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Individual sense of efficacy, collective teacher efficacy and student achievement in high achieving and low achieving urban public schools

Stephanie Richardson

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INDIVIDUAL SENSE OF EFFICACY, COLLECTIVE TEACHER EFFICACY AND

STUDENT ACHIEVEMENT IN HIGH ACHIEVING AND LOW ACHIEVING URBAN

PUBLIC SCHOOLS

A dissertation submitted in partial satisfaction

of the requirements for the degree of

Doctor of Education in Educational Leadership, Administration and Policy

by

Stephanie Richardson

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Doug Leigh, Ph.D. – Dissertation Chairperson

This dissertation, written by

Stephanie Richardson

under the guidance of a Faculty Committee and approved by its members, has been submitted to and accepted by the Graduate Faculty in partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

Doctoral Committee:

Doug Leigh, Ph.D., Chairperson

Robert Barner, Ed.D.

Kanika White, Ed.D.

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VITA

Stephanie Richardson

Education

Pepperdine University, Malibu, CA
Ed.D in Education, Leadership, Administration and Policy   2014

California State University, San Bernardino
M.A. in Educational Leadership   2002
Educational Administration Credential

Hope College, Holland, MI
B.A. in Science   1997

Work Experience

Compton Unified School District, Compton, CA   2009 - Present
Principal-Martin Luther King Elementary

Compton Unified School District, Compton, CA   2006-2009
Assistant Principal-Kelly Elementary

Palos Verdes Peninsula Unified School District, PV, CA   2001-2006
8th grade Science Teacher-Ridgecrest Intermediate

Palm Springs Unified School District, Palm Springs, CA   1998-2001
1st grade teacher-Julius Corsini Elementary

ABSTRACT

This study investigated the relationship between teachers' individual sense of efficacy, collective teacher efficacy, and student achievement in urban schools. The study surveyed teachers in high performing and low performing elementary schools in a single urban district in Southern California.

Statistical analysis was conducted on survey responses from 76 teachers in low performing schools and 109 teachers in high performing schools. Using the Ohio State Teacher Efficacy Survey, teacher efficacy was separated into three subcategories: student engagement, instructional practices, and classroom management. The data findings revealed that teachers in high performing schools had higher teacher efficacy in all three areas, however there was a weak correlation between type of school and teacher efficacy.

The collective efficacy data was measured using the Collective Efficacy Survey, and the data findings revealed that collective efficacy was higher in high performing schools. Additionally, there was a moderate correlation between the type of school and collective efficacy. The data also revealed a correlation between the three subcategories of teacher efficacy and collective efficacy.

As a result of the findings, recommendations were made to improve mastery teaching experiences, mentoring programs and provide targeted professional development for teachers. Additionally, recommendations for future studies included increasing the number and variety of participants as well as examination of additional variables that may impact student achievement.

Chapter 1: Introduction

The movement to reform education in the U.S. is fundamentally about improving

urban public schools. Every debate about standards, testing, governance, bussing,

vouchers, charter schools, social promotions, class size, and accountability are–

at their core-about public education in cities. (Snipes, Doolittle, & Herlihy, 2002,

p. xiii)

Background

The United States public education system is currently struggling with educating all of

our students, especially those in urban public schools. At the time of this writing, there are

16,580 public school districts in the United States, one hundred of those districts serve 23

percent of the nation's students. These districts, many of which are located in urban areas, also

serve 40 percent of the country's minority students and 30 percent of the economically

disadvantaged students (Snipes, Doolittle, & Herlihy, 2002).

In 2001, as a response to his belief that "too many of our neediest children are being left

behind" (U.S. Department of Education [DOE], n.d., para. 1), President George W. Bush

introduced legislation that created a new system of accountability and evaluation for our public

schools. The No Child Left Behind Act (NCLB) had four main purposes: a) increased

accountability; b) greater choice for parents and students; c) increased funding flexibility for

schools, districts, and states; and d) ensuring that every child can read by the end of third grade

(U.S. DOE, n.d.). Prior to the introduction of this legislation, there had been an undercurrent of

speculation regarding an educational achievement gap in our school systems. However, there

was no formal method of identifying and addressing the disparity in the education that public

school students received. NCLB introduced mandatory state standardized testing, the results of

which are now published in newspapers, dissected on television, and dispersed across the Internet. This transparency of student achievement has placed districts and individual schools under the microscope. The achievement gaps are apparent in the published data.

The United States Congress has mandated the comprehensive analysis of the state of education on a yearly basis. As a result of this mandate, the National Center for Educational Statistics produces yearly reports detailing the status of education in the United States. *The Condition of Education 2010* produced by the National Center for Educational Statistics reveals the achievement gap that continues to exist in the United States public schools (Aud et al., 2010). The report examines the academic progress of students as measured by their performance on The National Assessment of Educational Progress (NAEP), a yearly standardized test given to selected students across the country. In 2009, fourth grade students in high poverty schools had an average NAEP score in reading of 200, while the fourth graders in low-poverty schools had an average score of 237 . Additionally, in 2009, 45% of fourth graders in high poverty schools scored basic or above in reading and 14% scored proficient or above, in contrast to 83% of fourth grade students from low poverty schools scored basic or above and 50% scored proficient or above. A similar gap exists in the performance of eight graders, with a 34 point achievement gap in the reading scores of high poverty and low poverty students (Aud et al., 2010).

The gap in student achievement is not limited to language arts. In mathematics, the achievement gap between fourth graders in high poverty and low poverty schools was 31 points. In high poverty schools 64% of fourth graders scored basic or above and 17% scored proficient or above, in contrast to 93% of fourth graders in low poverty schools scoring basic or above and 60% scored proficient or above (Aud et al., 2010).

Once discrepancies in student achievement were clearly exposed, the focus of educators became the search for the factors that created the gap in education. There are several factors that are often identified as playing a role in student achievement. Wang, Haertel, and Walberg (1990) have identified six broad based categories that may affect student learning: a) state and district variables; b) out of school contextual variables; c) school level variables; d) student variables; e) program design variables; and f) implementation, classroom instruction and climate variables. Within these larger categories, variables that may affect student achievement include: community and school demographics, school culture, parental support and involvement, teacher licensure, student motivation, attitude and cognitive ability, instructional strategies, classroom management and monitoring of student progress (Wang et al., 1990).

The presence of this multitude of variables has caused tremendous difficulty in isolating a specific factor that is the primary component of high achieving schools; however, the prevalence of low performing schools in high poverty, urban environments leads to the common assumption that "there is an inextricable relationship between poverty, ethnicity, and academic achievement…(and) that poverty and ethnic minority enrollment are inextricably linked to lower levels of student achievement" (Reeves, 2003, p. 2). Yet within these urban districts there are islands of excellence: schools and individual teachers who demonstrate outstanding high achievement that meet or exceeds the performance of suburban, high-socioeconomic schools.

Doug Reeves has done extensive research on high performing-high poverty schools. In 1995 he coined the term *90/90/90 schools* based on his observations in Milwaukee, Wisconsin, where schools had been identified with the following characteristics: 90% or more of the students were eligible for free and reduced lunch, 90% of more of the students were members of

ethnic minority groups, and 90% or more of the students met the district or state academic standards in reading or another area (Reeves, 2003). During his initial research study, Reeves identified a handful of schools that demonstrated success with populations of students that were typically identified with low achievement. During school site visits, five common characteristics in the 90/90/90 schools were recognized. These included: a focus on academic achievement, clear curriculum choices, frequent assessment of student progress and multiple opportunities for improvement, an emphasis on non-fiction writing and collaborative scoring of student work (Reeves, 2003).

Jerald(2001) conducted a nationwide examination of high performing, high poverty, and high minority schools. The study was designed to determine if the 90/90/90 schools were simply isolated cases or if they existed across the nation. They identified 3,592 high-performing, high-poverty schools; 2,305 high-performing, high-minority schools; and 1,320 high-performing, high-poverty-and-minority schools. These schools educate approximately 2,070,000 students including: 1,280,000 low-income students, 564,000 African American students and 660,000 Latino students. The research revealed success across the country for high poverty students, confirming that the 90/90/90 schools are not isolated cases.

The research reveals that socio-economic status can no longer be the sole factor in the low achievement of students. Therefore, it is the responsibility of low achieving schools in high poverty areas to identify specific characteristics within the school that will lead to high achievement for all students.

Problem

Within urban school districts there is a dichotomy. There are schools that regularly produce students with high standardized student achievement scores and others that continually

produce the lowest scores. School districts and leaders would like to replicate the successes of the islands of excellence but, in order to accomplish this, the sources of success must be identified. Reeves (2003) and Jerald (2001) identified characteristics of high performing, high poverty schools. The role of socio-economic status as the primary cause of low achievement was diminished in the revelation of the success of the 90/90/90 schools. In their meta-analysis research study, Wang et al. (1990) highlighted the importance of quality and quantity of instruction as equally (if not more) important than student characteristics and out of school factors. Therefore, when curriculum, socio-economic status, parental involvement, and neighborhood are the same, it is the role of the teacher that might be isolated as a possible factor.

Teachers are instrumental in the success of children in our schools. These individuals are the primary sources of curricular input, social-emotional development, and attitude development in students. Goe and Stickler (2008) identified multiple factors as possible determinants in quality teachers; these include teacher qualifications, teacher characteristics, teacher practices, and teacher effectiveness. Teacher qualifications are the credentials, content knowledge, and experience that individuals bring to the classroom and Goe noted that the research suggests that these factors play a limited role in the improved achievement of students. Goe explained that teacher content knowledge is critical in the case of secondary math instruction, yet in general, level of experience is only a factor during the first five years of teaching. Teacher practices include the specific instructional strategies teachers utilize. Again, Goe identified clear learning objectives and performance expectations, formative assessments, curricular alignment, explanation of learning purposes, active learning, and challenging curriculum as key instructional practices of effective teachers. Teacher effectiveness has been difficult to measure by a common standard. The use of achievement test data is controversial since students enter

classrooms with different prerequisite skills and intellectual abilities. Due to this, there is a new movement to use value-added measurements that analyzes student achievement based on growth as measured through pre and post test analysis. This method provides a more level playing field in the analysis of teacher effectiveness by measuring students' growth rather than focusing solely on the final score. This allows teachers with low-achieving children to demonstrate success through student growth rather than final achievement scores.

Cooper (2005) stated, "A refrain often heard from educators is that 'some' students are just not capable of learning sufficiently to meet state standards to ultimately graduate high school prepared to enter a suitable college or university" (p. 25). An area of teacher quality and effectiveness that has recently been shown to play a role in student achievement is teacher attitude and expectations. Teacher efficacy, their "confidence in their ability to promote students' learning" (Protheroe, 2008, p. 42), is an important characteristic in the effectiveness of a teacher. Teacher self-efficacy is a powerful predictor of how a teacher will act. What teachers believe about their capability is a strong predictor of teacher effectiveness. Teachers with greater self-efficacy tend to persist in failure situations, take more risks with curriculum, use new teaching approaches, make better gains in student achievement and have more motivated students (Gibbs, 2003). These beliefs in their own capabilities and the extent to which they play a primary role in the achievement of their students, may positively or negatively affect student performance.

Although the attitudes and expectations of individual teachers are vital, schools work as a collective community. It is the achievement results of the entire school that are recognized by the state and federal governments not individual teacher or classroom performances. Therefore, in addition to the individual sense of teacher efficacy, collective efficacy or the "collective belief

of teachers within a school that they can impact student outcomes positively, regardless of the challenges that they meet (Pearce, 2007, p. 5), may play a critical role in student achievement.

Purpose

The purpose of this study is to examine the extent to which, if at all, there is a difference in the relationship between individual and collective teachers' efficacy between high- and low-achieving urban public schools.

Research Questions

A quantitative study will address the following question:

1) To what extent, if at all, is there a difference in the relationship of individual teacher efficacy and collective teacher efficacy between high- and low-achieving urban public schools?

2) To what extent, if at all, is there a difference in the relationship of collective teacher efficacy and collective teacher efficacy between high- and low-achieving urban public schools?

Operational Definitions

The following operation definitions of variables are identified below.

Self-efficacy: 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). This will be measured using a teacher efficacy survey developed by A. Woolfolk Hoy at Ohio State University.

Collective efficacy: 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).

This will be measured using a collective teacher efficacy survey developed by Goddard, Woolfolk-Hoy, and Hoy (2000) at Ohio State University.

High Performing Schools: Schools that are meeting or exceeding California math and language arts proficiency requirements for all significant subgroups. These are schools in deciles 8 to 10 according to the statewide Academic Performance Index.

Low Performing Schools: Schools that are not meeting California math and language arts proficiency requirements for all significant subgroups. The California Department of Education (CDE, n.d) characterizes these as schools in deciles 1 to 5 according to the statewide Academic Performance Index.

Key Terms

The following key terms present in this manuscript are identified below.

Academic Performance Index (API): California State legislation, the Public Schools Accountability Act (PSAA) of 1999 (Chapter 3, Statutes of 1999), established the Academic Performance Index (API), which summarizes a school's or local educational agency's (LEA) academic performance and progress on statewide assessments. The score can range from 200-1000. As identified in Table 1, every California school has a target of 800, with yearly growth goals based on current score (California Department of Education [CDE], n.d.).

Table 1

California API expectations

School or Subgroup 2007 Base API	2007-08 Growth Target
200 - 690	5 percent of the difference between the Base API and the statewide performance target of 800
691 - 795	Gain of 5 points
796	Gain of 4 points
797	Gain of 3 points
798	Gain of 2 points
799	Gain of 1 point
800 or more	must maintain an API of at least 800

Adequate Yearly Progress (AYP): The Federal No Child Left Behind (NCLB) Act of 2001 requires that California determine whether or not each public school and LEA is making Adequate Yearly Progress (AYP). AYP criteria encompass four areas: participation rate, percent proficient (also referred to as Annual Measurable Objectives or AMOs), API as an additional indicator for AYP, and graduation rate. Each of these four areas has specific requirements. Participation rate and percent proficient criteria must be met in both English-language arts (ELA) and in mathematics. Schools, LEAs, the state, and numerically significant subgroups must meet percent proficient targets (or AMOs) in ELA and mathematics on the assessments used in AYP calculations. Schools must have a minimum API of 620 *or* have at least one point growth in the API in addition to meeting the other federal AYP targets (participation rate, percent proficient, and graduation rate) in order to make AYP (CDE, n.d.).

Program Improvement (PI): The No Child Left Behind Act of 2001 requires that all schools or local education agencies that do not make AYP are identified. In California, PI is the formal designation for Title I funded schools that fail to make AYP in the same content area (language arts or math) school wide or within any numerically significant subgroup for two

consecutive years. There are five levels of PI status. Once a school fails to meet AYP and enters PI, it will continue to increase status until it meets AYP for two consecutive years. Following two years of AYP failure, a school enters PI 1 status. The state has identified corrective action requirements for schools that progress further into PI status. (Appendix A) (CDE, n.d.)

Standardized Testing and Reporting Program (STAR): First authorized by law in 1997, the Standardized Testing and Reporting (STAR) Program is administered annually to California's public school students in grades two through eleven. The purpose of this program is to measure how well students are learning the knowledge and skills of the state content standards, adopted by the State Board of Education, for English–language arts, mathematics, history–social science, and science.

California Standards Tests (CST): Measure students' achievement of California's content standards in English–language arts, mathematics, science, and history–social science. The CST's are for students in grades two through eleven**.**

Importance of the Study

This study is designed to address the achievement of students in the urban environment. The population of minority, low-income students living in urban environments is growing rapidly and these students have been demonstrating lower achievement on standardized tests than their suburban, non-minority counterparts. Through the examination of successful schools, this research will lead to a better understanding of the specific teacher attitudes and beliefs that improve student achievement in environments that have traditionally experienced academic failure. This can contribute to the research community as another forum to address the specific needs of the urban population. This will also provide urban educators with concrete examples of successful schools that share similar demographics to their own schools.

In addition to identifying teacher beliefs that are essential for the success of students, this study will reveal the value of collective organizational culture that shares common beliefs about the success of students. This may lead to the development of new belief systems for teachers and schools in the urban environment.

This study can also serve as an educational tool for teacher education programs. Many new teachers struggle when faced with teaching in an urban environment. The findings can provide insight into specific teacher beliefs and attitudes that need to be developed within the teaching community in order to provide students with the greatest opportunity to experience academic success. It may also provide insight into attitudes and characteristics that school districts should seek in teacher applicants. In addition, schools that participate in the research will be able to examine the data and gain insight into the specific characteristics of schools with high individual and collective efficacy. This may lead to changes in school decision making so as to best meet the needs of all children.

Limitations

This study was conducted in a single urban district in Los Angeles County. The elementary schools selected consist of the eight PI 5 schools and the nine schools achieving over 800 on the CST. The willingness of these schools to participate in the study limited the number of schools in the study. The results of the small population may limit the transferability of results to the general school population. This study focused solely on teacher efficacy and there are multiple variables that may play a critical role in the achievement of students. The researcher sought to control the other variables by selecting schools with similar student demographics, teacher demographics and curriculum. However there is a limit to the ability to control every factor in order to isolate efficacy as the only variable when measuring student achievement

Assumptions

The researcher assumes that the efficacy instruments (Collective Teacher Efficacy Instrument and Teacher Efficacy Scale) will provide useful data. The Teacher Efficacy Scale was designed for use with pre-service teachers in a Midwestern community. The Collective Teacher Efficacy Instrument was developed using information from teachers in a variety of states and schools. Both instruments were tested and evaluated extensively and provided useful data for the community tested. It is assumed that these instruments are appropriate and useful for practicing teachers in the urban school environment. Additionally, the researcher assumes that participants provided honest responses and feedback due to the anonymity of the surveys.

Chapter 2: Review of Literature

The United States public education system is currently struggling with educating all of its students, especially those in urban public schools. The population of minority, low-income students living in urban environments is growing rapidly and the majority of these students have demonstrated lower achievement on standardized tests than their suburban, non-minority counterparts. Recent reform efforts have focused upon identifying the factors that create successful schools.

Several researchers have examined successful schools with the hope of replicating their positive results and several factors have been identified as key components for school success. Efficacy has been identified as a key component of student achievement. Student self-efficacy and teacher efficacy have been linked to student achievement. Some limited research has also linked collective efficacy to successful schools. However, there has been limited research on the relationship between teachers' individual sense of efficacy, the collective teacher efficacy of a school, and student achievement. Therefore the study of a possible correlation between these variables would be a valuable study in the effort toward reform in urban public education.

Urban Education

The achievement gap in the United States public educational system has been an issue since the development of public schools. The landmark Brown v. Board of Education (1954) case served as a significant turning point for the educational rights of all citizens of the United States. In its ruling, the Supreme Court stated:

Today, education is perhaps the most important function of state and local governments. Compulsory school attendance laws and the great expenditures for education both demonstrate our recognition of the importance of education to our

democratic society. It is required in the performance of our most basic public

responsibilities, even service in the armed forces. It is the very foundation of good

citizenship. Today it is a principal instrument in awakening the child to cultural

values, in preparing him for later professional training, and in helping him to

adjust normally to his environment. In these days, it is doubtful that any child may

reasonably be expected to succeed in life if he is denied the opportunity of an

education. Such an opportunity, where the state has undertaken to provide it, is a

right which must be made available to all on equal terms.

(Colorado Education Association, n.d.)

This ruling identified the value of education and the need for equal access for all students.

Despite the passage of this law, the educational achievement gap still exists in the United

States public education system. As identified by the U.S. DOE (2010b, section 1a) in 2007-

2008, there were 16,122 schools considered high poverty (76%-100% of the students were

eligible for free or reduced–price meals).   Twenty percent of all public elementary schools were

identified as high-poverty. High poverty schools are generally concentrated in city or urban

environments with 40% of city elementary schools identified as high-poverty.

The state of California is ranked fifth with 34% of its elementary schools identified as

high-poverty. Filled with 40% of the nation's minorities and 30% of the economically

disadvantaged, two-thirds or more of urban students fail to meet the basic level on national

achievement tests (Swanson-Gehrke, 2005). This de-facto segregation has created many

economic and societal concerns for the nation. The drop-out rates in urban schools are high. In

2000-01, no large city school districts had a graduation rate higher than 80%, with one-quarter of

the 46 large public school districts reporting dropout rates of 40% or greater (Fredricks & Dixon,

n.d.). The economic effects are far-reaching: dropouts demonstrating an increased likelihood to live in poverty, a greater reliance on public assistance, increased health problems, and greater participation in criminal activity (Fredricks & Dixon, n.d.).

Rotherham and Mead (2007) stated, "Radically improving urban schools will not solve the various social ills that plague our great cities. But it is virtually impossible for policymakers to successfully address these challenges without dramatic improvements in schooling" (paragraph 4). Urban schools are burdened with many challenges while trying to address the academic needs of their student populations. In a case study analysis of four urban districts including Charlotte-Mecklenburg, Houston, Sacramento, and New York City, Snipes et al. (2002) identified political conflict and lack of focus on academic achievement, unsatisfactory academic achievement, lack of instructional coherence, low expectations and a lack of demanding curriculum, high student mobility, and inexperienced teaching staff as the struggles that overwhelm many urban schools. In a literature review of the status of education in high-need urban schools, Foote (2005) identified specific characteristics of the schools, teachers, and students that contribute to the challenges in urban schools. Urban schools often lack basic material resources including desks, literature, textbooks, and current technology that are available to students in suburban and affluent environments (Lewis, Parsad, Carey, Farris & Smerdon, 1999).

The disparity isn't limited to material resources; it extends to matters of personnel. The challenges within urban schools require teachers who have the ability to provide, culturally relevant instruction, strong content knowledge, maintain high expectations, and actively engage students in learning (Darling-Hammond, 2000; Foote, 2005; Goe & Stickler, 2008; Talbert-Johnson, 2004;). The need for exceptional teachers in the urban schools has been recognized;

however, there is a struggle to hire and maintain highly qualified teachers. High poverty schools

have a smaller percentage of teachers who have earned master's degrees, hold regular

certification, and have years of teaching experience (U.S. DOE, 2010b). Additionally, the

United States Department of Education (2005) noted that although the rate of total teacher

turnover in low and high poverty public schools was not statistically significant, teachers in high

poverty schools were twice as likely to move to another school as their low-poverty counterparts.

This leads to urban students receiving education from a series of teachers who are often

underprepared and inexperienced to meet their needs.

Students in urban schools differ demographically from their suburban and rural

counterparts. High poverty urban schools are primarily composed of African American and

Hispanic students, with over 25% identified as limited-English proficient (U.S. DOE, 2010b). In

addition to these differences, urban students are often exposed to greater violence that can lead to

disruptive behavior and academic difficulties (Garbarino, Durbrow, Kostelny, & Pardo, 1992),

increased transiency, which leads to frequent absences or school changes (Burnett, 1994), and

low or limited academic expectations (Howey, 1996).

The challenges of the school environment, teacher quality and student characteristics

provide the context for the academic struggles of urban students. The results from 1998-2009 on

the National Assessment of Educational Progress (NAEP) exposed the disparity between the

reading and mathematics skills of high-poverty and low-poverty students in the United States.

During the span of a decade, high-poverty students continued to score below their more affluent

counterparts. In 2009, 14% of fourth graders from high-poverty schools performed at or above

proficient, compared to 50% of fourth graders at low-poverty schools. The same pattern was

evident in mathematics, with 17% of fourth graders in high-poverty schools scoring at or above

proficient in contrast to the 60% at or above proficient in low-poverty schools (U.S. DOE, 2010b).

The data reveals the urgent need for improvement in urban public schools. The increasing number of struggling students and the current focus on accountability and assessment highlights the importance of addressing the needs of students in urban schools. Therefore it is critical to examine student achievement.

Student Achievement

The achievement gap between minority and non-minority students and advantaged and disadvantaged students was the impetus for the passage of NCLB. The legislation signed by President Bush in 2002 was designed "to ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging State academic achievement standards and state academic assessments" (U.S. DOE, n.d.). The law requires mandatory standards based assessments, publication of disaggregated data and increased accountability for lack of student achievement. As a result, there has been an increased focus on student achievement and the variables that impact it.

Student achievement in urban schools. The Equal Educational Opportunities Study conducted by Coleman et al. (1966) was designed to identify strategies to equalize the educational opportunities for poor, minority students. The quantitative study examined 600,000 children in 4,000 schools. Prior to the study, it was assumed that the disparity in funding between African American schools and Caucasian schools was the primary cause of educational differences. However, Coleman et al. concluded:

Schools bring little influence to bear on a child's achievement that is independent of his background and general social context; this very lack of an independent

effect means that the inequalities imposed on children by their home, neighborhood, and

peer environment are carried along to become the inequalities with which they,confront

adult life at the end of school. For equality of

 educational opportunity must imply a strong effect of schools that is independent of the

child's immediate environment, and that strong independent effect is not

present in American schools. (p. 22)

These conclusions led to questions about education and the effect schools and teachers had on

students. In an effort to disprove the notion that external factors were the determinant factor in

student achievement, other studies were conducted in order to identify the attributes of effective

schools.   Edmonds (1982) and Lezotte and Pepperl (1999) led the *effective schools movement*

and identified seven correlates of effective schools: "clear and focused mission, strong

instructional leadership, safe and orderly environment, climate of high expectations, opportunity

to learn and time on task, frequent monitoring of student progress and a positive home-school

relationship" (Lezotte & Pepperl, 1999, p. 102).

Reeves (2003) further investigated the qualities of effective schools in his identification

of the 90/90/90 schools (90% minority, 90% free/reduced lunch, 90% proficiency). Based on

observations in Milwaukee public schools, Reeves identified five common characteristics of the

high achievement schools: "focus on academic achievement, clear curriculum choices, frequent

assessment of student progress and multiple opportunities for improvement, emphasis on non-

fiction writing and collaborative scoring of student work" (p. 3).

High performing, high poverty schools were also identified by Barth et al. (1999) in a

survey based study. The criteria for the 366 participating schools included: a) The school is

among the ten highest performing high poverty schools on state assessments in reading or math

or b) The school is one of the ten biggest gaining schools on state assessments in reading or

math. The study found high poverty schools that exceeded expectations as a result of the use of

state standards to design curriculum and instruction, increased instructional time in reading and

math, devotion of larger funds to professional development to improve instruction,

implementation of comprehensive system of data monitoring, focused effort on parent

involvement, and state/district accountability systems that have consequences for school staff.

Success in high-poverty areas was also confirmed in a qualitative study of schools in

Lexington, Kentucky. Kannapel and Clements (2005) studied eight elementary schools that had

50% or more of students qualified for free or reduced lunch, made progress on the state test over

time, had an achievement gap less than 15 points between low and middle income students as

well as African American and Caucasian students, and scored 80 or higher on the state

accountability index. Using the Standards and Indicators for School Improvement (SISI), the

high performing schools were compared to eight low-performing schools. The high performing

schools demonstrated: the belief that all students can succeed at high levels, high expectations,

collaborative decision making, teacher acceptance in their role in student successor failure,

strategic assignment of staff, regular teacher-parent communication, caring staff and faculty, and

a dedication to diversity and equity.

In a further effort to isolate the multiple variables in schools and identify their impact on

student learning, Wang et al. (1990) identified six broad based categories: a) state and district

variables, b) out of school contextual variables, c) school level variables, d) student variables, e)

program design variables, and f) implementation, classroom instruction and climate variables.

The meta-analysis research revealed that program design variables such as intensity of services

provided to students, prescriptive instruction, organization of curriculum, and use of specific

instructional strategies such as cues, feedback, and engagement were the highest rated areas. These coincide with Barth et al. (1999) and Lezotte and Pepperl's (1999) identification of the importance of opportunity to learn/time on task and the value that Reeves and Barth et al. placed on clear curriculum taught using strong instructional practices. Reeves (2003), Jerald (2001) and Snipes et al. (2002) dispelled the myth that school variables, such as demographics, socio-economic status, and racial and cultural background, are a determinant in student achievement. The success of the 90/90/90 schools (Reeves, 2003), the Kentucky high-performing high-poverty schools (Kannapel & Clements, 2005), and the high achieving urban schools identified by Snipes et al. (2002) point to the considerable impact that school level variables such as school structure and teacher behaviors have on student performance.

In 2004, Blankstein wrote, "You cannot have a learning organization without shared vision" (p. 65) in the book, *Failure is Not an Option*. Also, Lambert (2003), Reeves (2003), Snipes et al. (2002), and Blankstein identified the necessity for a common vision, mission, values and goals for the success of a school. The development of a shared vision provides program coherence to programs and learning practices that can lead to equitable and effective learning for all children (Lambert, 2003). Following the development of a clear mission, the school can focus upon the other important principles of high-performing schools. These include: belief in achievement for all, collaboration, data driven decision making, active engagement of students, families and communities and the development of sustainable leadership (Blankstein, 2004; Lambert, 2003; Reeves, 2003; Snipes et al., 2002).

These studies reveal that academic successes in high-poverty environments are not isolated cases. Students in struggling high-poverty schools are capable of high achievement. In order to achieve academic excellence it is essential that struggling schools build upon the

knowledge and strategies that have proven effective. This study is designed to further identify the successful strategies used in high-performing, high-poverty urban schools.

Teachers and student achievement. Dufour and Eaker (1998) stated, "The bottom line is that there is just no way to create good schools without good teachers" (p. 205). Using data from a 50 state policy survey, Darling-Hammond (2000) found that "differential teacher effectiveness is a strong determinant of differences in student learning" (p. 1). Therefore, a careful examination of the impact of teachers and clarity on the meaning of teacher effectiveness is essential. Defining an effective teacher has been difficult due to the considerable variables that may impact student learning. Goe and Stickler (2008) examined teacher quality and effectiveness through four different lenses: qualifications, characteristics, practices and effectiveness.

Teacher qualifications, including certification, subject matter knowledge, general academic ability and intelligence, experience and continued learning, have been the focus of multiple studies. Strauss and Sawyer (1986) and Ferguson (1991) found strong relationships between teacher performance on certification tests and student achievement. In a study of North Carolina schools, Strauss & Sawyer identified a relationship between teacher performance on the National Teacher Examination and student test performance.   Similarly, Ferguson analyzed data from over 900 school districts in Texas. The analysis included the examination of teacher performance on the Texas Exam of Current Administrators and Teachers (TECAT), teacher experience, school size, spending of resources, community characteristics, census data and student achievement results. When controlling for socio-economic status, Ferguson found that the disparity in student achievement was primarily due to teacher qualifications. These studies

highlight the importance of teachers in student achievement. Therefore in order to improve

schools it is vital to focus upon the impact of teachers on student learning.

Classroom instruction and specifically teacher practices have been identified by Edmonds

(1982), Reeves (2003), and Snipes et al. (2002) as having a strong impact on student

achievement. Frequent monitoring of student performance, standards based instruction with

clear communication of objectives, and intellectually challenging curriculum have been

identified as key strategies in influencing higher student achievement (Barth et al., 1999; Jerald,

2001; Lezotte & Pepperl, 1999; Reeves, 2003; Snipes et al., 2002). According to DuFour and

Eaker (1998), Goe and Stickler (2008), and Stronge (2002), the teacher practices of differentiated

instruction, rigorous curriculum, classroom management, and discipline planning also reveal a

noteworthy impact on student achievement.

An area of teacher quality that continues to demonstrate impact on student performance is

teacher characteristics (Goe & Stickler, 2008; Stronge, 2002). These are defined by Goe and

Stickler (2008) and Stronge (2002) as interpersonal relationships with students, teacher

expectations, and efficacy. In an effort to more carefully define effective teaching and create a

system of national certification, The National Board for the Professional Teaching Standards

(NBPTS) has identified five core propositions that define what teachers should know and be able

to do. The first proposition states, "Teachers are committed to students and their learning"

(NBPTS, nd, para 2). This requires teachers to "act on the belief that all students can learn, (and)

adjust their practices as needed" (DuFour & Eaker, 1998, p. 212). Jackson (2009) defined an

expectation as "the confidence that something will happen" (p. 81). Expectations are based upon

the core beliefs and values of each teacher. While studying Wisconsin's high-poverty, high-

performing schools, Manset et al. (2000) found that high expectations for all students were an

essential component in the success of the schools. Shannon & Bylsma (2007) identified nine

characteristics of high performing schools in their meta-analysis of effective schools research.

The second identified characteristic was high standards and expectations for all students:

> Teachers and staff believe that all students can learn and meet high standards. While
>
> recognizing that some students must overcome significant barriers, these obstacles are not
>
> seen as insurmountable. Students are offered an ambitious and rigorous course of study.
>
> (p.24)

Teacher expectations can be divided into three general types: teacher's perception of

current student level, teacher's prediction about the academic progress a student will make, and

the accuracy of the teacher's estimate of student's present level (Shannon & Bylsma, 2007). The

Pygmalion Effect is a phrase used to describe the results of teacher expectations. This, of course,

refers to the Shaw play, *Pygmalion*, in which a British linguistics professor in the nineteenth

century proposes that he can train a very poor street girl who speaks Cockney dialect to speak the

Queen's English at a fancy ball and pass for royalty. In their original study of the effect of

teacher expectations on student achievement, Rosenthal and Jacobsen (1968) gave teachers false

information about the learning potential of students in an elementary school. Although the

students were selected randomly, teachers were told that the students were on the verge of great

academic achievement. At the conclusion of the experiment, several students demonstrated

growth that was superior to the growth of students with similar intellectual abilities.

This led Rosenthal and Jacobsen (1968) to conclude that teacher expectations caused the

students to have superior growth. Several successive studies were conducted in order to confirm

the results. Cooper, Findley, and Good (1982) studied 13 third through sixth grade reading

teachers in a Midwestern school district. Teacher expectations were measured using three

indexes: a) teacher's perceived ability of student, b) expected student improvement as ranked by the teacher, and c) discrepancy between teacher perception and student ability. The qualitative study revealed that many teachers over-estimated the ability of their students. Additionally, teachers' perceptions of students' abilities were strongly correlated to student achievement; the higher the perceived ability of the student, the greater the achievement gain during the 6 month period (Cooper et al., 1982). These results confirmed the conclusions of Rosenthal and Jacobsen.

Expectancy beliefs may result in exhibition of differential behaviors. Mitman (1985) studied the impact of teacher expectations on their differential behavior toward students. Observing teacher behavior and monitoring the student achievement results of 12, third-grade teachers and their students in suburban northern California, researchers found that teacher behavior differed based upon expectation of student performance. Although the study was limited in scope, it revealed that teachers who displayed a concern for high achieving students demonstrated behaviors such as positive feedback, personal contact, and praise. These results revealed the need to examine the relationship between teacher expectations and specific instructional behaviors that impact student achievement.

Teacher expectations not only lead to differential teacher behaviors but also student behaviors. Good and Brophy (2000) identified student growth as a "self-fulfilling prophecy" resulting from a process of turning teacher expectations into student behavior. First, the teacher expects different, specific behavior and achievement from particular students. Some of these differential behaviors directed toward low-expectation students include: fewer opportunities to learn new material, shorter wait time to answer questions, providing inappropriate reinforcement, criticizing for failure, limiting feedback, paying less attention, seating far from teacher, differential grading of tests, asking lower-level questions and being less friendly and responsive

(Cotton, 1989; Good & Brophy, 2000; Mitman, 1985). As a result of these expectations, the teacher behaves differently toward the students. The student uses the teacher behavior to determine expectations of their own performance. Then, if the behavior is consistent, it will affect student self-concept, achievement, motivation, level of aspiration, classroom conduct and interaction with the teacher. This behavior then reinforces the teacher's expectations and students continue the same behavior. Thus, "high-expectation students will be led to achieve at high levels, while low-expectation students will not gain as much as they could have" (Good & Brophy, 2000, p. 79).

Several variables have been identified as essential components of effective schools. Student achievement results from a combination of many of the variables. However, teachers have been identified as a key element in successful schools. Therefore this study will be more narrowly focused upon the teacher as an essential component of student achievement.

Efficacy

The strong impact that expectations have on student and teacher behavior require an examination of their development and changeability. It is critical to examine human behavior theory and its role in the development of belief systems. Psychologists have spent decades studying human thought and behavior in order to gain a greater understanding of human actions. Behavioral, cognitive, developmental, humanist, personality and social-psychology theories have been developed in order to explain human behavior. Many early theorists postulated that behavior was a result of forces within the individual and therefore external factors had no influence. However, after several early psychological studies revealed that addressing the internal impulses had a limited effect in changing behaviors, it became clear that a change in

focus was essential (Bandura, 1977a). Behavior theory thus shifted to a "detailed examination of external influences on human responsiveness" (Bandura, 1977a, p. 5).

   Social learning theory. This theory was first developed by Rotter (1954) as an explanation of human behavior using the concept of expectancy. The theory was based on the belief that behavior was changeable as a result of circumstances, experiences, and environment. There were four components of the theory: behavior potential, expectancy, reinforcement value, and the psychological situation. Rotter defined expectancy as "the probability held by the individual that a particular reinforcement will occur as a function of a specific behavior on his part in a specific situation or situations" (p. 107). These expectancy beliefs were later distinguished as two separate constructs: specific and general expectancies. Specific expectancies were "based on past experience in situations perceived to be the same" (p.166). General expectancies were based upon "perceived similarity of reinforcements and those based on perceived similarity of the situation" (Zuroff & Rotter, 1985, p. 19). General expectancies for control of reinforcement of behavior were further defined as locus of control or the source of behavior reinforcement and individual identifies. Individuals can vary between a strong internal or external locus of control. Individuals with a strong sense of external locus of control feel that they have little responsibility in what occurs and that all positive and negative reinforcement is due to luck or chance. On the contrary, an individual with a strong sense of internal locus of control believe that he or she is responsible for everything that happens, and therefore put forth effort in activities (Zuroff & Rotter, 1985).

   Social cognitive theory. Using social learning theory as a base, Bandura (1977b) explored learning theory through a cognitive lens. Social Cognitive Theory is based on the premise that individuals possess a mental system that enables them to exercise a measure of

control over their thoughts, feelings, motivation, and actions. It is the interaction of personal factors, behavior, and the environment that influences human actions. The theory identifies humans as agents, or influencers of action. There are two modes for acquiring behavior: learning through response consequences or learning through modeling. Response consequences are a result of direct experience and serve three functions: informative, motivational and reinforcing. As individuals perform daily tasks and demonstrate different behaviors, the responses of others and the outcomes of the actions are noted. The responses and outcomes that are most appropriate are used as a guide to determine future behaviors. Motivational function is the use of past experiences to create expectations that certain future results will occur. This leads to actions based upon the anticipation of future consequences. Reinforcement is the final form of acquiring behaviors through first hand participation. "Reinforcement provides an effective means of regulating behaviors that have already been learned" (p. 22).

Bandura (1977b) wrote, "Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do" (p. 22). In order to effectively learn through observation, individuals must develop their attentional, retention, motor reproduction and motivational processes. The first step in acquiring behavior through modeling is carefully attending to the modeled behavior. The individual modeling the behavior, the observer's characteristics and the specific activities observed influence the acquisition of the behavior. An individual is only able to accurately demonstrate modeled behavior, if he or she retains the information obtained during the observation. In order for observers to remember the behaviors of the model, "the response patterns must be represented in memory in symbolic form" (p.25). An observed behavior will only be fully learned if it is also practiced. Therefore the third step in learning through observation required

the individual to reproduce the modeled behavior. The final component of adopting modeled behavior is a result of the outcome of performance. Once the behavior is demonstrated, the individual looks to the responses of others in order to determine if the behavior will be performed again or eliminated .

A key component of social cognitive theory is self-belief. This is formed as a result of self-reflection of experiences, thoughts and actions. Individuals develop these beliefs as they engage in a behavior, interpret the results of the actions, create beliefs about their abilities based on the actions and behave in a manner aligned with the beliefs (Pajares, 1997). Thus, the belief system of individuals may be a better predictor of outcomes than what people know, the skills they possess, or what they previously accomplished (Pajares, 1997).

Self-efficacy. Self-efficacy is rooted in the social cognitive theory established by Bandura (1977a). In order to understand self-efficacy, it is essential to differentiate it from self-concept and self-esteem. Self-concept is a view of oneself formed from personal experiences as well as the reactions and beliefs of others (Bandura, 1977a). It is measured through self-evaluation of attributes and then tested through identification of behaviors and their correlation to self-concept. While self-concept measures an individual's attitude toward self and his or her general outlook on life, it doesn't provide specificity to activities. An individual with the same self-concept can display different behaviors dependent upon the activity. Self-esteem is a measure of one's self worth and generally isn't context specific.

Self-efficacy is based upon the judgment of personal capability (Bandura, 1977a). It is not a fixed ability, but rather a "generative capability in which cognitive, social, emotional and behavioral subskills must be organized" (Bandura, 1997, p 36). Self-efficacy measures not just the skills that an individual possesses, but his or her ability to use those skills successfully in

various contexts. It is not unusual to find individuals with the same skills or one individual under different conditions performing differently. The resulting behavior is not due to possession of skills but rather self-efficacy (Bandura, 1997).

A critical component in self-efficacy is differentiating between outcome expectations and efficacy expectations. Outcome expectancies are defined as "a person's estimate that a given behavior will lead to certain outcomes" (Bandura, 1977b, p.193), while efficacy expectations are "the conviction that one can successfully execute the behavior required to produce the outcomes" (Bandura, 1977b, p. 193). It is the efficacy expectations that play a role in the effort individuals expend and their willingness to overcome obstacles in challenging experiences. Self-efficacy beliefs influence the motivational and regulatory processes of individuals. These beliefs can influence the choices individuals make, the effort expended on an activity, the willingness to persevere in the face of obstacles, resiliency and the level of stress and anxiety and individual experiences (Pajares, 1997).The greater the self-efficacy, the more likely the individual will persist in activities (Bandura, 1977b). In fact, efficacy beliefs are a "major determinant of people's choice of activities, how much effort they will expend, and of how long they will sustain effort in dealing with stressful situations" (Bandura, 1977b, p. 194). Efficacy expectations can differ in magnitude, generality and strength.

Sources of self-efficacy. There are four sources of self-efficacy beliefs: enactive mastery experience, vicarious experience, verbal persuasion, and physiological state (Bandura, 1997). Enactive mastery experiences are the most influential sources of efficacy because they provide first-hand experience in an activity. The change in self-efficacy depends upon factors such as perception of capabilities, difficulty of the task, effort expended, amount of external support received, the scenario of the activity, and the pattern of successes and failures (Bandura, 1997).

Successful completion of an activity generally increases self-efficacy, while failure typically decreases it. If an individual experiences only quick and easy successes, then although he or she may have high self-efficacy, it is common to expect quick and easy results and then give up quickly when faced with a challenge (Bandura, 1997). For example, when a child in elementary school is able to successfully pass tests with limited effort, as the work becomes more challenging and effort must be increased, the child experiences frustration and gives up easily because of the lack of development of persistence self-efficacy. On the other hand, when an individual overcomes obstacles, perseveres in an activity and experiences success, a stronger sense of self-efficacy is developed. The difficulties have provided the individual with an opportunity to turn failure into success and thus develop a schema for overcoming obstacles and persisting in the face of distress.

A second source of self-efficacy is vicarious experiences (Bandura, 1997). This occurs during observations of a specific behavior and the resulting consequences to others. These individuals may model behavioral or cognitive competencies. The change in self-efficacy is dependent upon the characteristics of the models. When individuals observe others with similar or less developed physical and cognitive skills complete a task, they experience and increase in beliefs in their own capabilities (Bandura, 1997).

Verbal persuasion is another source of developing self-efficacy. Feedback and encouragement from others can provide motivation to complete tasks. The positive reinforcement and assurance that a task can be completed may build self-efficacy. However, the persuasion must be rooted in honesty and not simply empty praise (Bandura, 1997). The role of the persuader is to develop the individual's belief in himself while ensuring that the vision is attainable (Pajares, 1997). Persuasion can work to both increase and decrease self-efficacy. In

fact, negative persuasions can more easily weaken self-efficacy then positive persuasions can increase self-efficacy (Bandura, 1986). In order for verbal persuasion to effectively impact self-efficacy, it must be coupled with structured activities that allow an individual to demonstrate success and therefore see merit in the verbal encouragement (Bandura, 1997).

The final source of self-efficacy development is physiological and emotional states (Bandura, 1997). Anxiety, stress, arousal, fatigue and mood can affect self-efficacy. A stressful situation can negatively impact self-efficacy as individuals interpret the stress as a sign of future poor performance (Bandura, 1997). Additionally, Kavanagh and Bower (1985) noted that mood can have an impact on self-efficacy: a positive mood can enhance self-efficacy while negative mood can decrease it. Diminishing fear and reducing emotional arousal can reduce self-doubts, lead to successful performance of an activity, and thus increase self-efficacy (Bandura, 1977b).

Effects of self-efficacy. Efficacy beliefs play a role in an individual's feelings, thoughts, motivations, and actions (Bandura, 1997). According to Bandura (1997), these beliefs manifest through four major processes: cognitive, motivational, affective, and selective. Each of these processes contributes to the overall performance of an individual; in other words, how they think, feel, and act or behave.

Cognitive processes are the thought patterns that affect the behaviors of individuals. A high sense of self-efficacy alters the perspectives individuals have in a situation. Individuals with high self-efficacy are future focused and typically visualize success scenarios and set high goals (Bandura, 1997). These are belief patterns that affect a person's cognitive process and therefore contribute to the sense of self-efficacy.

A key cognitive component of self-efficacy deals with the perception of ability. Ability can be viewed as an acquirable skill or an inherent aptitude. Individuals who believe their

abilities are acquirable seek opportunities to expand their knowledge and competencies. They

also view errors as a natural part of the learning process and generally measure their success

through personal improvement rather than through comparison to others (Bandura, 1997). When

ability is viewed as an inherent aptitude, individuals regard performance as measurement of

capacity, and thus failures signify intellectual deficits. Another factor in the cognitive

development of self-efficacy is an individual's belief about the environment. Individuals who

view the environment as malleable and thus somewhat under their influence are more likely to

undertake actions that increase their self-efficacy (Bandura, 1997).

Self-efficacy also influences motivation. Motivation is cognitively generated and can

help shape the behavior of individuals (Bandura, 1997). When individuals participate in any

activity, they generally motivate themselves based upon a set of beliefs about their current ability

and the likelihood of success or failure (Bandura, 1997). Bandura (1997) identified three

different theories related to motivation: attribution, expectancy-value, and goal theory.

Attribution theory relies on the review of previous actions and results. Individuals who identify

success as a result of personal ability and failures due to lack of effort will continue to persist in

the face of adversity and strive to complete difficult tasks. This is a result of the belief that they

can influence the outcome of every action. Individuals who identify failures as a result of

limited ability and successes as a result of outside factors, set low expectations and easily give up

in the face of a challenge. Expectancy theory explains a second method of motivation. In this

model, individuals guide their actions based upon anticipated outcomes. The greater the

expectancy of valued outcomes, the greater the motivation is to complete the activity. The final

theory related to motivation is goal theory. Individuals establish goals and complete activities

designed to attain them. After using their skills to achieve their goals, individuals with high self-efficacy continue to set higher goals.

Self-efficacy also plays a role in the affective processes. Individuals with high self-efficacy demonstrate several behaviors that diminish negative affective responses. These individuals are able to control negative thoughts due to their belief in their own control over outcomes. As a result, they don't imagine negative outcomes or frightening images. Additionally, individuals with high self-efficacy are able to more readily adopt strategies for regulating stress during difficult situations (Bandura, 1997).

Teacher efficacy. Self-efficacy has been explored in multiple fields, but for the purpose of this study, self-efficacy will be examined through the lens of the academic world. Efficacy studies in the academic world generally explore two different constructs: self-efficacy of students and efficacy of teachers. This study will strictly focus upon teacher efficacy.

Whitaker (2003) remarked, "The variable is not what teachers expect of students, (it is) what teachers expect of themselves" (p.17). Teacher efficacy is self-efficacy specifically related to the teaching profession. It is situation specific expectations that teachers have about their capabilities of assisting students obtain knowledge. In a three phase study, Gibson and Dembo (1984) developed an instrument to measure teacher efficacy. This 30 question Likert scale teacher efficacy instrument was completed by 208 elementary school teachers in two unified school districts. The analysis of the results revealed that teacher efficacy must be considered a two-part construct: teaching efficacy and personal teaching efficacy.

The expectation that student learning is influenced by teaching is identified as the sense of teaching efficacy (Ashton & Webb, 1986). It is the belief that teaching can overcome external obstacles, such as socio-economic status or student ability, in order to improve student

achievement. Hoy and Woolfolk (1993) identified this as *personal level of influence.* Individuals with a high sense of teaching efficacy believe in the tenets of the effective schools movement and therefore dispute the conclusions of Coleman et al. (1966) that schools have no impact on learning. Sense of personal teaching efficacy is a teacher's assessment of his or her own abilities (Ashton & Webb, 1986). This construct is based on the idea that all students are capable of learning. Personal teaching efficacy refers to the "individuals' assessment of their own teaching competence" (Ashton & Webb, 1986, p. 4). In their development of a new measurement of teacher efficacy, Tschannen-Moran & Woolfolk Hoy (2001) further delineated teaching efficacy into three subsets: engagement, instruction, and classroom management. Individuals may demonstrate differences in efficacy dependent on the variable, so isolating and identifying the areas of strength and weakness become critical. Additionally, individuals may have a strong teaching efficacy, yet they may have low personal teaching efficacy if they doubt their own abilities to accomplish the task.

    Sources of teacher efficacy. Teacher sense of efficacy is a situational construct. It can vary with time, setting, and level of preparation (Goddard, Hoy, & Woolfolk Hoy, 2000). Since teacher efficacy is simply a job specific form of self-efficacy, it is also developed from the same sources: mastery experiences, vicarious experiences, social persuasion, and physiological or emotional feedback (Woolfolk, 1998).

    Mastery experiences have been identified as important opportunities for developing teacher efficacy. Several studies have examined student teachers and the development of teaching efficacy during their practicum experience. In a qualitative study of 240 student teachers, Knoblauch & Woolfolk Hoy (2008) identified growth in teacher efficacy following the experience. Additionally, the location of the mastery experience was a critical component in the

development of the efficacy beliefs. Student teachers placed in urban schools demonstrated a significant increase in efficacy following the student teaching experience. This may be linked to Bandura's (1997) theory that success in difficult situations, such as challenging urban schools, lead to greater confidence and thus a greater sense of efficacy. In a longitudinal case study of a science teacher, Mulholland and Wallace (2001) also identified the enactive mastery experience as an essential component in the development of teacher efficacy. The teacher developed greater efficacy following successful implementation of lessons and improvement in student behavior.

Tschannen-Moran et al. (1998) and Goddard et al. (2000) also explored the development of teacher efficacy in pre-service teachers at a Midwestern university. The studies revealed the importance of pre-service teacher experiences in challenging learning environments, collaboration with peers, mentoring from experienced teachers and development of teaching skill sets in the building of teacher efficacy.

Teacher efficacy can also be developed and improved in experienced teachers. In a qualitative study of 315 high school teachers, Raudenbush, Rowan, and Cheong (1992) identified variables that change teachers' sense of efficacy. A greater sense of efficacy was correlated to teaching higher achieving students and having a high level of preparation for the subject matter. In a case study of an experienced English teacher, Milner (2002) identified verbal praise from supervisors and colleagues, student feedback, and the respect and support of colleagues as sources of teacher efficacy. In a comparative study of 725 Hong Kong and 575 Shanghai primary teachers, Cheung (2008) identified feedback from students, university training, and daily teaching experience as the primary factors in the development of a strong sense of teaching efficacy.

These studies reveal the malleability of teacher efficacy. The understanding of the sources and development of teacher efficacy can be critical information for teachers and administrators seeking opportunities to improve schools. Specific strategies identified in the studies can be used to develop teacher efficacy.

Effects of teacher efficacy. With a clear understanding of teacher efficacy and its sources, it is critical to identify the effects of teacher efficacy within schools. Teacher efficacy has been linked to job satisfaction, use of innovative strategies, goal setting, and student achievement.

The turn-over rate of teachers, especially those in challenging urban environments has been identified as a source of the difficulties in low-performing schools (U.S. DOE, 2010b). Teacher sense of efficacy has been associated with job satisfaction. In a quantitative study of 103 Italian junior high schools, Caprara, Barbaranelli, C., Steca, P., & Malone (2006) concluded that teacher self-efficacy directly influenced teachers' job satisfaction. Self-efficacy has also been linked to commitment to the teaching profession and willingness to persist in challenging situations In a case study of an experienced English teacher, Milner (2002) identified a strong sense of teaching efficacy as a primary reason for a teacher's willingness to persist after criticism from students and parents about her teaching style. The teachers' strong sense of personal teaching efficacy convinced her to continue in the job despite the challenges.

Teacher sense of efficacy has also been connected to improved educational practices. Ashton & Webb (1986) referred to teacher efficacy as the "situation specific expectation that (teachers) can help students learn" (p.3). These expectations influence behaviors, thoughts, actions, effort and persistence (Bandura, 1986). Gibson and Dembo (1984) sought to identify the differential behaviors of teachers with high and low sense of efficacy. In phase three of a three

part study on efficacy, eight teachers (four high-efficacy and four low-efficacy) were observed. Although the scope of the study was limited by the small number of participants, some differences were observed between high-efficacy teachers and low-efficacy teachers. High-efficacy teachers spent more time preparing for lessons, provided more praise, and tended to persist when students provided wrong answers (Gibson & Dembo, 1984). Allinder (1995), in a quantitative study of 19 special education teachers, correlated teacher's sense of personal and teaching efficacy to improved service for special education students. The teachers gave weekly computer based assessments to students and adjusted goals and instruction based upon student results. Teachers with a higher sense of personal and teaching efficacy increased student goals more often, established more rigorous goals, and had students with significantly greater growth in mathematics (Allinder, 1995). These studies reveal the critical connection teacher efficacy has to instruction. The conclusions identified can provide support for a plan to develop and improve individual teacher efficacy.

Teacher sense of efficacy has also been linked to willingness to implement instructional innovations. In a qualitative study of 25 teachers participating in a professional development course, Ghaith and Yaghi (1997) measured efficacy, experience, and attitude toward implementation of new instructional practices. The results revealed that personal teaching efficacy was positively correlated to willingness to implement new strategies. This reiterates the key role teacher efficacy has in developing teacher practices and improving schools.

One of the earliest studies that addressed the role of teacher efficacy in student achievement was conducted by the Rand Corporation. Armor et al. (1976) conducted an analysis of 20 elementary schools in the Los Angeles Unified School District (LAUSD) that demonstrated large gains on national reading assessments. The mixed-method study sought to

identify the variables that were associated with consistent gains in reading test scores among minority students. The variables examined included school leadership, allocation of resources, level of implementation of reading program, community involvement, classroom attributes and teacher attributes. Background factors such as socioeconomic status, health, ethnicity and attendance were identified as having the greatest impact on the reading scores of the sixth grade students (Armor et al., 1976). However, the specific characteristics of the school and teacher also had an impact on student achievement in reading.

Teachers were identified as having a significant effect on the achievement of African American children (Armor et al., 1976). In their analysis of background characteristics such as teacher's race and ethnicity, undergraduate training, college attended, additional training and teaching experience, Armor et al. (1976) found no relationship between student achievement and these variables. However, a strong correlation was identified between teacher efficacy and student achievement. Efficacy was measured using two statements. First, teachers were asked their level of agreement, using a five point scale, with the belief that "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" (p. 23). Teachers who strongly agreed with the statement were identified as less efficacious. Secondly, teachers were asked to respond to the statement "if I try really hard, I can get through to even the most difficult or unmotivated students" (p. 23). Teachers who strongly agreed with this statement were identified as highly efficacious. The responses to both questions were combined into a single measure, and the regression analysis of sixth grade reading achievement and teacher efficacy show a significant correlation. Highly efficacious teachers produced students with higher reading achievement scores than less efficacious teachers.

A second Rand Corporation study conducted by Berman, McLaughlin, Bass-Golod, Pauly, and Zellman (1977), further identified the impact of teacher efficacy. The mixed methodology study, using 100 schools, was designed to measure the sustainability and institutionalization of educational projects after the federal funding was eliminated. The variables measured included: implementation strategies, organizational climate, school characteristics and teacher characteristics. In order to measure teacher characteristics, data was collected on age, educational background, verbal ability, years of experience and sense of efficacy. Using the statements developed by Armor et al. (1976), teachers' sense of efficacy was measured, and the regression analysis revealed a positive relationship between efficacy and "percent of project goals achieved, the amount of teacher change, improved student performance, and continuation of both project methods and materials" (Berman et al., 1977, p. 137). In fact, the significant relationship between teacher sense of efficacy and success of programs led Berman et al. to suggest additional research into the development of teacher efficacy and student achievement.

As a result of the research conducted in the Rand studies, Ashton & Webb (1986) conducted a series of studies on the effects of teacher efficacy. In an observational study of 48 basic skills math teachers in high schools, Ashton & Webb concluded that there was a significant relationship between teaching efficacy, personal efficacy and student achievement in mathematics. Student achievement increased 24% as a result of teaching efficacy and 46% as a result of personal efficacy. This highlights the critical role of the teacher in student achievement, and the need to develop and maintain personal efficacy.

Teacher efficacy was also studied by Logerfo (2006) in a national qualitative study of first grade students and teachers. The study linked teacher responsibility for student learning to

student achievement. Using the Early Childhood Longitudinal Study–Kindergarten Cohort (ECLS–K) prepared by the National Center for Education Statistics (NCES), data was gathered about student achievement and teacher attitudes about student learning. The data revealed that teachers accounted for ten percent of the difference in student achievement, with four percent of that due to teacher responsibility beliefs (Logerfo, 2006).

The above mentioned studies indicate the importance of teaching efficacy in student achievement. The majority of the teacher efficacy studies have focused upon one specific curricular area such as math, science or language arts. There has not been extensive research into teacher efficacy in the combination of math and language arts at the elementary level in urban schools.

Collective efficacy. Individuals do not live and work in isolation. In order to effectively solve problems, collaboration is essential. The initial studies of individual efficacy led to an examination of efficacy within different organizational structures.   Bandura (1997) stated that "the strength of families, communities, organizations, social institutions, and even nations lies partly in people's sense of collective efficacy that they can solve the problems they face and improve their lives through unified effort" (p. 477).

Whereas self-efficacy and teacher efficacy focus on the individual, "perceived collective efficacy is a construct derived from social cognitive theory that refers to the beliefs that organizational members hold about their work group's capability to attain desired goals" (Goddard & Skrla, 2006, p. 216). The teaching profession operates in a collective manner. Schools function as a cooperative entity, as teachers, students, parents and administrators work together to achieve goals. Within the world of education, collective efficacy is "the perceptions of teachers in a

school that the faculty as a whole can organize and execute the courses of action required to have a positive effect on students" (Goddard & Goddard, 2001, p. 809).

Sources of collective efficacy. Collective efficacy is based on Bandura's social cognitive theory. The important role of human agency or the level of control individuals have over their own life is the center of the theory. Collective efficacy addresses agency on a group rather than an individual level (Bandura, 1997). Social cognitive theory states that group choices are based on the strength of their efficacy beliefs (Goddard, Hoy, & Woolfolk-Hoy, 2004). Collective efficacy beliefs are developed from the same sources as individual efficacy beliefs. These include mastery experiences, vicarious experiences, social persuasion and affective states (Bandura, 1997).

Mastery experiences, which are identified as previous successes, have been identified as the most powerful source of efficacy beliefs (Goddard et al., 2004). In a study of 91 elementary schools in an urban Midwestern school district, Goddard (2001) identified the significant impact that mastery experience had on the collective efficacy beliefs within a school. In the study, mastery experience was measured using the prior year school reading achievement scores. Using a multilevel analysis of school-level variables including: prior reading achievement scores, proportion of African American students and proportion of students receiving free and reduced price lunches, 65% of the variation in collective efficacy between schools was attributed to mastery experience (Goddard, 2001). This correlates with Rosenthal and Jacobson's (1968) concept of a self-fulfilling prophesy. Once an organization identifies success, they feel confident that the same success can be replicated, thus their sense of efficacy increases.

Goddard and Skrla (2006) also identified mastery experience as a key influence in collective efficacy beliefs. In a quantitative study of 1,981 teachers from 41 K-8 schools in a

southwestern urban school district, teachers with 10 or more years of experience had significantly higher collective efficacy beliefs than less experienced teachers. Additionally, past levels of student reading proficiency was positively related to teachers' collective efficacy beliefs. Although this study revealed mastery experience as a critical component, Goddard and Skrla were only able to account for 46% of the variance in collective efficacy. This led to the suggestion of further investigation into other possible sources of efficacy including: school leadership, vicarious experiences and school climate.

Vicarious experience is another source of developing collective efficacy. This practice of observing successful schools and trying to replicate the effective strategies is common in the world of education. Goddard et al. (2004) suggested that "perceived collective efficacy may also be enhanced by observing successful organizations, especially those that attain similar goals in the face of familiar opportunities and constraints" (p. 5). This source of collective efficacy is connected to the effective schools movement as well as the research of Reeves (2003), Kannapel and Clement (2005), and Snipes et al. (2002). These studies revealed the effective practices of high-achieving high-poverty schools. Therefore, the collective efficacy of a school may be increased through observation of the identified high-performing schools.

The use of vicarious experience in school improvement is gaining additional support with the recent shift in the distribution of government funding for public education. In the move to change and reauthorize the Elementary and Secondary Education Act (ESEA) and NCLB, President Obama has altered the process of obtaining federal funding. The reauthorization of ESEA is focused upon five key priorities: developing college and career-ready students, requiring great teachers and leaders in every school, providing equity and opportunity for all students, raising the bar and rewarding excellence, and promoting innovation and continuous

improvement (U.S. DOE, 2010a). The competitive grants will be given to states, districts, and schools that "implement programs with the strongest available evidence" (U.S. DOE, 2010a, p. 26) of previous success. Therefore the development of collective efficacy through vicarious experiences may also provide key financial rewards for schools.

Social persuasion, which may include feedback or encouragement from a colleague, supervisor, student, or parent, also impacts collective efficacy. The persuasion may occur in formal settings such as professional development trainings, meetings with various stakeholders and the media, or through more informal settings such as the teacher's lounge, classrooms or parking lots. The impact of social persuasion on collective efficacy depends upon the credibility, trustworthiness, and the expertise of the persuader (Bandura, 1986). Goddard et al. (2004) noted that "although verbal persuasion alone is not likely to compel profound organizational change, when coupled with models of success and positive direct experience, it can influence the collective efficacy beliefs of a faculty" (p. 6).

A final source of collective efficacy beliefs identified by Bandura (1997) is the affective state of the organization. Limited research exists on the impact of affective states on collective efficacy; however, Goddard et al. (2004) have postulated that the stress related to mandated testing and publication of results can impact the collective efficacy of a school. Schools that have greater collective efficacy can "tolerate pressure and crises and continue to function without debilitating consequences" (Goddard et al., 2004). Understanding the sources of collective efficacy are pivotal as the discussion moves into the impact that collective efficacy has on schools.

Effects of collective efficacy. Although self-efficacy and individual teacher efficacy have been studied extensively, the examination of collective efficacy is a recent phenomenon. As a

result of his studies of self-efficacy and teacher efficacy, Bandura (1993) sought to expand

efficacy studies to an organizational level. Initial studies of collective efficacy have been linked

to student achievement.

In early studies of collective efficacy, Bandura (1993) identified the importance of

collectivism in the success of schools. High performing schools rely on the contributions of all

members of the staff; therefore, collective efficacy is a critical component of success (Bandura,

1993). In a series of collective efficacy studies, Bandura (1993) determined that

> Staffs who firmly believe that, by their determined efforts,
>
> students are motivatable and teachable whatever their background
>
> schools heavily populated with minority students of low socio-
>
> economic status achieve at the highest percentile ranks based on
>
> national norms of language and mathematical competencies. (p. 143)

Based upon the initial examination of collective efficacy by Bandura (1997), Goddard et al.

(2000), in a qualitative study of 452 teachers from 47 elementary schools in a large urban

Midwestern school district, sought to confirm the connection between student achievement and

school collective efficacy. An initial analysis was completed in order to identify the variance in

math and reading achievement associated with socio-economic status, gender, and ethnicity. In

the next level of analysis, the student demographic information became the control variable and

collective efficacy was examined. The analysis revealed that collective teacher efficacy

accounted for 53.27% of the between–school variance in math and 69.64% of the between-

school variance in reading (Goddard et al., 2000). Additionally, it was noted that collected

teacher efficacy was associated with "an increase of more than 40% of a standard deviation in

student achievement" (Goddard et al., 2000). These results reaffirmed the conclusion of Bandura (1997) and led to further investigations into collective efficacy and student achievement.

As a result of conclusions from earlier research, Goddard (2001) sought to further confirm the relationship between collective efficacy and student achievement. In a quantitative study of 91 elementary schools in a large urban Midwestern school district. Using the same analysis techniques of Goddard et al. (2000), Goddard (2001) also concluded that collective efficacy was "significantly and positively related to differences between schools in student achievement" (p. 474). However, he cautioned that the study was limited to a single district with below average achievement. Therefore a more comprehensive study incorporating multiple districts and varied levels of academic achievement would be beneficial.

A correlation between collective efficacy and student achievement was also identified by Cybulski, Hoy, and Sweetland (2005). As suggested by Goddard (2001), the study increased the diversity of school types by including a mixture of 146 rural, urban suburban schools. The study consisted of a three part analysis. First, the descriptive variables including socioeconomic status, prior math and language arts means and collective efficacy of the teachers were examined. Next, the correlations among the variables were analyzed, and finally, Cybulski et al. (2005) tested path models in order to identify the correlations and relationships between variables. The study found collective efficacy to be a predictor of student test performance; however, the "path from both socioeconomic status and prior academic achievement were greater than the path from collective efficacy of teachers to student achievement" (p. 454). As a result of the finding, Cybulski et al. suggested that future examinations of collective efficacy models should include socioeconomic status and prior academic achievement as control variables.

Socio-economic status is a variable that has been identified as the explanation for variances in student achievement. However, as noted in the studies of high performing high-poverty schools (Barth et al., 1999; Kanapel & Clement, 2005; Reeves, 2003; Snipes et al., 2002), high achievement can occur despite low socio-economic status. In an effort to identify whether collective efficacy makes a greater contribution to student achievement than socio-economic status, Schumacher (2009) studied 56 elementary schools in Iowa. The qualitative study revealed that there was a significant positive relationship between collective efficacy and student proficiency on reading and math achievement tests (Schumacher, 2009). However, when socio-economic status was controlled, the results changed. There was no longer a significant relationship between reading achievement and collective efficacy, yet there was still a significant relationship in math achievement despite socio-economic status. The results reveal more questions about student achievement, collective efficacy, and socio-economic status. Schumacher identified the need to expand the study to different geographical locations, greater numbers of schools, different levels of schools including middle and high schools and including additional variables beyond socio-economic status.

Collective efficacy also influences middle school student achievement. In a quantitative study of 49 middle schools in Virginia, Barr (2002) identified a significant positive relationship between collective efficacy and student achievement in eighth grade writing, math, and reading as measured on the Virginia Standards of Learning (SOL) tests. The results also indicated that collective efficacy was lower for schools with lower socio-economic status. Additionally, the results revealed that "with the exception of grade 8 SOL writing test, student achievement on grade 8 math and English SOLs tests were not independent of socio-economic status" (p. 67). This reveals a need to more closely examine collective efficacy and socio-economic status.

Collective efficacy also influences high school student achievement. In a quantitative study of 96 high schools in urban, suburban and rural schools in the Midwest, Goddard, LoGerfo and Hoy (2004) found a consistently positive correlation between collective efficacy and 12th grade achievement in reading and math. The path analysis revealed that "perceived collective efficacy explained between half and two thirds of the variance in the proportion of students who passed high-stakes assessments" (Goddard, LoGerfo & Hoy, 2004, p. 420). These results are critical in the age of accountability and the increased focus on achievement for all students.

In 2006, Goddard and Skrla wrote, "A robust sense of collective efficacy fosters student achievement by creating a school culture characterized by a norm of, and an expectation for, sustained effort and resiliency in the pursuit of school goals for student growth and development, particularly academic achievement" (p. 221). Several studies have revealed a relationship between the collective efficacy of a school and student achievement. The majority of the studies have been restricted to a single district or school level. Therefore, expanding the studies to include multiple districts and elementary, middle and high schools would provide a greater database of information to review. Additionally, the impact of socio-economic status on collective efficacy has produced varying results, so a focus on urban schools that have similar socio-economic statuses will provide additional insight.

Relationship between collective efficacy and teacher efficacy. A significant positive relationship between student achievement and teacher efficacy has been identified in multiple studies (Allinder, 1995; Armor et al., 1976; Ashton & Webb, 1986; Bandura, 1997; Berman et al., 1977; Ghaith & Yaghi, 1997; Gibson & Dembo, 1984). The research regarding the relationship between collective efficacy and student achievement has produced more mixed results, especially when controlled for socio-economic status (Bandura, 1993; Barr, 2002;

Cybulski et al., 2005; Goddard, 2001; Goddard et al.,2000; Schumacher, 2009). However, there

has been limited examination of the relationship between collective efficacy, teacher efficacy,

and student achievement.

The limited research available on the relationship between teacher and collective

efficacy led Goddard and Goddard (2001) to explore the concept. In a study of 47 schools in a

large urban district, teacher efficacy and collective efficacy data was collected. The socio-

economic status, mean prior achievement scores, student attendance and demographic data was

controlled so that the only variables were teacher and collective efficacy. As a result of the

study, Goddard and Goddard identified "collective efficacy as the only significant predictor of

teacher efficacy differences among schools" (p. 215). These results align with the social

cognitive theory beliefs that social persuasion can affect individual efficacy (Bandura, 1997).

Additionally, the correlates from the effective schools research movement (Lezotte & Pepperl,

1999) identified collaboration and a focus on common vision and mission as critical components

of successful schools. These strategies develop collective efficacy and are also linked with

individual efficacy. Schools with higher collective efficacies have a tendency to set high

expectations and create an environment that encourages teachers to strive for excellence which in

turn increases student achievement and therefore builds a strong sense of individual teacher

efficacy. (Goddard et al., 2000). Further exploration of the relationship between individual

efficacy and collective efficacy will provide more information that can guide school reform.

Conclusion

The urban school environment has been the focus of recent reform efforts. Several

researchers have examined these schools with the hope of replicating the success of the high

achieving schools. Researchers have also studied the relationships between teacher efficacy and

student achievement, collective efficacy and student achievement, and teacher efficacy and collective efficacy. However, an examination of the relationship between teacher efficacy, collective efficacy and student achievement in the urban environment has not been completed. Therefore the study of a possible correlation between these variables would be a valuable study in the effort toward reform in urban public education.

Chapter 3: Methods

Research Design

This two-phase, non-experimental quantitative study examined teacher efficacy, collective efficacy, and student achievement in a Los Angeles County urban Title I school district. Phase one involved the cross-sectional identification of elementary schools in the Urban Unified School District that are PI 5 and designated high achieving as noted by an API score greater than 800. Following the identification of the schools, phase two commenced. This consisted of a relational and comparative examination of the perception of individual efficacy and collective efficacy between and among the high achieving and low achieving schools using the Teacher Efficacy Survey and Collective Efficacy Survey. In addition to the teacher perceptions, demographic data including years of teaching experience and gender were also collected.

Rationale

The passage of No Child Left Behind (NCLB) in 2001, demanded increased accountability for the achievement of all students in the public school system. A magnifying glass has been placed over the entire public education system, and the discrepancies in student achievement are no longer tolerated. Therefore, careful examination of the characteristics of high achieving schools must be examined in order to determine if their successes can be replicated.

The federally mandated Title I program is designed to "ensure that all children have a fair, equal and significant opportunity to obtain a high-quality education and reach minimum proficiency." (California Department of Education, nd.) The comparative and correlational

nature of this study allowed the researcher to examine the role of teacher and school efficacy on student performance using schools that the state has identified as both high and low achieving.

Sampling Method, Sample, Participants

This research was designed to address the educational concerns of the urban public school population. This two-phase study first involved identifying a study population in a single, urban Title I district located in Los Angeles County California. The identification of these schools was criterion-based non-probability sampling. The No Child Left Behind Act (NCLB) of 2001 requires that all states receiving Title I funding establish a program that recognizes Title I schools that exceed Adequate Yearly Progress (AYP) for two or more years or significantly close the achievement gap among numerically significant subgroups. (California Department of Education, n.d.) Schools that meet the eligibility requirements are recognized by the state as Title I Achieving Schools. In order to be eligible, the school must:

1. Have received Title I funding for the past two school years.

2. Have 40% or more students identified as socioeconomically disadvantaged (SED).

3. Made adequate yearly progress (AYP) for the past two school years.

4. A Growth API score at or above 779.

5. Met API target school wide and for all numerically significant subgroups for the past two school years.

6. Schoolwide API greater than 800 or an API growth of at least double the school's target during the past two school years.

7. Numerically significant SED subgroup that had an API score greater or equal to 800 or an API growth of at least double the SED target during the past two school years.

8. No API flags during the last two school years.

9. No testing irregularities. (California Department of Education, n.d.)

In addition to identifying high-achieving schools, NCLB requires each state to establish a statewide system of intensive and sustained support and improvement for schools that receive Title I funding. In California, schools that don't meet AYP requirements for two consecutive years are identified as Program Improvement (PI). The state publishes a yearly list of all schools that are identified as PI and the status year of their designation.

The researcher identified two populations within the single school district based upon the data generated by the California Department of Education. The first population consisted of high performing Title I elementary schools located in the Urban Unified School District. These schools have been identified by the state of California as decile eight to 10 schools and have an API greater than 800. The Urban Unified School District has nine high performing elementary schools. The second population consisted of the eight Program Improvement elementary schools located in the Urban Unified School District.

Sample. The state of California recognizes between 150 and 250 schools each year as Title I High-Achieving schools (California Department of Education, n.d.). At the beginning of the 2010-2011 school year, nine elementary schools in the Urban Unified School District had an API greater than 800 (California Department of Education, n.d.). The state of California also recognizes schools that are in PI and publishes yearly status reports. The 2010 -2011 State Program Improvement status report identified 3198 schools in various levels of PI. Los Angeles County had 160 elementary schools in year five of program improvement (California Department of Education, n.d.). The Urban Unified School District had eight elementary schools in the fifth year of PI (PI 5) (California Department of Education, nd). The two populations were

matched so that student population, number of certificated staff and student demographics were similar in the high achieving and program improvement groups.

Participants. The administrative teams of the high achieving and program improvement elementary schools in the Urban Unified School District were contacted via email in order to obtain permission for the participation of their teachers in the study. The purpose and methods of the study were detailed and the 169 teachers from the high achieving and 217 teachers from the low achieving schools were invited to participate in the study. The administrators who granted permission for their teachers' participation in the study received surveys and instructions for completion to provide to all of the teachers at the school site (See Appendix B). The researcher conducted follow up email and phone contact with schools that didn't respond in order to increase the participation rate. The participation rate was seven of the nine high achieving elementary schools and four of the eight PI 5 schools, representing responses from 109 and 76 teachers, respectively.

Human Subjects

Standardized testing data, PI status and Title I high achievement status is public information that is readily available through the California Department of Education. There was minimal human risk for participants in the study. The probability of harm due to completing the surveys was no greater than harm of daily computer usage by an educator. This would include fatigue from typing and boredom while completing survey responses. The benefit gained from obtaining the information about teacher efficacy, collective efficacy, and student achievement outweighed any potential risks. All data was kept confidential, the information was only linked to school, teacher years of experience, and gender. There was no identifiable personal data linking the participant to their responses. Prior to beginning the research, the study was approved

by Pepperdine University's IRB. Following approval, each participating school's administrator was contacted and provided informed consent. Additionally, prior to completing the survey, informed consent was also sought from all participants.

Data Collection

Setting. The Urban Unified School District is one of the 80 school districts located in Los Angeles County (California Department of Education, n.d.). This Title I district services 26,221 students in kindergarten through twelfth grade. The student population in this urban district is 77% Hispanic, 19% African American and 83% socioeconomically disadvantaged (California Department of Education, n.d.). Following the 2009-2010 school year, nine elementary schools in the Urban Unified School district were recognized as high achieving as defined by an API greater than 800. The comparison group consisted of the eight elementary schools in the Urban Unified School District that were identified as low achieving as defined by their identification as a PI 5 school (Calfornia Department of Education, n.d.). Both groups were matched so that the size of schools, number of teachers, student demographics and years of teaching experience were closely matched based on data available to the public through the California Department of Education website.

Procedures. The researcher contacted, via email, the administrators of all of the high achieving and PI 5 elementary schools located in the Urban Unified School District. The researcher explained the purpose of the research and detailed the surveys that selected participants needed to complete (See Appendix C). The researcher provided a survey (Appendix B) to all of the administrators that approved participation in the survey. There was a two-week window for survey completion and upon completion the researcher collected the survey results.

The schools of administrators who did not expressly provide approval to recruit were not included in the study.

Instrumentation

Two previously developed survey instruments were used for this research. In order to measure individual teacher efficacy, the Ohio State Teacher Efficacy Scale developed by Tschannen-Moran and Woolfolk Hoy was used and the Collective Sense of Efficacy Scale developed by Goddard, Hoy and Hoy was used to measure school-wide efficacy.

Ohio State Teacher Efficacy Scale. The measurement tool was created in 2000 as a result of research conducted by Tschannen-Moran and Woolfolk Hoy. The tool was first developed using an expert panel from Ohio State University. The eight member panel examined several previously developed efficacy scales, and decided to develop the new instrument based upon Bandura's scale (Tschannen-Moran & Woolfolk Hoy, 2001). Each member independently selected items from the Bandura scale that he/she believed identified key teaching capabilities. Additionally, each member selected 8-10 additional teaching areas that weren't identified on the Bandura scale. This produced over 100 items, so through the process of nomination, discussion and revision, 52 items were selected to assess the full range of teaching capabilities. This 52 item listed consisted of 23 items from Bandura's original scale and 19 items were generated by the group representing significant tasks (assessment, adjusting to student needs, dealing with learning difficulties, repairing student misconceptions and student engagement) that were not included in Bandura's scale. A 9-point scale was used for each item, with anchors at 1-nothing, 3-very little, 5- some influence, 7-quite a bit, and 9-a great deal (Tschannen-Moran & Woolfolk-Hoy, 2001).

The measure was then examined in three separate studies (Tschannen-Moran & Woolfolk-Hoy, 2001). The first study consisted of instrument testing with 224 participants (146 pre-service teachers and 78 inservice teachers) who were taking classes at Ohio State University. In addition to using the 9-point scale to respond to the 52 item survey, participants rated the importance of each item for effective teaching on a 4 point scale. All items were considered *critical* to *important* for teaching, thus none were eliminated based on importance ratings (Tschannen-Moran & Woolfolk-Hoy, 2001). The 52 items were submitted to principal-axis factoring with varimax rotation. After multiple analyses of the data, the researchers selected 32 items with load ranges from 0.62 to 0.78 for further testing.

The second study consisted of 217 participants (70 pre-service teachers, 147 inservice teachers and three who didn't identify teaching status) from three universities (Ohio State, William and Mary, and Southern Mississippi). Principal-axis factoring with varimax rotation of the 32-item scale yielded eight factors with eigenvalues greater than one. A scree test identified that two or three factors could be extracted. Following further evaluation, a three factor solution best represented the teaching tasks, so the researchers reduced the scale to 18 items. The three factors were labeled: efficacy for student engagement, efficacy for instructional strategies, and efficacy for classroom management. An efficacy subscale score was computed for each factor and the reliabilities for the subscales were 0.82 for engagement, 0.81 for instruction, and 0.72 for management (Tschannen-Moran & Woolfolk-Hoy, 2001). Using the responses from Study 1 and Study 2, Tschannen-Moran and Woolfolk-Hoy conducted principal-axis factoring of the three teacher efficacy scales, which revealed one strong factor with factor loadings ranging from 0.74 to 0.84. The second-order factor and the moderate positive correlations of the three subscales suggested that the 18 items could be considered to measure the underlying construct of efficacy

and that a total score as well as three subscale scores could be calculated based on the 18 items (Tschannen-Moran & Woolfolk-Hoy, 2001). The reliability of this 18 item scale was 0.95. Additionally, in order to test validity, participants in Study 2 responded not only to the OSTES but also to the Rand Items, the Hoy and Woolfolk (1993) 10-item adaptation of the Gibson and Dembo TES, the pupil control ideology form, and work alienation scale. "The results revealed that the 18-item instrument had good validity and the factors were conceptually sound representations of the various tasks of teaching. The weakness of the management factor as well as the strength of the instructional strategies and student engagement factors, led to a design of a third study" (Tschannen-Moran & Woolfolk-Hoy, 2001, p.798).

Study 3 was designed to further refine OSTES and improve the classroom management subscale. Tschannen-Moran and Woolfolk-Hoy consulted Emmer's teacher efficacy for classroom management scale and field-tested additional questions with a teacher education class at Ohio State University. This resulted in the modification and addition of questions, thus creating a 36-item instrument. The 410 participants in the survey included 103 pre-service teachers, 255 in-service teachers and 38 who did not identify their teaching experience. These participants included students from three universities (Ohio State, William and Mary, and Cincinnati) as well as teacher volunteers from two elementary, one middle, and one high school. The researchers conducted principal-axis factoring with varimax rotation of the 36 items. A scree test suggested three factors could be extracted, thus replicating the results of the second study. The items were further reduced by removing the eight items with the highest loadings on each factor. Principal-axis factoring with varimax rotation was completed for the remaining 24 items and an efficacy subscale score was computed for each factor. The reliabilities for the subscales were 0.91 for instruction, 0.90 for management and 0.87 for

engagement. Due to the high reliabilities, Tschannen-Moran and Woolfolk-Hoy also developed a short form (12 item) of the efficacy scale and the reliabilities continued to remain 0.81 or higher and the intercorrelations between the short and long forms for the total scale and the three subscales were high, remaining between 0.95 and 0.98. Validity of both the short and long form was measured by assessing the correlation between the new measure and existing measures. Tschannen-Moran and Woolfolk Hoy (2001) reported: "The results of these analyses indicate that OSES could be considered reasonable valid and reliable" (p.801).

Collective Efficacy Scale. This measurement tool was created in 2000 by Goddard, Hoy and Woolfolk Hoy. The researchers first examined the construct of collective efficacy and decided to focus upon group-orientation questions, since these better reflect a collective experience. When designing items for the scale, Goddard et al. (2000) included both positively and negatively worded statements to ensure that participant responses were not influenced by the wording. Items were worded so that teachers would consider both group competence (GC) and task analysis (TA). This led to the identification of four types of items to assess collective efficacy beliefs: group competence/positive (GC+), group competence/negative (GC-), task analysis/positive (TA+) and task analysis/negative (TA-). The researchers utilized the 16-item version of the Gibson and Dembo instrument to assist in the development of the collective efficacy scale. The Gibson and Dembo statements were re-worded to become group oriented rather than individual oriented. The statements were placed into the four established categories, and it was discovered that only two of the domains, positively worded items about competence and negatively worded items about the task, were present (Goddard et al., 2000). Therefore, Goddard et al. created statements to match these categories.

A preliminary review of the survey was conducted using a panel of three experts from The Ohio State University, who were directed to examine the survey and judge the adequacy of representation of the four domains (GC+, GC-, TA+, TA-). The feedback of the expert panel was used to edit and re-word the survey.

Following the preliminary review, a field test was conducted using six teachers. These individuals provided feedback regarding clarity of instructions, length of the instrument, appropriateness of the questions and any other additional responses. No difficulties were noted by any participants.

A pilot study was conducted using 70 teachers, one from each of 70 schools in five states. Half of the schools selected had reputations of relatively high conflict and the other half had relatively low conflict among the faculty. In addition to the Collective Efficacy Scale, participants submitted a sense of powerlessness scale, an individual teacher efficacy scale and a measure of teacher trust in colleagues. These were utilized to validate the results of the collective efficacy scale (Goddard et al., 2000). The responses were submitted to a principal-axis factor analysis with a varimax rotation. The results indicated that teachers had difficulty separating their perceptions of the collective capabilities of a faculty from their perceptions of a teaching task. Goddard et al. (2000) reported: "This provided evidence that collective teacher efficacy in the elementary school is a single construct uniting the concepts of group competence and task analysis." (p. 491) This results in a single collective efficacy score for each school. In order to verify criterion-related validity, Goddard et al. compared the results of the collective efficacy scale with the conflict, sense of powerlessness, trust in colleagues and individual teacher efficacy responses. Conflict was negatively correlated with collective efficacy, trust in

colleagues and individual efficacy were positively related to collective efficacy. The pilot study confirmed the validity and reliability of the survey.

Analytic Techniques

The OSTES and the Collective Efficacy Scale were completed using a paper based survey. Each survey was tagged with an identification number for the school. The researcher transferred all data into an Excel spreadsheet.

The first part of the research question examines individual teacher efficacy and its relationship to high and low performing schools. The 12-item OSTES was broken into 3 subscales: efficacy in student management, efficacy in instruction, and efficacy in student engagement. The efficacy of each teacher on each of the subscales was calculated by computing the mean score of their answers for each subscale. The questions were scored using a range from 1 to 9 and a higher score reflects a higher teacher sense of efficacy. The individual teacher efficacy scores were grouped by high and low performing schools. Analysis of variance (ANOVA) was used to determine the relationship between teacher efficacy and achievement of school.   The statistical analyses determined the level of significance between the variables in order to address the study's research question.

The second part of the research question examines collective teacher efficacy and its relationship to high and low achieving schools. The 12-item Collective Efficacy scale was scored using a range from 1 to 6. A higher score reflects higher collective efficacy beliefs. The collective efficacy scores were grouped by high and low performing schools. Analysis of variance (ANOVA) was used to determine the relationship between teacher efficacy and achievement of school.   The statistical analyses determined the level of significance between the variables in order to address the study's research question.

Chapter 4: Findings

Overview

The purpose of this study was to investigate the relationship between teachers' individual sense of efficacy, collective teacher efficacy, and student achievement in urban schools. Specifically, this study examined the extent to which, if at all, there was a difference between teachers' sense of efficacy in high and low performing schools. The study took place in the Urban School District in Los Angeles, California. The study was conducted using paper based surveys consisting of twenty four questions.

Participant Characteristics

Nine high performing elementary schools and eight low performing elementary schools were invited to participate. Seven out of nine (78%) of the high performing schools and four out of eight (50%) of the low performing schools participated. Data for 185 teachers were used for this study.

Table 2 displays the frequency counts for selected variables. More of the teachers in the sample worked at high-performing schools (58.9%) than at low performing schools (41.1%). Total years of teaching experience ranged from 1 to 43 years ($M = 10.75$, $SD = 6.72$) while the number of years at that specific school site range from 1 to 26 years ($M = 7.89$, $SD = 4.84$). There were more female teachers in the sample (79.5%) than male teachers (20.5%) (Table 2).

Table 2

Frequency Counts for Selected Variables (N = 185)

Variable	Category			*n*		%	
Type of School							
	Low performing			76		41.1	
	High performing			109		58.9	
Total Experience [a]		Low Performing	High Performing	Low Performing	High Performing		
	1 to 4 years	10	19	13.1	17.4		
	5 to 9 years	29	34	38.1	31.1		
	10 to 19 years	22	30	28.9	27.5		
	20 to 43 years	8	21	10.5	19.2		
	No Response	7	5	9.2	4.5		
Experience at School Site [b]		Low Performing	High Performing	Low Performing	High Performing		
	1 to 4 years	20	29	26.3	26.6		
	5 to 9 years	26	42	34.2	38.5		
	10 to 19 years	20	27	26.3	24.7		
	20 to 26 years	2	5	2.6	5.5		
	No Response	8	6	10.5	5.5		
Gender		Low Performing	High Performing	Low Performing	High Performing		
	Female	46	78	60.5	71.5		
	Male	17	21	22.3	19.2		
	No Response	13	10	17.1	9.1		

[a] Total Experience: $M = 10.75$, $SD = 6.72$.   [b] Site Experience: $M = 7.89$, $SD = 4.84$.

Teacher Efficacy and Collective Efficacy Findings

Teacher efficacy consists of three subcategories: student engagement, instructional strategies, and classroom management. Table 3 displays the psychometric characteristics for the five summated scale scores across all respondents. Cronbach alpha reliability coefficients ranged in size from $\alpha = .79$ to $\alpha = .91$ with the median sized coefficient being $\alpha = .85$. All coefficients had acceptable levels of internal reliability (McCall, 2000).

Table 3

Psychometric Characteristics for Summated Scale Scores (N = 185)

Scale Score	Number of Items	*M*	*SD*	Low	High	α
Student Engagement	4	7.26	1.14	4.00	9.00	.80
Instructional Strategies	4	7.69	1.00	4.75	9.00	.85
Classroom Management	4	7.52	1.14	4.00	9.00	.87
Total Teacher Self Efficacy	12	7.49	0.95	5.08	9.00	.91
Collective Efficacy	12	4.19	0.67	2.42	5.83	.79

The primary research question for this study asked, "To what extent, if at all, is there a difference in the relationship of teachers' sense of efficacy and collective teacher efficacy between high- and low-achieving urban public schools?" To answer this question, Table 4 displays the *t* tests for independent means comparing the two types of schools (low performing versus high-performing) for four measures of teacher self-efficacy as well as for collective

efficacy. Inspection of the table found high-performing schools to have significantly higher scale scores for all five measures (Table 4).

Table 4

t Test Comparisons for Scale Scores Based on Type of School (N = 185)

Scale Score	Type of School	*n*	*M*	*SD*	η	*t*	*p*
Student Engagement					.24	3.29	.001
	Low performing	76	6.94	1.08			
	High performing	109	7.49	1.13			
Instructional Strategies					.17	2.27	.02
	Low performing	76	7.50	1.02			
	High performing	109	7.83	0.97			
Classroom Management					.16	2.20	.03
	Low performing	76	7.30	1.24			
	High performing	109	7.67	1.05			
Total Teacher Self Efficacy					.22	2.99	.003
	Low performing	76	7.25	0.95			
	High performing	109	7.66	0.92			
Collective Efficacy					.40	5.83	.001
	Low performing	76	3.88	0.60			
	High performing	109	4.42	0.63			

The primary research question for this study asked, "To what extent, if at all, is there a difference in the relationship of teachers' sense of efficacy and collective teacher efficacy between high- and low-achieving urban public schools?" To answer this question, Table 5 displays the Pearson correlations for the relationship between teacher's sense of efficacy and collective teacher efficacy based on three samples: full study sample ($N = 185$), low performing subsample only ($n = 76$), and high performing subsample only ($n = 109$). Inspection of the table found the correlation for the entire sample to be significant ($r = .37$, $r^2 = .137$, $p < .001$). This significant correlation was also found for the high performing subsample ($r = .44$, $r^2 = .194$, $p < .001$) but not the low performing subsample ($r = .15$, $r^2 = .023$, $p = .21$). In addition, pertaining to the difference in the relationship, the correlation for the high performing subsample had eight times more shared variance (19.4% versus 2.3%) when compared to the correlation for the low performing subsample.

Table 5

Pearson Correlations for Collective Efficacy with Teacher Self-Efficacy Based on Three Samples of Data

Data Sample	r		r^2	Percent of Variance Shared
Full study sample ($N = 185$)	.37	****	.137	13.7%
Low performing subsample only ($n = 76$)	.15		.023	2.3%
High performing subsample only ($n = 109$)	.44	****	.194	19.4%

* $p < .05$. ** $p < .01$. *** $p < .005$. **** $p < .001$.

Additional Findings

As an additional set of analyses, Pearson product-moment correlations were used

compare the collective efficacy score and the total teacher efficacy score with selected variables

(Table 6). Collective efficacy was higher at high performing schools ($r = .40$,

$p < .001$) and when teachers had more total years of experience ($r = .29$, $p < .001$). In addition,

collective efficacy was significantly related to all three of the teacher self-efficacy subscale

scores with the strongest correlation being between collective efficacy and student engagement (r

$= .41$, $p < .001$). Total teacher efficacy was higher at high performing schools ($r = .22$, $p < .005$),

when teachers had more total years of experience ($r = .21$, $p < .005$) and when teachers had more

years of experience at that school site

($r = .16$, $p < .05$). In addition, total teacher efficacy was highly correlated with each of the three

teacher efficacy subscale scores (Table 6).

Table 6

Pearson Correlations for Selected Variables with Collective Efficacy and Total Teacher Efficacy

(N = 185)

Variable	Collective Efficacy		Teacher Efficacy	
Type of School [a]	.40	****	.22	***
Total Years of Experience	.29	****	.21	***
Experience at School Site	.09		.16	*
Gender [b]	.00		-.07	
Student Engagement [c]	.41	****	.87	****
Instructional Strategies [c]	.36	****	.87	****
Classroom Management [c]	.22	***	.88	****

* p < .05. ** p < .01. *** p < .005. **** p < .001.
[a] Type of School: 0 = *Low performing*. 1 = *High performing*.
[b] Gender: 1 = *Female* 2 = *Male*.
[c] Subscale score for total teacher efficacy.

Table 7 displays the results of the multiple regression model predicting total teacher self-efficacy based on type of school after controlling for the teacher's total years of experience, years of experience at that specific school site and their gender. The overall model was significant ($p = .001$) and accounted for 9.4% of the variance in total teacher self-efficacy. Total teacher self-efficacy was significantly higher for teachers from high-performing schools ($\beta = .20$, $p = .006$) and *tended* to be higher for teachers with more total years of experience ($\beta = .16$, $p = .08$) (Table 7).

Table 7

Prediction of Total Teacher Self-Efficacy Based on Type of School Controlling for Selected

Variables (N = 185)

Variable	B	SE	β	p
Intercept	7.16	0.25		.001
Total Experience	0.02	0.01	.16	.08
Experience at School Site	0.01	0.02	.08	.40
Gender [a]	-0.21	0.17	-.09	.22
Type of School [b]	0.38	0.14	.20	.006

Full Model: $F (4, 180) = 4.70$, $p = .001$. $R^2 = .094$.
[a] Gender: 1 = *Female* 2 = *Male*.
[b] Type of School: 0 = *Low performing*. 1 = *High performing*.

In conclusion, this study investigated the relationship between teachers' individual sense of efficacy, collective teacher efficacy, and student achievement in urban schools for 185 teachers. Four measures of teacher self-efficacy as well as collective efficacy were found to be significantly higher at high-performing schools (Table 4). In the final chapter, these findings will be compared to the literature, conclusions and implications will be drawn and a series of recommendations will be suggested.

Chapter 5: Conclusions and Recommendations

This study was conducted to determine if there was a relationship between teacher efficacy, collective efficacy and school achievement in urban schools. It was designed to provide information to school districts, teacher education programs and educators as tool to identify factors in student achievement. The study used quantitative analysis of urban elementary teachers' responses to a teacher efficacy and collective efficacy survey. The study examined the difference in collective and individual teacher efficacy between high achieving and low achieving schools in a single urban school district. Teacher efficacy has been identified as a contributing factor in student achievement (Ashton & Webb, 1986; Logerfo, 2006). Additionally, collective efficacy has been sited as a contributing factor to student performance (Cybulski et al., 2005; Goddard & Goddard, 2001; Goddard et al., 2000; Schumacher, 2009). The findings from this study may be used by policy makers to develop additional requirements for teacher training and certification programs as well as the development of continuing professional development courses for educators. District and school administrators may use the findings to develop district and school wide instructional practices, and professional development to increase student achievement.

Interpretations

This study yielded similarities and differences to previous studies on teacher efficacy and collective efficacy. The setting of this study, a single urban district with a high percentage of high poverty students is similar to the demographics in the Armor et al. (1976) and Berman et al. (1977) studies which focused upon the Los Angeles Unified School District. The participants of this study consisted of elementary teachers of targeted high and low performing schools within a single district, which differs from the secondary teachers studied by Ashton and Webb (1986),

Barr (2002) and Goddard, LoGerfo, and Hoy (2004). This study consisted of active classroom teachers with the study population consisting of a teacher population with an average of 10.75 years of experience, which differs from the pre-service teachers studied by Tschannen-Moran and Woolfolk-Hoy (2001).

Teacher efficacy. The first part of the research question addressed the relationship between teacher efficacy and type of school (low performing vs. high performing). The study identified the overall teacher efficacy as higher in the high performing schools (7.66) than in the low performing schools (7.25). The results of this study are similar to the findings of Ashton and Webb (1986). Although that study focused on high school math teachers, increased student academic performance was linked to higher teacher efficacy. However, the eta coefficient for teacher efficacy and type of school in this study is only .22 which demonstrates a weak correlation between type of school and teacher efficacy. The type of school only accounts for 4.8% of the variance in teacher efficacy. This is considerably less than the 24% correlation between teacher efficacy and achievement identified by Ashton & Webb. However, these results addressed overall student performance on a standardized test and the Ashton & Webb study was an observational study of 48 high school teachers that only looked at math performance. The results of this study showed a closer connection to the Logerfo (2006) study. In that study, Logerfo focused on a single grade level nationwide, and identified that teachers accounted for ten percent of student achievement with four percent due to teacher beliefs. These results parallel the 4.8% correlation between teacher efficacy and type of school found in this study. This low correlation may be due to the variety of factors that influence student achievement including students previous performance, instructional practices, and curriculum.

As a result of the teacher efficacy research conducted by Tschanen-Moran and Woolfolk-Hoy (2001), teacher efficacy in this study was separated into three subcategories: student engagement, instructional strategies, and classroom management. High performing schools had higher efficacy scores in all three subcategories. The 76 teachers from the high performing schools expressed greater confidence in their ability to engage and motivate their students in learning as demonstrated by the higher student engagement teacher efficacy score of high performing schools (7.49) versus the 6.94 in low performing schools.

Classroom instruction and specifically teacher practices have been identified by Edmonds (1982); Reeves (2003), and Snipes et al. (2002) as having a strong impact on student achievement. This study revealed that high performing schools have teachers with higher instructional practices teacher efficacy (7.83) than low performing schools (7.50). The teachers from the high performing schools expressed confidence in their ability to address the diverse needs of their students, use various assessments and develop quality questions for their students (Appendix B). These results correspond with the considerable value that Barth et al. (1999), Darling-Hammond (2000) and Dufour & Eaker (1998), Goe and Stickler (2008), and Wang et al. (1990) placed upon teacher instruction. Teachers with strong curricular knowledge and the ability to present it clearly to students demonstrate a greater ability to improve student achievement. However, with an eta coefficient of .17, the correlation between type of school and instructional practice teacher efficacy is weak. Therefore, although the teachers at high performing schools demonstrate greater confidence in their instructional practices, it only accounts for 2.8% of the difference in student achievement.

The effective schools movement led by Edmonds (1982) and Lezotte and Pepperl (1999) identify the importance of a safe and orderly environment. Classroom management is a key

component of a school environment and this study revealed that teachers in high performing schools have a slightly higher mean for classroom management teacher efficacy (7.67) than teachers in low performing schools (7.30).   The teachers in high performing schools were confident in their ability to get students to follow classroom rules, establish a management system and calm disruptive students (Appendix B). However, as seen in the other subcategories of teacher efficacy, with an eta coefficient of .16 there was a weak correlation between type of school and classroom management teacher efficacy. This limited correlation may be due to the variety of factors that impact student achievement. As identified by Edmonds (1982) and Lezotte and Pepperl (1999) in the *effective schools movement*, "clear and focused mission, strong instructional leadership, safe and orderly environment, climate of high expectations, opportunity to learn and time on task, frequent monitoring of student progress and a positive home-school relationship" (Lezotte & Pepperl, 1999, p. 102), all have a sizeable impact on student achievement.

During the development of the OSTES by Tschannen-Moran and Woolfolk Hoy in 2001, the subcategories of student engagement, instructional practices and classroom management were identified as the key components that contribute to overall teacher efficacy. Therefore, as expected there was a strong correlation between the subscale scores: student engagement (.87), instructional practices (.88), classroom management (.88) and teacher efficacy (Table 6). This confirms the connection between the subcategories and the overall teacher efficacy of the research participants.

Teacher efficacy was significantly higher for high performing schools, however, when a multiple regression model was conducted, controlling for gender, years of experience, years at the school site, only 9.4% of the difference in teacher efficacy could be attributed to type of

school (Table 7). This reveals that there are differences between teachers at the high and low

performing schools, however there are many other factors that contribute to achievement.

Collective Efficacy. Schools function as collaborative communities and the importance

of a collective focus upon the singular mission of student achievement has been identified by

Bandura (1993), Barr (2002), Cybulski et al. (2005), Edmonds (1982), Goddard et al. (2000),

Goddard (2001), and Lezotte & Pepperl (1999), as a critical component of effective schools. The

second part of the research question addressed the relationship between collective efficacy and

school performance level. The study revealed that high performing schools have a higher

collective efficacy (4.42) than low performing schools (3.88). These results are similar to the

results seen in twelfth graders studied by Goddard, LoGerfo, & Hoy (2004), in which they

identified a positive correlation between collective efficacy and student achievement on reading

assessments. This study produced an eta coefficient of .40, which demonstrates a moderate

correlation between type of school and collective efficacy. Although the correlation of this study

isn't as strong as the collective teacher efficacy identified by Goddard et. al. (2000) (53.27% of

the between–school variance in math and 69.64% of the between-school variance in reading), it

does show a relationship between student achievement and collective efficacy.

As suggested by Barr (2002), Cybulski et al. (2005), and Schumacher (2009), it was

important to control for socio-economic status. Both studies identified collective efficacy as a

key component of student achievement, however, the impact was negated in both studies when

socio-economic status was controlled. This study focused on a single district, with 83% socio-

economically disadvantaged school population and with all participating schools having similar

socio-economic demographics. This study revealed, that when controlling for socio-economic

status, the collective efficacy of higher performing schools was greater than that of lower performing schools.

Collective efficacy was also revealed to be higher for teachers with greater years of experience ($r = .29$, $p <.001$). This corresponds with the findings of Goddard and Skrla (2006) who identified significantly higher collective efficacy beliefs in teachers with 10 or more years of experience. Bandura (1997) identified mastery experiences, vicarious experiences, social persuasion and affective states to influence the development of collective efficacy. Therefore, teachers with more experience have had greater opportunities to develop their skills and thus increase their collective efficacy.

Relationship between collective efficacy and teacher efficacy. The final relationship examined in this study was the correlation between collective efficacy and teacher efficacy. In a 2001 study, Goddard and Goddard identified, "collective efficacy as the only significant predictor of teacher efficacy differences among schools" (p. 215). This study showed a significant correlation between teacher efficacy and collective efficacy. There was a 13.7% shared variance between teacher efficacy and collective efficacy for the entire population. However, the variance was much higher in the high performing schools (19.4%) versus the low performing schools (2.3%). This higher shared variance reveals a greater alignment among the individual teachers and the entire staff, which may play a role in the higher performance of the school. The staffs of the higher performing schools show greater confidence in their individual abilities as well as the abilities of their colleagues. This belief may play a role in the higher performance of the school, as noted by Goddard and Goddard (2001). They identified "collective efficacy as the only significant predictor of teacher efficacy differences among schools" (p. 215). Additionally, the correlates from the effective schools research movement

(Lezotte & Pepperl, 1999) identified collaboration and a focus on common vision and mission as critical components of successful schools. These strategies develop collective efficacy and are also linked with individual efficacy. Schools with higher collective efficacies have a tendency to set high expectations and create an environment that encourages teachers to strive for excellence which in turn increases student achievement and therefore builds a strong sense of individual teacher efficacy. (Goddard et al., 2000). These results identify a component that may play an important role in student achievement.

This study revealed a significant relationship between collective efficacy and all three of the teacher efficacy subscale scores. The strongest correlation was between collective efficacy and student engagement ($r = .41$, $p < .001$). However, there was also a strong correlation between collective efficacy and instructional strategies ($r = .36$, $p < .001$) and collective efficacy and classroom management ($r = .22$, $p < .005$). Since collective efficacy is based on the belief that the collective group is effective in addressing the needs of students, it is reasonable to observe that teachers with strong sense of teaching efficacy believe that the entire school will also be successful. The teachers who had high teacher efficacy may have had the opportunity for targeted professional development and collaboration with colleagues which allows for a strong development of collegiality and belief in the skills of others.

Recommendations for Policy and Practice

This study was conducted targeting elementary teachers at high and low performing schools in a single urban school district, in order to identify a possible relationship between teacher efficacy, collective efficacy and student achievement. The study was designed to help provide insight for educators to improve the performance of students in urban environments.

The findings of the study revealed some areas in which policy makers and practitioners can make changes in order to address student achievement.

The first recommendation is the examination of the teacher preparation and certification programs. This study revealed that high performing schools have higher teacher efficacy. Therefore it would be beneficial for university programs to specifically discuss and develop teacher efficacy in their teacher education programs. Knoblauch & Woolfolk Hoy (2008) identified mastery experience as the critical component in developing teacher efficacy. It would greatly benefit teachers and students if an extensive mastery teaching experience was required before an individual is certified to teach. Many teachers don't get a strong mastery experience, either due to poor mentoring, limited time or limited opportunities. This negatively impacts teachers as well as students. A new teacher entering the classroom will have stronger teacher efficacy with stronger foundational skills and previous experiences to recall if the teacher had multiple opportunities to practice classroom management, instructional strategies and developing student engagement during a mastery experience.

The second recommendation is the review of state policies for granting teacher licenses. Each state has its own policy for different levels of teacher certification; however, a mandatory requirement should be a mentoring program. Teachers may have outstanding mastery experiences during their teacher preparation programs, but it becomes a different experience when teachers are given their own classes. Many are left isolated and alone without support. In order to develop stronger teacher efficacy, teachers need the opportunity to collaborate and learn from more experienced colleagues. Although many districts have informal mentoring programs, there should be a statewide requirement for specific mentoring of new teachers for the first few years in the classroom. This mentoring should provide specific coaching on instructional

practices, classroom management and student engagement. As this study revealed, teachers with more years of experience, tend to have higher teacher efficacy, so they can provide support and guidance for the new teachers. This formal mentoring will provide further opportunities for teachers to develop teacher efficacy and thus increase their impact on student achievement.

The third recommendation is specifically for school administrators. Collaboration and focus on a shared mission have been identified as important factors in improving student achievement (Blankstein, 2004; Kannapel & Clements, 2005; Lambert, 2003; Reeves, 2003). This study revealed that higher performing schools have higher collective efficacy. Therefore, school administrators should focus upon developing collaborative school communities. Schools with high collective efficacy have the confidence in their ability to meet the needs of students, believe in their colleagues and work in unison to meet a singular goal. It is essential that school administrators specifically provide opportunities for collaboration. DuFour and Eaker (1998) highlighted the critical role of professional learning communities, and every administrator should formally train all teachers on professional learning communities and provide consistent opportunities for this collaboration. Additionally, there was a link between high teacher efficacy and collective efficacy, so administrators must also develop the individual skills of teachers. Administrators should provide professional development and training on instructional practices, student engagement and classroom management. The teachers that develop these skills will have increased teacher efficacy and this will also improve collective efficacy.

The fourth recommendation pertains to the performance of urban students. This study was designed to provide additional insight into how the performance of urban students can be improved. The study reveals that students in urban environments have the ability to become high performers. However, for these students to become high performers they must have the guidance

of teachers with a strong sense of teacher efficacy within a school with strong collective efficacy. It is the responsibility of administrators to specifically target the urban schools, with a focus on developing teacher and collective efficacy. The targeted professional development and training for these teachers will play an important role in improving student achievement.

Recommendations for Future Study

Student achievement continues to be the primary focus and concern for all educators. It has been difficult to identify a singular reason for the success and failure of our schools. However, this study did address the area of teacher and collective efficacy in urban elementary schools. One of the limitations of this study was that it only addressed elementary teachers in a single urban school district. In order to enhance this study, future research should expand the population of participants to a larger number of school districts and include elementary, middle and high school teachers.

This study was a quantitative study that required teachers to evaluate themselves on a rating scale. Therefore the results were based upon teachers' perceptions of themselves, rather than any specific observational data. The study would be enhanced by observing teachers and identifying specific behaviors that differentiate the teachers with high and low teaching efficacy. The identification of specific strategies would provide insight into more specific factors that impact student achievement and could be used to improve teacher training and support.

This study revealed that teacher efficacy and collective efficacy plays a small role in student achievement. However there are still many other variables that have an impact on student achievement. An in-depth case study on these high and low performing schools using the characteristics identified by Lezotte and Pepperl (1999) and Reeves (2003) in their studies of effective schools would provide more detailed information on student achievement.

Teachers are only one component of the educational system. The study would benefit if the study examined achievement through the lens of students, and asked students about the efficacy of their teachers and school. This would provide another viewpoint and perhaps some insight into the reasons for students' achievement.

Summary

The purpose of this study was to investigate the relationship between teachers' individual sense of efficacy, collective teacher efficacy, and student achievement in urban schools. Specifically, this study examined the extent to which, if at all, there was a difference between teachers' sense of efficacy in high and low performing schools. The study revealed that high performing schools have higher teacher and collective efficacy than low performing schools. The study revealed that there are still additional variables that must be examined when addressing student achievement.

Teacher efficacy was separated into three subcategories: student engagement, instructional practices and classroom management. In all three areas, high performing schools had higher teacher efficacy scores, however, there was a weak correlation between type of school and teacher efficacy. The results were similar to several previous studies, and lead to the conclusion that other factors should be examined when addressing student achievement.

Collective efficacy was also rated higher in high performing schools. Additionally, there was a moderate correlation between the type of school and collective efficacy. These results were also similar to previous studies and lead to the conclusion that more in-depth examination of collective efficacy and its development should be studied.

Furthermore, a relationship was identified between collective efficacy and teacher efficacy. There were correlations between collective efficacy and teacher efficacy and a

difference in these relationships for high achieving and low achieving schools. There were also strong correlations between the three subcategories of teacher efficacy and collective efficacy. These results show the importance of developing both individual and collective efficacy in order to improve student achievement.

Recommendations from the study include improving mastery teaching experiences for teachers, mentoring programs and targeted professional development. Additionally, the development of professional learning communities to improve collaboration and collective focus on a singular mission would have a positive impact on student achievement.

Student achievement is the primary mission of all educational institutions. There are multiple factors that influence student achievement, and thus it is difficult to pinpoint a singular factor that is the root cause. This study addressed only a small component: teacher and collective efficacy, from the perspective of teachers. Further examination into the multitude of factors that impact student achievement will be critical as we continue to strive for all students to reach their maximum potential.

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APPENDIX A

PI School Requirements

Three	Four	Five	Six	Seven
School Improvement	School Improvement	Corrective Action	Restructuring	Restructuring
PI: Year 1	PI: Year 2	PI: Year 3	PI: Year 4	PI: Year 5
Local Educational Agency (LEA): Provides technical assistance to PI school Notifies parents of PI status of school and school choice Sets aside minimum 5% for professional development to meet highly qualified staff requirements Provides choice to attend another public school in the LEA that is not PI (LEA is responsible for transportation costs.) Establishes peer review process to review revised school plan **School:** Revises school plan within 3 months to cover 2-year period Uses 10% of Title I school funds for staff professional development Implements plan promptly	**LEA continues:** Technical assistance Parent notification of PI status of school, school choice, supplemental services Professional development School choice **LEA adds**: Supplemental educational services to all eligible students **School continues:** Plan implementation Professional development	**LEA continues:** Technical assistance Parent notification of PI status of school, school choice, supplemental services Professional development School choice Supplemental services **LEA adds:** LEA identifies school for **corrective action** and does at least one of the following: Replaces school staff Implements new curriculum Decreases management authority at school level Appoints outside expert Extends school year or day Restructures internal organizational structure of school LEA informs parents and public of corrective action and allows comment. LEAs may provide direct technical	**LEA continues:** Technical assistance Parent notification of PI status of school, school choice, supplemental services Professional development School choice Supplemental services **LEA and School add:** During Year 4, prepare plan for alternative governance of school. Select one of the following: Reopen school as a charter Replace all or most staff including principal Contract with outside entity to manage school State takeover Any other major restructuring	**LEA continues:** Technical assistance Parent notification of PI status of school, school choice, supplemental services Professional development School choice Supplemental services **LEA and School add:** Implement alternative governance plan developed in Year 4 *School continues in PI, and LEA offers choice and supplemental services until school makes AYP for two consecutive years. School exits PI after two consecutive years of making AYP*

		assistance to school site councils in developing school plans.	LEA provides notice to parents and teachers and allows comment.	
		School continues:	**School continues:**	
		Professional development	Professional development	
		Collaboration with district to improve student achievement	Collaboration with district to improve student achievement	

(CDE, n.d.)

APPENDIX B
Efficacy Study

School: _____

Years of Teaching Experience: _____
Years teaching at this location: _____

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

	How much can you do?				
	Nothing	Very Little	Some Influence	Quite A Bit	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)

Part B:

Directions: Please indicate your level of agreement with each of the following statements about your school from **strongly disagree** to **strongly agree**. Your answers are confidential.

	Strongly Disagree	Disagree	Somewhat Disgree	Somewhat Agree	Agree	Strongly Agree
1. Teachers in the 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 student 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 students 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 C

Participation Letter

Dear Administrator,

My name is Stephanie Richardson and I am a student in the Graduate School of Education and Psychology at Pepperdine University. I am conducting a research study on the role of teacher efficacy and collective efficacy on the achievement of students.

The purpose of this study is to investigate the relationship between teachers' individual sense of efficacy, collective teacher efficacy and student achievement in Los Angeles County urban schools. In addition, this study will examine the extent to which, if at all there is a difference between teachers' sense of efficacy in high and low performing schools.

I am seeking the participation of all teachers at your school. The identification of the participants and the school will remain confidential. Schools will only be identified as high performing or low performing. Participation involves the completion of a survey consisting of 30 questions and should not take longer than 20 minutes.

I am seeking your permission to include your teachers and school in the study. If you are willing to participate, please respond to this email, and I will forward the surveys for your teachers.

Sincerely,

Stephanie Richardson

APPENDIX D

IRB APPROVAL

Protocol #: E0511D07
Project Title: *Individual Sense of Efficacy, Collective Teacher Efficacy and Student Achievement in High Achieving and Low Achieving Urban Public Schools*

Dear Ms. Richardson:

Thank you for submitting the revisions requested by Pepperdine University's Graduate and Professional Schools IRB (GPS IRB) for your study, *Individual Sense of Efficacy, Collective Teacher Efficacy and Student Achievement in High Achieving and Low Achieving Urban Public Schools.* The IRB has reviewed your revisions and found them acceptable. You may proceed with your study. The IRB has determined that the above entitled project meets the requirements for exemption under the federal regulations 45 CFR 46 - http://www.nihtraining.com/ohsrsite/guidelines/45cfr46.html that govern the protections of human subjects. Specifically, section 45 CFR 46.101(b) (2) states:

(b) Unless otherwise required by Department or Agency heads, research activities in which the only involvement of human subjects will be in one or more of the following categories are exempt from this policy:

Category (2) of 45 CFR 46.101, research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: a) Information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and b) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Your research must be conducted according to the proposal that was submitted to the IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For any proposed changes in your research protocol, please submit a **Request for Modification Form** to the GPS IRB. Because your study falls under exemption, there is no requirement for continuing IRB review of your project. Please be aware that changes to your protocol may prevent the research from qualifying for exemption from 45 CFR 46.101 and require submission of a new IRB application or other materials to the GPS IRB.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite our best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the GPS IRB as soon as possible. We will ask for a complete explanation of the event and your response. Other actions also may be required depending on the nature of the event. Details regarding the timeframe in which adverse events must be reported to the GPS IRB and the appropriate form to be used to report this information can be found in the *Pepperdine University Protection of Human Participants in Research: Policies and Procedures Manual* (see link to "policy material" at http://www.pepperdine.edu/irb/graduate/).

6100 Center Drive, Los Angeles, California 90045 ■ 310-568-5600