the student teachers' efficacy beliefs improved during the course of the internship; they were more willing to take risks and their confidence increased. Although he reported an increase in teacher efficacy after the student teaching experience, he did not use a quantitative measure, and any generalization based on this small sample size remains questionable. In addition, he did find that the student teachers were simply not prepared for what they encountered.

In a related study, Pang and Sablan (1998) focused on efficacy beliefs for teaching African American students. They used an instrument comprised of adapted items from the work of Gibson and Dembo (1984), Woolfolk and Hoy (1990), and Riggs and Enochs (1990). An example of one of their items is as follows: *When an African American student is having difficulty with an assignment, I am usually able to adjust it to his or her level.* They compared the efficacy beliefs of preservice teachers to inservice teachers, and noted a significantly higher personal efficacy mean for the preservice teachers. They postulated that novice teachers are socialized by inservice teachers to assume negative feelings about African American students. Grouped together, 65% of both the preservice and inservice teachers did not disagree with the statement: "Even a teacher with good teaching abilities may not reach many African American students" (p. 50). Also, the majority of teachers in the study did not feel adequately prepared to be effective teachers of African American students.

In the multicultural education literature, numerous studies are available concerning the beliefs and attitudes of preservice teachers regarding teaching diverse

students (Groulx, 2001; Terrill & Mark, 2000; Valli, 1996; Zeichner, 1993). However, the beliefs under investigation were typically general beliefs and attitudes towards diversity and multicultural education – not efficacy beliefs. Moreover, no quantitative studies of how student teachers' sense of efficacy may vary in regard to setting were found.

Pupil Control Ideology

Pupil control has been conceptualized as a continuum, with humanistic and custodial at the extremes (Willower, Eidell, & Hoy, 1967). Humanism is a democratic approach to classroom management, in which the students are expected to develop self-discipline. Two-way communication between the teacher and the students is the norm, and the students are trusted and respected. Humanistic teachers are flexible and tolerant in their interactions with students, and they try to understand student misconduct (Lunenberg & Schmidt, 1989). Custodialism is a highly teacher controlled approach to classroom management. The central focus is rigid control of student behavior, with a punitive, moralistic reaction to student misbehavior (Hoy, 1967; Lunenberg, 1984). An individual teacher's pupil control ideology may be located anywhere between these two extremes. Research has indicated that a custodial orientation is related to high student absenteeism and suspension rates, negative feelings towards teachers, and negative reactions to the quality of school life (Lunenberg & Schmidt, 1989).

Several studies were found that investigated the PCI of student teachers before and after the student teaching assignment. Much of the research on student teachers reports an increase in PCI scores (becoming more custodial) after the student teaching experience (Hoy, 1969; Hoy & Rees, 1977; Hoy & Woolfolk, 1990; Jones, 1982a). A few

36

PCI studies have considered the setting of the school. For instance, Campbell and Williamson (1978) reported that student teachers placed in inner-city, "ghetto" schools were more custodial both before and after student teaching than student teachers placed in suburban schools. Lunenberg and Schmidt (1989) compared urban, rural, and suburban schools, and indicated that urban schools' faculty possessed a more custodial pupil control ideology. Gossen (1969, as cited in Packard, 1989) found that teachers in low socioeconomic (SES) schools were more custodial than teachers in middle and high SES schools, and Barfield and Burlingame (1974) reported similar results linking low SES schools to a more custodial attitude by teachers. In contrast, Smith, Reinhartz, Oshima, and Smith (1982, as cited in Packard, 1989) discovered lower PCI scores, meaning more humanistic teachers, among teachers in urban, ethnically diverse schools than among teachers in White, suburban schools. However, it does appear that there is a preponderance of evidence pointing to the conclusion that urban schools tend to be more custodial. Finally, variation in pupil control ideology among urban schools has been investigated. In a study of 20 urban high schools, significant differences in pupil control orientation between schools were documented (Lunenberg, 2000).

In the socialization literature, much attention has been given to the strong influence that the cooperating teacher holds over the student teacher's beliefs and behaviors (Bunting, 1988; Clement, 2002; Richardson-Koehler, 1988). In a study of socialization and pupil control orientation, Jones (1982a) found that student teachers shifted from a more humanistic attitude to the more custodial attitude held by cooperating teachers following student teaching. This shift was especially apparent in the secondary schools. Gossen (1974) indicated that the student teachers in his study considered pupil

control to be their greatest concern. Hoy (2001) argued, "good teaching is often equated with good control" (p. 428), and that control is a salient feature of schools because of their compulsory nature, as well as the fact that schools cannot select their clients (Hoy, 2001; Willower, Eidell, & Hoy, 1967). Therefore, it is theorized that student teachers and beginning teachers become more custodial through the process of socialization; the neophyte teachers adopt the beliefs and practices of their more experienced colleagues.

Willower, Eidell, and Hoy (1967) did find that teachers with more than five years of experience were significantly more custodial than teachers with less experience. Socialization by the cooperating teacher and school faculty is generally invoked to explain the common finding of increased custodial pupil control ideology in student teachers following student teaching (Hoy, 1967; Hoy & Rees, 1977; Hoy & Woolfolk, 1990). In contrast, Zeichner and Grant (1981) indicated that the 40 student teachers in their study did not become significantly more custodial by the end of a 15-week student teaching assignment, although they did shift slightly towards custodialism. Furthermore, they also reported that there was only a very weak relationship between the student teachers' PCI and the cooperating teachers' PCI. Zeichner and Grant concluded that student teaching is "low impact enterprise" that has little effect on prior beliefs (p. 307).

Only one study involving both PCI and student teachers' efficacy beliefs was found. Hoy & Woolfolk (1990) discovered that following the student teaching experience the student teachers became more custodial in their pupil control ideology. The student teachers also exhibited higher personal teaching efficacy after the experience. Hoy and Woolfolk concluded that the student teachers felt efficacious when they were able to control their pupils and maintain an orderly classroom. However, the student teachers all

38

had placements in suburban schools, and Gibson and Dembo's (1984) Teacher Efficacy Scale was utilized, whose psychometric properties have been challenged recently (see Henson, 2002). In a study of inservice teachers, Barfield and Burlingame (1974) also reported that teachers with low sense of efficacy had a more custodial pupil control ideology than teachers with average or high sense of efficacy. This current study hopes to shed some light on the unsettled issue of school setting, pupil control ideology, and student teachers' sense of efficacy.

Collective Teacher Efficacy

Collective teacher efficacy has been defined as "the perceptions of teachers in a school that the efforts of the faculty as a whole will have a positive effect on students" (Goddard, Hoy, & Woolfolk Hoy, 2000). Two elements are involved in the collective teacher efficacy judgment: 1) analysis of the teaching task, and 2) assessment of teaching competence (not individual competence, but of the faculty). Teachers consider the resources and constraints of their school (the ability and motivational level of the students, available materials, physical facilities, and so forth), and, concurrently, make judgments regarding the faculty's teaching skills and expertise.

The same sources of self-efficacy information – mastery experience, vicarious experience, verbal persuasion, and physiological states – that individuals process are also operative in term of collective teacher efficacy (Goddard, Hoy, & Woolfolk Hoy, 2000). Mastery experiences are available as the school as a whole experiences successes and failures. Goddard (2001) reported that, in his study of 47 urban elementary schools, mastery experience accounted for approximately two thirds of the variance between schools in collective teacher efficacy. Vicarious experience may come in the form of

research on effective schools as well as listening to positive stories about other schools. Other schools can provide social comparison information that teachers in similar schools can use to infer their own possible capabilities (Bandura, 1986). Verbal persuasion – from workshops, talks, professional development events – can persuade teachers to "give the extra effort that leads to success" (Goddard, Hoy, & Woolfolk Hoy, 2000, p. 484). Finally, schools can have affective states, and schools' reactions to pressures and challenges can impact subsequent actions and collective efficacy.

Just as the individual sense of self-efficacy influences the choices, effort, and persistence of the individual, collective teacher efficacy also affects these same behaviors. As group members become more confident in their group's capabilities, they tend to be more willing to work hard for the group, to persist when problems and obstacles arise, and to embrace more difficult challenges for the group. Efficacious groups generally set higher goals and exhibit stronger commitment to such goals. Thus, groups with high collective efficacy should out-perform groups with low collective efficacy (Zaccaro, Blair, Peterson, & Zazanis, 1995).

Collective teacher efficacy is a relatively new construct, and Bandura (1997) has expressed that much more research is needed in this area. Goddard, Hoy, and Woolfolk Hoy (2000) have designed, tested, and launched a collective teacher efficacy scale, and Goddard (2002) has developed a short form of the scale. Interestingly, Goddard & Goddard (2001) demonstrated that teachers' sense of efficacy is not uniform among schools, and that the variation can be explained by collective teacher efficacy. Of the 47 urban schools in their study, teachers' sense of efficacy was higher in the schools that exhibited higher collective teacher efficacy. In Bandura's (1993) seminal article on

collective teacher efficacy, he established that "adverse" student body characteristics (such as low SES) impact schools' achievement level more strongly by lessening faculty's collective efficacy beliefs than through direct effects on school achievement. It seems likely that the collective teacher efficacy of schools would affect student teachers' own sense of efficacy, but no studies were found connecting collective teacher efficacy, student teachers' sense of efficacy, and the contextual factors of schools.

The Cooperating Teacher's Role

In addition to setting, cooperating teachers could play a prominent role in the development of the student teachers' efficacy. Cooperating teachers provide self-efficacy information for the student teacher in the form of vicarious experience and verbal persuasion. The three primary people involved in the student teaching experience are the student teacher, the cooperating teacher, and the college supervisor. This group is referred to as the triad. Research has indicated that the cooperating teacher, because of sustained, daily contact, exerts more influence than the college supervisor over the student teacher (Borko & Mayfield, 1995; Calderhead, 1988; Sparks & Brodeur, 1987; Richardson-Koehler, 1988).

Few teacher educators would argue that the cooperating teacher is a critical figure in student teaching. Thus, selecting and preparing quality cooperating teachers would seem to be essential. However, Goodlad (1990), in his national study of teacher education, discovered that the selection of cooperating teachers is often based on "proximity and availability," rather than demonstrated teaching ability (p. 190). Finding sufficient number of quality teachers interested in performing cooperating teacher duties is a quandary for many teacher education programs (Goodlad, 1990; McIntyre, Byrd, &

Fox, 1996; Guyton & McIntyre, 1990). Moreover, Goodlad (1990) found that the selection is frequently left up to school principals, and Guyton, Paille, and Rainer (1993) established that some principals paired student teachers with weak teachers in hopes that the student teacher would supply needed aid for the weaker teacher. As for the preparation of cooperating teachers for their mentoring role, it seems that very little formal preparation is done. Most orientations consist of a one-session program, generally combined with a reception or dinner (Sparks & Brodeur, 1987).

In terms of efficacy beliefs and the cooperating teacher, the research is limited. One study was found that analyzed the perceived cooperating teachers' efficacy beliefs after an early field experience – that is, the preservice teacher completed the Perceived Cooperating Teachers' Teacher Efficacy Scale, essentially rating how efficacious the preservice teacher thought the cooperating teacher to be (Li & Zhang, 2000). Li and Zhang utilized Gibson and Dembo's Teacher Efficacy Scale, which they modified only by directing the student teachers as follows: *Indicate the degree to which your cooperating teacher would agree or disagree with each statement below.* The researchers reported that preservice teachers with high perceived cooperating teachers' efficacy beliefs had significantly higher general teaching efficacy scores than preservice teachers with low perceived cooperating teachers' efficacy beliefs. In contrast, Knoblauch (2003) examined the actual efficacy beliefs of 64 student teachers and 64 cooperating teachers, and found no relationship between the efficacy beliefs of the cooperating teacher and efficacy beliefs of the student teacher. Knoblauch used the short form of the Teacher Sense of Efficacy Scale (Tschannen-Moran & Woolfolk Hoy, 2001).

Summary

In sum, research on teachers' sense of efficacy – teachers' beliefs that they have the capability to positively affect student performance – for the past quarter of a decade has revealed much about this powerful construct. Teachers' efficacy beliefs have been linked to a plethora of desirable teaching and learning variables, such as greater teacher effort, persistence, and commitment, as well as heightened student motivation and achievement. In formulating efficacy judgments, teachers analyze the teaching task and situation and then assess their personal capabilities to perform the task (Tschannen-Moran, Woolfolk Hoy, & Hoy, (1998). Thus, the context of the teaching task is paramount in weighing efficacy beliefs. Moreover, efficacy beliefs tend to be more malleable early in a teacher's career (Bandura, 1977), so researchers have been particularly interested in the development of preservice teachers' sense of efficacy (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998).

Designing an appropriate measure for assessing teachers' sense of efficacy has been a vexing problem for researchers. Initially conceptualized as having two dimensions, personal teaching efficacy and general teaching efficacy, it now appears that the construct may be unidimensional (Deemer & Minke, 1999; Tschannen-Moran & Woolfolk Hoy, 2001). Tschannen-Moran and Woolfolk Hoy (2001) have created a promising instrument called the Teacher Sense of Efficacy Scale, which has three subscales: perceived efficacy for student engagement, instructional strategies, and classroom management.

The student teaching assignment – as a mastery experience – is a primary source of efficacy information for prospective teachers. The contextual factors of the student

43

teaching experience may be important in the development of the prospective teachers' sense of efficacy. Urban schools are generally considered as difficult and challenging settings in which to practice teaching (Brown, 2002; Haberman, 1995, 1998; Zeichner, 1996). Cooperating teachers exert much influence over the developing student teacher, and they provide efficacy information to the student teacher in the form of vicarious experience and verbal persuasion (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). However, little is known regarding the effect on student teachers' efficacy beliefs of such variables as the student teaching setting, the perceived cooperating teachers' sense of efficacy, and the length and nature of the assignment. Additionally, little is known regarding the effect of the student teaching setting on the pupil control ideology and the perceived collective teacher efficacy of the student teacher.

Hypotheses

It was expected that student teachers placed in suburban or rural settings would exhibit higher teachers' sense of efficacy following the student teaching experience than those placed in urban settings. Although Bandura (1997) contended that mastery of difficult tasks enhances efficacy, student teachers placed in an urban setting have not been adequately prepared for the "severity" of the situation at an urban school (Rushton, 2000). It was predicted that these student teachers would feel overwhelmed and would not experience mastery of the situation. Conversely, student teachers that interned at suburban or rural schools were expected to feel more comfortable (Groulx, 2001), believe that the task was manageable, and enjoy a subsequent boost in teacher efficacy as a result of the mastery experience.

44

It was predicted that student teachers placed in urban settings would exhibit a more custodial pupil control ideology following the student teaching experience than those placed in suburban or rural settings. Urban schools are generally more bureaucratic and custodial (Lunenberg, 2000; Lunenberg & Schmidt, 1989) than suburban or rural schools, and it was expected that the urban student teachers would be socialized towards a more custodial classroom management approach.

It was hypothesized that student teachers placed in urban schools would exhibit lower perceived collective teacher efficacy than those student teachers placed in rural and suburban schools. Because urban schools typically have less resources and poorer facilities, as well as higher teacher turnover, than rural and suburban schools, it was expected that the urban student teachers would perceive a lower collective teacher efficacy.

It was hypothesized that student teachers who perceived their cooperating teachers as efficacious would exhibit higher teachers' sense of efficacy following the student teaching experience than those student teachers that perceived their cooperating teachers as being less efficacious. Bandura (1997) noted that competent models supply greater instructional influence than do incompetent models, particularly when the observer has much to learn. It was expected that student teachers who judged their cooperating teachers to be efficacious would lend more credence to that efficacy information, and thus become more efficacious themselves.

It was hypothesized that student teachers with split placements would exhibit higher teachers' sense of efficacy at the end of the 16-week student teaching experience than student teachers that remained in the same placement for the entire 16 weeks. The

45

split placement would allow for a "fresh start," as well as a more varied experience. The student teachers with split placements would have had a variety of mastery experiences, which was predicted to lead to a stronger sense of efficacy.

Finally, it was expected that student teachers would exhibit higher teachers' sense of efficacy at the end of the 16-week experience than at the mid-way point of 8 weeks. It was believed that the longer student teaching assignment would allow for more growth of efficacy beliefs, because of the increased teaching, motivating, and managing opportunities.

Significance of the Study

The study of teachers' sense of efficacy has been productive, and much is known concerning its antecedents, consequences, and development. There is a dearth of literature, however, regarding the development of efficacy beliefs in student teachers. The student teaching experience is the culminating field experience for the preservice teacher, and it represents the first significant opportunity to practice their teaching skills. According to Mulholland and Wallace (2001), teacher educators should pay more attention to providing successful mastery experiences during field placement, and the setting, collective teacher efficacy of the school, cooperating teacher, and length and nature of the assignment may have a critical effect on the student teachers' efficacy information. In light of the fact that our student population is becoming increasingly diverse, the typical "culturally encapsulated" student teacher needs experiences in observing, teaching, and interacting with diverse students (Zeichner, 1993, 1996). As currently structured, teacher certification procedures allow credentialed teachers to teach in any setting – rural, suburban, or urban (Haberman, 1995; Gilbert, 1995). Thus, in order

to appropriately prepare prospective teachers, teacher education programs must provide student teaching placements in diverse settings.

Preservice teachers report that classroom management is one of their most salient concerns (Gossen, 1974; Veenman, 1984). Student teachers' pupil control ideology may play a role in their developing efficacy beliefs, particularly in urban settings. The student teacher may adopt a more custodial approach to student control, due to socialization from an urban school environment that tends to be more bureaucratic and custodial (Lunenberg, 2000: Lunenberg & Schmidt, 1989). Urban schools may also present more classroom management challenges to the student teacher, leading to a more custodial orientation.

Haberman (1995) argued that teachers should practice teaching in the most challenging conditions, not the most ideal conditions, so that novice teachers will then be prepared to teach in both the suburbs and the inner-city. However, how will student teaching in a challenging and difficult environment impact the inchoate efficacy beliefs of the student teacher? Educators acknowledge that (for a variety of reasons such as poverty, cultural differences, and violence) teaching in urban schools is challenging (Brown, 2002; Haberman, 1995, 1998; Zeichner, 1996). Will the challenge of student teaching in an urban school debilitate or strengthen the student teacher's developing sense of efficacy? If teacher educators are to develop a strong multicultural program complete with practice teaching in diverse settings, then it is important to investigate how those diverse settings affect the efficacy beliefs of the teacher candidates.

The positive effects of teacher efficacy are tantalizing and have profound practical implications. Whatever can be done to improve the effectiveness and commitment of the

individual teacher, who is so central to the educational process, will surely improve

education. Teacher efficacy's power is captured nicely by a phrase written by Edwards,

Green, & Lyons (1996, p. 4): "When teachers believe they can make a difference, they in

fact do."

CHAPTER 3

METHOD

Overview

This study was designed to examine the change in preservice teachers' efficacy beliefs following the student teaching experience, with a particular focus on the student teaching placement and how the student teachers' sense of efficacy may vary in regard to the school setting – rural, suburban, or urban. Contextual factors of the student teaching placement were investigated to see if predictors of student teachers' sense of efficacy could be identified. Another element of this investigation was an exploration of the student teachers' pupil control ideology before and after student teaching, with a particular focus on the student teaching placement and how the student teachers' pupil control ideologies may vary in regard to the school setting. A third element involved the construct of collective efficacy – what factors (and school setting was of particular interest) would be predictive of the student teachers' perceived collective efficacy. A fourth element of this investigation of efficacy beliefs was an examination of a possible relationship between the student teachers' perceived efficacy and their perceptions of their cooperating teachers' sense of efficacy. A fifth element concerned the group of student teachers who changed assignments after eight weeks. This group (who had the

49

opportunity for a "fresh start") was compared with the student teachers that remained in the same assignment for the full 16 weeks, to discern if there were any differences in efficacy beliefs. A final element of this investigation was an examination of the optimal length of time (8 weeks or 16 weeks) for a student teaching experience, in order for it to impact the efficacy beliefs of student teachers. The following section explicates the methodology utilized in this study.

Participants

The sample included 108 undergraduate students from a mid-sized university in Ohio. Data were collected in the fall and early winter of 2003. The students were fourth- or fifth-year senior education majors who were about to embark on their student teaching experience. The participants were primarily white females: 90 females (83%) and 18 males (17%); 106 white and 2 "others" (see Appendix A for demographic information sheet). Their ages ranged from 20 to 54, with 82% being 21 or 22 years of age. Twenty-seven of the 108 student teachers were teaching at the elementary level. The subject area of the 81 middle school and high school teachers ranged from math to social studies to special education, with the majority teaching language arts (26) and math (23). When asked to estimate, out of 13 years of schooling, how many years were spent in an urban, rural, or suburban setting, 71 (66%) of the student teachers indicated that all 13 years of their own K-12 school experience were in a suburban setting; 21 (19%) student teachers reported that all 13 years were in a rural setting; and 3 (3%) student teachers indicated that that all 13 years were spent in an urban setting. The participants were volunteers, and they received no inducement or reward to be a part of the study.

The institution in this study requires their teacher candidates to participate in many early field experiences, beginning as early as their freshman year. During their junior year methods block semester the teacher candidates participate in two, two-week (full day) field experiences. One of the two assignments is to a school designated as a culturally diverse setting, which this institution defines in terms of ethnicity and socioeconomic status. Additionally, all prospective teachers at this institution are required to complete a course in multicultural education prior to student teaching. Thus, all of the participants in this study had similar prior experiences within their teacher education program.

At the institution utilized for this study, student teaching is 16 weeks in length. Thirty-two of the student teachers in this study changed assignments (either school, subject, or grade level) at the end of the first 8-week experience.

Instruments

Teachers' sense of efficacy was measured using the short form of the Teacher Sense of Efficacy Scale (TSES) designed by Tschannen-Moran and Woolfolk Hoy (2001) (see Appendix B). This scale was completed by all of the student teachers participating in the study at three separate times: (a) prior to student teaching, (b) at the end of the first 8 weeks of student teaching, and (c) at the end of total 16-week student teaching experience.

The short form consisted of 12 questions, including four items for each of three subscales: efficacy for instructional strategies, efficacy for student engagement, and efficacy for classroom management. Response to each item was a 9-point Likert scale, with 1 corresponding to "Nothing" and 9 corresponding to "A Great Deal," thus higher

scores on the scale are equated with greater efficacy beliefs. An example of an

instructional strategies item is "To what extent can you craft good questions for your

students?" An example of a student engagement item is "How much can you do to help

your students value learning?" An example of a classroom management item is "How

much can you do to get children to follow classroom rules?" The reliability coefficient

for this measure (Cronbach's alpha) was .92, which is consistent with reliability

coefficients in similar studies. The construct validity was examined by correlating the

new scale to existing scales. The validity was reported as r = 0.64, $p < 0.01$ to the PTE

factor of the Gibson and Dembo scale, and r = 0.16, $p < 0.01$ to the GTE factor of the

Gibson and Dembo scale (Tschannen-Moran & Woolfolk Hoy, 2001).

The student teachers also were asked to complete the Perceived Cooperating

Teachers' Efficacy Scale (Li & Zhang, 2000) (see Appendix C). This scale measured the

student teachers' perceptions of the efficacy beliefs held by their cooperating teachers.

The scale was a modified version of the Teachers' Sense of Efficacy Scale, and it

required the student teachers to respond to efficacy items as they believed their

cooperating teacher would respond. Bandura (1986) posited that, "behavior is better

predicted from [people's] beliefs than from the actual consequences of their actions" (p.

129). Thus, the student teacher's *perceptions* of his or her cooperating teacher's efficacy

beliefs may be more influential than the cooperating teacher's beliefs themselves. The

Perceived Cooperating Teachers' Efficacy scale employed the same 12 efficacy items

from Tschannen-Moran and Woolfolk Hoy's (2001) short form, but the directions to the

student teachers read as follows: "*Please indicate how you believe that your cooperating*

teacher would respond to each statement below." Cronbach's alpha for this measure in the study was .95.

As previously mentioned, teacher efficacy scales have generally loaded on two factors, personal teacher efficacy and general teacher efficacy. The general teacher efficacy factor has been under scrutiny, and has been interpreted as "external influences" by one researcher and an "outcome expectancy" by another (Tschannen-Moran & Woolfolk Hoy, 2001). Tschannen-Moran and Woolfolk Hoy argued that general teacher efficacy, as measured by current teacher efficacy scales, could be considered as "external influences," and not true self-efficacy judgments. Thus, their new Teacher Sense of Efficacy scale was designed to focus solely on the aspect of personal teacher efficacy. The three dimensions of the new scale, efficacy for instructional strategies, student engagement, and classroom management, "represent the richness of teachers' work lives and the requirements of good teaching" (Tschannen-Moran & Woolfolk Hoy, 2001, p. 801). The researchers indicated that both subscale scores and the total score could be used to measure efficacy beliefs, but that for preservice teachers, the total score may be more appropriate, as subscale scores may not be meaningful for prospective teachers. Therefore, the total score was used in this study.

Pupil control orientations were measured using a modified version of the Pupil Control Ideology (PCI) form (Hoy, 2000) (see Appendix D). A short form (10 questions) of the PCI based on the items that loaded best in other research was utilized. A five-point Likert scale was employed, anchored by the phrases strongly agree and strongly disagree. Some example items are as follows: "Pupils can be trusted to work together without supervision," and "Being friendly with pupils often leads them to become too familiar."

53

A total PCI score was summed from item responses, with the range 10-50. The higher the score, the more custodial the ideology, and the lower the score, the more humanistic the ideology. The construct validity has been supported by several studies (Hoy, 2000). The reliability of the scale is reported as consistently high, generally between .80-.91 (Hoy, 2000), and the abbreviated version of the PCI also has satisfactory reliability (Gaffney, 1997). Cronbach's alpha for this measure in the study was .62.

Collective teacher efficacy was measured via the short form (12 items) of the Collective Efficacy Scale (Goddard, 2002) (see Appendix E). Group competence items and task analysis items are included in this scale. An example of a group competence item is as follows: "Teachers in this school believe that every child can learn," and an example of a task analysis item is "Learning is more difficult at this school because students are worried about their safety." Response to each item was a 6-point Likert scale, anchored by strongly disagree (1) and strongly agree (6), thus higher scores on the scale are equated with higher perceived collective efficacy of the school. Six items were positively worded and the other six were negatively worded (and were reverse scored). The reliability coefficient for this measure (Cronbach's alpha) was .87, which is consistent with similar studies. Using correlational evidence with other established constructs, Goddard, Hoy, and Woolfolk Hoy (2000) concluded that their collective efficacy scale has reasonable validity.

It is important to note that the collective efficacy scale is typically given to several teachers in the same school, with the results aggregated to determine one collective efficacy score for that school. In this study, the collective efficacy scale was completed

only by the student teacher; hence, the collective efficacy score was the student teacher's perception of the collective efficacy of the school.

Procedure

All fall-semester student teachers were asked to volunteer for this study at the initial student teaching meeting that was held one week before school began in autumn. Those student teachers that did volunteer were directed to complete the demographic sheet, the Teacher Sense of Efficacy Scale, and the Pupil Control Ideology Form at that meeting (see Appendix F for protocol). On the demographic sheet, two important pieces of information were garnered. First, information on the setting of the student teachers' own K-12 was gathered, and second, information on the student teachers' prior experience observing/teaching in urban, rural, or suburban schools was requested.

The student teachers were asked to identity themselves on the initial demographic sheet and then they were subsequently given a code number so their names were not necessary on the 8-week and 16-week surveys. The participants were assured that confidentiality would be maintained at all times.

All participants were asked to complete the Teacher Sense of Efficacy Scale and the PCI Form three times: at the beginning, at the end of the first 8 weeks, and at the end (16 weeks) of their student teaching experience. All participants were asked to complete the Collective Efficacy Scale and the Perceived Cooperating Teachers' Efficacy Scale two times: at the end of the first 8 weeks and at the end of the 16 weeks. Additional questions regarding the student teaching assignment and the cooperating teacher were included with the 8-week and the 16-week surveys (see Appendices G and H). An

example of one of the additional questions is as follows: "Of your first 8 weeks of student teaching, estimate how many weeks you were solely in charge of your class."

The university supervisors distributed the surveys to their student teachers during the 8th week and during the 16th week. A brief instructional sheet and an envelope accompanied each survey, and the student teachers were directed to complete the surveys and place them in the envelope, which they could then seal. Their confidentiality thus was ensured. The university supervisors were given a small incentive for their contribution to the study. (See Appendices I and J for the instructions to the supervisors.) After the post-student teaching data collection via the supervisors was completed, follow-up letters (with surveys and return envelopes enclosed) were sent to the home addresses of several of the student teachers in the urban and rural groups. No follow up letters were sent to suburban student teachers because a large n was already collected. Five additional completed surveys were gathered in that manner.

The designation of schools as urban, suburban, and rural was a critical element of this study. A common method of determining the setting of a school is to refer to the Common Core of Data (CCD) designations (National Center for Education Statistics). The Common Core of Data is a comprehensive, annual, national statistical database of information regarding all public elementary and secondary schools. The CCD has designated eight locale codes; code number 1 identifies the locale type of "large central city" and code number 8 identifies the locale type of "rural, outside metropolitan statistical area" (see Appendix J for the CCD locale codes and types).

After close examination of the demographics of each school that housed a student teacher in this study, however, the decision was made to deviate from the CCD

designations. The premise of a "cultural mismatch" between the predominately white, female, middle class, and monolingual student teacher and the increasingly diverse student population was a central theme in this study, therefore, a clear demarcation between urban, rural, and suburban schools was imperative. The CCD designations are based on geography and population, with no consideration of ethnicity and socioeconomic status. In the "Ten Year Trends in Urban Education" (2000), it was concluded that students enrolled in urban schools were much more likely to be economically poor and/or minority than those enrolled in suburban or rural schools. Moreover, Geverdt (2003) investigated the CCD designations of 1,826 schools in the Baltimore-Washington DC area, and he contended that 10% of the schools were inadequately designated under the CCD's locale model. Therefore, for this study, diversity in ethnicity and socioeconomic status (receiving free or reduced lunch was used as a proxy for SES) as well as geography/population were utilized to define the setting of the schools.

In this study, *urban schools* were operationally defined as schools with a 20% or greater concentration of students of color, and a 20% or greater concentration of students who receive free or reduced lunch. *Rural schools* were operationally defined as schools that are located in a small town or a rural area with less that a 25,000 population. *Suburban schools* were operationally defined as schools located in an urban fringe and not in a rural area, with less than 20% diversity in terms of ethnicity and socioeconomic status.

The urban schools in this study ranged from populations with 20% students of color to one urban school with 85% students of color. Thirteen of the 28 urban student

teachers (46%) were assigned to a junior high and high school in the same school district; the junior high had 57% students of color, and the high school had 53% students of color. Three of the secondary schools that had a high concentration of students of color were defined as urban schools even though they had less than a 20% concentration of student who received free or reduced lunch. According to Lippman, Burns, and McArthur (1996), middle school and high school students are "often embarrassed" to apply for free or reduced lunch programs, so this indicator is typically conservative (p. 18).

Tests for Statistical Assumptions

Prior to analysis, the data were screened for homogeneity of variance and normality. The homogeneity of variance assumption was examined using Levene's test of homogeneity, and all variables showed homogeneity of variance. However, using the Shapiro-Wilk test of normality, it was discovered that the data for the post teachers' sense of efficacy was not normally distributed – instead, they were negatively skewed. Also negatively skewed were the data for the post perceived cooperating teachers' efficacy. Keppel (1991) recommends a more stringent significance level for asymmetrical data. Accordingly, I dropped the alpha level from .05 to .025 for analysis involving those two variables. Additionally, checks for outliers and multicollinearity were also performed. The data were tested for possible outlier values with Cook's distance measures (Neter, Wasserman, & Kutner, 1985), and there were no outliers. Although there were significant correlations between some predictor variables, the VIF values were smaller than 2, which indicated that multicollinearity was not a problem.

Data Analysis

All of the statistical analyses were performed using SPSS. Paired t-tests were conducted to compare the pretest efficacy and pupil control ideology (PCI) scores (before student teaching) and the posttest efficacy and PCI scores (after student teaching) to determine if the student teachers' efficacy beliefs and pupil control ideology changed significantly following student teaching. A paired t-test also was conducted for each group – rural, suburban, and urban student teachers, to determine if the setting of the student teaching assignment was related to changes in efficacy beliefs or PCI. The data was examined further using regression analysis. A restricted regression model and a full model were designed, so that the computer could compare the two models and determine if the full model explained a significant amount of the variance, over and above that of the restricted model. The full regression model included the criterion variable of post efficacy scores and the predictor variables of post PCI scores, post collective teacher efficacy scores, post perceived cooperating teachers' efficacy scores, experience observing/teaching in that setting, the match or mismatch between the student teachers' own K-12 school setting and their student teaching setting, and the setting group (urban, rural, or suburban). The mean posttest efficacy scores were adjusted, thus equating the three groups. Planned comparisons were made comparing the mean adjusted posttest efficacy scores of the three groups. In the regression analysis, the predictor variables were entered, and then the R-square change and its test of significance was examined for the exclusion of each predictor to determine the unique contribution of the predictor to the posttest criterion variable. The unique contribution of each predictor variable was calculated by squaring their part correlations (McNeil, Newman, & Kelly, 1996).

59

The dependent variable of collective teacher efficacy was examined by multiple regression analysis. A restricted model and a full model were again used, with the full model including these predictor variables: post efficacy mean scores, post PCI scores, post perceived cooperating teacher efficacy scores, match or mismatch, prior experience, and a rating, done by the student teacher, of the cooperating teachers' competence. The same examination of the regression analysis as described above was followed.

To examine the relationship between the perceived cooperating teachers' efficacy scores and the student teachers' sense of efficacy, a Pearson correlation was conducted. The question concerning the effect of split placements or one single placement on student teachers' sense of efficacy was analyzed via an independent samples t-test. Because the groups could not equated on the basis of their pretest scores in the t-test, the decision was made to use change scores rather than the actual post efficacy scores. The change scores reflect either an increase or decrease in efficacy beliefs over time, and they were calculated by the use of subtraction. Three change scores were analyzed: post TSES mean scores minus pre TSES mean scores (the total 16-week change); mid TSES mean scores minus pre TSES mean scores (the first 8-week change); and post TSES mean scores minus mid TSES mean scores (the second 8-week change).

Finally, the research question regarding the length of the student teaching experience was examined via paired t-tests. Three paired t-tests were performed: the pretest and the 8-week posttest; the 8-week posttest and the 16-week posttest; and the pretest and the 16-week posttest. These paired t-tests were analyzed to determine if there were any significant changes in efficacy beliefs in the first 8- week assignment, in the second 8-week assignment, and in the overall 16-week assignment.

60

CHAPTER 4

RESULTS

Overview

This chapter presents the results of the data analyses conducted in the study. The

research questions, as introduced in Chapter 1, are used to frame the results. In general,

comparisons of means between pre-student teaching and post-student teaching, as well as

between the three groups according to setting (rural student teachers, suburban student

teachers, and urban student teachers) are displayed first, followed by further statistical

analyses of the variables. Initially, means and standard deviations are presented, as well

as a correlation matrix so that the relationships between the primary variables in the study

can be seen. After that, teachers' sense of efficacy is examined first, followed by pupil

control ideology, collective efficacy, perceived cooperating teachers' efficacy, split

placements, and finally, length of the student teaching assignment.

Means, Standard Deviations, and Correlations

Post-student teaching means and standard deviations ($n = 108$) of the primary

variables of the study are presented in Table 4.1. Means and standard deviations that are

broken down by school setting also will be presented later in each section. Table 4.2

displays a correlation matrix exhibiting the relationships between the primary variables of

the study. Not surprisingly, the strongest correlation ($r = .60$) was found between pre

student teaching efficacy scores and post efficacy scores. The next strongest correlation (r = .52) is seen between the variables of post efficacy scores and post perceived cooperating teachers' efficacy scores. Positive and significant correlations were also found between post efficacy scores and post collective teacher efficacy scores (r = .38), as well as post efficacy scores and the student teachers' rating of their cooperating teachers' competence (r = .26). A negative and significant correlation (r = -.34) was discovered between post efficacy scores and post pupil control ideology (PCI) scores.

Variable	Mean	SD
Pre efficacy beliefs (.92)	6.79	0.99
Post efficacy beliefs (.92)	7.36	0.88
Pre pupil control ideology (.55)	24.7	3.72
Post pupil control ideology (.62)	24.3	4.44
Post collective teacher efficacy (.87)	4.55	0.69
Post perceived cooperating teachers' efficacy beliefs (.95)	7.73	1.04

Note: Cronbach alpha results for each instrument are listed in parentheses following each construct.

Table 4.1: *Means and Standard Deviations of Primary Variables (n = 108)*

Variable	1	2	3	4	5	6	7
1. Pre efficacy scores	-	.57**	-.19*	.23*	.28*	-.03	-.02
2. Post efficacy scores		-	-.34**	.38**	.52**	-.13	.26**
3. Post PCI scores			-	-.31**	-.24*	-.04	-.11
4. Post collective teacher efficacy scores				-	.39**	.16	.29**
5. Post perceived cooperating teachers' efficacy scores					-	-.05	.46**
6. Prior experience						-	-.07
7. Competence rating of the cooperating teacher							-

* Significant at the .05 level; ** Significant at the .01 level.

Table 4.2: *Correlations Between Variables*

Teachers' Sense of Efficacy

To address the first research question, a paired t-test was conducted to determine if a significant change in the student teachers' efficacy beliefs following student teaching existed. See Table 4.3 for descriptive statistics and t-values. Because school setting was of particular interest, paired t-tests also were conducted for each setting group. The overall group, as well as each of the three setting groups (urban, suburban, and rural

student teachers), experienced a significant increase in efficacy scores following the 16-week student teaching assignment. As mentioned previously, the TSES utilizes a 9-point Likert scale, with a higher mean score equated with higher efficacy beliefs. The overall group ($n = 108$) exhibited a pretest mean of 6.79 and a posttest mean of 7.36, t = 6.735, p < .01. The overall group n includes six student teachers who, when they switched placements at 8 weeks, also switched school setting. Thus, they are not part of any separate group, urban, suburban, or rural. The student teachers placed in urban schools ($n = 28$) experienced a statistically significant increase in their efficacy scores ($M_{pretest} = 6.53$; $M_{posttest} = 7.25$), t = 5.11, p < .001. The suburban student teachers ($n = 45$) showed a significant increase in their efficacy scores ($M_{pretest} = 7.02$; $M_{posttest} = 7.51$), t = 3.28, p < .01. Finally, the student teachers placed in rural schools ($n = 29$) exhibited a significant increase in their efficacy scores ($M_{pretest} = 6.68$; $M_{posttest} = 7.18$), t = 3.26, p < .01. The pretest mean efficacy scores between the three setting groups were examined to determine if there were differences between the groups prior to student teaching. There were no significant differences between the setting groups pretest means, $F(3, 104) = 1.543$, n.s. Because four t-tests were conducted, there was a possibility of cumulative type I error. Using a modified Bonferroni test (Keppel, 1991) that divided the product of the degrees of freedom (2) and the alpha level (.05) by the number of planned comparisons (4), the significance level was dropped to .025.

To identify factors that were predictive of student teachers' sense of efficacy following the student teaching experience, multiple regression analysis was utilized. The regression analysis consisted of two models: Model 1, the restricted model, and Model 2,

the full model. The *n* was 102, because the six student teachers that switched settings

were not a part of the analysis. The criterion variable was the student teachers' posttest

	N	Pretest			Posttest		
		M	SD		M	SD	t-value
Overall group	108	6.79	0.99		7.36	0.88	6.74***
Urban Setting	28	6.53	1.04		7.25	1.04	5.11***
Suburban Setting	45	7.02	0.99		7.51	0.69	3.28**
Rural Setting	29	6.69	0.87		7.19	0.95	3.26**

**Significant at $p<.01$; ***Significant at $p<.001$.

Table 4.3: *Means, Standard Deviations, and t-Values for Student Teachers' Efficacy*

Scores

efficacy (TSES) scores, and the predictor variables included the student teachers' pretest TSES scores, post pupil control ideology (PCI) scores, post perceived cooperating teachers' efficacy scores, post collective teacher efficacy scores, the student teachers' self-reported teaching/observation experience in their school setting (coded as $0 = 0$ to 1 week, $1 = 2 - 4$ weeks, etc.), and the match or mismatch between the student teachers' own K-12 setting and the student teaching setting (coded as 0 for a match and 1 if K-12 history did not match student teaching setting). The full model included all of the above predictor variables plus the school setting itself (rural, suburban, or urban). Thus, the full model was being compared to the restricted model to determine if the school setting (dichotomous variables) was predictive of post TSES over and above the other predictor variables. The predictor variables were entered. The full model was significant, $F(8, 93) = 12.7$, $p < .001$.

The R square was .522, so the regression model explained 52% of the variance in the student teachers' posttest mean efficacy scores. Two of the independent variables were significant predictors of student teachers' efficacy beliefs: perceived cooperating teachers' efficacy, $B = .25$, $p < .001$; and post PCI scores, $B = -.03$, $p < .05$. Additionally, the prior experience variable (the student teachers' self-reported teaching/observation experience in their school setting) approached significance, $B = -.12$, $p = .07$. Post collective teacher efficacy, and match/mismatch did not contribute significantly to the regression equation.

The predictor variable of school setting (coded as a series of dichotomous variables) was analyzed by examining the R square change and its test of significance. There was no significant difference between the student teacher adjusted posttest mean

efficacy scores from the three school settings. The result of the F test for the R square change (.022) was not significant, $F(2, 93) = 2.15$. See Table 4.4 for the results from the full model. The full model was run twice, the first time with urban and rural grouping in the model and suburban grouping left out. Thus, the computer compared the urban and rural groups to the suburban group. Table 4.4 displays the results from the first run of the full regression model. The second full model regression run had urban and suburban grouping in and rural grouping left out, so that the computer could perform the last comparison (comparing the urban group to the rural group). That comparison resulted in a coefficient of $B = .26$, with a standard error of .17 and a t-score of 1.47, n.s.

Variable	Regression Coefficient	Standard Error	*t* Test Value
Full Model (R Square = .522)			
Pretest efficacy score	.36	.07	5.25***
Post PCI score	-.03	.02	1.99*
Post perceived cooperating teachers' efficacy score	.25	.07	3.64***
Post collective teacher efficacy score	.17	.11	1.50
Match or mismatch	.22	.16	1.37
Experience in setting	-.12	.07	-1.81
School setting:			
Urban grouping	-.10	.20	-.50
Rural grouping	-.35	.19	-1.90
Constant	3.10	.89	3.48***

* Significant at $p < .05$; *** Significant at $p < .001$

Table 4.4: *Summary of Multiple Regression for Variables Predicting Teachers' Sense of Efficacy*

Pupil Control Ideology

Paired samples t-tests were conducted to determine if pupil control ideologies changed following the student teaching assignment. Because school setting was of particular interest, paired t-tests also were conducted for each setting group. PCI scores were also examined via multiple regression analysis, but the resultant R Square was a weak .286, and none of the predictor variables were significant. A review of the descriptive statistics (see Table 4.5) revealed that the suburban student teachers exhibited a decline in PCI scores, whereas the urban and rural groups both showed an increase in PCI scores. The t-test results indicated a statistically significant decrease in PCI scores for the suburban group, t = 2.82, p < .01. Because four t-tests were conducted, there was a possibility of cumulative type I error. Using a modified Bonferroni test (Keppel, 1991), the significance level was dropped to .025. Neither the urban or rural group's increase in PCI scores was significant. It is important to note that for the PCI survey, the higher the total score, the more custodial the orientation. In contrast, the lower the PCI score, the more humanistic the orientation. Thus, the student teachers placed in suburban schools became more humanistic following student teaching.

	N	Pretest		Posttest		t-value
		M	SD	M	SD	
Overall group	108	24.7	3.72	24.3	4.44	1.07
Urban Setting	28	24.8	3.66	25.3	4.07	0.58
Suburban Setting	45	24.8	3.56	23.3	4.26	2.82**
Rural Setting	29	24.0	3.88	24.7	5.09	0.82

**Significant at p<.01

Table 4.5: *Means, Standard Deviations, and t-Values for Pupil Control Ideology Scores*

Collective Teacher Efficacy

The third research question sought to discover factors that were predictive of the student teachers' perceived collective efficacy following the student teaching experience. The measure of collective teacher efficacy was completed by the student teacher only, essentially capturing his or her perceptions of the collective teacher efficacy of the school in which s/he student taught. The Collective Efficacy Scale uses a 6-point Likert scale anchored by strongly disagree (1) and strongly agree (6). A higher score reflects a greater sense of collective efficacy. The student teachers placed in suburban schools exhibited the highest collective teacher efficacy mean scores (M = 4.78) following the student teaching experience. Rural student teachers had a collective teacher efficacy mean score of M = 4.51, and urban student teachers showed the lowest collective teacher efficacy mean scores (M = 4.11). Descriptive statistics are presented in Table 4.6.

	N	M	SD
Overall group	108	4.55	.69
Urban Setting	28	4.11	.57
Suburban Setting	45	4.78	.66
Rural Setting	29	4.51	.69

Table 4.6: *Means and Standard Deviations for Post Collective Teacher Efficacy Scores*

Multiple regression analysis was utilized, and two models were again designed: Model 1, the restricted model, and Model 2, the full model. The *n* was 102, because the six student teachers that switched settings were not a part of the analysis. The criterion variable was the student teachers' posttest mean collective efficacy scores, and the predictor variables included the student teachers' post TSES scores, post PCI scores, post perceived cooperating teachers' efficacy scores, the match or mismatch between the setting of the student teachers' own K-12 school experiences and their student teaching setting (coded as 0 if matched, 1 if mismatched), the student teachers' self-reported teaching/observation experience in their school setting, and the student teachers' ratings of their cooperating teachers' competence. The student teachers' ratings of their cooperating teachers' competence was added to this regression model because, theoretically, an assessment of the faculty's teaching competence is an element of collective teacher efficacy (Goddard, Hoy, & Woolfolk Hoy, 2000). The full model included all of the above predictor variables plus the school setting itself (rural, suburban, or urban). Thus, the full model was being compared to the restricted model to determine if the school setting was predictive of post collective teacher efficacy over and above the other predictor variables. The predictor variables were entered. The full model was significant, $F(8, 93) = 7.10$, $p < .001$.

The R square was .379, so the model explained nearly 38% of the variance in the student teachers' posttest mean collective teacher efficacy scores. The predictor variable of school setting (coded as a series of dichotomous variables) was analyzed by examining the R square change and its test of significance. The results confirmed a significant difference between student teacher adjusted posttest mean collective efficacy scores from

72

the three school settings, rural, suburban, and urban. The result of the F test for the R square change (.103) was significant, $F(2, 93) = 7.69$, $p < .001$. Follow-up tests, which were conducted at the .017 level – the alpha level (.05) divided by the number of comparisons (3) (Newman, Fraas, and Laux, 2000), indicate that the adjusted mean of the urban group was significantly lower than the adjusted mean of the suburban group, $t(1, 93) = -.65$, $p < .001$, as well as the rural group, $t(1, 93) = -.41$, $p < .01$. The full model was run twice, the first time with urban and rural grouping in the model and suburban grouping left out. Thus, the computer compared the urban and rural groups to the suburban group. Table 4.7 displays the results from the restricted model as well as the first run of the full regression model. The second full model regression run had urban and suburban grouping in and rural grouping left out, so that the computer could perform the last comparison (comparing the urban group to the rural group). Also, because the R square change between the restricted and full models was significant, the restricted model is presented in the table.

One other predictor variable – the student teachers' rating of their cooperating teachers' competence – was a significant predictor of posttest collective teacher efficacy. This competence rating was significant, $B = .25$, $p < .05$.

Variable	Regression Coefficient	Standard Error	*t* Test Value
Model 1 (Restricted Model)			
R Square = .277			
Post TSES score	.16	.08	1.94
Post PCI score	-.03	.02	-1.77
Post perceived cooperating teachers' efficacy score	.12	.07	1.58
Competence rating of cooperating teacher	.18	.12	1.55
Match or mismatch	-.12	.13	-.85
Experience in setting	.13	.06	2.00*
Constant	2.37	.82	2.89*
Model 2 (Full Model)			
R Square = .379			
R Square Change = .103***			
Post TSES score	.13	.08	1.54
Post PCI score	-.02	.01	-1.59

Table 4.7: *Summary of Multiple Regression for Variables Predicting Collective Teacher Efficacy*

Table 4.7: Continued

Post perceived cooperating teachers' efficacy score	.09	.07	1.32
Competence rating of cooperating teacher	.25	.11	2.19*
Match or mismatch	.14	.14	.96
Experience in setting	.09	.06	1.59
Constant	2.69	.78	3.44***
School setting:			
Urban grouping	-.65	.17	-3.79***
Rural grouping	-.24	.17	-1.45

* Significant at the .05 level; ** Significant at the .01 level; *** Significant at the .001 level.

Perceived Cooperating Teachers' Efficacy

The fourth research question – to what extent does the perceived cooperating teacher's sense of efficacy correlate with the student teacher's sense of efficacy? – was examined via a Pearson correlation. The perceived cooperating teacher's sense of efficacy was a rating of the efficaciousness of the cooperating teacher *by the student teacher.* Results indicate a significant positive correlation between the post student teaching mean perceived cooperating teachers' efficacy scores and the student teachers' posttest mean TSES scores, $r = .52$, $p < .001$.

The data were further investigated (using ANOVA) to determine whether there were any differences in posttest mean perceived cooperating teachers' efficacy scores

between the three setting groups. No significant differences were found between the urban student teachers' posttest mean perceived cooperating teachers' efficacy score (M = 7.57), and the rural student teachers' score (M = 7.82), and the suburban student teachers' score (M = 7.72).

The Effect of Split Placements

The student teachers at the institution where this study took place had the option of choosing to either stay in the same placement for the entire 16-week student teaching assignment, or to switch placements immediately after the 8th week. Of the total sample of student teachers, 76 of them did not switch placements and 32 did switch placements. However, complete data sets (pretests, midtests, and posttests) were only available for 60 of the non-switching group and 29 of the switching group.

To investigate the effect of switching or not switching placements on Teachers' Sense of Efficacy, an independent samples t-test was conducted. The decision was made to use the change scores, rather than the actual post TSES scores, because adjustments could not be made in the t-test for the pretest scores. The change scores represent either the increase or decrease in efficacy beliefs over time, and they were calculated by the use of subtraction. Three change scores were examined: post TSES mean scores minus pre TSES mean scores (the total 16-week change); mid TSES mean scores minus pre TSES mean scores (the first 8-week change); and post TSES mean scores minus mid TSES mean scores (the second 8-week change). Also, to determine if there were indeed any differences in the pre TSES mean scores between the two groups, an independent samples t-test was conducted, and no pretest differences were found.

A statistically significant difference between the switching group and the non-switching group was found only in the second 8-week change. The mean TSES change score for the switching group was .05 (the 8-week efficacy mean score subtracted from the 16-week efficacy mean score) and the mean TSES change score for the non-switching group was .37, t = 2.15, p < .05. Thus, the group that stayed in the same placement for the entire 16 weeks exhibited a significantly higher mean change score (their efficacy beliefs became stronger) in the second 8-weeks than the group that switched placements. The split placement and non-split placement groups were examined to make sure that this significant finding was not a function of school setting (i.e., more suburban student teachers in the non split placement group). The distribution among setting was almost equal in the split placement group: eight urban student teachers, nine suburban student teachers, and nine rural student teachers switched placements. There were 20 urban student teachers, 36 suburban student teachers, and 20 rural student teachers in the non-split placement group.

Additionally, independent t-tests were conducted to determine if there were any differences in the change scores of pupil control ideology, collective teacher efficacy, and perceived cooperating teachers' efficacy among the switching and non-switching groups. No significant differences were found.

The Length of the Student Teaching Assignment

The length of the student teaching assignment was investigated in terms of the difference, if any, in the Teachers' Sense of Efficacy Scale mean scores at the mid (8-week) point and at the completion (16-week) of student teaching. Of the entire sample of 108 student teachers, 19 did not return the 8-week survey, so 89 completed 8-week

surveys were available. Paired t-tests were conducted to discern any differences between the 8-week TSES mean scores and the 16-week TSES mean scores. The 16-week TSES mean score of 7.38 was a statistically significant increase over the 8-week TSES mean score of 7.12, t = 3.67, p < .001. Descriptive statistics and t-values are presented in Table 4.8.

	N	M	SD	t-value
Pretest	89	6.78	.87	
8-week test	89	7.12	.78	
Posttest (16 weeks)	89	7.38	.85	
Paired t-tests:				
Pretest – 8-week test				3.57***
8-week test – posttest				3.67***

***Significant at p<.001.

Table 4.8: *Means, Standard Deviations, and t-Values for Pre, Mid, and Post Efficacy Scores*

Summary of Results

In sum, the results indicated many significant findings. All three setting groups exhibited significant increases in teachers' sense of efficacy following student teaching. School setting did play a role in the student teachers' pupil control ideology; suburban

78

teachers became more humanistic following student teaching. School setting also was a factor in the student teachers' collective efficacy scores, as urban student teachers exhibited significantly lower perceived collective efficacy. Perceived cooperating teachers' efficacy was significantly positively related to the student teachers' post TSES scores. The non-split placement group's second 8-week change score increased significantly; the split placement group evidenced no such significant increase. Finally, for the entire sample ($n = 108$), significant increases in TSES scores occurred at both the 8-week and the 16-week point.

CHAPTER 5

DISCUSSION AND CONCLUSIONS

Overview

In this chapter, I discuss and interpret the research results presented in Chapter 4 combining the context of this study with relevant research literature. I also consider, within each section, the implications of these results in terms of teacher education and future research. I close with the limitations of this study and final conclusions.

Student Teachers' Sense of Efficacy

A primary purpose of this study was to identify the factors that were predictive of the student teachers' sense of efficacy following their 16-week student teaching experience. The setting (rural, suburban, or urban) of the school in which the student teacher was placed was construed as a critical contextual factor in the development of efficacy beliefs. It was hypothesized that because urban schools presented a more challenging environment (generally speaking, due to their bureaucratic nature (Haberman, 1995; Weiner, 2003), financial difficulties (Darling-Hammond, 1995; Kozol, 1991), the presence of violence (Dryfoos, 1998; Williams & Williamson,1992), and so forth), the student teachers that were placed in urban schools would suffer a decline in their efficacy beliefs following the assignment. The findings of this study do not support that hypothesis.

All three groups (urban, rural, and suburban student teachers) experienced a statistically significant increase in their teachers' sense of efficacy following the student teaching internship. Bandura (1977, 1986, 1997) contended that of the four sources of efficacy information (mastery experience, vicarious experience, verbal persuasion, and physiological states), mastery experience represents the most powerful influence on self-efficacy beliefs. Student teaching, as the culminating experience in teacher education programs, is an extended opportunity to put theory into practice and to test one's skills in the entire gamut of pedagogy: planning, instructional techniques, motivational strategies, management tactics, and assessment. As part of my survey information, I asked the student teachers in this study to estimate how many weeks (out of the 16 total) that they were *solely in charge* of their class. For the entire sample, the mean was approximately 10.5 weeks (with a range of 2 to 16 and a standard deviation of 2.9) that they were solely in charge as teachers. Thus, they had ample time to practice and to experience mastery in all of the pedagogical areas. Two other valuable sources of efficacy information, vicarious experience and verbal persuasion, will be discussed later in the context of the perceived cooperating teachers' efficacy beliefs variable.

It was expected that the suburban student teachers would evince enhanced efficacy beliefs following the student teaching internship. Of the 45 suburban student teachers, 34 (76%) had spent their entire 13 years of K-12 schooling in suburban schools. The student teachers in this sample were 98% white and most likely middle class (typical of suburban families), so no cultural mismatch between teacher and the majority of students existed in the suburban schools. Groulx (2001), in her study of 112 preservice teachers, documented a "consensus about feeling comfortable teaching in schools in

which [the preservice teachers'] backgrounds matched those of the students" (p. 75).

Thus, the suburban student teachers probably felt completely comfortable in their

suburban setting and could focus on working on their teaching skills.

It was also hypothesized that the rural student teachers would exhibit higher

efficacy beliefs after student teaching, and the findings support that hypothesis. Of the 29

rural student teachers in this study, 19 (66%) indicated they had spent all 13 years of their

schooling in suburban schools. Although 21 (72%) of the rural student teachers had spent

zero number of years of their own K-12 schooling in rural schools, this background-

student teaching setting mismatch did not appear to adversely affect the efficacy beliefs

of the rural student teachers. Rural schools generally serve a lower socioeconomically

population than their suburban counterparts, but the students are predominately white

(Lomotey & Swanson, 1989). Thus, there was likely a socioeconomic mismatch between

the middle-class student teacher and the students, but not a racial mismatch. Valli (1996)

contended that pupil relations – difficult for any student teacher – are more problematic

and anxiety producing for White student teachers placed in racially diverse schools.

Notably, rural schools typically exhibit a strong sense of community, partly

because of their small size and partly because of their traditional connection with the

community (Beckner, 1996). Lee, Dedrick, and Smith (1991) revealed that a sense of

community in the school was the strongest predictor of teacher efficacy in a study using

the High School and Beyond Teacher Surveys. Additionally, rural student achievement

scores are generally at or above state averages, despite their limited curricula and paucity

of resources (Lomotey & Swanson, 1989). Therefore, the combination of a sense of

school community, support, and healthy student achievement rates likely contributed to

the rural student teachers' enhanced sense of efficacy following their student teaching assignment.

Contrary to expectation, the student teachers placed in urban settings exhibited a significant increase in efficacy beliefs after the student teaching experience. Two key elements in making an efficacy judgment are an analysis of the teaching task and its context, and an assessment of one's strengths and weaknesses in terms of the tasks' demands (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). It was expected that the typical constraints and lack of resources evidenced in urban schools would render the tasks' demands as very challenging. However, Bandura (1997) suggested that mastery of difficult tasks heightens feelings of efficacy, and it appears that the urban student teachers in this study successfully handled a challenging situation – thus enjoying a mastery experience and a subsequent boost in efficacy beliefs. Moreover, it is likely that the teacher education program carefully chose the urban schools in which they were placing their teacher candidates; the institution no doubt endeavored to place all of their student teachers in effective, well-functioning, safe schools.

Support from fellow student teachers as well as faculty members also could have played a role in the urban student teachers' enhanced efficacy beliefs. The student teachers in this study attended a weekly student teacher seminar, where they discussed problems, opportunities, and ideas with their university supervisor and student colleagues. Many multicultural scholars have deemed this support to be critical, particularly for prospective teachers placed in diverse field experiences. Zeichner and Hoeft (1996) emphasized that field experience students must be prepared, supported, and monitored in diverse settings, if the experiences are to have a positive effect.

An alternate explanation for the urban student teachers' enhanced efficacy beliefs involves attribution theory. Causal attributions answer "why" questions, such as "Why did I fail that exam?" Attributions are explanations about the causes of behavior – one's own behavior as well as other's (Weiner, 1992). Weiner (1992) identified three dimensions – locus of causality, stability, and controllability – into which most attributions fall. Locus of causality is conceptualized as a continuum with *internal* and *external* at the poles, and, for this discussion, it is the dimension of interest. Ability and effort are characterized as being internal, whereas luck, help, or task difficulty are considered external.

Self-efficacy beliefs will be enhanced with internal attributions for success and reduced with internal attributions for failure (Pintrich & Schunk, 1996). However, *external attributions* will have no effect on an individual's efficacy beliefs. If the urban student teachers in this sample considered the task difficulty of practice teaching in an urban school to be insurmountable, and subsequently made external attributions, then the efficacy beliefs of those urban student teachers would remain untouched. In other words, if the urban student teachers blamed any lack of success they may have experienced on their external surroundings (i.e., poor facilities and lack of resources), their developing teachers' sense of efficacy could remain relatively unscathed, even following an unsuccessful stint at practice teaching.

Haberman and Rickards (1990) surveyed 50 urban teachers who had left the Milwaukee Public School system. Interestingly, of the teachers' top 12 reasons for their departure, nine of them were clearly external causes (examples included inadequate support, heavy load, and inadequate resources) and the other three (discipline,

underachieving students, and dealing with students' different cultural backgrounds) could have been perceived as external causes. It would logically follow that those urban teachers formed external attributions for their lack of success. Weiner (1992) discussed a "self serving attributional bias," that is, the tendency to make internal attributions for successful endeavors and external attributions for unsuccessful endeavors. Experiments by Beckman (1970) and Wiley and Eskilson (1978) showed that the teachers in their studies did indeed take credit for student achievement but attributed failure to external factors. External attributions made by teachers for lack of success become problematic when the teachers' effort and persistence subsequently declines due to perceived external constraints. Did the urban student teachers in this study indeed make external attributions? That answer cannot be known with the data collected. Further research should explore that possibility.

Perceived cooperating teachers' efficacy scores. The perceived cooperating teachers' efficacy score (the estimation, done by the student teachers, of the efficacy beliefs of their cooperating teacher) was a significant predictor of the variance in post efficacy scores. In other words, the student teachers who viewed their cooperating teachers as efficacious were more efficacious themselves following the student teaching assignment. Although not as influential as mastery experience, vicarious experience and verbal persuasion are two other important sources of efficacy information, and the cooperating teacher (because of daily, sustained contact) is a prime source of these types of information. The student teachers' perceptions of their cooperating teachers, as well as the cooperating teachers' impact on the student teachers' sense of efficacy, will be discussed in depth in a later section.

Prior teaching/observing experience. Interestingly, the students' prior experience observing/teaching in the same setting in which they interned approached significance – as a negative influence on the student teachers' post efficacy scores. In the regression model, this prior experience variable accounted for 2% of the variance in post Teachers' Sense of Efficacy Scale (TSES) scores. The fact that it was a negative predictor was surprising, because it would seem intuitively that experience in a particular setting would result in increased efficacy beliefs in that setting. However, the findings indicate that as the student teachers' prior experience increased, efficacy beliefs declined. It appears that there was a slight tendency for increased experience to impact the student teachers' original, unrealistic optimism. In other words, when the student teachers actually had complete responsibility for their class, they experienced an epiphany: teaching is much more difficult than it looks! This is consistent with earlier research. Weinstein (1988) utilized the term "unrealistic optimism" to capture the inflated confidence of the preservice teachers in her study. Those preservice teachers were most optimistically biased about their competency to teach students from different cultures, to deal with individual differences, and to maintain discipline. Similarly, Benz, Bradley, Alderman, and Flowers (1992) discovered that the preservice teachers in their study held an "unrealistically high sense of efficacy" (p. 284). They observed that preservice teachers hold preconceptions about teaching that are not reality-based.

Pupil control ideology. Pupil control ideology (PCI) was another variable that approached significance in terms of its unique contribution to the variance in the post efficacy scores. PCI and the student teachers' sense of efficacy were negatively and moderately correlated. As efficacy beliefs increased, PCI scores tended to decline (the

student teachers became more humanistic). Perhaps as the student teachers began to feel more efficacious they allowed themselves to be less controlling of their students and classroom. This is congruent with Woolfolk and Hoy's (1990) research. They discovered that among the prospective teachers who believed that the teaching profession can make a difference in student lives, those with higher personal teacher efficacy were more humanistic in their pupil control ideology than those with lower personal teacher efficacy. Additionally, in a study of 55 religious school teachers, the researchers reported that higher efficacy beliefs were correlated with more humanistic attitudes towards control. They concluded that teachers with a greater sense of efficacy "…seem more trusting of students and more able to relinquish control and share responsibility for solving classroom problems with their students" (Woolfolk, Rosoff, & Hoy, 1990, p. 146). Pupil control ideology and its variation in terms of school setting will be discussed in the next section.

Student Teachers' Pupil Control Ideology

The second research question in this study concerned the differences, if any, in the pupil control ideologies of the three setting groups – rural, suburban, and urban student teachers. In this sample of student teachers, the ones placed in suburban settings exhibited a significant decrease in PCI scores (became more humanistic) following the 16-week student teaching internship. The urban student teachers and the rural student teachers showed an increase in PCI scores (became more custodial), but the increases were not statistically significant. The PCI form is designed so that lower scores reflect a more humanistic classroom management orientation, thus the suburban student teachers

87

became more humanistic in their approach to pupil control, whereas the urban and rural student teachers did not.

One salient difference between suburban school clientele and urban/rural school clientele is socioeconomic status; suburban families are much more likely to be middle class, while poverty rates are much higher in urban and rural families (Beckman, 1996; Lippman, Burns, & McArthur, 1996; Ten Year Trends, 2000). Socioeconomic status (SES) involves more than family income – the parents' educational level and occupation are also included, which allows SES to reflect more than income when it comes to the educational resources that parents can provide for their children. In the NELS:1988 study, 33% of urban 8th graders and 32% of rural 8th graders came from families whose SES was in the lowest quarter nationally, compared to 19% of suburban 8th graders (Lippman, Burns, & McArthur, 1996).

The lower SES (and, presumably, concurrent lower educational level and lower status occupations) that is disproportionately evident in rural and urban settings may manifest itself in less parental involvement in academic affairs (Beckner, 1996; Smalley & Reyes-Blanes, 2001). Hoge, Smit, and Crist (1997) identified parental expectations as a valuable component of parental involvement, that is, student academic achievement benefited from high expectations from parents. Thus, many rural and urban students, whose parents are likely not models and advocates for educational achievement, may not see the value in education and consequently, may take their studies less than seriously. Fritzberg (2001) acknowledged, "chronically impoverished, socially isolated inner-city or rural families often fail to nurture the nascent intellectual capabilities of their young" (p.

110). As a result, the rural and urban student teachers may have thought that they had to resort to controlling tactics to keep students on task.

Furthermore, there is evidence that suggests urban school environments typically are authoritarian, replete with rewards and punishment, control through power, and extrinsic motivation (Singiser, 2002). According to Woolfolk, Rosoff, and Hoy (1990), if teachers believe that students need tangible rewards and incentives to learn, then they are more inclined to be custodial in their orientation to classroom management. Winfield and Manning (1992) observed that teachers in urban schools with many federally funded supplementary instructional programs clearly demonstrated a custodial attitude towards their students. As mentioned earlier, Lunenberg and Schmidt (1989) reported that the urban teachers in their study were more custodial than the suburban or rural teachers. For the urban student teachers in this current study, emulation of their cooperating teachers (who likely leaned towards a custodial orientation) probably lessened the possibility of the student teachers adopting a more humanistic approach.

The connection between economically disadvantaged students and more controlling student teachers could also be explained by using Abraham Maslow's classic hierarchical needs theory. Maslow (1968) conceptualized deficiency needs (i.e., survival, safety, belonging, and self-esteem) and being needs, such as intellectual achievement and self-actualization. His premise was that children's deficiency needs must first be satisfied or they will be disinclined to focus on being needs. In other words, if a child is hungry, or cold, or afraid, then that child will probably not be fully focused on the instructional lessons. Among families in poverty, childhood distress and abuse, malnutrition, and poor health care are more common (Lubienski, 2003). Knapp and Woolverton (2001), in their

89

discussion regarding students in poverty, posited, "Anxieties generated by uncertainties in physical, emotional, and social survival detract from capacity to learn…" (p. 558). Lack of motivation for academic achievement likely leads to student disengagement and behavioral problems. Indeed, considerable evidence points to a greater prevalence of misbehavior and discipline problems in urban schools (Singiser, 2002; Weiner, 2003). Therefore, the rural and urban student teachers in this study did not become more humanistic – as their suburban counterparts did – perhaps because they had more classroom management issues and problems, and they were consequently more custodial and controlling in response to their environment. The suburban student teachers probably encountered fewer behavioral and motivational issues, and were able to relax the reins, becoming less controlling and more humanistic in their approach to classroom management.

There has been continual discussion in the literature regarding the effect of teacher socialization on the student teacher. In terms of pupil control, Hoy and his colleagues found that the pupil control ideologies of student teachers were more custodial following the experience (Hoy, 1969; Hoy & Rees, 1977; Hoy & Woolfolk, 1990). Hoy (2001), in a recent review of the pupil control studies, emphasized the primacy of the school culture in the socialization process. He argued that because schools are "service organizations with mandatory participation and unselected clients," pupil control will always be a significant feature of school life (p. 430). In contrast, Zeichner and Grant's (1981) findings did not support the notion that student teachers become more custodial following student teaching. They suggested that biography (prior beliefs and attitudes) played an important role and that the student teaching experience is a "low impact

enterprise" (p. 307). Zeichner and Grant recommended that more attention be given to the social structural elements and the context of the school.

The results of this current study indicated that the context of the school setting (urban, rural, and suburban) was indeed an influential factor in the student teachers' pupil control ideologies at the end of the experience. It is likely that the school culture is different in rural schools, suburban schools, and urban schools, and this difference may have accounted for the suburban student teachers becoming more humanistic. Future research should explore this possibility. Specifically, a common school of thought is that the cooperating teacher, because of proximity and availability, exerts a strong influence on the behaviors, beliefs, and attitudes of the student teacher (Bunting, 1988; Zeichner, 1980). Future research should examine the actual pupil control ideologies of the cooperating teachers in the three school settings to determine if they are related to the pupil control ideologies of the student teachers.

Student Teachers' Perceived Collective Teacher Efficacy

The urban student teachers in this study indicated significantly lower perceived collective teacher efficacy than did the rural and suburban student teachers. This collective teacher efficacy score was not the aggregated beliefs of the school's faculty regarding the group's capacity to influence student learning, as is typically done in collective teacher efficacy research (e.g., Goddard, Hoy, & Woolfolk Hoy, 2000). Due to time and financial constraints, collective teacher efficacy was operationalized in this study as the individual student teacher's perception of the school's collective teacher efficacy. Goddard, Hoy, and Woolfolk Hoy (2000) affirmed that collective teacher efficacy is "experienced individually by each organizational member" (p. 498).

91

Moreover, this is consistent with the other variables in the current study, in that teachers' sense of efficacy, pupil control ideology, and perceived cooperating teacher's efficacy are all perceptions that the student teacher holds.

It was expected, for a number of reasons, that the urban student teachers would perceive lower collective teacher efficacy than both the suburban and rural student teachers. The sources of information for both self-efficacy and collective efficacy are identical, and task analysis and teaching competence assessment are still instrumental; the difference is that in collective teacher efficacy the information and analyses are directed to the school level. Therefore, the plethora of problems that urban schools often face (lower student achievement, lack of funding for resources and facilities, large, impersonal schools, frequent teacher turnover leading to a preponderance of inexperienced teachers) almost certainly would impact the faculty's perceptions of the group's capabilities to bring about student achievement.

Schools as a whole, and teachers as a group, can experience successes and failures (Goddard, Hoy, & Woolfolk Hoy, 2000), and these mastery experiences greatly influence collective teacher efficacy beliefs. Because urban schools generally perform poorly (at least compared to suburban schools) on proficiency tests scores (Darling-Hammond, 1995; English, 2002) and in terms of grade point average (Ogbu, 1997), urban schools may not often enjoy mastery experiences. Bainbridge and Lasley (2002) argued that schools should be compared on an "apples-to-apples basis," taking into account poverty and adult education levels (p. 433). Brown (2002, p. 218) emphasized, "urban students are not at all standard" and should not be compared with their more advantaged suburban counterparts. The urban schools serving poor students of color subsequently get labeled

"low-performing" or "academic emergency" and the teachers and students are stigmatized and devalued. The lower perceived collective efficacy scores evinced by the urban student teachers in this study might reflect that dearth of successful mastery experiences, particularly in terms of standardized proficiency testing.

An assessment of the teaching competence of the school's faculty is an element of collective teacher efficacy (Goddard, Hoy, & Woolfolk Hoy, 2000), and the typical transient nature of an urban school's staff would render that judgment problematic. In urban school districts, lack of money and tough working conditions increase the difficulty to attract and retain quality teachers. In an extensive review of the literature, Darling-Hammond (1995) presented a compelling argument that much of the difference in school achievement between urban and suburban schools can be traced to unequal access to quality teaching. In school districts with continual teacher shortages, many children are taught by "a parade of short-term substitute teachers, inexperienced teachers without support, and underqualified teachers who know neither their subject matter nor effective teaching methods" (p. 471). The urban student teachers in this study may have seen more novice and inexperienced teachers, so their estimation of the school faculty's teaching competence may have been lower – resulting in a lower perceived collective teacher efficacy score.

According to Zaccaro, Blair, Peterson, and Zazanis (1995), two group factors that play a role in the perceptions of collective efficacy are group size and group cohesion. A larger group size often results in more disagreements and dissension, which negatively impact group cohesion. Lower group cohesion can result in less group influence over individual members, and less general acceptance of group norms and standards.

93

Moreover, Peterson and Stunkard (1989, as cited in Zaccaro, Blair, Peterson, & Zazanis, 1995) contended that, within bureaucracies, low motivation among members could result from feeling a disconnection between personal efforts and collective results. This low motivation can lead to low organizational commitment and low collective efficacy. Urban schools are frequently described as being large, bureaucratic, and impersonal (Darling-Hammond, 1995; Haberman, 1995; Kozol, 1991; Weiner, 2003). The urban student teachers in this study may have observed a lack of group cohesion in their school, and consequently reported lower perceived collective teacher efficacy.

Goddard and Goddard (2001) reported that there were significant collective teacher efficacy differences between the 47 urban elementary schools in their study. In other words, not all urban schools can be painted with the same broad brush, and there are many highly effective urban schools that exhibit good collective teacher efficacy. The lower perceived collective teacher efficacy scores exhibited by the urban student teachers do not appear to have had a deleterious effect on their own efficacy beliefs, as the urban student teachers mean efficacy scores did increase significantly following the student teaching assignment. The urban student teachers may have focused most of their attention on their cooperating teachers, as well as their own survival (Fuller & Bown, 1975), so that lower perceived collective efficacy had a negligible effect on their self-efficacy beliefs. Additionally, if the student teachers made external attributions, as speculated earlier, lower perceived collective teacher efficacy in the urban schools would not have much effect on efficacy beliefs. However, Goddard and Goddard (2001) did find that teachers' efficacy beliefs were higher in schools with higher collective teacher efficacy. Perhaps teacher educators should be cognizant of schools' collective teacher efficacy

94

before placing their student teachers. More research is necessary to determine how school's collective efficacy may influence student teachers' own nascent efficacy beliefs.

Perceived Cooperating Teachers' Sense of Efficacy

The fourth research question concerned the relationship between the perceived cooperating teachers' sense of efficacy and the student teachers' sense of efficacy. Consistent with earlier research conducted by Li and Zhang (2000), the student teachers' perceived cooperating teachers' sense of efficacy was moderately and positively correlated with the student teachers' efficacy beliefs. It is important to note that the perceived cooperating teachers' sense of efficacy variable was a judgment, *done by the student teacher,* regarding the efficacy beliefs of her or his cooperating teacher. The popular aphorism, "perception is reality," captures Bandura's (1986) assertion that perceptions of event can be even more significant than the actual event itself. Thus, the student teachers' perceptions of the cooperating teachers' sense of efficacy is of no small consequence. As previously noted, the cooperating teacher has been generally viewed as more influential than the college supervisor (Borko & Mayfield, 1995; Calderhead, 1988; Guyton, 1989), so the quality of the cooperating teachers' instruction, modeling, and interaction with the student teacher would appear to be critical in student teachers' development.

To explicate the dynamics between the student teacher and the cooperating teacher, a Vygotskian framework can be utilized (Samaras & Gismondi, 1998). For Vygotsky, learning and development is a social process, with knowledge being co-constructed initially and then internalized. In student teaching, the cooperating teacher assists and scaffolds the student teacher by supplying effective and appropriate feedback

and modeling. The cooperating teachers' role is to provide support, advice, and guidance, to act as a role model, to be a resource person, and to be a friend and colleague (Copas, 1984; Duquette, 1994; Giebelhaus & Bowman, 2002; Wentz, 2001). Another role for the cooperating teacher, although not as commonly proposed in the literature, is to challenge the student teachers' existing knowledge and beliefs (Borko & Mayfield, 1995; Daloz, 1986; Hawkey, 1997). These challenges promote cognitive dissonance, which can in turn encourage learning (Hawkey, 1997).

Theoretically, for the student teachers in this study, it is likely that the more efficacious they perceived their cooperating teacher, the more closely they observed her or him model and demonstrate teaching strategies, the more intently they listened to her or his instruction, advice, and guidance, the more they accepted constructive criticism, the more they took to heart her or his support and encouragement, and the more they emulated her or his pedagogical techniques. Consequently, the student teachers may have experienced an elevated sense of efficacy as they followed the lead of their efficacious role model and mentor.

As one of the four sources of efficacy information, vicarious experience plays a valuable role in the development of student teachers' efficacy beliefs. In the student teaching experience, the cooperating teacher serves as a model and the student teachers' development is aided by this observational learning. Bandura (1997) contended that changing efficacy beliefs through vicarious information requires more than merely exposing individuals to models. Through attentional processes, the observer considers the salience, relevance, and value of the modeled event. In terms of the myriad characteristics of models, their level of competence is paramount: "competent models command more

96

attention and exert greater instructional influence than do incompetent ones" (Bandura, 1997, p. 101). Furthermore, model competence is a particularly influential aspect when observers have much to learn.

Another factor that increases the influence of vicarious information is "the amount of uncertainty about one's capabilities" (Bandura, 1997, p. 87). Individuals who have had little prior experience in a task are particularly ripe for change to their perceived efficacy by modeling influences, because they possess limited direct knowledge of their own capabilities. The student teachers in this study – as relative neophytes – probably felt uncertain in terms of teaching skill, which rendered the cooperating teachers' role as model especially relevant. Therefore, the efficacy beliefs of the student teachers (who were likely uncertain about their teaching ability and had much to learn) probably benefited greatly from a cooperating teacher that they viewed as competent and efficacious.

Additionally, using the literature describing the attributes of efficacious teachers, one can speculate on certain teacher attributes that might have a positive impact on the efficacy beliefs of student teachers. Researchers have linked higher efficacy beliefs to positive teacher behaviors such as greater persistence (Ashton & Webb, 1986), enthusiasm and organization (Allinder, 1994), acceptance of innovative teaching methods (Guskey, 1988; Stein & Wang, 1988), and greater commitment (Coladarci, 1992). It is probable that efficacious cooperating teachers, who may be more persistent, enthusiastic, organized, and so forth due to their strong efficacy beliefs, would have greater influence on the evolving efficacy beliefs of student teachers than less efficacious cooperating teachers.

97

Verbal persuasion (encouragement, support, feedback, pep talks) from cooperating teachers can be another essential source of efficacy information to novice student teachers. It is easier to gain and maintain a sense of efficacy when significant others profess faith in one's abilities (Bandura, 1997). Britzman (1986) reported that inservice teachers described practice teaching as being fraught with frustration and self-doubt in an unanticipated state of disequilibrium. Indeed, Hawkey (1997) related that one key component of the cooperating teachers' role is "instilling confidence as mentees go through inevitable disillusionment and doubt" (p. 328). The impact of the verbal persuasion is dependent on the credibility, proficiency, and trustworthiness of the individual dispensing it (Bandura, 1997). For the student teachers that perceived their cooperating teachers as efficacious, perhaps verbal persuasion was given more credence and subsequently heightened the student teachers' own efficacy beliefs.

This finding underscores the importance of the cooperating teacher in the teacher education process. As previously mentioned, research suggests that some principals paired student teachers with weak teachers in hopes that the student teacher would provide necessary assistance for the weaker teacher (Guyton, Paille, & Rainer, 1993). That would obviously not be the ideal situation; the student teacher would likely view the cooperating teacher as less than efficacious, and that cooperating teacher's influence, as a model and mentor, would be in jeopardy. The student teacher's developing sense of efficacy may suffer as a result.

Teacher educators should do everything possible to ensure that each student teacher is placed with an efficacious cooperating teacher. Furthermore, cooperating teachers should be required to undergo specific training in mentoring, such as Pathwise

training (Giebelhaus & Bowman, 2002). Currently, there is minimal formal preparation for cooperating teachers (Duquette, 1994; Giebelhaus & Bowman, 2002; Wilkins-Cantor, 1996); most "training sessions" consist of a general orientation, usually in conjunction with a reception or dinner (Sparks & Brodeur, 1987). Wilkins-Canter (1996) reported that cooperating teachers are rarely prepared to provide helpful feedback to their student teachers, and that lack of communication is a commonly cited problem for teacher candidates involved in field experiences. However, when cooperating teachers are trained and prepared for their role, they generally provide more specific feedback and a more effective learning experience (Giebelhaus & Bowman, 2002; Guyton & McIntyre, 1990). Thus, mentoring and communication training for prospective cooperating teachers likely would enhance the cooperating teachers' own efficacy beliefs, which in turn would be beneficial to their subsequent student teachers' inchoate efficacy beliefs.

Providing multiple models for the student teacher may also be helpful; the likelihood of observing an efficacious model would be increased with multiple models. The student teachers in Borko and Mayfield's (1995) study enjoyed observing other teachers and student teachers in addition to their cooperating teacher. Bullough Jr., et al. (2003) investigated a peer teaching program, in which two student teachers worked with one cooperating teacher. They noted several advantages for student teachers, such as augmented support, increased dialogue about teaching, and experience in collaboration. One advantage not mentioned was the constant presence of a peer model. Goodlad (1990) reported that student teachers typically work exclusively with one cooperating teacher, not with "teams of teachers or whole schools" (p. 190). Similarly, Richardson-Koehler (1988) indicated that the cooperating teachers in her study resisted supervisor's

suggestions that the student teachers observe other teachers. One cooperating teacher responded: "Why? Is there something wrong with my teaching?" (p. 31). Furthermore, Samaras and Gismondi (1998) acknowledged that "the differential support" that teacher candidates in their study received from their cooperating teachers suggests that student teachers cannot always count on the cooperating teachers' support (p. 728). Thus, multiple models – in terms of efficacy information in the form of both vicarious experience and verbal persuasion – may be beneficial for the development of student teachers' efficacy beliefs.

Haberman (1995) estimated that by the time students graduate from high school they have experienced 54 teachers. Lortie (1975) termed this extended opportunity for observational learning "the apprenticeship of observation" (p. 61). It is highly likely that students experience a wide range of quality (from excellent to poor teaching) among those 54 teachers. Although student teachers, in their own K-12 schooling, have observed teachers for thousands of hours, the cooperating teacher may be their most important model. For student teachers, the cooperating teacher is acting essentially as a *teacher educator*, and in order to maximize the student teaching experience – which most teachers consistently rate as the most valuable part of the teacher education program (Guyton & McIntyre, 1990) – teacher education programs should strive to place their student teachers with efficacious cooperating teachers.

The Effect of Split Placements

Contrary to expectation, the non-split placement group showed a significantly higher efficacy change score than the split placement group during the second 8 weeks of student teaching. The non-split placement group remained in the same class for the entire

16 weeks, while the split placement group switched placements immediately following the 8th week. It was hypothesized that the split placement group would exhibit higher efficacy scores than the non-split placement group because of the opportunity for a "fresh start," as well a more varied experience. A student teacher that switched placements could have switched subjects, grade level, cooperating teacher, school, or any combination of all four of those variables.

It is likely that the non-split placement group exhibited enhanced efficacy beliefs during the second 8-weeks of student teaching because they had more time (1) to develop relationships and rapport with their students (and cooperating teacher), (2) to settle in and get comfortable, (3) to try alternative strategies and tactics if needed, and (4) to actually see the fruits of their labor – children experiencing success under their direction. For the non-split placement group, the second 8 weeks of their internship possibly represented a time for further growth, because no major change (students, cooperating teacher, etc.) occurred. Those student teachers, having the luxury of more time, could have discovered why certain tactics were not working with both individual students and the entire class, and then made the appropriate adjustments. Thus, the student teachers that stayed in the same class for all 16 weeks almost certainly enjoyed more mastery experiences – because of their extended stay, they could see more of the small day-to-day successes that accrue over time. Furthermore, they may have become more efficacious regarding their ability to adjust and cope with problems. In contrast, the split placement group had to start all over again at the beginning with another class of students and a new cooperating teacher.

This finding has implications for teacher educators. Switching placements in the middle of the student teaching internship is not that uncommon, particularly for middle

school and high school teacher candidates who have chosen to pursue two subject areas. Therefore, while it certainly is appropriate for teacher candidates to practice teaching in two subject areas if they are seeking licensure in both areas, teacher educators should strive to minimize any decline in efficacy beliefs related to the transition. More research is needed that examines this issue.

The Length of the Student Teaching Assignment

Not surprisingly, the 16-week mean efficacy scores for the entire sample was significantly higher than the 8-week mean efficacy scores. The 8-week mean efficacy scores also were significantly higher than the pre-student teaching efficacy scores, so the student teachers exhibited significantly higher efficacy beliefs at both the mid point and end of the student teaching assignment. The student teachers had a wealth of efficacy information (from mastery experience, vicarious experience, verbal persuasion, and physiological states) to process and digest at the 16 week mark, whereas they only had half as much information at the 8 week mark. Additionally, as discussed above, more time likely allowed them to actually see and enjoy small successes with individual students and the entire class, for frequently in teaching it takes some time for the seeds of learning to sprout.

The length of the student teaching assignment (for four-year teacher education programs) is often determined solely by the length of the institution's terms – whether the college or university is on the quarter system (10 week terms) or the semester system (15 week terms) (Ohio Department of Education, 2002). The student teachers in this study exhibited a significant enhancement of efficacy scores at both the 8-week point and at the 16-week point. If the student teachers had been at an institution on the quarter

system, their student teaching experience would have been completed shortly after that eighth week, and most of them would have enjoyed growth in terms of their efficacy beliefs. It appears that the student teachers' developing efficacy beliefs would indeed increase more with a longer internship, but 8 weeks of student teaching was sufficient to enhance efficacy beliefs. Thus, teacher education programs housed in institutions on quarter systems are providing their student teachers enough time for valuable growth.

The effect of the length of the student teaching assignment on efficacy belief development has been virtually ignored in the literature. Only one other similar study was found, and that was Crowther and Cannon's (1998) study on preservice teachers that was discussed earlier. They did find a relatively steady increase in science teaching efficacy scores, but they stopped at 10 weeks and the participants were preservice teachers, not student teachers. Additionally, because the test was administered each week, test sensitivity was a major limitation

Among teacher educators, the debate regarding the length of the student teaching experience is not centered around efficacy beliefs, but rather, around socialization. The teacher educators who advocate shortening the student teaching internship believe that the cooperating teacher is a socializing force – essentially socializing the student teacher into maintaining the status quo (Goodlad, 1990). According to this theory, the progressive ideas espoused by preservice training generally dissipate beginning with student teacher and continuing into later teaching (Fuller & Bown, 1975). Indeed, Richardson-Koehler (1988) reported that student teachers soon discounted their university-based pedagogical teaching and attributed most of their practices to their

cooperating teacher. Does this socialization process affect the student teachers' sense of efficacy? Future research should investigate the possibility of a connection.

Limitations of the Study

The main limitation of this study was the fact that all of the data were collected via self-report measures. Actual observations of the student teachers, as well as qualitative data in the form of interviews and journal entries would have enriched the study. Interviews of all parties involved in the student teaching experience – student teachers, cooperating teachers, supervisors, and students – would have been insightful in terms of the contextual differences between the three school settings. Self-selection is another possible limitation. Approximately 240 student teachers attended the initial student teaching orientation meeting, but only 196 student teachers completed the pre-student teaching survey, thus volunteering to participate in the study. That number atrophied to the final sample size of 108, that is, 108 student teachers completed the post student teaching survey. There may have been a self-selection factor among those final 108; it is possible that those student teachers volunteered and persisted in the study because they were more efficacious to begin with.

Conclusions

This study has investigated student teacher efficacy and pupil control beliefs before, during, and after student teaching, in relation to the context of the student teaching assignment – the setting of the school, the collective teacher efficacy of the school, the perceived efficacy of the cooperating teacher, and the length and nature of the actual student teaching placement. The major findings of this study are listed as follows:

1. All three setting groups (urban, rural, and suburban student teachers) exhibited significant increases in efficacy beliefs following student teaching.

2. School setting did play a role in the in the student teachers' pupil control ideology (suburban teachers became more humanistic following student teaching).

3. School setting did play a role in the student teachers' perceived collective teacher efficacy scores (urban student teachers exhibited significantly lower perceived collective teacher efficacy scores).

4. There was a positive and moderate correlation between perceived cooperating teachers' efficacy and the student teachers' sense of efficacy following student teaching.

5. The non-split placement group's 2nd 8-week efficacy change score (8-week efficacy score subtracted from the 16-week efficacy score) increased significantly, whereas the split placement group did not experience a significant change in their efficacy scores.

6. Significant increases in the student teachers' sense of efficacy occurred at both the 8-week and the 16-week point.

Perhaps one of the most encouraging findings from this study for teacher educators is that the student teachers placed in urban settings exhibited enhanced efficacy beliefs following the student teaching experience. There has been an almost universal call for more field experiences in diverse settings (Grant, 1994; Ladson-Billings, 2001; McIntyre, Bird, & Fox, 1996; Valli, 1996; Zeichner, Grant, Gay, Gillette, Valli, & Villegas, 1998; Zeichner & Hoeft, 1996). Indeed, the National Council for the

Accreditation of Teacher Education (NCATE)'s fourth standard, *diversity*, is a mandate

for teacher education programs to provide teacher candidates experiences working with

diverse students. Martin Haberman (1995) has advocated training teachers in the most

challenging environments so that they will be better prepared to teach in all settings.

However, little research had been done to determine what effect, if any, an urban or rural

student teaching placement would have on the efficacy beliefs of student teachers. Most

of the research examining student teachers' efficacy beliefs has been conducted in

suburban settings.

Placing student teachers in urban schools and helping them emerge with a strong

sense of efficacy can be part of the solution to the problem of staffing urban schools.

Urban schools continually face teacher-staffing problems (Brown, 2002; Darling-

Hammond, 1995), and Haberman (1995) maintained that nearly 50% of new urban

teachers quit within five years. If prospective teachers have positive, successful field

experiences in urban settings, then perhaps they will be more inclined to seek

employment in urban schools. Moreover, Bandura (1997) contended that if success were

easily attained, subsequent failure would surely bring discouragement. For student

teachers that interned only at suburban schools, and then chose to take a first job in an

urban school, discouragement may set in because they are likely not used to, or prepared

to, struggle. Novice teachers routinely report insufficient preparation for teaching in

urban settings (Dana, 1992; Ladson-Billings, 2000; Rushton, 2000, 2001), so it is

imperative that teacher education programs provide opportunity and support for field

experiences in all settings. An important finding of this current study is that student

teaching in urban schools, generally considered more challenging than suburban or rural

106

schools (Brown, 2002; Zeichner, 1993), does not necessarily have a debilitating effect on student teachers' sense of efficacy.

Although there were no differences between the three school settings in terms of the student teachers' efficacy beliefs, contextual differences between the settings were discovered. Student teachers with urban school placements reported a lower perceived collective teacher efficacy, and student teachers placed in suburban settings became more humanistic in their pupil control orientations, whereas the urban and rural student teachers did not. Teacher educators, during the placement site selection process, might be well advised to pay attention to the collective teacher efficacy of the schools under consideration. Moreover, more support for student teachers in urban setting may be warranted. As Gomez (1996) emphasized, positive intercultural experiences are possible when teacher candidates are "*carefully placed and carefully supervised*" in diverse field experiences (p. 127). In terms of pupil control ideologies, the contextual differences of SES and academic motivation between the school settings may play a role in which approach to classroom management (custodial or humanistic) student teachers adopt. Teacher socialization may also occur. Teacher educators should consider striving to place student teachers with more humanistically oriented cooperating teachers.

Regarding the role of the cooperating teacher, three almost universal themes were evident in the literature: (1) student teaching is typically reported as the most valued aspect of teacher education programs, (2) cooperating teachers have a prodigious amount of influence on student teachers, and (3) cooperating teachers are generally unprepared and untrained for this major responsibility. In this current study, it was discovered that student teachers' sense of efficacy was related to their perceptions of the efficaciousness

of their cooperating teachers. It would seem that, in order to maximize the effectiveness of the student teaching experience, cooperating teachers should be trained for the job, particularly in regards to communication and feedback. It appears that mentoring workshops such as Pathwise are a step in the right direction. Additionally, cooperating teachers need to be more carefully selected as well as compensated for their critical role. Selecting efficacious cooperating teachers initially, and then enhancing their efficacy beliefs by providing them with training in mentoring, will help ensure that student teachers are placed with quality, efficacious cooperating teachers. It may also be helpful to provide multiple models (other inservice teachers and other student teachers) for the student teachers. If it "takes a village to raise a child," perhaps it takes a school wide effort to prepare a teacher.

The length and nature (split placements or single placements) of the student teaching experience and its impact on the efficacy beliefs of student teachers was also investigated in this study. It appears that one extended placement is better, in terms of the student teachers' efficacy beliefs, than split placements. As for the length of the internship, 8 weeks was sufficient time for significant perceived efficacy growth, although 16 weeks seemed to provide more time for stronger growth in the student teachers' efficacy beliefs.

There has been considerable research concerning what constitutes an effective student teaching placement site (Becher & Ade, 1982; Laboskey & Richert, 2002; Potthoff & Alley, 1996; Zeichner, 2002). Little is known, however, about the relationship and influence of contextual factors of the placement site and the student teachers' emerging self-efficacy beliefs. It is critical that our teacher candidates feel efficacious

108

teaching in any and all settings, so that all children have access to high quality teachers. Teachers' sense of efficacy affects teacher behaviors, such as effort, persistence, and commitment – all of which make a real difference in student achievement and attitudes (see Henson, 2002; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). This current study has revealed some important findings, but more research is necessary to better understand the connections among contextual factors (such as school setting), cooperating teachers, and student teachers' sense of efficacy.

Demographic Sheet

<u>Student Information</u>   Name: _____

(Please circle your response.)

Year in school: Sr.   Jr.   Other (please specify: _____)

Age: _____   Gender: Female   Male

Race: African American   Asian   Hispanic   White   Other

High School GPA: _____   College GPA: _____   ACT or SAT score: _____

Out of your 13 years of school, estimate how many years you spent in the following school settings:

        Rural setting: _____   Suburban setting: _____   Urban setting: _____

How would you classify the school setting of your senior year in high school?

        Rural setting   Suburban setting   Urban setting

Do you have any summer experiences working with children (e.g., summer camps, coaching)?

        None   A minimal amount   A moderate amount   A substantial amount

In your prior teaching/observing experience, estimate the length of time spent in different settings:

        Rural setting: _____   Approximately:
                                            a. 0-1 weeks
        Suburban setting: _____   b. 2-4 weeks
                                            c. 5-8 weeks
        Urban setting: _____   d. 9-15 weeks
                                            e. 6 months
                                            f. 12-18 months
                                            g. Other (and please specify)

Please answer the following questions about your **student teaching assignment:**

School: _____

Grade Level: _____

Subject (if not elementary): _____

Name of your cooperating teacher: _____

Are you switching student teaching placements after 8 weeks?   Yes   No

The Teacher Sense of Efficacy Scale (Tschannen-Moran & Woolfolk Hoy, 2001)

Teacher Beliefs	**How much can you do?**
Directions: This questionnaire is designed to help us gain a better understanding of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers will be kept confidential.	(1) = Nothing (3) = Very Little (5) = Some Influence (7) = Quite A Bit (9) = A Great Deal
1. How much can you do to control disruptive behavior in the classroom?	(1) (2) (3) (4) (5) (6) (7) (8) (9)
2. How much can you do to motivate students who show low interest in school work?	(1) (2) (3) (4) (5) (6) (7) (8) (9)
3. 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)
4. How much can you do to help your students value learning?	(1) (2) (3) (4) (5) (6) (7) (8) (9)
5. To what extent can you craft good questions for your students?	(1) (2) (3) (4) (5) (6) (7) (8) (9)
6. How much can you do to get children to follow classroom rules?	(1) (2) (3) (4) (5) (6) (7) (8) (9)
7. How much can you do to calm a student who is disruptive or noisy?	(1) (2) (3) (4) (5) (6) (7) (8) (9)
8. How well can you establish a classroom management system with each group of students?	(1) (2) (3) (4) (5) (6) (7) (8) (9)
9. How much can you use a variety of assessment strategies?	(1) (2) (3) (4) (5) (6) (7) (8) (9)
10. To what extent can you provide an alternative explanation or example when students are confused?	(1) (2) (3) (4) (5) (6) (7) (8) (9)
11. How much can you assist families in helping their children do well in school?	(1) (2) (3) (4) (5) (6) (7) (8) (9)
12. How well can you implement alternative strategies in your classroom?	(1) (2) (3) (4) (5) (6) (7) (8) (9)

APPENDIX C

The Perceived Cooperating Teachers' Efficacy Scale

Directions: Please indicate how *you believe* **that your cooperating teacher would respond** to each statement below.

Teacher Beliefs	How much can you do?
Directions: This questionnaire is designed to help us gain a better understanding of things that create difficulties for teachers in their school activities. Please indicate how *you believe* that your cooperating teacher would respond to each statement below. Your answers will be kept confidential.	(1) = Nothing (3) = Very Little (5) = Some Influence (7) = Quite A Bit (9) = A Great Deal

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

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

3. 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)

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

5. To what extent can you craft good questions for your students?
(1) (2) (3) (4) (5) (6) (7) (8) (9)

6. How much can you do to get children to follow classroom rules?
(1) (2) (3) (4) (5) (6) (7) (8) (9)

7. How much can you do to calm a student who is disruptive or noisy?
(1) (2) (3) (4) (5) (6) (7) (8) (9)

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

9. How much can you use a variety of assessment strategies?
(1) (2) (3) (4) (5) (6) (7) (8) (9)

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

11. How much can you assist families in helping their children do well in school?
(1) (2) (3) (4) (5) (6) (7) (8) (9)

12. How well can you implement alternative strategies in your classroom?
(1) (2) (3) (4) (5) (6) (7) (8) (9)

APPENDIX D

The Pupil Control Ideology (PCI) Form (Hoy, 2000)

DIRECTIONS: Following are ten statements about schools, teachers and pupils. Please indicate your personal opinion about each statement by circling the appropriate response at the right of the statement. Your answers are confidential.

SA=Strongly Agree   **A**=Agree   **U**=Undecided   **D**=Disagree   **SD**=Strongly Disagree

1. Too much pupil time is spent on guidance and activities and too little on academic preparation   SA   A   U   D   SD

2. Being friendly with pupils often leads them to become too familiar
                 SA   A   U   D   SD

3. It is more important for pupils to learn to obey rules than that they make their own decisions
                 SA   A   U   D   SD

4. Student governments are a good "safety valve" but should not have much influence on school policy   SA   A   U   D   SD

5. Pupils can be trusted to work together without supervision
                 SA   A   U   D   SD

6. If a pupil uses obscene or profane language in school, it must be considered a moral offense
                 SA   A   U   D   SD

7. A few pupils are just young hoodlums and should be treated accordingly
                 SA   A   U   D   SD

8. It is often necessary to remind pupils that their status in school differs from that of teachers
                 SA   A   U   D   SD

9. Pupils cannot perceive the difference between democracy and anarchy in the classroom
                 SA   A   U   D   SD

10. Pupils often misbehave in order to make the teacher look bad
                 SA   A   U   D   SD

APPENDIX E

The Collective Teacher Efficacy Scale (Short Form) (Goodard, 2002)

DIRECTIONS: Please indicate your level of agreement with each of the following statements
from STRONGLY DISAGREE (1) TO STRONGLY AGREE (6)

1. Teachers in this school are able to get through to the most difficult students ……………

    1 2 3 4 5 6

2. Teachers here are confident they will be able to motivate their students …………………

    1 2 3 4 5 6

3. If a child doesn't want to learn teachers here give up ……………………………………….

    1 2 3 4 5 6

4. Teachers here don't have the skills needed to produce meaningful learning……………...

    1 2 3 4 5 6

5. Teachers in this school believe that every child can learn…………………………………

    1 2 3 4 5 6

6. These students come to school ready to learn…………………………………………………

    1 2 3 4 5 6

7. Home life provides so many advantages that students here are bound to learn……………

    1 2 3 4 5 6

8. Students here just aren't motivated to learn………………………………………………...

    1 2 3 4 5 6

9. Teachers in this school do not have the skills to deal with student disciplinary problems…

    1 2 3 4 5 6

10. The opportunities in this community help ensure that these student will learn……………

    1 2 3 4 5 6

11. Learning is more difficult at this school because students are worried about their safety…

    1 2 3 4 5 6

12. Drug and alcohol abuse in the community make learning difficult for students here……..

    1 2 3 4 5 6

APPENDIX F

Script for Student Teacher Questionnaire

1. "My name is Dee Knoblauch, and I'm working with Dr. Anita Woolfolk Hoy, a professor at Ohio State University.

2. "I am a doctoral student at Ohio State University. We are studying teacher beliefs before and after the student teaching experience. We are asking you to fill out a questionnaire before, at the middle, and at the end of student teaching.

3. "Your responses will be kept completely confidential. We will need your name initially but then we will give you a code number so your name will not be on the surveys. Confidentiality will be maintained throughout the study, and absolutely no names will be used in any reports arising from this study."

4. "At the 8-week and 16-week points of your student teaching your supervising teacher will give you the questionnaires. An envelope will be provided, so just fill out the questionnaire, put it in the envelope, and seal it. Absolutely no one will see your questionnaire except for Dr. Woolfolk Hoy and me."

5. "Your participation in this study is entirely voluntary. If you do not wish to participate, or you later desire to drop out of the study, there will be no penalty whatsoever. If at any point you decide you do not want to participate further in this study, you do not need to notify anyone – simply do not fill out the subsequent questionnaires.

6. If, today, you do not wish to participate in this study, you may simply choose to not fill out this questionnaire. By completing this questionnaire, you will be providing your consent to participate in our study."

7. "The questionnaire is only 22 questions regarding your beliefs, and it should take only 5-10 minutes of your time. There are no right or wrong answers – just what you believe. Please answer every question, and just circle your response."

8. "After you are finished, please seal your questionnaire in the envelope provided and place it in one of the boxes here up front."

9. "Does anyone have any questions?"

10. "If you need to contact us about anything, just call (614) 865-1453.

11. "Thank you very much for your time and cooperation."

116

APPENDIX G

8-Week Survey Cover Sheet

Your code number: _____

School where you just completed your first 8 weeks of student teaching: _____

Grade level taught: _____ Subject (if not elementary): _____

Your cooperating teacher's gender: Female   Male

Your cooperating teacher's race: African American   Asian   Hispanic   White   Other

Of your first 8 weeks of student teaching, estimate how many weeks you were **solely in charge** of your class: _____

How **similar** was your cooperating teacher to you, in terms of the following:

Age? _____

Teaching philosophy? _____

Classroom management style? _____

General personality? _____

```
1 = Very similar
2 = Somewhat similar
3 = Not at all similar
```

How would you rate your cooperating teacher's **competence** in the following:

Subject matter knowledge? _____

Motivating the students? _____

Classroom management? _____

Instructional techniques? _____

Assessing/evaluating the students? _____

```
1 = Excellent
2 = Good
3 = Average
4 = Poor
```

117

How would you characterize the setting of the school where you just completed your

student teaching?

Rural   Suburban   Urban

On the following scale, indicate how comfortable you felt student teaching in such

a setting:

(extremely comfortable) 1   2   3   4   5   6   7   8   9   10 (extremely

uncomfortable)

Would you want to seek employment as a teacher in such a setting after you graduate?

Yes   No   Not Sure

Would you accept a job if one was offered to you in such a setting after you graduate?

Yes   No   Not Sure

APPENDIX H

16-Week Survey Cover Sheet

Your code number: _____

School where you just completed your student teaching: _____

Your cooperating teacher's *(your most recent one, if you switched placements)* gender:

    Female   Male

Your cooperating teacher's race: African American   Asian   Hispanic   White   Other

Of your 16 weeks of student teaching, estimate how many weeks you were **solely in charge** of your class: _____

How **similar** was your cooperating teacher to you, in terms of the following:

    Age? _____

    Teaching philosophy? _____

    Classroom management style? _____

    General personality? _____

1 = Very similar
2 = Somewhat similar
3 = Not at all similar

How would you rate your cooperating teacher's **competence** in the following:

    Subject matter knowledge? _____

    Motivating the students? _____

    Classroom management? _____

    Instructional techniques? _____

    Assessing/evaluating the students? _____

1 = Excellent
2 = Good
3 = Average
4 = Poor

How would you characterize the setting of the school where you just completed your

    student teaching?

    Rural   Suburban   Urban

On the following scale, indicate how comfortable you felt student teaching in such

    a setting:

    (extremely comfortable) 1 2 3 4 5 6 7 8 9 10 (extremely

                                                  uncomfortable)

Would you want to seek employment as a teacher in such a setting after you graduate?

    Yes   No   Not Sure

Would you accept a job if one was offered to you in such a setting after you graduate?

    Yes   No   Not Sure

APPENDIX I

First Letter to Supervising Teachers

Dear Miami University Supervisor:

      Enclosed are the questionnaire packets for you to give to your student teachers. In order to assure them of their confidentiality, I have given **a code number** to each student teacher that completed the pre-student teaching questionnaires. After they read the neon pink cover letter (their name is on that pink half sheet) they can tear that sheet off and throw it away. Thus, their responses will remain completely anonymous.

      You will NOT have a questionnaire packet for any student teacher that did not fill out a pre-student teaching questionnaire. They are not in the study.

      Please give these questionnaires to the student teachers **as close to the end of the 8th week** of their student teaching as possible. This is especially important for those student teachers who have **split placements.**

      The student teachers should complete the questionnaires, put them into the envelope and hand the sealed envelope to you. Then, please drop the envelope into Miami campus mail at your earliest convenience.

Thank you so much for your help!

Dee Knoblauch
deeknob@aol.com

APPENDIX J

Second Letter to Supervising Teachers

Dear Miami University Supervisor:

Enclosed are the questionnaire packets for you to give to your student teachers. In order
to assure them of their confidentiality, I have given **a code number** to each student
teacher that completed the pre-student teaching questionnaires. Their name is on the top
half-sheet, and they can tear off and discard it.

You will NOT have a questionnaire packet for any student teacher that did not fill out a
pre-student teaching questionnaire. They are not in the study.

Please give these questionnaires to the student teachers **as close to the end** of their
student teaching experience as possible.

I have **highlighted** the names on the top half sheets of some of your student teachers.
This simply means that these individuals are in a group with limited numbers.
Obviously, it is important that I receive as many surveys as possible; however, the
highlighted individuals are particularly critical.

The student teachers should complete the questionnaires, put them into the envelope and
hand the sealed envelope to you. Then, please drop the envelope into Miami campus
mail at your earliest convenience.

Thank you again for your help – I could not do this study without you!

Dee Knoblauch
deeknob@aol.com

APPENDIX K

The Common Core of Data Locale Designations

(Department of Education's National Center for Education Statistics)

Locale Code	Locale Type	Definition
1	Large Central City	Central city of a Metropolitan Statistical Area (MSA) with a population greater than or equal to 250,000.
2	Mid-size Central City	Central City of an MSA with a population less than 250,000.
3	Urban Fringe of Large City	Place within an MSA of a Large Central City and defined as urban by the Census Bureau.
4	Urban Fringe of Mid-Size City	Place within an MSA of a Mid-size Central City and defined as urban by the Census Bureau.
5	Large Town	Town not within an MSA, with a population greater than or equal to 25,000.
6	Small Town	Town not within an MSA and with a population less than 25,000 and greater than or equal to 2,500 people.
7	Rural, outside MSA	A place with less than 2,500 people and coded rural and outside an MSA by the Census Bureau.

8	Rural, inside MSA	A place with less than 2,500 people and coded rural and inside an MSA by the Census Bureau.

LIST OF REFERENCES

Aitken, J.L., & Mildon, D. (1991). The dynamics of personal knowledge and teacher education. *Curriculum Inquiry, 21*(2), 139-162.

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. (1994). Relationships among teachers' and students' thinking skills, sense of efficacy, and student achievement. *The Alberta Journal of Educational Research, 36*(2), 148-165.

Armor, D., Conroy-Oseguera, P., Cox, M., King, N., McDonnell, L., Pascal, A., Pauly, E., & Zellman, G. (1976). *Analysis of the school preferred reading programs in selected Los Angeles minority schools* (Rep. No. R-2007-LAUSD). Santa Monica, CA: RAND. (ERIC Document Reproduction Service No. 130243)

Ashton, P.T., Olejnik, S., Crocker, L., McAuliffe, M. (1982, April). *Measurement problems in the study of teachers' sense of efficacy.* Paper presented at the meeting of the American Educational Research Association, New York.

Ashton, P.T., & Webb, R.B. (1986). *Making a difference: Teachers' sense of efficacy and student achievement.* New York: Longman.

Ashton, P.T., Webb, R.B., & Doda, N. (1983). *A study of teacher's sense of efficacy.* (ERIC Document Reproductive Service No. ED 231833)

Bainbridge, W.L., & Lasley, T.J., II (2002). Demographics, diversity, and K-12 accountability: The challenge of closing the achievement gap. *Education and Urban Society, 34*, 422-437.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191-215.

Bandura, A. (1986). *Social foundation 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: W. H. Freeman.

Barfield, V., & Burlingame, M. (1974). The pupil control ideology of teachers in selected schools. *The Journal of Experimental Education, 42*(4), 6-11.

Becher, R.M., & Ade, W.E. (1982). The relationship of field placement characteristics and students' potential field performance abilities to clinical experience performance ratings. *Journal of Teacher Education, 33*(2), 24-30.

Beckner, W. (1996). Improving rural teacher education. In J. Sikula, T.J. Buttery, & E. Guyton (Eds.), *Handbook of research on teacher education* (pp. 961-977). New York: Simon & Schuster Macmillan.

Benz, C., Bradley, L., Alderman, M., & Flowers, M. (1992). Personal teaching efficacy: developmental relationships in education. *Journal of Educational Research, 85,* 274-285.

Blocker, L.S., & Swetnam, L.A. (1995). The selection and evaluation of cooperating teachers: A status report. *The Teacher Educator, 30*(3), 19-30.

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.

Britzman, D.P. (1986). Cultural myths in the making of a teacher: Biography and social structure in teacher education. *Harvard Educational Review, 56*(4), 442-456.

Bunting, C. (1988). Cooperating teachers and the changing views of teacher candidates. *Journal of Teacher Education, 39*(2), 42-46.

Bullough, R.V., Jr., Young, J., Birrill, J.R., Clark, D.C., Egan, M.W., Erickson, L., et al. (2003). Teaching with a peer: A comparison of two models of student teaching. *Teaching and Teacher Education, 19,* 57-73.

Calderhead, J. (1988). The contribution of field experiences to student primary teachers' professional learning. *Research in Education, 40*, 33-49.

Campbell, L.P., & Williamson, J.A. (1978). Inner-city schools get more custodial teachers. *The Clearing House, 52*(3), 140-141.

Chester, M.D., & Beaudin, B.Q. (1996). Efficacy beliefs of newly hired teachers in urban schools. *American Educational Research Journal, 33*, 233-257.

Clement, M.C. (2002). What cooperating teachers are teaching student teachers about classroom management. *The Teacher Educator, 38*(1), p. 47-62.

Cole, K.M. (1995). *Novice teacher efficacy and field placements.* (ERIC Document Reproduction Service No. 393849)

Coladarci, T. (1992). Teachers' sense of efficacy and commitment to teaching. *Journal of Experimental Education, 60,* 323-337.

Copas, E.M. (1984). Critical requirements for cooperating teachers. *Journal of Teacher Education, 35*(6), 49-54.

Corcoran, T.B., Walker, L. & White, J. (1988). *Working in urban schools.* Washington, D.C.: Institute for Educational Leadership.

Crowther, D.T. & Cannon, J.R. (1998). *How much is enough? Preparing elementary science teachers through science practicums.* (ERIC Document Reproductive Service No. ED 415112.

da Costa, J., & Riordan, G. (1996). *Teacher efficacy and the capacity to trust.* (ERIC Document Reproductive Service No. ED 397010)

Dana, N.F. (1992, February). *Towards preparing the monocultural teacher for the multicultural classroom.* Paper presented at the meeting of the Association of Teacher Educators, Orlando, FL. (ERIC Document Reproduction Service No. ED350272)

Darling-Hammond, L. (1995). Inequality and access to knowledge. In J.A. Banks and C.A.M. Banks (Eds.), *Handbook of research on multicultural education* (pp. 465-483). New York: Macmillan.

Deemer, S., & Minke, K. (1999). An investigation of the factor structure of the teacher efficacy scale. *Journal of Educational Research, 93*(1), 3-10.

Dryfoos, J. (1998). *Safe passage: Making it through adolescence in a risky society: What parents, schools, and communities can do.* New York: Oxford University Press.

Ducette, J., Sewell, T. & Poliner Shapiro, J. (1996). Diversity in education: Problems and possibilities. In F.B. Murray (Ed.), *The teacher educator's handbook* (pp. 323-380). San Francisco: Jossey-Bass Publishers.

Edwards, J., Green, K., & Lyons, C. (1996). *Teacher efficacy and the school and teacher characteristics.* (ERIC Document Reproductive Service No. ED 397055)

Evans, E., & Tribble, M. (1986). Perceived teaching problems, self-efficacy, and commitment to teaching among preservice teachers. *Journal of Educational Research, 80*(2), 81-85.

Fortman, C.K., & Pontius, R. (2000). *Self-efficacy during student teaching.* (ERIC Document Reproductive Service No. ED 447103)

Fritzberg, G.J. (2001). Less than equal: A former urban schoolteacher examines the causes of educational disadvantagement. *The Urban Review, 33*(2), 107-129.

Fry, P.G., & McKinney, L.J. (1997). A qualitative study of preservice teachers' early field experiences in an urban, culturally different school. *Urban Education, 32*(2), 184-201.

Fuller, F.F, & Bown, O. (1975). Becoming a teacher. In K. Ryan (Ed.), *Teacher education: The seventy-fourth yearbook of the national society for the study of education* (pp. 25-52). Chicago: The University of Chicago Press.

Gaffney, P.V. (1997). A test reliability analysis of an abbreviated version of the pupil control ideology form. (ERIC Document Reproductive Service No. ED 407422)

Geverdt, D.E. (2003). Location, location, location: The spatial quality of urban school locale classifications in the National Center for Education Statistics' Common Core of Data. UMI ProQuest Digital Dissertations. Retrieved 12/15/03: http://Proxy.lib.ohio-state.edu:2104/dissertations/fullcit/3096097

Ghaith, G., & Yaghi, H. (1997). Relationships among experience, teacher efficacy, and attitudes toward the implementation of instructional innovation. *Teaching and Teacher Education, 13,* 451-458.

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

Giebelhaus, C.R., & Bowman, C.L. (2002). Teaching mentors: Is it worth the effort? *The Journal of Educational Research, 95*(4), 246-254.

Gilbert, S.L. (1995). Perspectives of rural prospective teachers toward teaching in urban schools. *Urban Education, 30*(3), 290-305.

Goddard, R. (2002). A theoretical and empirical analysis of the measurement of efficacy: The development of a short form. *Educational and Psychological Measurement, 62*(1), 97-110.

Goddard, R.D., & Goddard, Y.L. (2001). A multilevel analysis of the relationship between teacher and collective efficacy in urban schools. *Teaching and Teacher Education, 17,* 807-818.

Goddard, R.D., Hoy, W.K., & Woolfolk Hoy, A. (2000). Collective teacher efficacy: Its meaning, measure, and impact on student achievement. *American Educational Research Journal, 37,* 479-507.

Gomez, M.L. (1996). Prospective teachers' perspectives on teaching "other people's children." In K. Zeichner, S. Melnick, & M.L. Gomez (Eds.), *Currents of Reform in Preservice Teacher Education* (pp. 133-175). New York: Teachers College Press.

Goodlad, J.L. (1990). Better teachers for our nation's schools. *Phi Delta Kappan, 72*(3), 185-194.

Gossen, H.A. (1974). Pupil control in student teaching. (ERIC Document Reproductive Service ED 093839)

Grant, C.A. (1994). Best practices in teacher preparation for urban schools: Lessons from the multicultural teacher education literature. *Action in Teacher Education, 16*(3), 1-18.

Groulx, J. (2001). Changing perservice teacher perceptions of minority schools. *Urban Education, 36*(1), 60-92.

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

Guskey, T.R., & Passaro, P. (1994). Teacher efficacy: A study of construct dimensions. *American Educational Research Journal, 31,* 627-643.

Guyton, E. (1989). Guidelines for developing educational programs for cooperating teachers. *Action in Teacher Education, 11*(3), 54-58.

Guyton, E., & McIntyre, D. J. (1990). Student teaching and school experiences. In W. Houston, M. Haberman, & J. Sikula (Eds.), *Handbook of research on teacher education* (pp. 514-534). New York: MacMillan Publishing.

Guyton, E., Paille, E., and Rainer, J. (1993). Collaborative field-based urban teacher education program. *Action in Teacher Education, 15*(3), 7-11.

Haberman, M. (1995). Selecting 'star' teachers for children and youth in urban poverty. *Phi Delta Kappan, 76,* 777-781.

Haberman, M. & Post, L. (1998). Teachers for multicultural schools: The power of selection. *Theory into Practice*, *37*(2), 97-104.

Hawkey, K. (1997). Roles, responsibilities, and relationships in mentoring: A literature review and agenda for research. *Journal of Teacher Education, 48*, 325-335.

Hebert, E., Lee, A., & Williamson, L. (1998). Teachers' and teacher education students' sense of efficacy: Quantitative and qualitative comparisons. *Journal of Research and Development in Education, 31*, 214-225.

Henson, R. (2001). *Teacher self-efficacy: Substantive implications and measurement dilemmas.* (ERIC Document Reproductive Service No. ED 452208)

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

Hoge, D.R., Smit, E., & Crist, J.T. (1997). Four family process factors predicting academic achievement for sixth and seventh grade. *Educational Research Quarterly, 21*(2), 27-42.

Hoover-Dempsey, K. Bassler, O., Brissie, J. (1987). Parent involvement: Contributions of teacher efficacy, school socioeconomic status, and other school characteristics. *American Educational Research Journal, 24*, 417-435.

Hoy, W.K. (1967). Organizational socialization: The student teacher and pupil control ideology. *The Journal of Educational Research, 61*(4), 153-155.

Hoy, W.K. (1969). Pupil control ideology and organizational socialization: A further examination of the influence of experience on the beginning teacher. *School Review, 77,* 257-265.

Hoy, W.K. (2000). *Pupil control ideology form,* [World Wide Web]. Ohio State University. Available: www.coe.ohio-state.edu/whoy/on-line%20books_4.htm.

Hoy, W.K., & Rees, R. (1977). The bureaucratic socialization of student teachers. *Journal of Teacher Education, 28*(1), 23-26.

Hoy, W.K, & Woolfolk, A. (1990). Socialization of student teachers. *American Educational Research Journal, 27*(2), 279-300.

Hoy, W.K., & Woolfolk, A. (1993). Teachers' sense of efficacy and the organizational health of schools. *The Elementary School Journal, 93,* 356-372.

Imig, D.G., & Switzer, T.J. (1996). Changing teacher education programs. In J. Sikula, T.J. Buttery & E. Guyton (Eds.), *Handbook of research on teacher education* (pp. 213-226). New York: MacMillan Publishing.

Johnson, A.P. (2001). *Student teaching handbook*. (ERIC Document Reproductive Service No. ED 450088)

Jones, D.R. (1982a). Pupil control ideology as a source of stress: The student teacher's dilemma. (ERIC Document Reproductive Service No. ED 214917)

Jones, D.R. (1982b). The influence of length and level of student teaching on pupil control ideology. *The High School Journal, 65*(7), 220-225.

Kagan, D.M. (1992). Professional growth among preservice and beginning teachers. *Review of Educational Research, 62*(2), 129-169.

Keith, M. J. (1987). We've heard this song…or have we? *Journal of Teacher Education, 38*(3), 20-25.

Keppel, G. (1991). *Design and analysis: A researcher's handbook* (3rd ed.). Upper Saddle River, NJ: Prentice Hall.

Knoblauch, D. (2003). *The effect of student teaching, setting, and cooperating teachers' Efficacy on preservice teachers' sense of efficacy.* Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Kozol, J. (1991). *Savage inequalities: Children in America's schools.* New York: Harper Perennial.

Labosky, V.K., & Richert, A.E. (2002). Identifying good student teaching placements: A programmatic perspective. *Teacher Education Quarterly, 29*(2), 7-34.

Ladson-Billings, G. (2000). Fighting for our lives: Preparing teachers to teach African American students. *Journal of Teacher Education, 51,* 206-214.

Lee, V., Dedrick, R. & Smith, J. (1991). The effect of the social organization of schools on teachers' efficacy and satisfaction. *Sociology of Education, 64,* 190-208.

Li, X., & Zhang, M. (2000). *Effects of early field experiences on preservice teachers' efficacy beliefs – a pilot study.* (ERIC Document Reproductive Service No. ED 444973)

Lippman, L., Burns, S., & McArthur, E. (1996). *Urban schools: The challenge of location and poverty.* (U.S. Department of Education Publication No. NCES 96-184.)

Lomotey, K., & Swanson, A. (1989). Urban and rural schools research. *Education and Urban Society, 21*(4), 436-454.

Lubienski, S.T. (2003). Celebrating diversity and denying disparities: A critical assessment. *Educational Researcher, 32*(8), 30-38.

Lunenberg, F.C. (1984). "Custodial" teachers: Negative effects on schools. *The Clearing House, 58*(3), 112-116.

Lunenberg, F.C., & Schmidt, L.J. (1989). Pupil control ideology, pupil control behavior and the quality of school life. *Journal of Research and Development in Education, 22*(4), 36-44.

Lunenberg, F.C. (2000). Bureaucracy and pupil control orientation and behavior in urban secondary schools. (ERIC Document Reproductive Service No. ED 445154)

Matus, D.E. (1999). An innovative strategy supports student teacher in urban secondary schools. *The Clearing House, 73*(1), 37-41).

McIntyre, D.J., Bird, D.M. & Foxx, S.M. (1996). Field and laboratory experiences. In J. Sikula, T.J. Buttery & E. Guyton (Eds.), *Handbook of research on teacher education* (pp. 171-193). New York: MacMillan Publishing.

McNeil, K., Newman, I., & Kelly, F.J. (1996). *Testing research hypotheses with the general linear model.* Carbondale and Edwardsville: Southern Illinois University Press.

Midgley, C., Feldlaufer, H., & Eccles, J. (1989). Change in teacher efficacy and student self- and task-related beliefs in mathematics during the transition to junior high school. *Journal of Educational Psychology, 81,* 247-258.

Moore, W.P,. & Esselman, M.E. (1992). *Teacher efficacy, empowerment, and a focused instructional climate: does student achievement benefit?* Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA. (ERIC Document Reproductive Service No. ED 350252)

Mulholland, J., & Wallace, J. (2001). Teacher induction and elementary science teaching: enhancing self-efficacy. *Teaching and Teacher Education, 17*, 243-261.

Newman, I., Fraas, J.W., & Laux, J.M. (2000). A three-step adjustment procedure for type I error rates. *Journal of Research in Education, 10*(1), 84-90.

Newmann, F.M., Rutter, R.A., & Smith, M.S. (1989). Organizational factors that affect school sense of efficacy, community, and expectations. *Sociology of Education, 62,* 221-238.

Ohio Department of Education. (2002). *Report on the quality of teacher education in Ohio.* Columbus, Ohio.

Pagano, A, Weiner, L, Obi, R. & Swearingen, J. (1995). How student teaching in an urban setting affects teacher candidates' career motivations. *The Urban Review, 27*(1), 51-76.

Packard, J.S. (1989). The pupil control studies. In N. Boyan (Ed.), *Handbook of research on educational administration* (pp. 185-207). New York: Longman.

Pajares, F. (1996). Self-efficacy beliefs in academic settings. *Review of Educational Research, 66*, 543-578.

Pajares, F. (1997). Current directions in self-efficacy research. In M.L. Maehr & P.R. Pintrich (Eds.), *Advances in motivation and achievement* (pp. 1-50). Greenwich, Connecticut, Jai Press Inc.

Pallas, A.M., Natriello, G., & McDill, E.L. (1989). The changing nature of the disadvantaged population: Current dimensions and future trends. *Educational Researcher, 18*(5), 16-22.

Pang, V. & Sablan, V. (1998). Teacher efficacy: How do teachers feel about their abilities to teach African American students? In M.E. Dilworth (Ed.), *Being responsive to cultural differences: How teachers learn* (pp. 39-54). Thousand Oaks, CA: Corwin Press, Inc.

Piland, D.E., & Anglin, J.M. (1993). It is only a stage they are going through: The development of student teachers. *Action in Teacher Education, 15*(3), 19-26.

Pintrich, P.R., & Schunk, D.H. (1996). *Motivation in education: Theory, research, and applications.* Englewood Cliffs, NJ: Merrill Prentice Hall.

Potthoff, D., & Alley, R. (1996). Selecting placement sites for student teachers and pre-student teachers: Six considerations. *The Teacher Educator, 32,* 85-98.

Richardson-Koehler, V. (1988). Barriers to the effective supervision of student teaching: A field study. *Journal of Teacher Education, 39*(2), 28-34.

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

Roberts, J.K., & Henson, R.K. (2000). *Self-efficacy teaching and knowledge instrument for Science teachers (SETAKIST).* (ERIC Document Reproductive Service No. ED 448208)

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

Rosenholtz, S.J. (1987). Education reform strategies: Will they increase teacher commitment? *American Journal of Education, 95,* 534-562.

Ross, J.A. (1994). *Beliefs that make a difference: The origins and impacts of teacher efficacy.* (ERIC Document Reproductive Service No. ED 379 216)

Ross, J.A. (1998). The antecedents and consequences of teacher efficacy. *Advances in Research on Teaching, 7,* 49-73.

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

Rothstein, S.W. (1993). Teachers and students in urban schools. In S.W. Rothstein (Ed.), *Handbook of schooling in urban America* (189-193). Westport, Connecticut: Greenwood Press.

Rushton, S.P. (2000). Student teacher efficacy in inner-city schools. *The Urban Review, 32,* 365-383.

Rushton, S.P. (2001). Cultural assimilation: a narrative case study of student-teaching in an inner-city school. *Teaching and Teacher Education, 17,* 147-160.

Singiser, R. (2002). Classroom management in the urban environment. In B. Kanpol (Ed.), *Teacher education and urban education* (pp. 15-29). Cresskill, NJ: Hampton Press, Inc.

Skelly, M. (1988). Rural schools at the crossroads. *School and College,* 51-56.

Smalley, S.Y., & Reyes-Blanes, M.E. (2001). Reaching out to African American parents in an urban community: A community-university partnership. *Urban Education, 36*, 518-533.

Soodak, L., & Podell, D. (1993). Teacher efficacy and student problem as factors in special education referral. *Journal of Special Education, 27,* 66-81.

Soodak, L., & Podell, D. (1996). Teacher efficacy: Toward the understanding of a multi-faceted construct. *Teaching and Teacher Education, 12*, 401-411.

Sparks, S., & Brodeur, D. (1987). Orientation and compensation of cooperating teachers. *The Teacher Educator, 23*(1), 2-12.

Stern, J. (1994). *The Condition of Education in Rural Schools.* U.S. Department of Education.

Ten Year Trends in Urban Education: 1987-1997. (2000, March). *The Urban Indicator, 5*(1), 1-26.

Terrill, M.M., & Mark, D. (2000). Preservice teachers' expectations for schools with children of color and second-language learners. *Journal of Teacher Education, 51*(2), 149-155.

Tschannen-Moran, M. & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teacher and Teacher Education, 17*, 783-805.

Tschannen-Moran, M., Woolfolk Hoy, A., & Hoy, W. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research, 68*, 202-248.

Valli, L. (1996). Trusting relations, preservice teachers, and multicultural schools. In D.J. McIntyre & D.M. Byrd (Eds.), *Preparing tomorrow's teachers: The field experience* (pp. 26-40). Thousand Oaks, CA: Corwin Press, Inc.

Veenman, S. (1984). Perceived problems of beginning teachers. *Review of Educational Research, 54*(2), 143-178.

Weiner, B. (1992). *Human motivation: Metaphors, theories, and research.* Newbury Park: Sage.

Weiner, L. (2003). Why is classroom management so vexing to urban teachers? *Theory Into Practice, 42*(4), 305-312.

Weinstein, C.S. (1988). Preservice teachers' expectations about the first year of teaching. *Teaching and Teacher Education, 4*(1), 31-40.

Wentz, P.J. (2001). *The student teaching experience: Cases from the classroom.* Upper Saddle River: Merrill Prentice Hall.

Wideen, M., Mayer-Smith, J., & Moon, B. (1998). A critical analysis of the research on learning to teach: Making the case for an ecological perspective on inquiry. *Review of Educational Research, 68*(2), 130-178.

Wilkens-Canter, E. (1996). Providing effective cooperating teacher feedback. In D.J. McIntyre & D.M. Byrd (Eds.), *Preparing tomorrow's teachers: The field experience* (pp. 169-177). Thousand Oaks, CA: Corwin Press, Inc.

Williams, J. & Williamson, K. (1992). "I wouldn't want to shoot nobody:" The out-of-school curriculum as described by urban students. *Action in Teacher Education, 16*(2), 9-15.

Willower, D.J., Eidell, T.L., & Hoy, W.K. (1967). *The school and pupil control ideology.* (Monograph No. 24). University Park, PA: Pennsylvania State University.

Winfield, L.F., & Manning, J.B. (1992). Changing school culture to accommodate student diversity. In M.E. Dilworth (Ed.), *Diversity in teacher education* (pp. 181-214). San Francisco: Jossey-Bass.

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

Woolfolk, A., Rosoff, B., & Hoy, W.K. (1990). Teachers' sense of efficacy and their beliefs about managing students. *Teaching and Teacher Education, 6,* 137-148.

Zaccaro, S.J., Blair, V., Peterson, C., & Zazanis, M. (1995). Collective efficacy. In J.E. Maddox (Ed.). *Self-efficacy, adaptation, and adjustment: Theory, research, and application* (305-326). New York: Plenum Press.

Zeichner, K.M. (1980). Myths and realities: Field-based experiences in pre-service teacher education. Journal of Teacher Education, 31(6), 45-55.

Zeichner, K.M. (1993). *Educating teachers for cultural diversity: NCRTL Special Report.* East Lansing, MI: National Center for Research on Teacher Learning. (ERIC Document Reproduction Service No. ED 359167)

Zeichner, K.M. (1996). Educating teachers for cultural diversity. In K. Zeichner, S. Melnick, & M.L. Gomez (Eds.), *Currents of reform in preservice teacher education* (pp. 133-175). New York: Teachers College Press.

Zeichner, K.M. (2002). Beyond traditional structures of student teaching. *Teacher Education Quarterly, 29*(2), 59-64.

Zeichner, K.M., & Grant, C.A. (1981). Biography and social structure in the socialization of student teachers: A re-examination of the pupil control ideologies of student teachers. *Journal of Education for Teaching, 7*(3), 298-314.

Zimpher, N.L. (1989). The RATE project: A profile of teacher education students. *Journal of Teacher Education, 40*(6), 27-30.