

THE SELF PERCEPTION OF LEADERSHIP EFFICACY OF ELEMENTARY
PRINCIPALS AND THE EFFECTS ON STUDENT ACHIEVEMENT

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PRINCIPALS AND THE EFFECTS ON STUDENT ACHIEVEMENT

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CHAPTER ONE

Introduction to the Study

The purpose of this study was to determine if a relationship existed between the perceived self efficacy of elementary principals and the achievement of students in grades three through six as measured by the Missouri Assessment Program (MAP). This chapter provides an introduction and background of the study, conceptual underpinnings of the problem, the purpose of the study, research questions, limitations and definitions of key terms used.

Background

School leaders face numerous challenges related to improving student achievement, causing some leaders to question whether or not their leadership abilities are, in fact, effective. Systems of accountability have become an accepted feature of educational programs in the United States bringing an increase of attention on the achievement of students (Ladd & Zelli, 2002). Reforms emphasizing excellence in education continue to influence schools and educators (Coffey & Lashway, 2002). This influence for educational reform finds its inception with the call for attention to student achievement associated with the launch of Sputnik in 1957. If the Russians had pulled ahead of the United States in the space race, then the reasoning asserted that the educational system must be in need of reform, thus the federal government stepped in to protect the public interest by funding needed reforms in the schools (Sergiovanni, Kelleher, McCarthy, & Wirt, 2004). By 1983, the National Commission on Excellence in Education (1983) noted that other countries were once again pulling ahead of the United States and that reform in the educational system was needed (Sergiovanni et al.). States

were now given authority to broaden their role by mandating and funding minimum competency testing, curriculum requirements, and auditing school achievement (Sergiovanni et al).

While the reform efforts were applauded by many that felt local control over the schools no longer seemed reasonable, the push for improvement did not slow during the mid-eighties. During this time, a shift in emphasis for reform began to emerge (Sergiovanni, Kelleher, McCarthy, & Wirt, 2004). This shift moved from an emphasis on mandates and inducements for the entire school to providing changes for teachers, their work conditions, and their preparation (Sergiovanni et al.). Recommendations for improvement were made that addressed increasing the standards for entry into teaching, strengthening the connections between schools of education and public schools, and strengthening the liberal arts preparation of teachers (Sergiovanni et al.). Further recommendations made by the Carnegie Forum report in 1986 emphasized the need to provide teachers with more autonomy while holding them more accountable, providing incentives for performance, and restructuring teacher and administrative roles to give teachers greater access to decision making (Sergiovanni et al.).

With such a strong emphasis on accountability, teachers, and teaching, it did not take long to connect higher standards to the teaching process, thus focusing reform efforts on issues of standards-driven teaching and accountability (Coffey, & Lashway, 2002). The No Child Left Behind Act of 2001 is an example of this shift to standards, teachers, and school accountability. With this law, states and schools were mandated to test all students in grades three through eight annually and were charged with maintaining adequate yearly progress in improving student achievement. By 2005-2006 states must

have ensured that all teachers of core subject areas are highly qualified in the subjects they are teaching. If teachers are not highly qualified, parents of students attending a school receiving Title I funds must be notified. Long before the No Child Left Behind Act, however, the state of Missouri had already taken steps to ensure that teachers in Missouri received professional development by earmarking one percent of each school's budget for professional development activities that were ongoing and of a high quality (Missouri Professional Development Guidelines, 2005).

The widespread call for school improvement reforms in education represented an evolution as the emphasis shifted from mandates to teacher preparation to standards and accountability. Focusing on standards translates into broad based changes with school districts' curricula, instructional methodologies, professional development, assessment methods, and leadership training (Tirozzi, 2003). There is no question that strong leadership, particularly strong instructional leadership, plays the key role in assuring that changes in the school program are successful and that instructional improvement is achieved (Camburn, Rowan, & Taylor, 2003). School leaders are further challenged by the implementation of standards based accountability systems because of the lack of direct control over the standards being tested, the testing content, or the consequences associated with the testing (Coffey & Lashway, 2002). Yet, many school leaders are equally discouraged by the changes included in performance-based programs of accountability because administrators are being asked to do something they do not know how to do (Elmore, 2005).

The importance and role of the administrator is a highly researched area with countless studies emphasizing the effects of leadership on an organization (Sergiovanni,

2001; Mazzeo, 2003; Ruebling, Stow, Kayona, & Clarke, 2004). Sergiovanni, Kelleher, McCarthy, & Wirt (2004) state that “past accomplishments and future success have relied on and will continue to rely on the quality of educational leadership . . . in the process of building quality education” (p. 56). Given that what matters most in student learning is what the teacher brings to the process (Marzano, 2003), one of the most important roles of the principal is, therefore, to provide the most effective teacher possible for every student (Kaplan & Owings, 2003). Within the context of standards, accountability systems, and school reform, when stated in simple terms, the most important job of a leader is to get results (Goleman, 2000).

Yet, in a study conducted by Carol and Cunningham (as cited in Sergiovanni et al.), parents were surveyed to identify their perceptions of the school characteristics that led to an increase in public confidence. When those responses were ranked, the effectiveness of the administrator was third on the list, outranked only by dedicated and competent teachers and special instructional and extracurricular programs (Carol and Cunningham as cited in Sergiovanni et al.). Comments by those responding to the survey indicated that administrators must be leaders of teams of teachers and must have the capacity to be problem solvers on behalf of students and their parents (Carol and Cunningham).

Conceptual Underpinnings

Change brings a high probability that people in an organization will feel uneasy and uncertain, including the organization’s leader. These feelings of uncertainty are tempered and eased somewhat by the confidence exhibited by the leader. When a leader feels confident in their abilities to lead and accomplish tasks, a sense of stability and

order exists within the organization, even when the organization experiences high degrees of uncertainty and chaos. Pajares (2002) further states that in order for people to have the desire to act or persevere when faced with difficulties, the belief must exist that their actions can produce a desired outcome. Pajares cites Bandura's (1997) theory of self-efficacy in stating that the level of motivation, affective states, and actions are based more on what a person believes than on what is objectively true (p.2). This definition of self-efficacy explains why behavior can often be more accurately predicted by the beliefs held about a person's capabilities than by what a person is actually capable of accomplishing. It is actually the perceptions of self-efficacy that assist in determining what individuals do with the knowledge and skills they possess (Bandura). Bandura also asserts that those with high self-efficacy expectations are not only healthier and more effective, they are usually more successful than those with low self-efficacy expectations.

Bandura's (1977) Social Cognitive Theory explains the control humans exercise over their lives through actions influenced by self-efficacy beliefs. Social cognitive theory provides the basis for the theoretical analysis of the relationship of a principal's perception of self-efficacy and student achievement. The major influences on efficacy beliefs, according to Bandura's social cognitive theory, include mastery experiences, physiological arousal, vicarious experiences, and verbal persuasion. Furthermore, Bandura (1986) asserts that self-efficacy significantly impacts goal-setting, effort, adaptability, persistence, and level of aspiration. These beliefs, in turn, naturally impact the development of functional leadership strategies, as well as the effective execution of those strategies (Tschannen-Moran & Gareis, 2004).

Bandura (1977) makes convincing arguments for the power of self efficacy and the effort extended when completing tasks or attempting new or challenging situations. Educators are consistently facing new reform efforts or seeking alternative strategies to improve student learning. While these reforms and strategies present opportunities for professional growth and improvement in student achievement, for some principals with lower perceptions of self efficacy, reforms and alternative strategies may simply represent overwhelming challenges that cannot be effectively implemented. These differing approaches to instructional elements of the principal's job become a central theme for research in order to determine a connection between the self efficacy of the elementary principal and the resulting student performance on state assessments.

Statement of the Problem

School improvement reform efforts to improve student achievement have flooded the educational community and calls for a new kind of principal have been heard throughout the nation (Mazzeo, 2003). It is this flood of reform and the required transformation of the role of the principal, which forms the problem for this study. With the influence from the federal government continuing to expand, it is not likely that reforms aimed at improving student achievement will diminish in any manner. While the principal must be prepared to take on ever changing roles, the role of instructional leader, which includes establishing a learning climate, working with personnel, and providing curricular leadership (Miller, 2001) remains the primary focus. Research continues to demonstrate that school improvement and student achievement are the result of a leadership focus on the academic program, assessment data, and professional development (Ruebling, Stow, Kayona, & Clarke, 2004; Lashway, 1995). While it is

possible that many current and potential principals lack the essential skills necessary to lead in today's schools, the consequences and the message for schools are clear: schools must raise student achievement or face sanctions that could include reorganization or even a takeover by the state (Cicchinelli, Gaddy, Lefkowitz, & Miller, 2003). The restructuring of schools in a focused direction toward improvement, require that school-oriented tasks are performed by principals in an instructional leadership role. For this reason, the principal's self-efficacy in school-oriented tasks is important (Imants & DeBrabander, 1996). School administrators must be ready to make curricular and instructional decisions based on strong leadership, careful planning, and an unrelenting commitment to children (Gross, 2003).

The stakes are high and a school's reputation, funding, and even the principal's job may be on the line. In an already demanding position, principals must now take on additional roles and responsibilities to successfully lead schools toward positive change and sustained improvement in student achievement (DiPaola, & Tschannen-Moran, 2003; Fiore, 2004). A principal's sense of efficacy becomes an important factor in the effective learning and performance of these new roles and tasks (Imants & DeBrabander, 1996). Leaders must not only take responsibility for results, they must also be held accountable for results and be prepared to develop different leadership practices (Ruebling, Stow, Kayona, & Clarke). Sustaining not only the changes that are taking place, but also those that still need to take place in education require new perspectives on leadership and the identification of different leadership actions as the basis for system transformations in schools (Fullan, 2005).

One component of the No Child Left Behind Act of 2001, discusses the importance of high quality teachers to bring about improvement in student achievement. The importance of high quality professional development for teachers is, therefore, an important issue emphasized by the state of Missouri. The assumption exists that the principal will fill the key role in leading teachers and students in meeting the increasing requirements of accountability measures for schools (Leithwood, Steinbach, & Jantzi, 2002). This rise in accountability translates into actions of the principal leading to improvement on state assessments, revising curriculum to meet new state standards, and leading staff through varied reform efforts. There is, however, no clear source of expertise for school principals required to lead these reform efforts. The assumption is just that leading these complex changes will be completed by the principal. The research is clear: effective and high achieving schools are led by strong, effective leaders (Valentine & Bowman, 1991; Gawrecki, 2003). Yet, it is important to determine if in fact, school principals feel competent to lead their schools in these important changes and whether or not professional development impacted that feeling of competence. With such large scale reform efforts facing schools today, such as the No Child Left Behind Act, it seems apparent that some professional development for school administrators would be necessary. Without formal training that is focused on issues related to compliance with the mandates from federal and state governments, the role of the principal is often left to the discretion of the individual school district or to the individual administrator. Given the pressure for continuous improvement facing school leaders, individual levels of existing competence and perceptions of self efficacy among principals become key issues for study.

Purpose of the Study

The purpose of this study was to determine if a relationship existed between the perception of self-efficacy by elementary school principals and student achievement in leading their schools in an era of change and heightened accountability. The importance of effective instructional leadership cannot be minimized and by determining the self perceptions of skills of instructional leaders and efficacy among elementary principals, a relationship between instructional leadership, self efficacy, and student achievement may be discovered.

Research Questions

This research seeks to answer one primary question.

1. What relationship exists between the perceived self efficacy of the elementary school principal and the achievement levels of the students as evidenced by performance on the Missouri Assessment Program (MAP)?

One subordinate question was also asked:

2. Is the elementary school principal's competence the result of professional development activities?

Hypotheses

1. There is no relationship between the self efficacy of elementary school principals and student achievement as determined by student performance on the MAP.

2. There is no relationship between the self efficacy of elementary school principals as instructional leaders and participation in formal and focused professional development for administrators.

Limitations

The proposed study included a random sample of Kindergarten through sixth grade elementary schools in Missouri. Schools consisting of grades kindergarten through eighth grade were not included in this study. The communities studied ranged in population from fewer than 2,000 persons to more than 450,000 inhabitants according to 2000 U.S. Census data. The sample included urban, suburban and rural areas and represented a wide range of school settings and funding sources for school programs. These variances in settings and funding sources could impact the implementation of innovative programs to improve student achievement, thereby, requiring fewer programming changes for some principals and fewer opportunities to utilize feelings of self efficacy to implement, monitor and evaluate new instructional processes.

An additional limitation to this research is the self reporting of survey respondents. According to Donaldson & Grant-Vallone (2002), self reporting responses tend to be higher because:

research participants want to respond in a way that makes them look as good as possible. Thus, they tend to under-report behaviors deemed inappropriate by researchers or other observers, and they tend to over-report behaviors viewed as appropriate. Self-report bias is particularly likely in organizational behavior research because employees often believe there is at least a remote possibility that their employer could gain access to their responses. (p. 247)

Although anonymity of survey respondents was ensured by reporting responses in aggregate form, the belief of possible loss of anonymity could be an underlying factor in responses obtained, resulting in higher reported scores.

Definition of Key Terms

For this study, the following definitions of terms shall apply:

No Child Left Behind Act. This 2001 Act required schools to establish standard-driven teaching and accountability for each state (Coffey, & Lashway, 2002).

Missouri Assessment Program (MAP). State achievement test given to students in grades 3-8 to determine adequate progress for schools in meeting the criteria established as part of the No Child Left Behind Act of 2001.

Instructional leadership. The process of setting high academic expectations, reviewing lesson plans, supervising classroom instruction, and monitoring curriculum (Lashway, 2003). The term has expanded to include anything done by a leader that improves teaching and learning (King, 2002 as cited by Lashway, 2003) or is directly related to teaching and learning (Murphy, 1988 as cited by Marks & Printy, 2003). Included within the realm of instructional leadership are specific tasks such as assisting teachers in planning effectively, stressing effective teaching strategies, serving as instructional coach, ensuring that the vision of the school is achieved and goals are met (Lloyd-Zannini, 2001), promoting a climate for learning, and coordinating, monitoring, and evaluating curriculum, assessment, and instruction (Murphy, as cited by Marks & Printy). For the purposes of this research, the instructional leader is presumed to be the school principal.

Self Efficacy. A measure of the ability to cause something to happen, or to change something already in existence. Tschannen-Moran, Woolfolk Hoy, and Hoy (1998) explain efficacy with the question, “Do I have the ability to organize and execute the actions necessary to accomplish a specific task at a desired level?” Self-efficacy, or sense

of efficacy is one's personal judgment of his/her ability to plan and execute a desired course of action while achieving a specific, desired result (Bandura, 1986; Hillman, 1986). When the perception of self efficacy is at a higher level, higher goals are established and the commitment to achieve those goals is stronger (Bandura, 1997).

Summary

Challenges in education are not new, however, ever increasing levels of accountability are a new challenge for educators and schools. The principal of the school plays a vital role in determining the vision to meet those challenges and then maintaining focus and efforts to ensure that vision is realized. A large part of the commitment exhibited by the principal rests in their perception of self efficacy in meeting that challenge. By researching the self efficacy of elementary principals in public schools in Missouri, this study determined whether or not a relationship between student achievement and the self efficacy of the principal existed. Chapter two provides a review of related literature on the need for professional development for principals, the changing role of the principal, and the self efficacy of the principal and the impact of that self efficacy on student achievement. Chapter three provides a description of the research methodology used in this study. Analysis of all data are presented in chapter four, accompanied by applicable research findings. The conclusions, inferences, and recommendations for further research complete chapter five.

CHAPTER 2

REVIEW OF RELATED LITERATURE

Introduction

Given the context of accountability and school reform faced by educational leaders today, the successful fulfillment of the role of the school principal continues to be at the heart of a school's progress in improving student achievement (DiPaola & Tschannen-Moran, 2003). After reviewing research findings from 1980 to 1995 on the impact of the school principal on school effectiveness and improvement, Hallinger and Heck (1998) found that the schools that made a difference in students' learning were led by principals who contributed to the learning of students and to the effectiveness of their staff in significant and measurable ways. School improvement, however, is a process of continuing renewal and even recreation, and is, therefore, not easy. The reason is simple: to institutionalize, maintain, and replicate reform efforts centering on improving student achievement, the creation of a new framework of instructional improvement and a new leadership to manage that framework is required (Perreault & Lunenburg, 2002). While the role of the principal becomes more complex, the tasks relegated to the school leader have naturally become more complex as well. Similarly, the responsibilities assumed by the leader of the school have grown with the increase of reforms and measures of accountability. For example, principals must constantly monitor and assess the learning environment to ensure that all students are making the adequate yearly progress required by the state of Missouri. This monitoring necessarily includes reviewing and considering implementation of best practices, observing and providing feedback for instruction, and fostering and initiating new strategies aimed at improving student achievement.

In a position that has always been demanding, principals today must simply do more than ever (DiPaola & Tschannen-Moran). Calls for co-leadership positions where leadership tasks are shared between two administrators have been made because of the overwhelming leadership and management tasks that must be completed by principals. In contrast to a co-leadership position, some researchers are asserting that the role of the principal should be defined in a more narrowed and focused manner rather than by the additional responsibilities that many principals now face (DiPaola & Tschannen-Moran).

As school reform measures are introduced and principals search for ways to bring continuous improvement into their schools, professional development of principals becomes an important issue for school districts and individual administrators. Bottoms & O'Neill (2001) see professional development as the primary means to train school leaders in order to meet the growing demands of the job and to lead the school community toward excellence in student achievement. Further challenges exist in providing effective professional development programs for school administrators since many programs have not kept up with the rising expectations placed on school principals (Bottoms & O'Neill).

This study recognizes the job complexities facing school leaders and seeks to investigate the self efficacy and contributing factors that impact and influence the perception of efficacy among elementary principals in leading efforts to improve student achievement. This literature review explores the need for professional development and its impact on principal leadership, the changing role of administrators, and the self-efficacy of school leaders and the impact of that self efficacy on student achievement.

The literature review includes liberal utilization of electronic databases such as Dissertation Abstracts International, ERIC database, Current Journals in Education

(CIJE) database, University of Missouri's Ellis Library Internet Gateway, search engines such as Google, Yahoo, as well as manually searching through card catalogues and stacks of educational journals in multiple university libraries. Keywords/subjects for the searches included a wide range of terms relating to principal leadership, instructional leadership, efficacy and competence, accountability, reform, and professional development.

Professional Development for Principals

Reform efforts call for strong leadership (Camburn, Rowan, & Taylor, 2003), which in turn calls for strong leadership skills. Baker (2004) asserts that with cries for accountability ever rising in our society, principals must not only be empowered to meet the challenges that are present, but principals must also be trained appropriately. Bottoms and O'Neill (2001) even call for a "new breed of school leaders, with skills and knowledge far greater than those expected of 'school managers' in the past" (p. 7). The question remains, however, how are principals appropriately trained and what is the source of expertise for those necessary leadership skills? In this context, the professional development of principals becomes an important component of understanding the competence and perception of competence held by elementary principals in Missouri.

The actions of principals in Missouri are guided by laws and mandates, as in any state. A review of pertinent legislation is necessary to understand the context of reform and the effect of these reforms on the role of administrators in Missouri. The Excellence in Education Act of 1985 introduced legislation that mandated professional development for teachers and administrators (Missouri Professional Development Guidelines, 2005). With this mandate, districts were now responsible for seeing that teachers received

mentoring and ongoing professional development that would support teachers in the continuing goal of improving student achievement (Missouri Professional Development Guidelines, 2005). The Excellence in Education Act of 1985 also created a “Principal-Administrator Academy” that became part of the Department of Elementary and Secondary Education for Missouri. This “Academy” was to provide “an organizational framework for a wide array of educational and training programs for school leaders” (Missouri Professional Development Guidelines, 2005).

With the Outstanding Schools Act of 1993, school districts were mandated to allocate one percent of monies to professional development within the school district. This new legislation called for a shift in practice because the professional development emphasis for schools was now placed on the individual growth of teachers, systemic improvement, and on increasing student achievement (Missouri Professional Development Guidelines, 2005). The Outstanding Schools Act also required the creation of academic standards and assessments that schools were to follow and implement. As a result, the Department of Elementary and Secondary Education developed the Missouri School Improvement Program (MSIP) as an ongoing process to (a) assess the strengths and improvements needed in district educational programs and services, (b) organize staff and related resources to support school improvement efforts, and (c) develop and implement a formal plan to improve educational programs in schools throughout the state (Procedures Handbook, 2004-2005).

In reviewing the key legislation for education in Missouri, professional development activities have largely been focused on improving student achievement through the teaching force. Even the No Child Left Behind Act (2001) provides that all

students shall be taught by highly-qualified teachers, and if they are not, parents will be notified. Chapman and Harris (2004) reviewed improvement strategies that had been successful in raising achievement in schools facing challenging circumstances and found that staff development was one of the most important factors in achieving school improvement in the schools included in this study. Yet, it is not difficult to locate assertions in the research literature indicating the effective principal takes responsibility for leading the school in reform (Fullan, Hill, & Crevola, 2006), influencing and sustaining improvement in student achievement (Hallinger & Heck, 1999; Fullan et al.), and supporting professional networking opportunities for staff (Perreault & Lunenburg, 2002). While many leadership skills are simply learned through experience and are not the result of formal training programs or workshops (Yukl, 2002), the principal must be willing to engage in professional development activities that focus on areas that will directly impact student achievement in order to effectively lead teachers in these reform efforts and in improving instruction. Since student assessments and academic performance are the primary means of accountability required by the No Child Left Behind Act and by the Missouri School Improvement Program, it is important that school leaders take steps to ensure schools follow an aligned and integrated approach to those assessments so that student achievement improves (Cicchinelli, Gaddy, Lefkowitz, & Miller, 2003). Quinn (2004) makes an even stronger statement by asserting that while it is the instructional leadership in our schools that will be responsible for the success of the school reform movement, the success of the leader is dependent on the quality of training and continuing professional development they receive.

In response to the Excellence in Education Act of 1985, Missouri developed multiple opportunities for principals to engage in professional development. The Leadership Academy became a primary source of workshops and training focusing on needs of administrators throughout Missouri. Through the participation in the professional development offered for administrators, the knowledge base of Missouri principals is supported and opportunities for networking among administrators are created. Topics addressed in professional development offered for administrators tend to be associated with traditional training for administrators and is becoming more closely aligned with what really gets done on the job, particularly within the realm of improving student learning and achievement, curriculum alignment, and utilizing assessment data.

Given the context of standards, accountability, and school reform, Quinn (2004) suggests that professional development topics for administrators might appropriately include instructional leadership, data-driven decision making, how to build a positive school culture, leadership and management, change and school improvement. Professional development can be the hallmark of improvement efforts for schools and provide a firm foundation for introducing and structuring change initiatives that will lead to improved student performance. Furthermore, engagement in professional development by administrators can serve to guide the path administrators take as support for those efforts is fostered through the learning and practice that accompanies high quality professional development.

School administrators are at the heart of the realization that if leadership is the vital component to educational reform initiatives and school improvement, leadership itself must be significantly different from what it has been in the past (Fullan, 2001). It

should be no surprise that effective leadership is not the norm in many schools (Fullan) thus, indicating that professional development opportunities must continue to grow and become more relevant to actual practice and more accessible to practitioners. This relevance and accessibility, in turn, will lead to increased knowledge and skill sets exhibited by school administrators, allowing leadership to thrive in an environment of change and possibly, even chaos (Fullan).

The Changing Role of the Principal

When administrators participate in professional development, opportunities are provided to consider new ideas and concepts, to more clearly define the leadership role of the school principal, and to develop and enhance the skills that are needed to effectively lead the school. The connection between effective professional development and the precise leadership skills that will lead to improved student achievement is critical, and yet, difficult to determine. Ladd and Zelli (2002) reported in a study on the responses of principals to a school-based accountability system that a well-designed accountability system can have a powerful effect on the behavior of school principals. In another study of the conditions and concerns of principals, the majority of principals reported that the most pervasive issue they faced was related to the expanding role of the principal as instructional leader in improving student achievement on standardized tests (DiPaola and Tschannen-Moran, 2003). Seventy percent of the respondents in the study of the conditions and concerns of principals conducted by DiPaola and Tschannen-Moran indicated that more professional development was needed for principals, particularly in the use of research for improvement efforts, the use of data to drive decisions, the assessment of students using multiple criteria, and staff development for faculty. The

emergence of the concept of instructional leadership seemed a logical progression as the role of the principal began to broaden during the late 1970s (Lashway, 1995). The term of instructional leader interpreted the role of the effective principal as one who took charge of a school by determining clear expectations, maintaining firm discipline, implementing high standards for both teachers and students, reviewing curriculum, evaluating teachers, and assessing results (Lashway, 1995; Lashway 1995). A similar list of functions of the instructional leader were compiled by Weber in 1989 and included defining the school mission, promoting a positive climate conducive to learning, observing and providing feedback to teachers, managing curriculum and instruction, and the assessing the instructional program of the school (as cited in Lashway, 1995). Facilitative approaches are needed by today's principals so that goals are met in a collaborative fashion and teachers are, therefore, empowered (Lashway). The wide range of skills needed for administrators today, particularly in the instructional leadership realm, is overwhelming and often contradictory and it is not always clear how administrators are to gain skills in the varying facets of leadership. Principals must possess core knowledge, as well as skills related to management, in order to inform and lead change in schools (Miller, 2003). Leadership skills, however, are as wide ranging as they are complex and deciding exactly which skills are critical for the improvement of student achievement and improved student learning requires an understanding of the role of the principal.

Much of the research through the mid-1980s, typically focused on leadership in terms of the functional tasks performed within the context of the school (Camburn, Rowan, & Taylor, 2003). The traditional role of the principal was rather easy to understand and was often characterized by ensuring a safe environment, managing the

budget and maintaining discipline (as cited in DiPaola & Tschannen-Moran, 2003). This emphasis on the functional tasks of leaders led to large numbers of lists containing the skills, tasks, and responsibilities employed by effective school principals. Many of those skills and tasks, while managerial in scope, remain in place when describing the role of the principal today, yet the role of the principal is transforming from manager to leader (Gupton, 2003). However, the individual conception of the role of the principal impacts the decisions made, the areas of focus, and the management of time (Hill, 2000). A more precise definition for the role of the principal today would include less emphasis on administrative processes and functions and more references to competencies and proficiencies needed for administrators (Sergiovanni, 2001). This shift in the description of the role of the principal is suggestive of the changes taking place in the day to day responsibilities of the principal. In 1998, the National Association of Elementary School Principals studied the role of the principal (as cited in Sergiovanni, 2001) and reported that significant changes (increases of over 55 percent) were taking place in seven areas: marketing/politics to elicit support for the school, working with social agencies, planning/implementing site-based staff development, development of instructional practice, curriculum development, working with site-based councils, and attention to issues related to legal liabilities.

While varying lists of competencies and proficiencies needed for administrators have gained a stronghold on administrative practice, the hallmark elements included in most lists of competencies are the ability to articulate a vision, to set clear goals, and to create a sense of shared mission (Hallinger & Heck, 1999). Other studies have identified contributing features of leadership as well. Portin (2004) identified seven common

functions of leadership in schools representing the actions of leaders in schools. Those actions of leaders in schools included instructional leadership, cultural leadership, managerial leadership, human resources leadership, strategic leadership, external development leadership, and micropolitical leadership (Portin). A key issue in using the core functions of leadership in schools in an effective manner is in the diagnosis of problems (Portin). Determining the most important problems and then analyzing the available resources and solutions to address those problems are critical points of decision making for principals (Portin). Contemporary leaders must do more than acquire particular skills, knowledge, or style, they must know when and how to use and adjust those skills (Gupton, 2003). Waters & Grubb (2004) discuss the importance of selecting the most effective school and classroom practices for improvement initiatives as simply “identifying what should take primacy” (p. 4). Elmore (as cited in Waters & Grubb) makes an even stronger statement by asserting that “Knowing the right thing to do is the central problem of school improvement” (p. 9). Without a proper direction for improvement efforts, administrators will be less effective and possibly even bring a negative impact on student achievement (Waters & Grubb).

To assist administrators in knowing what to do, the Council of Chief State School Officers (CCSSO) formed the Council’s Interstate School Leaders Licensure Consortium (ISLLC) as part of a partnership with the National Policy Board for Educational Administration (NPBEA). Along with practitioners, policymakers, and educational leadership organizations across the nation, this group developed and published a set of model standards reflecting what school administrators should know and understand, what they should be able to do, and what they should believe, value, and commit to (CCSSO,

1996 as cited in Waters, & Grubb, 2004). This model is comprised of six standards and 184 indicators for practice. Although these standards have been adopted by several states to inform principal licensure policies, a number of scholars have criticized the standards for lacking in depth, breadth, and research (Murphy, 2003, as cited in Waters, & Grubb). Further lack of clarity in using the standards exists in the research that forms the basis for these standards of practice. The standards do represent the range of responsibilities that are part of administrative practice; however, there is no clarification on which of the standards has a greater impact on student learning than others (Waters, & Grubb). The ISLLC standards also create some confusion over which standards are more important than others because references to particular themes are not necessarily weighted by the number of references made to a particular responsibility within the standards.

In response to this ambiguity surrounding the ISLLC standards and their relationship to improving student achievement, the Mid-continent Research for Education and Learning (McREL) conducted extensive research that reviewed over 5,000 studies looking at the relationship between school leadership and student achievement (Waters, Marzano, & McNulty, 2003). Criteria for inclusion in the research review were quantitative student achievement data, student achievement measured on standardized, norm-referenced tests, student achievement as the dependent variable, and teacher perceptions of leadership as the independent variable (Waters, Marzano, & McNulty). Based on these criteria for inclusion, 70 studies remained as part of this analysis. Through the analysis of these studies, the McREL research team identified 21 key leadership responsibilities and 66 associated practices that were significantly correlated with student achievement, calling these responsibilities the Balanced Leadership Framework (Waters,

Marzano, & McNulty). The 21 leadership responsibilities identified were culture, order, discipline, resources, curriculum/instruction and assessment, focus, knowledge of curriculum/instruction assessment, visibility, contingent rewards, communication, outreach, input, affirmation, relationship, change agent, optimizer, ideals/beliefs, monitors/evaluates, flexibility, situational awareness, and intellectual stimulation (Waters, Marzano, & McNulty). Clearly the ISLLC standards represent a broad range of responsibilities of principals and many states utilize these standards for a number of reasons, including licensure. The findings of the Waters, Marzano, and McNulty team of researchers, however, brought a new perspective to leadership by indicating in a quantitative manner which leadership responsibilities and practices aimed at improving student achievement should take precedence over other practices. Those responsibilities form the basis of the Balanced Leadership Framework and could represent a focused direction for the principal in determining the most effective means of improving student achievement. Furthermore, the responsibilities included in the Balanced Leadership Framework could offer a holistic definition of the changing role of the principal while indicating the responsibilities most closely aligned to improving student achievement.

The Council of Chief State School Officers recently made revisions to the 1996 version of the Interstate School Leaders Licensure Consortium (ISLLC) Standards for School Leaders. The revised standards are now referred to as the Educational Leadership Policy Standards: ISLLC 2008. This revision was undertaken to better reflect the needs of policy development and as a means of providing clear and consistent standards that state policy-makers can use to strengthen selection, preparation, licensure, and professional development for education leaders (Council of Chief State School Officers, 2008). With

the addition of meaningful leadership research over the past decade, the findings from that research have clearly indicated that school leaders are essential to the improvement of instruction and raising student achievement (Council of Chief State School Officers). The developers of the 2008 ISLLC standards feel certain these new standards and the related functions will give school leaders the tools they need to meet the ever expanding range of skills required to successfully complete the job of leading schools (Council of Chief State School Officers).

Leadership does make a difference in student achievement, although, research consistently indicates this difference is primarily indirect (Imants, & DeBrabander, 1996; Hallinger & Heck, 1999; Witziers, Bosker, & Kruger, 2003; Lashway, 2003; Sergiovanni, 2005). Contextual factors within a school setting provide the main avenues for a leader's influence on student achievement through policy formation, development of goals, and teaching practices (Lashway). Nevertheless, learning and leading are inextricably linked given that a school with a high capacity for leading has the ability to develop students with a high capacity for learning (Lambert, 2003). There can be no separation between learning and leading because learning together is a form of leading (Lambert). In a policy brief on the impact of leadership on student achievement, K. Miller (2003) states:

Effective leadership adds value to the impact of classroom and teacher practices and ensures that lasting change flourishes. Awareness of the school and teacher practices that impact student achievement is critical, but without effective leadership, there is less of a possibility that schools and districts will address these variables in a coherent and meaningful way. (p.5)

Leaders today must be open to a new type of leadership where collaboration, and an open and inclusive approach to leading prevail (Lambert, 2003). The demands placed on schools increasingly call for a more democratic approach to the principalship, where stakeholders participate regularly and team resources of varied talent and skill are called on to assist in addressing issues related to student learning (Gupton, 2003). Leaders must understand that their role is evolving from a generalized view of leadership and management to a focused view of school leaders as instructional leaders (Gupton). While many of the functions and responsibilities of leadership and instructional leadership remain the same, effective instructional leadership behaviors can succinctly be defined as providing a sense of vision, engaging in participatory management, providing support for instruction, monitoring instruction, and seeking and securing resources (Patterson, 1993 as cited in Gupton). DuFour (2002) further asserts that instructional leaders are not enough for schools of today to be successful. Principals must now be prepared to become learning leaders rather than instructional leaders, shifting the focus from teaching to learning (DuFour).

This shift in the focus represents the opportunity for administrators to demonstrate their willingness to not only introduce, but actively engage in activities that are supported by research and have a demonstrated link to success in other schools. Additionally, an administrator's prior knowledge and current attitudes toward the implementation and development of instructional programming are fundamental elements for success (Lloyd-Zannini, 2001). While a leader's personal preference may be indicative of the behaviors used by the principal leading to a perception of school effectiveness and success (Hill, 2000), the perceived self-efficacy is the underlying indicator of personal preference and

thus, is a fundamental component of decision making (Bandura, 1997). Decisions based on the ability to perform an activity and not the simple preference for a particular activity can exert a powerful influence on teacher behavior and on student success.

Self Efficacy of the Principal

As school leadership continues to evolve, the challenge for principals is to stay abreast of the changes associated with this educational evolution, and maintain high levels of skill in all areas of instructional leadership. Since principals are expected to possess competence in all areas of instructional leadership, the principal should, therefore, possess the capability of impacting educational practice and supporting services appropriate for all learners within the school setting (Lloyd-Zannini, 2001).

While it may seem that no one person can be expected to possess expertise in every area of instructional leadership, many principals cope with these high expectations by simply avoiding spending time with essential activities, such as curriculum planning, clinical supervision, staff development, and teacher evaluation because they are not comfortable with these areas of instructional leadership (Gupton, 2003). People tend to avoid situations where they are unsure of their abilities to cope and join in activities and get involved when they judge themselves capable of handling the situation, even when there is some element of intimidation (Bandura, 1977). Levels of confidence exhibited by schools leaders are generally associated with the possession of core knowledge, skills, and expertise, however, the perception of self-efficacy is an important link to the accomplishment of goals, regardless of the skill level (Bandura 1997).

A principal's sense of efficacy is a judgment of his or her capabilities to organize a course of action that will produce the desired outcomes in the school he or she leads

(Bandura, 1997). A key point to note is that self-efficacy is the expression of one's self-perception of one's level of competence, and not of one's actual level of competence (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). "Perceived self-efficacy is concerned with judgments of personal capabilities to exercise control over their own level of functioning and events that affect their lives" (Barr, 2002, p. 15). Studies within an educational setting have determined the importance of sense of efficacy to variables related to the quality of education such as students' achievement gains, implementation of innovations, attitude to innovations, and classroom management behavior (Imants & DeBrabander, 1996). To discover the relationship and influence of the principal upon student achievement and outcomes, Hallinger and Heck (1998) reviewed the empirical literature between 1980 and 1995. Hallinger and Heck found the effects of principal leadership on student achievement were indirect, yet, significant when engaged in instructional leadership activities, such as supervising teachers' classroom practices. While the notion of the principal as instructional leader has taken hold in most schools, many administrators have expertise in only one area of the instructional program (Fiore, 2004). This singular focus leads many principals to question their own level of expertise and to feel threatened by the leadership issues connected to those weaker areas of expertise (Fiore). The sense of self-efficacy that an individual possesses influences his or her decision about the behaviors in which he or she will engage (Lucas). When the perception of self-efficacy is at a higher level, higher goals are established and the commitment to achieve those goals is stronger (Bandura, 1997). People that do not believe in their power to produce results, will not exert as much effort to achieve their goals or purposes (Barr).

McCormick (2001) reported on the significance of the relationship between a leader's self-confidence and successful leadership. Simply stated, effective leaders have confidence in their abilities to meet the demands of their present leadership position (McCormick). While self confidence and self-efficacy are not exactly the same concepts, they are closely related and this relationship has been noted by other researchers (Brockner, 1988, Hollenbeck, 1991, Bass, 1990, as cited in McCormick). With higher levels of self efficacy, individuals demonstrate the ability to master increasingly difficult tasks (Lucas, 2003). If this statement is true, then perhaps a relationship between levels of confidence and higher levels of student achievement may exist. Since this type of direct relationship is difficult to assess and prove, assumptions take precedence regarding the confidence of a school leader, the various skill levels of the instructional leader, and the ensuing impact on student achievement. A related question is whether the possession of skills and attributes of the instructional leader are of more importance to the leader than the self confidence or efficacy of the school leader.

The work of Bandura (1997, 1993, 1986, 1977, 1974) is considered to be seminal in the study of self-efficacy and its relationship to self-agency, self-control, cognitive development and function, and personal achievement. Bandura (1993) maintains that self-efficacy is a key factor in motivation, and that those who perceive themselves as efficacious will set higher goals for themselves on a continuing basis, will handle negative experiences better while in the process of reaching a goal, will think more efficiently, and will tend to experience less depression than those who do not perceive themselves as such. This does not mean that the mere expectation of success will ensure the desired level of performance (Bandura, 1977). However, with the possession of the

appropriate skills and incentives for a given situation, the perceived self-efficacy and related efficacy expectations have a major impact on the choice of activities, the amount of effort expended, and the amount of time spent in sustaining effort in stressful situations (Bandura, 1977). Bandura further makes this point by stating that “the stronger the perceived self-efficacy, the more active the efforts” (1977, p. 194).

Links between teacher efficacy beliefs, teacher behavior, and student achievement have been well documented (Ashton & Webb, 1986; Barr, 2002; Guskey & Passaro, 1994; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). By reviewing the link between teacher beliefs and behavior, we can similarly understand and recognize links between principal beliefs and behavior. When teachers possess strong perceptions of efficacy, they are more likely to persevere when confronting new challenges, put forth more effort in lesson planning, and are more receptive to new ideas (Brinson & Steiner, 2007). Poulou (2007) asserted that the confidence of the teacher in their ability to execute the activities leading to student learning was a reliable predictor of teacher practice and student success. Teacher behavior can be greatly influenced by the interactions of a principal with teachers new to the profession (Youngs, 2007). Principals can exert a powerful impact on new teacher’s instructional growth and in their work with grade level peers and mentors by simply interacting positively with new teachers (Youngs). Youngs’ research also found the positive interactions between the principal and the teacher were stronger because of the beliefs and actions of the principal regarding leadership, teacher induction, evaluation and policies (Youngs).

Additional research related to teacher efficacy provides support for the findings of Bandura (1997, 1993, 1986, 1977, 1974). For example, in their research, Guskey &

Passaro (1994) were interested in determining the distinction between a personal sense of efficacy (issues related to “my influence”) versus teaching efficacy (issues related to “teachers’ influence”). This research revealed that the teachers surveyed drew a distinction between their beliefs about the influence they and all teachers have, or do not have, on the learning of their students, including students considered unmotivated (Guskey & Passaro). Given this distinction, Guskey & Passaro stated that some teachers believed that they could have a powerful influence on students, despite the effects of social, demographic, and economic conditions. Other teachers believed, according to Guskey & Passaro, that their ability to affect students was very limited, regardless of the social, demographic, and economic conditions. While the point of their research was not to address what is teacher efficacy, Guskey & Passaro identified teacher efficacy as the “teachers’ belief or conviction that they can influence how well students learn, even those who may be considered difficult or unmotivated” (p. 628).

Featherstone (2005) authored a study that explored the differences in teacher efficacy among high, medium, and low performing elementary schools in North Carolina. The Teacher Efficacy Scale was used to determine if the differences in teacher efficacy were correlated to how well schools performed academically. Data analysis of the teacher surveys included a one-way analysis of variance (ANOVA), Chi Squares, and multivariate analysis of variance (MANOVA). Results indicated that students that performed higher on their End-Of-Grade Tests had teachers with higher levels of Personal Teacher Efficacy (PTE) than teachers in low performing schools (Featherstone). This finding is supportive of results in two 1992 studies by Zimmerman, Bandura & Martinez-Pons and Zimmerman & Bandura (Lloyd-Zannini, 2001). These studies focused

on low-achieving students and the impact of the students' belief in their abilities to achieve their goals (Lloyd-Zannini). The studies found that students who believe they can accomplish a goal were more likely to set goals, to try to achieve them, to overcome obstacles, and to actually accomplish those goals than those students who did not regard themselves as efficacious (Lloyd-Zannini).

Hoy and Woolfolk (1993) linked teachers' sense of efficacy with several variables, including their belief in their ability to have a positive effect on the learning of their students. While this research focused on the climate of the school and its relationship to teachers' sense of efficacy, findings did reveal that the teachers' belief in their ability to influence student learning was fostered by the principal because of the influence with superiors and the use of that influence on behalf of teachers (Hoy & Woolfolk). Within the rigorous environment of standards and high levels of accountability, the research of Mathison and Freeman (2003) found that the elementary teachers in their study tended to experience limited influence and a diminished use of their skills because of the need to teach content closely aligned to standards and state assessments. Mathison and Freeman found that teachers did not feel good about the constraints the required testing placed on their work and the accompanying decline in the teachers' sense of professionalism. Some of the teachers even expressed their limited sense of efficacy because they felt they had reached the limits of their capabilities and could do nothing more to help improve student achievement (Mathison & Freeman). To create an environment of support for teachers and influence with superiors, school principals must be adept in brokering the resources required to improve teachers' abilities to teach the state standards (Perreault & Lunenburg, 2002). This support involves many

of the functions of an instructional leader, such as acquiring materials, information, or technology; manipulating schedules or release time to create opportunities for teachers to learn; facilitating professional networks; and creating an environment that supports school improvement efforts (Perreault & Lunenburg).

The link between the leadership of the principal and teachers' self efficacy has been established and clearly the principal is in a position to foster an atmosphere where teachers can develop strong self-efficacy beliefs (Tschannen-Moran & Hoy, 2007). However, to foster the development of self-efficacy beliefs among teachers, the principal must be able to inspire a vision among teachers and maintain order among students (Tschannen-Moran & Hoy) within the context of standards and state assessments. School improvement, directly related to achievement on the MAP test for schools in Missouri, serves as the primary evaluation of leadership, instruction, and school climate. In a policy brief completed in 2003 by the evaluation team for the eMINTS National Center, positive school climate was observed and identified by the kinds of interactions between the school principal and students (Tharp, 2006). If the school principal exhibited student-centered behaviors, the distinguishing factors observed included consistent and high visibility throughout the school, the display of student work in classrooms, the purposeful welcome of visitors, and a positive office staff (Tharp). An analysis of student MAP scores in schools where principals exhibited student-centered leadership revealed significant differences on mathematics tests, thus supporting the importance of principal leadership in eMINTS schools (Tharp).

Lucas (2003) studied middle school principal leadership efficacy by surveying both teachers and principals to determine their perceptions of the principals' ability to

provide effective leadership in seven major areas. Principals completed a self-rating instrument utilizing a ten-point scale to determine levels of efficacy in each of the following areas: standards, curriculum, and assessment; instructional practices; faculty staffing and professional development; organizational practices for relationships; collaborative leadership practices; healthy school environment; involving families and the community (Lucas). Information including demographics, school characteristics, education, certification, and experience were also collected from the principals (Lucas). When comparing the rank orders of principal leadership self-efficacy and teacher-perceived implementation levels for the areas studied, principals considered themselves capable of providing the most efficacious leadership in the area of healthy school environment, while teachers perceived that this area was only fifth in rank order of implementation. Conversely, teachers perceived that the area regarding standards, curriculum and assessment were being implemented at the highest levels, principals considered that their leadership self-efficacy in this area was the second lowest (Lucas). Correlations were calculated between principal demographic characteristics and principal leadership self-efficacy (Lucas). Significant positive correlations were found between principal age and leadership self-efficacy for “faculty staffing and professional development, organizational practices for relationships.

Although previous research including demographic information has provided differing results (Tschannen-Moran & Gareis, 2004), Dimmock and Hattie (1996) found no significant relationships and determined that efficacy beliefs were not related to socio-economic levels of the school. Tschannen-Moran & Gareis report research results of Smith et al. (2003), indicating female principals, principals of larger schools, and

principals of schools with larger numbers of students receiving free and reduced-price lunches had stronger self-efficacy beliefs. Other researchers have also included demographic variables in their studies. For example, Hoy and Woolfolk (1993) found that teachers who attended graduate schools were more likely to have a sense of personal teaching efficacy. Gender has a significant impact on the relationship between sense of efficacy and career preference (Wheeler, 1983; Bandura, 1986; as cited in Imants & DeBrabander, 1996). Given that women are the minority among school principals, it can be expected that gender influences the sense of efficacy of principals in different types of tasks (Imants & DeBrabander, 1996).

Summary

Immense challenges face elementary principals in the arena of accountability and ever increasing standards for successful school achievement. Principals must be prepared to embrace every facet of the job with enthusiasm, perseverance, and vision. By researching the perceived self efficacy of elementary school principals, this study will deepen the understanding of the impact of leadership approaches in meeting the needs of students and teachers, while satisfying the standards of accountability in place for all schools in Missouri. A description of the research methodology provided in chapter three explains the research design, survey instrument, and process for data analysis used to elicit levels of efficacy among study participants and the associated MAP scores for each study participant.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

Introduction

Principals face complex and evolving challenges when seeking ways to improve student achievement. Principals must be willing to embrace change and lead the school community in a direction that will achieve established goals for student learning. While every facet of the teaching and learning process may not represent an administrator's strengths, every administrator must, nevertheless, exhibit the ability to effectively lead a school in an environment of flux and uncertainty. The possession of a strong sense of efficacy has proven to be a powerful predictor of individual behavior and principals with a higher level of self-efficacy persist in the pursuit of their goals, are more flexible and more willing to adapt strategies that will fit alternative settings (Tschannen-Moran & Gareis, 2004).

Problem and Purposes Overview

The major purpose of this quantitative study was to determine if a relationship existed between the perceived self-efficacy of elementary school principals and the achievement of students in grades three through six as measured by the Missouri Assessment Program (MAP). The research also explored the professional development of principals to determine the existence of a relationship among principals exhibiting high levels of self-efficacy or lower levels of self-efficacy. Demographic information including number of years as an administrator, gender, administrator's level of education, location of school, and school population was collected. Results of this study provide

possibilities for school improvement through enhancement, support, and development of self-efficacy for elementary principals.

Research Questions

This research seeks to answer one primary question.

1. What relationship exists between the self efficacy of the elementary school principal and the achievement levels of the students as evidenced by performance on the MAP?

One subordinate question was also asked:

2. Is the elementary school principal's competence the result of professional development activities?

Research Hypotheses

The research questions will be answered using two null hypotheses:

1. There is no relationship between the self perception of efficacy of elementary school principals and student achievement as determined by student performance on the MAP.

2. There is no relationship between the self perception of efficacy of elementary school principals as instructional leaders and participation in formal and focused professional development for administrators.

Population and Sample

Participants in this study were principals of public elementary schools within the state of Missouri. Elementary schools included in this study contained grade spans from prekindergarten through grade six. Only principals of individual elementary school buildings with prekindergarten through grade six within school districts throughout Missouri provided the sample for this study. Selection of the participant sample

represented the first step of the research design for this study and was completed by a process of systematic sampling. All prekindergarten through grade six public elementary schools were identified and listed alphabetically on the Department of Elementary and Secondary Education (DESE) website. Participants were chosen by reviewing all school districts in Missouri and selecting every third school district, a form of systematic sampling. Systematic sampling is sometimes questioned because of the potential to exclude certain subgroups of the population based on letters of the alphabet (Gay, 1987). To avoid this criticism, the decision was made to keep the systematic sampling number small enough to ensure inclusion of a random sample of participants from the 1,292 elementary schools in Missouri. If the selected school district had more than one prekindergarten through grade six elementary school, then all elementary school principals within the district received an email invitation to participate in the study.

Data Collection and Instrumentation

To investigate the perception of efficacy of elementary principals and the effect on student achievement, a quantitative research design was chosen. The quantitative research design allowed the investigator the opportunity to make statistically significant conclusions about a population by studying a representative sample of the population (Gay, 1987). Furthermore, the expectation existed that this research study would contribute knowledge to current educational issues, lead to recommendations for improvement of educational practices, and enhance the discussions possibly leading to policy reforms in education (Creswell, 2008).

For this research study, the Principal Sense of Efficacy Scale was used to assess the self perception of efficacy for each participant completing the survey. The survey was

completed online by elementary principals in Missouri. The survey was initially emailed to 457 elementary school principals to ensure an appropriate sample size. Each email address was assigned a numeric identifier to enable the researcher to review MAP scores of each participant. MAP scores from the spring 2009 testing year were used as the dependent variable in the research.

Permission to use the survey instrument was obtained. The survey instrument used in this research was developed by Tschannen-Moran & Gareis (2004) as an adaptation of the teacher sense of efficacy scale (TSES) measure developed by Tschannen-Moran and Woolfolk Hoy (2001). This survey was based on a model of teachers' sense of efficacy presented by Tschannen-Moran, Woolfolk Hoy, & Hoy, (1998). While Tschannen-Moran & Gareis maintain the difficulty of measuring principals' sense of efficacy, the process employed to develop an effective measurement involved the examination of some efficacy measures often used in the literature. Measures of principals' efficacy beliefs developed by Hillman in 1986 and by Imants and DeBradbander in 1996 were considered but not included in the development of a survey instrument by Tschannen-Moran & Gareis.

Three studies were completed by Tschannen-Moran & Gareis (2004) in a search for a reliable and valid measure of principals' sense of efficacy. The first study (Dimmock & Hattie, 1996) measured principals' sense of efficacy by using vignettes simulating situations principals might encounter (Tschannen-Moran & Gareis). Principals rated their levels of confidence using a ten-point scale in a total of nine vignettes (Tschannen-Moran & Gareis). Results were disappointing as the item-total correlations

were low and the researchers did not find sufficient stability and reliability in the survey instrument to justify its use in the future (Tschannen-Moran & Gareis).

The second measure of Principals' Efficacy studied by Tschannen-Moran & Gareis, (2004) was adapted from a measure of collective teacher efficacy developed by Goddard *et al.* (2000) This measure included 22 items that assessed personal capability and analysis of a particular task, using a six-point Likert scale (Tschannen-Moran & Gareis). Results were again disappointing and the researchers did not find sufficient stability and reliability to measure principals' sense of efficacy (Tschannen-Moran & Gareis).

Following two attempts that fell short of expectations, Tschannen-Moran & Gareis developed a new measure of principal's sense of efficacy. The TSES instrument focused on the teachers' assessment of their own level of competence and also on the difficulty of the task (Tschannen-Moran & Gareis, 2004). This survey instrument defines principals' self-efficacy beliefs as the beliefs in their capability to make a difference in the schools they lead and to manage challenges in an effective manner. The Principal Sense of Efficacy Scale asked principals to assess their capabilities concerning instructional leadership, management, and moral leadership.

In developing this survey instrument, Tschannen-Moran & Gareis (2004) identified 50 items, largely from the Interstate School Leaders Licensure Consortium (ISLLC), to represent the varying facets of a principals' work. These items were reviewed by a panel of experts and then field tested with ten former principals to obtain feedback (Tschannen-Moran & Gareis). Utilizing a survey of work alienation, discriminate validity for principals' sense of efficacy was measured (Tschannen-Moran &

Gareis). Work alienation was included because the concept of alienation was presumed to be negatively related to principals' sense of efficacy (Tschannen-Moran & Gareis).

The Principal Sense of Efficacy Scale survey instructions directed participants to "Please respond to each of the questions by considering the combination of your current ability, resources, and opportunity to do each of the following in your present position" (Tschannen-Moran & Gareis, 2004). All items begin with the phrase "In your current role as principal, to what extent can you . . ." (Tschannen-Moran & Gareis). A nine-point scale established set anchors at: 1 = none at all, 3 = very little, 5 = some degree, 7 = quite a bit, and 9 = a great deal (Tschannen-Moran & Gareis). Sample items include: "In your current role as principal, to what extent can you . . ." (Tschannen-Moran & Gareis)

- facilitate student learning in your school?
- generate enthusiasm for a shared vision for the school?
- handle the time demands of the job?

In addition to the PSES, participants were asked to respond to questions concerning their school, preparation, participation in professional development activities, and personal characteristics and aspirations.

The Missouri Assessment Program (MAP) was chosen as the basis for measuring student achievement because it is administered to all third, fourth, fifth, and sixth grade students in Missouri. The MAP test consists of a state-developed, criterion-referenced test designed to measure student mastery of the academic content and skills in Missouri's Grade Level Expectations in mathematics, communication arts, science, and social studies. The MAP tests were developed in response to the call for higher standards and increased accountability in the public school system resulting from the No Child Left

Behind legislation of 2001. For the purposes of this research, only the mathematics and communication arts portions of the MAP tests in grades three through six were used to determine the relationship between the perception of self-efficacy of the principal and student achievement in the school. These two tested areas were chosen because of their use in determining Adequate Yearly Progress for schools, a measure of yearly progress monitored by the Missouri Department of Elementary and Secondary Education (DESE).

The Missouri Assessment Program (MAP) tests were developed by a committee of Missouri educators and members of the Missouri Department of Elementary and Secondary Education (DESE). The MAP test questions consist of three basic question types: selected response questions, constructed response questions, and performance event questions. When answering selected response questions, students read a question, problem, or passage and then select an answer from among four choices. When answering constructed response questions, students generate short answer responses that may require the use story or passage details, explain a given response to the constructed response question, demonstrate appropriate the appropriate use and understanding of charts or graphs, and apply problem solving skills when constructing question responses. The performance event portion of the MAP test primarily consists of a writing prompt on a topic given to the student.

Data Analysis

Data used in the study was obtained through the completion of an online questionnaire. All subjects were informed of the purpose of the study and asked to voluntarily participate, with confidentiality maintained through the reporting of data in aggregate form. A numeric identifier was attached to each participant's response in order

to give the researcher access to MAP scores. The numeric identifiers were deleted following analyses of responses.

The first research question and hypothesis were evaluated using the chi square, a nonparametric test of significance (Gay, 1987). The chi square was used to compare frequencies occurring between the efficacy scores of elementary principals and the 2009 MAP scores. The chi square analysis allowed the researcher to “compare proportions actually observed in a study with proportions expected, to see if they are significantly different” (Gay, 1987, p. 397). Although the MAP scores used in this research were reported as percentages, the representative levels of those percentages determined whether or not those MAP scores were considered high or low. MAP scores within the levels of Proficient or Advanced were considered as the appropriate unit to compare frequencies. Only Proficient or Advanced scores were used to determine the proportions between levels of reported self efficacy and achievement of schools on the MAP. The second research question and related hypothesis were evaluated as simple percentages for each response in the same manner as demographic information is reported. The independent variable in the study was the perceived self efficacy of the elementary school principals and the dependent variables were the MAP scores from the spring 2009 testing.

Summary

The major purpose of this quantitative study was to determine if there was a relationship between the perceived self-efficacy of elementary school principals and the achievement of students in grades three through six as measured by the Missouri Assessment Program (MAP). The research also explored the professional development of principals to determine the existence of a relationship among principals exhibiting high

levels of self-efficacy or lower levels of self-efficacy. Data was collected through a quantitative design. This approach allowed data to be collected through the administration of the Principal Sense of Efficacy Scale by asking elementary school principals to assess their capabilities concerning instructional leadership, management, and moral leadership. Two hypotheses addressed the two research questions and were evaluated using the chi square or reported as average percentages.

CHAPTER 4

ANALYSIS OF DATA

Introduction

The purpose of this study was to identify if a relationship existed between the perception of self-efficacy by elementary school principals and student achievement. Increasingly, school leaders are challenged by an environment of change and growing levels of accountability. The link between administrative leadership and student achievement cannot be denied (Hallinger & Heck, 1999) and by studying the principal's perception of self-efficacy and student achievement, insight may be gained into the role of efficacy on improving student achievement.

To facilitate the investigation, data gathered focused on four realms: (a) demographics of the principals taking part in the study, (b) perception of self-efficacy, (c) MAP scores of study participants, and (d) professional development activity of study participants. For this research study, the Principal Sense of Efficacy Scale (See Appendix A) was used to assess the self perception of efficacy for each participant completing the survey. The survey instrument used in this research was developed by Tschannen-Moran & Gareis (2004) as an adaptation of the teacher sense of efficacy scale (TSES) measure developed by Tschannen-Moran and Woolfolk Hoy (2001). The Principal Sense of Efficacy Scale asked principals to assess their capabilities concerning instructional leadership, management, and moral leadership.

Organization of Data Analysis

The survey was completed online by elementary principals included in the sample. The survey was initially emailed to 457 elementary school principals to ensure

an appropriate sample size. Each email address was assigned a numeric identifier to enable the researcher to review MAP scores of each participant. MAP scores in communication arts and math from the spring 2009 testing year were used as the dependent variable in the research and were collected from the Department of Elementary and Secondary Education (DESE) website. After receiving only 51 completed survey responses, a disappointing rate of completed surveys from the initial email request, an additional 330 recipient names were added to the sample. These additional schools were chosen using the same systematic sampling process used to choose the initial sample. A second email invitation was sent to the additional 330 elementary school principals and also those principals that had not completed the survey at the first request. A total of 787 email invitations were sent to elementary principals. Of that total, 20 invitations immediately bounced back unopened to Survey Monkey and an additional 75 invitations were not accepted and returned unopened to the researcher. Following the second email invitation, a total of 123 completed surveys were attained, representing a completed survey return rate of 18%.

Demographic data was reviewed using descriptive analyses reported as percentages. A quantitative analysis research design was applied to determine the existence of a relationship between the level of efficacy as reported by participants and the Missouri Assessment Program (MAP) scores from 2009 spring testing results. One research question was addressed using a null hypothesis and evaluated at the .05 significance because of the relatively low sample size. The chi-square nonparametric method of analysis was chosen to determine the existence of a relationship between the categorical data of the reported efficacy scores and the MAP scores of survey

respondents. The second hypothesis was evaluated using descriptive analyses reported as percentages.

Presentation of Descriptive Characteristics of Respondents

Study participants were asked to indicate school population (1-150, 151-300, 301-500, 501-800, 801 or more), grade range of school (PK-4, K-4, PK-5, K-5, PK-6, K-6), number of years as principal of this school (1, 2-3, 4-5, 6-8, 9 or more), total number of years in administration (1, 2-3, 4-5, 6-8, 9 or more), gender, and school location (urban, suburban, rural). Additional demographic questions asked indicated the highest level of education (Masters degree, Specialist degree, Ph.D./Ed.D), number of years each participant planned to remain in current position (1 year, 2 years, 3-5 years, 6-8 years, 9 or more years), number of years each participant planned to move up to central office position (1 year, 2 years, 3-5 years, 6-8 years, 9 or more years, no plans to move up), number of years to retirement (1 year, 2 years, 3-5 years, 6-8 years, 9 or more years).

Descriptive Characteristics of Respondents

Table 1

Number of Students

<u>Enrollment</u>	<u><i>n</i></u>	<u>Percentage</u>
1-150	13	11%
151-300	34	28%
301-500	52	42%
501-800	20	16%
801 or more	4	3%

Demographic information for the sample respondents indicated that 13 schools (11%) served 150 or fewer students and 34 schools (28%) served 151-300 students. A total of 52 schools (42%) served 301-500 students, 20 schools (16%) served 501-800 students, and 4 schools (3%) served 801 or more students (See Table 1).

Table 2

Grade Range of School

Grade Level	<i>n</i>	Percentage
PK-4	8	7%
K-4	12	10%
PK-5	16	13%
K-5	34	28%
PK-6	27	23%
K-6	23	19%

Thirty-four of the survey respondents or 28% worked in buildings serving kindergarten through fifth grades and 16 survey respondents or 13% worked in buildings serving prekindergarten through fifth grades. Twenty-seven of the survey respondents or 23% worked in building serving prekindergarten through sixth grades and 23 survey respondents or 19% worked in buildings serving kindergarten through sixth grades (See Table 2).

Table 3

Number of Years as Principal of School

<u>Years</u>	<u>n</u>	<u>Percentage</u>
1	9	7%
2-3	38	31%
4-5	25	21%
6-8	22	18%
9 or more	27	22%

Nine survey respondents (7%) indicated they were in their first year as principal of the current school. Thirty-eight survey respondents (31%) indicated they had 2-3 years of experience as principal at their current school. Twenty-five survey respondents (21%) had 4-5 years of experience as principal of their current school. Twenty-two survey respondents (18%) had 6-8 years of experience as principal of their current school and 27 survey respondents (22%) had 9 or more years of experience as principal at their current school (See Table 3).

Table 4

Total Years in Administration

<u>Years of Experience</u>	<u>n</u>	<u>Percentage</u>
1	0	0%
2-3	16	13%
4-5	23	19%
6-8	23	19%
9 or more	61	49%

No survey respondents were in the first year as an administrator. Sixteen survey respondents (13%) had 2-3 years of experience in administration. Twenty-three (19%) of survey respondents had 4-5 years and also 6-8 years of experience in administration. Sixty-one survey respondents (49%) had nine or more total years in school administration (See Table 4).

Table 5

Gender

	<i>n</i>	Percentage
Male	50	41%
Female	72	59%

Seventy-two (59%) females responded to the survey and 50 (41%) males responded to the survey (See Table 5).

Table 6

School Location

Location	<i>n</i>	Percentage
Urban	28	23%
Suburban	33	27%
Rural	62	50%

Twenty-eight (23%) of the principals described their schools as urban, 33 (27%) described their schools as suburban, and 62 (50%) of the principals described their schools as rural (See Table 6).

Table 7

Highest Level of Education

Degree	<i>n</i>	Percentage
Masters Degree	30	24%
Specialist Degree	66	54%
Ph.D./Ed.D	27	22%

The Masters degree was the highest level of education for 30 (24%) of survey respondents. The Educational Specialist degree was the highest level of education for 66 (54%) of survey respondents and the Ph.D./Ed.D. was the highest level of education for 27 (22%) of survey respondents (See Table 7).

Table 8

Plan to Remain in Position of Elementary Principal for the Next

Year(s)	<i>n</i>	Percentage
1 year	10	8%
2 years	22	18%
3-5 years	37	30%
6-8 years	23	19%
9 or more years	31	25%

Ten (8%) of survey respondents planned to remain in the position of elementary principal for one year, while 22 (18%) of survey respondents planned to remain in the position of elementary principal for 2 years. Thirty-seven (30%) of survey respondents planned to remain in the position of elementary principal for 3-5 years and 23 (19%) of survey respondents planned to remain in the position of elementary principal for 6-8

years. Thirty-one (25%) survey respondents planned to remain in the position of elementary principal for 9 or more years (See Table 8).

Table 9

Plan to Move to a Central Office Position in the Next

<u>Year(s)</u>	<u>n</u>	<u>Percentage</u>
1 year	4	3%
2 years	12	10%
3-5 years	26	21%
6-8 years	6	5%
9 or more years	7	6%
No plans to move to central office	68	55%

When asked whether a move to a central office position was anticipated, 4 (3%) of survey respondents indicated they planned to move to the central office in 1 year. Twelve (10%) of survey respondents indicated they planned to move to a central office position in 2 years and 26 (21%) within three to five years. Six (5%) of survey respondents planned to move to a central office position in 6-8 years and 7 (6%) of survey respondents planned to move to a central office position in 9 or more years (See Table 9).

Table 10

Plan to Retire within the Next

Year(s)	<i>n</i>	Percentage
1 year	4	3%
2 years	7	6%
3-5 years	17	14%
6-8 years	23	19%
9 or more years	71	58%

When asked about retirement plans, 4 (3%) of survey respondents indicated they planned to retire in 1 year, while 7 (6%) planned to retire in 2 years. Seventeen (14%) survey respondents indicated they planned to retire in 3-5 years and 23 (19%) in 6-8 years. Seventy-one (58%) of survey respondents indicated they planned to retire in nine or more years (See Table 10).

Analysis of Data

Research Questions and Associated Hypotheses

One primary question guided this research.

Research Question 1 - What relationship exists between the perceived self efficacy of the elementary school principal and the achievement levels of the students as evidenced by performance on the MAP?

For this analysis the dependent variables, MAP scores, were associated with each principal's self rating on the Principal Sense of Efficacy Scale. Each survey question began with the sentence stem "In your current role as principal, to what extent can you . . ." and used a nine-point likert scale to rate the perceived level of self-efficacy. The

higher the rating score, the higher the perceived level of self-efficacy reported by survey respondents. The PSES used three categories of leadership to determine each respondent's level of efficacy including, management efficacy, instructional leadership efficacy, and moral leadership efficacy. The chi-square nonparametric method of analysis was used to determine if the levels of reported self efficacy were proportionate to the number of students achieving at the Proficient or Advanced levels on the MAP.

Hypothesis 1 - There is no relationship between the self perception of efficacy of elementary school principals and student achievement as determined by student performance on the MAP.

Table 11

Means and Standard Deviations for Efficacy Scores

<u>Efficacy Categories</u>	<u><i>n</i></u>	<u>Mean</u>	<u>SD</u>
Management Efficacy		6.5	1.57
Instructional Leadership Efficacy		7.5	1.18
Moral Leadership Efficacy		7.7	1.24
<u>Total Efficacy Scores</u>	<u>123</u>	<u>7.2</u>	<u>1.33</u>

Note: Scores range from 1 to 9, the higher the score, the greater the perceived self-efficacy.

The Principal Sense of Efficacy Scale survey was formatted as a nine-point likert scale with established set anchors at: 1 = none at all, 3 = very little, 5 = some degree, 7 = quite a bit, and 9 = a great deal (Tschannen-Moran & Gareis, 2004). Surveys were completed by 123 elementary principals following acceptance of email invitations. A total of 18 questions comprised the three subgroups included in the PSES survey:

management efficacy, instructional leadership efficacy, and moral leadership efficacy.

The mean response for the management efficacy section of the survey was 6.5 based on the nine-point scale. The mean response for the instructional leadership efficacy section of the survey was the score of 7.5. The mean response for the moral leadership efficacy section of the survey was the score of 7.7, with a total mean response of 7.2 for all questions in the PSES survey (See Table 11).

Table 12

Means and Standard Deviations for Perceived Management Efficacy Scores

<u>Management Efficacy Question Topics</u>	<u><i>n</i></u>	<u>Mean</u>	<u>SD</u>
3. Handle Time Demands		6.6	1.69
11. Control of Daily Schedule		5.9	1.48
12. Shape Policies and Procedures		6.5	1.65
15. Paperwork		6.7	1.56
17. Cope with Stress		6.6	1.66
18. Prioritize Among Competing Demands		6.7	1.41
<u>Total Management Efficacy</u>	<u>123</u>	<u>6.5</u>	<u>1.57</u>

The management efficacy section of the survey produced mean scores ranging from 5.9 in response to the question on maintaining control of daily schedule to 6.7 in response to handling paperwork and prioritizing among competing demands of the job. Responses in this section included coping with stress with a mean score of 6.6 and handling the time demands of the job with a mean score of 6.6 (See Table 12).

Table 13

Means and Standard Deviations for Instructional Leadership Efficacy Scores

Instructional Leadership Question Topics	<i>n</i>	Mean	SD
1. Facilitate Student Learning		7.7	1.20
2. Generate Enthusiasm for Shared Vision		8.1	1.02
4. Manage Change		7.3	1.28
6. Positive Learning Environment		8.2	.97
7. Raise Student Achievement		6.5	1.27
9. Motivate Teachers		7.3	1.34
Total Instructional Leadership	123	7.5	1.18

The instructional leadership section of the survey yielded an overall mean score of 7.5. When asked to what extent the principal could raise student achievement, the mean score was 6.5 and a mean score of 7.3 for the questions on managing change and motivating teachers. When asked to what extent the principal could facilitate student learning, survey responses yielded the mean score of 7.7. When asked to what extent the principal could generate enthusiasm for a shared vision, survey responses yielded the mean score of 8.1. When asked to what extent the principal could create a positive learning environment, survey responses yielded the mean score of 8.2 (See Table 13).

Table 14

Descriptive Statistics for Perceived Moral Leadership Efficacy Scores

Moral Leadership Question Topics	<i>n</i>	Mean	SD
5. Promote School Spirit Among Students		7.8	1.14
8. Positive Image of School in Media		7.6	1.33
10. Promote Prevailing Community Values in School		7.3	1.33
13. Effectively Handle Discipline		7.8	1.19
14. Acceptable Behavior Among Students		7.9	1.01
16. Promote Ethical Behavior Among Staff		7.4	1.47
Total Moral Leadership	123	7.6	1.24

The moral leadership section of the survey yielded an overall mean score of 7.6. Promoting acceptable behavior among students scored a mean of 7.9 and two questions asking about effectively handling discipline and promoting school spirit among students were rated at the same mean score of 7.8 (See Table 14).

Table 15

Frequency Statistics for Communication Arts MAP Scores-Proficient/Advanced

Communication Arts	Frequency	Percent
Low (8.8-45% Pro/Adv)	58	47.2
High (46-81% Pro/Adv)	65	52.8
Total	123	100.0

The assignment of placing Communication Arts MAP scores in high and low groups was based on the range of scores, from 8.8 % of scores in Proficient and Advanced to 81.4% of scores in Proficient and Advanced levels. Based on a range of 72,

low scores were established from 8.8%-45% and high scores were established from 46% to 81% (See Table 15).

Table 16

Frequency Statistics for Mathematics MAP Scores-Proficient/Advanced

Mathematics	Frequency	Percent
Low (5.3-41% Pro/Adv)	41	33.3
High (54-78% Pro/Adv)	82	66.7
Total	123	100.0

The assignment of placing Mathematics MAP scores in high and low groups was based on the range of scores, from 5.3 % of scores in Proficient and Advanced to 77.9% of scores in Proficient and Advanced levels. Based on a range of 73, low scores were established from 5.3%-41% and high scores were established from 42% to 78% (See Table 16).

Table 17

Chi-Square Results for Efficacy and Communication Arts MAP Scores

Overall Efficacy	Low Comm. Arts	High Comm. Arts	Total
Low Efficacy			
Count	1*	0*	1
Expected Count	.5*	.5*	1.0
Moderate Efficacy			
Count	27	18	45
Expected Count	21.2	23.8	45.0
High Efficacy			
Count	30	47	77
Expected Count	36.3	40.7	77.0
Total			
Count	58	65	123
Expected Count	58.0	65.0	123.0

$$\chi^2 (2, N = 123) = 6.18, p < .05$$

Note. * 2 cells (33.3%) have expected counts less than 5. The minimum expected count is .47.

The chi-square was calculated to determine if a significant difference existed between the observed efficacy scores of survey participants and the expected efficacy scores. The scores obtained from the Principal Sense of Efficacy Scale were placed in categories of low efficacy (score range of 1 – 3), moderate efficacy (score range of 4 – 6), and high efficacy (score range of 7 – 9) and then compared to the spring 2009 MAP

scores of each participant to determine if the proportions observed were significantly different. Calculations for the perceived sense of efficacy using all 18 questions in the Principal Sense of Efficacy Scale indicated the categories of efficacy and the communication arts MAP scores did not occur with equal probabilities, $\chi^2(2, N = 123) = 6.18, p < .05$ (See Table 17).

Table 18

Chi-Square Results for Efficacy and Math MAP Scores

Overall Efficacy	Low Math	High Math	Total
Low Efficacy			
Count	1*	0*	1
Expected Count	.3*	.7*	1.0
Moderate Efficacy			
Count	17	28	45
Expected Count	15.0	30.0	45.0
High Efficacy			
Count	23	54	77
Expected Count	25.7	51.3	77.0
Total			
Count	41	82	123
Expected Count	41.0	82.0	123.0

$\chi^2 (2, N = 123) = 2.816, p < .05$

Note. *2 cells (33.3%) have expected count less than 5. The minimum expected count is .33.

The chi-square was calculated to determine if a significant difference existed between the observed efficacy scores of survey participants and the expected efficacy scores. The scores obtained from the Principal Sense of Efficacy Scale were placed in categories of low efficacy (score range of 1 – 3), moderate efficacy (score range of 4 – 6), and high efficacy (score range of 7 – 9) and then compared to the spring 2009 MAP scores of each participant to determine if the proportions observed were significantly different. Calculations for the perceived sense of efficacy using all 18 questions in the Principal Sense of Efficacy Scale indicated the categories of efficacy and the math MAP scores did not occur with equal probabilities, $\chi^2(2, N = 123) = 2.816, p < .05$ (See Table 18).

Table 19

Chi-Square Results for Management Efficacy and Communication Arts MAP Scores

Management Efficacy	Low Comm. Arts	High Comm. Arts	Total
Low Efficacy			
Count	1*	1*	2
Expected Count	.9*	1.1*	2.0
Moderate Efficacy			
Count	36	33	69
Expected Count	32.5	36.5	69.0
High Efficacy			
Count	45	31	52
Expected Count	46.7	27.5	52.0
Total			
Count	58	65	123
Expected Count	58.0	65.0	123.0

$$\chi^2 (2, N = 123) = 1.661, p < .05$$

Note. *2 cells (33.3%) have expected count less than 5. The minimum expected count is .94.

The chi-square was calculated on each subgroup of the Principal Sense of Efficacy Scale beginning with the management efficacy questions. The scores obtained from the management efficacy portion of the Principal Sense of Efficacy Scale were placed in categories of low efficacy (score range of 1 – 3), moderate efficacy (score range of 4 – 6), and high efficacy (score range of 7 – 9) and then compared to the spring 2009

MAP scores of each participant. The proportions of management efficacy scores and communication arts MAP scores observed were not significantly different (See Table 19).

Table 20

Chi-Square Results for Instructional Leadership Efficacy and Communication Arts MAP Scores

<u>Instructional Leadership Efficacy</u>	<u>Low Comm. Arts</u>	<u>High Comm. Arts</u>	<u>Total</u>
Low Efficacy			
Count	1*	0*	1
Expected Count	.5*	.5*	1.0
Moderate Efficacy			
Count	15	14	29
Expected Count	13.7	15.3	29.0
High Efficacy			
Count	42	51	93
Expected Count	43.9	49.1	93.0
Total			
Count	58	65	123
Expected Count	58.0	65.0	123.0

$$\chi^2 (2, N = 123) = 1.512, p < .05$$

Note. *2 cells (33.3%) have expected count less than 5. The minimum expected count is .47.

The chi-square was calculated on each subgroup of the Principal Sense of Efficacy Scale instructional leadership efficacy questions. The scores obtained from the

instructional leadership efficacy portion of the Principal Sense of Efficacy Scale were placed in categories of low efficacy (score range of 1 – 3), moderate efficacy (score range of 4 – 6), and high efficacy (score range of 7 – 9) and then compared to the spring 2009 communication arts MAP scores of each participant. The proportions of instructional leadership efficacy scores and communication arts MAP scores observed were not significantly different (See Table 20).

Table 21

Chi-Square Results for Moral Efficacy and Communication Arts MAP Scores

Moral Efficacy	Low Comm. Arts	High Comm. Arts	Total
Moderate Efficacy			
Count	13	11	24
Expected Count	11.3	12.7	24.0
High Efficacy			
Count	45	54	99
Expected Count	46.7	52.3	99.0
Total			
Count	24	99	123
Expected Count	24.0	99.0	123.0

$$\chi^2 (2, N = 123) = .588, p < .05$$

Note. No scores were reported by survey respondents in the low moral efficacy range.

When separating out the moral leadership efficacy portion of the survey, the scores obtained from the Principal Sense of Efficacy Scale were compared to the spring 2009 communication arts MAP scores of each participant to determine if the proportions

observed were significantly different. Calculations for the perceived sense of moral leadership efficacy and communication arts MAP scores indicated the categories of efficacy did not occur with equal probabilities $\chi^2(2, N = 123) = .588, p > .05$ (See Table 21).

Table 22

Chi-Square Results for Management Efficacy and Math MAP Scores

Management Efficacy	Low Math	High Math	Total
Low Efficacy			
Count	1*	1*	2
Expected Count	.7*	1.3*	2.0
Moderate Efficacy			
Count	21	48	69
Expected Count	23.0	46.0	69.0
High Efficacy			
Count	19	33	52
Expected Count	17.3	34.7	52.0
Total			
Count	41	82	123
Expected Count	41.0	82.0	123.0

$\chi^2(2, N = 123) = .751, p < .05$

Note. *2 cells (33.3%) have expected count less than 5. The minimum expected count is .67.

The chi-square was calculated on each subgroup of the Principal Sense of Efficacy Scale management efficacy questions. The scores obtained from the management efficacy portion of the Principal Sense of Efficacy Scale were placed in categories of low efficacy (score range of 1 – 3), moderate efficacy (score range of 4 – 6), and high efficacy (score range of 7 – 9) and then compared to the spring 2009 math MAP scores of each participant. The proportions of instructional leadership efficacy scores and math MAP scores observed were not significantly different (See Table 22).

Table 23

Chi-Square Results for Instructional Leadership Efficacy and Math MAP Scores

<u>Instructional Leadership Efficacy</u>	<u>Low Efficacy</u>	<u>High Efficacy</u>	<u>Total</u>
Low Math MAP			
Count	1*	0*	1
Expected Count	.3*	.7*	1
Moderate Math MAP			
Count	11	18	29
Expected Count	9.7	19.3	29.0
High Math MAP			
Count	29	64	93
Expected Count	31.0	62.0	93.0
Total			
Count	41	82	123
Expected Count	41.0	82.0	123.0

$\chi^2 (2, N = 123) = .2469, p < .05$

Note. *2 cells (33.3%) have expected count less than 5. The minimum expected count is .33.

The chi-square was calculated on the six instructional leadership efficacy questions. The scores obtained from the instructional leadership efficacy portion of the Principal Sense of Efficacy Scale were placed in categories of low efficacy (score range of 1 – 3), moderate efficacy (score range of 4 – 6), and high efficacy (score range of 7 – 9) and then compared to the spring 2009 math MAP scores of each participant. The proportions of instructional leadership efficacy scores and math MAP scores observed were not significantly different (See Table 23).

Table 24

Chi-Square Results for Moral Efficacy and Math MAP Scores

Moral Efficacy	Low Math	High Math	Total
Moderate Efficacy			
Count	9	15	24
Expected Count	8.0	16.0	24.0
High Efficacy			
Count	32	67	99
Expected Count	33.0	66.0	99.0
Total			
Count	41	82	123
Expected Count	41.0	82.0	123.0

$$\chi^2 (2, N = 123) = .233, p < .05$$

Note. No scores were reported by survey respondents in the low moral efficacy range.

The scores of the moral leadership efficacy portion of the survey were compared to the spring 2009 math MAP scores of each participant to determine if the proportions observed were significantly different. Calculations for the perceived sense of moral leadership efficacy and math MAP scores indicated the categories of efficacy did not occur with equal probabilities $\chi^2(2, N = 123) = .233, p > .05$ (See Table 24).

One subordinate research question was asked:

Research question 2 - Is the elementary school principal's competence the result of professional development activities?

For this analysis, survey responses were reported as simple percentages. Survey participants were given the opportunity to respond to more than one answer for each of the questions related to professional development.

Hypothesis 2 - There is no relationship between the self perception of efficacy of elementary school principals as instructional leaders and participation in formal and focused professional development for administrators.

Table 25

Professional Development Methods of Delivery

Professional Development	<i>n</i>	Percentage
Workshop Attendance	115	93%
Collegial Networking	75	61%
University Coursework	44	36%
Online Coursework	10	8%
Webcasts	43	35%
In-Service Within My District	119	97%
Other	19	15%

Survey respondents were asked to respond to all professional development methods of delivery in which they had participated. One hundred fifteen (93%) of survey respondents indicated participation in workshops, 75 (61%) indicated participation in collegial networking, and 44 (36%) indicated participation in university coursework as professional development methods of delivery. Ten (8%) survey respondents indicated participation in online coursework, 43 (35%) survey respondents indicated participation in webcasts, and 119 (97%) indicated participation in district provided in-service as professional development methods of delivery. The majority of elementary school principals received professional development in two primary methods: through workshop attendance (93%) and through district in-service (97%). Nineteen (15%) of survey respondents indicated another method of delivery for professional development, including professional readings, Leadership academy training, regional professional development center training, and attendance at national conferences (See Table 25).

Table 26

Professional Development Topics

Topics	<i>n</i>	Percentage
Curriculum Development	94	76%
Change Process	84	68%
Instructional Supervision	78	63%
Use of Data	111	90%
Assessment	99	80%
Improving Student Achievement	110	89%
Other	18	14%

Curriculum development, as a professional development topic was attended by 94 (76%) of survey respondents and 84 (68%) of survey respondents participated in professional development on the topic of the change process. Seventy-eight (63%) of survey respondents participated in professional development on instructional supervision and 111 (90%) of survey respondents participated in professional development on the use of data. Professional development related to assessment was attended by 99 (80%) of survey respondents and 110 (89%) of survey respondents attended professional development on improving student achievement. Eighteen (14%) survey respondents indicated other topics of professional development participation, including Positive Behavior Support program training, Response to Intervention training, and Professional Learning Communities training (See Table 26).

Table 27

Mean and Standard Deviations of Efficacy by Top PD Choices

<u>Efficacy Categories</u>	<u><i>n</i></u>	<u>Mean</u>	<u>SD</u>
Management Efficacy		6.5	1.28
Instructional Leadership Efficacy		7.5	.94
Moral Leadership Efficacy		7.7	.94
<u>Total Efficacy Scores</u>	<u>86</u>	<u>7.3</u>	<u>.90</u>

Note: Scores range from 1 to 9, the higher the score, the greater the perceived self-efficacy.

Efficacy scores were filtered by the professional development topics of use of data, assessment, and improving student achievement, the top three choices of topics as indicated by survey respondents. The mean response for the management efficacy section of the survey was 6.5 based on the nine-point scale. The mean response for the instructional leadership efficacy section of the survey was the score of 7.5. The mean response for the moral leadership efficacy section of the survey was the score of 7.7, with a total mean response of 7.3 for all questions in the PSES survey (See Table 27).

Summary

Data was presented and analyzed to determine any relationships between the perceived self-efficacy of elementary principals and the MAP scores for their schools from the spring 2009 MAP tests. Using the Principal Sense of Efficacy Scale and related demographic questions, two research questions and their related hypotheses were evaluated. The sample of respondents was obtained from the random selection of elementary schools from the Department of Elementary and Secondary Education

(DESE) website listing of Missouri school districts. Email invitations were sent to 787 elementary principals with 712 successful email deliveries. Responses to the email invitations were received from 123 elementary principals, indicating a response and survey completion rate of 18%. Each participant answered questions reporting their perception of efficacy in management, instructional leadership, and moral leadership. The first hypothesis was evaluated using the chi-square nonparametric method of analysis at the .05 level of significance. Question two and its related hypothesis were simply reported as percentages of participation in professional development, including the associated topics of that professional development. Neither hypothesis 1 nor hypothesis 2 was rejected and Chapter 5 will discuss these findings.

CHAPTER 5

FINDINGS, CONCLUSIONS, AND IMPLICATIONS

Introduction

A study was conducted to determine any relationships that existed between the perceived self-efficacy of elementary principals in Missouri and communication arts and math MAP scores from spring 2009 testing. This chapter provides a summary of the study, examines the analyses of the hypotheses and research questions as the means to present the findings, conclusions, and implications for future educational practices as they relate to the perceived levels of efficacy, with emphasis on instructional leadership efficacy. Ultimately, the opportunity for future research related to perceived efficacy and instructional leadership efficacy will be reviewed.

Summary of the Study

The purpose of this study was to determine if a relationship existed between the perception of self-efficacy by elementary school principals and student achievement in leading their schools in an era of change and heightened accountability. The importance of effective instructional leadership cannot be minimized and by determining the self perceptions of skills of instructional leaders and efficacy among elementary principals, a relationship between instructional leadership, self efficacy, and student achievement was the focus of this research.

Participants in this study were principals of public elementary schools within the state of Missouri. Elementary schools included in this study contained grade spans from prekindergarten through grade six. Only principals of individual elementary school buildings with prekindergarten or kindergarten through grade six within school districts

throughout Missouri provided the sample for this study. Email invitations were sent to 787 elementary school principals in Missouri with responses and completed surveys from 123 of the principals, indicating a return rate of 18%.

Two research questions and related hypotheses were chosen as the focus of this study. *Research Questions*

This research addressed one primary question.

1. What relationship exists between the perceived self efficacy of the elementary school principal and the achievement levels of the students as evidenced by performance on the MAP?

One subordinate question was asked:

2. Is the elementary school principal's competence the result of professional development activities?

Hypotheses

1. There is no relationship between the self efficacy of elementary school principals and student achievement as determined by student performance on the MAP.

2. There is no relationship between the self efficacy of elementary school principals as instructional leaders and participation in formal and focused professional development for administrators.

Findings

Analysis of descriptive characteristics of survey respondents revealed that most principals, 52 (42%), served schools with a population of 301-500. The two most common grade configurations of survey respondents were PK- grade 5 ($n = 50$, 41%) and PK-6 ($n = 50$, 41%). No principals were in their first year as an administrator, however, 9

(7%) of survey respondents were in the first year as the principal of their current school. Thirty-eight (31%) of the survey respondents had been at their current school for 2-3 years, yet when asked how many total years in administration, 61 (49%) of survey respondents indicated 9 or more years. This reveals that although 49% of principals have been in the field of school administration for more than 9 years, only 27 (22%) reported they served as the principal of their current school for 9 or more years. Elementary school principals make several moves to other schools throughout their tenure as an administrator as the majority of survey respondents, 72 (59%) had been principal at their current school for 5 or fewer years and 49 (40%) of survey respondents had been principal at their current school for 6 or more years.

Fifty (41%) of survey respondents were male and 72 (59%) were female. Rural schools represented the location of the majority of survey respondents ($n = 62, 50%$) although, urban and suburban combined comprised almost half of survey respondents ($n = 61, 50%$). Most survey respondents indicated the specialist degree was the highest level of education ($n = 66, 54%$). Most survey respondents planned to remain in their current position for 6 or more years ($n = 54, 44%$). Although 42 (34%) of survey respondents indicated they planned to move to a central office position within the next 1-5 years, the majority of principals ($n = 68, 55%$) indicated they had no plans to move to a central office position. Additionally, 71 (58%) reported they planned to retire in 9 or more years.

Analysis of study data for Hypothesis 1 was completed to determine the existence of a relationship between the self perception of efficacy of elementary school principals and student achievement as determined by student performance on the communication arts and math portions of the Missouri Assessment Program. This analysis revealed no

relationship between principal perceptions of self-efficacy and student achievement as evidenced on the spring 2009 MAP testing results. The chi-square nonparametric analysis indicated no significant relationship existed between the total self-efficacy scores and communication arts scores in proficient and advanced levels on the MAP from spring 2009 testing, $\chi^2(2, N = 123) = 6.18, p < .05$. Similarly, the total self-efficacy scores and math scores in proficient and advanced levels on the MAP indicated no significant relationship existed, $\chi^2(2, N = 123) = 2.816, p < .05$.

Each of the three categories, management efficacy, instructional leadership efficacy, and moral leadership efficacy, in the Principal Sense of Efficacy Scale were filtered and scores from each category were compared to the communication arts and math MAP scores of survey respondents. The chi square nonparametric analysis indicated no significant relationship existed between management efficacy and communication arts and math MAP scores, between instructional leadership efficacy and communication arts and math MAP scores, or between moral leadership efficacy and communication arts and math MAP scores of survey respondents.

Analysis of study data for Hypothesis 2 was completed to determine the existence of a relationship between the self efficacy of elementary school principals as instructional leaders and participation in formal and focused professional development for administrators. Most administrators participated in professional development either via workshop attendance ($n = 115, 93\%$) or in-service within their school district ($n = 119, 97\%$). Collegial networking was also a form of professional development for 75 (61%) of survey respondents. Ninety percent of survey respondents attended professional development related to the use of data. Eighty-nine percent ($n = 110$) of survey

respondents attended professional development with the topic of improving student achievement. The use of data was also a prominent topic of professional development for 111 (90%) of survey respondents. Assessment and curriculum development were also broad topics of professional development attended by 80% and 76% respectively of survey respondents.

The top three choices of professional development topics were filtered to determine if efficacy scores were higher for the principals participating in formal and focused professional development related to the topics of use of data, improving student achievement, and assessment. Eight-six principals participated in all three of these professional development topics (See Table 26), however, no significant differences in the mean scores of perceived self-efficacy existed between this group filtered by professional development topics and the whole group of survey respondents (See Table 11).

Conclusions

The purpose of this study was to identify the existence of a relationship between the perception of self-efficacy by elementary principals and student achievement determined by performance on the Missouri Assessment Program 2009 spring test. Hypothesis 1 was not statistically rejected, however, interesting characteristics from the data were noted. In examining the three subgroups of the Principal Sense of Efficacy Scale, management efficacy, instructional leadership efficacy, and moral leadership efficacy, the lowest mean scores were discovered in the management leadership portion of the survey (See Table 12). The questions in the management section dealing with issues of maintaining control of the daily schedule, handling time demands and coping

with stress garnered the lowest mean scores in the survey (5.9, 6.6, and 6.6 respectively), indicating survey respondents reported a moderate level of self-efficacy in these areas. Lack of time, dealing with stress and the unknown elements of daily schedules are realistic challenges faced by all administrators and the lower scores in this portion of the survey indicated these areas are difficult to control. Similarly, Webb and Ashton (as cited in Tschannen-Moran & Hoy, 2007) found teachers' sense of efficacy diminished when faced with negative factors, such as excessive role demands and uncertainty.

Overall, the PSES mean score of 7.2 indicated that survey respondents feel they have quite a bit of control in their roles as principals, revealing a high perception level of self-efficacy. The highest mean scores in the survey were in response to the questions, in your current role as principal, to what extent can you create a positive learning environment in your school (mean score = 8.2 in the instructional leadership section of the survey) and to what extent can you generate enthusiasm for a shared vision for the school (mean score = 8.1 in the instructional leadership section of the survey). This is a positive result since these high levels of self-efficacy will result in more persistence to achieve goals and higher levels of motivation to expend effort toward the attainment of goals (Bandura, 1997). Conversely, low efficacy principals often feel unable to control their environment and are less likely to identify appropriate strategies, or modify a course of action, even if it has been unsuccessful in the past (Tshannen-Moran & Gareis, 2004). Within the context of change and ever increasing levels of accountability, school leaders must persevere and apply skills already developed, thus mobilizing their self-efficacy and continuing the effort to succeed in difficult tasks (Bandura).

Hypothesis 2 considered the relationship between the perception of self-efficacy of elementary principals and their participation in formal and focused professional development. Although professional development activities related to instructional leadership (use of data, assessment, and improving student achievement) were attended by 70% of survey respondents, there were no significant differences found in the self-efficacy scores among principals engaging in those professional development topics. This is even more surprising when considering the large number of survey respondents ($n = 110$, 89%) attending professional development on the topic of improving student achievement. When asked to what extent the principal could raise student achievement on the PSES, the mean score of survey respondents was only 6.5. Clearly, principals are challenged by issues related to student achievement and are making this area of their jobs a priority, particularly in professional development. What is not clear, however, is how or when the professional development translates into high perceptions of efficacy and ultimately improved student achievement. We must keep in mind, as Tschannen-Moran & Hoy (2007) noted, that “self-efficacy is a motivational construct based on self-perception of competence rather than actual level of competence” (p. 946). Furthermore, Bandura (1997) stated that self-efficacy beliefs were context-specific and not easily generalized to broad categories. Perhaps, principals are attending so much professional development in the areas related to student achievement because those are precisely the areas scrutinized by state standards and therefore, the areas in which they feel the most deficient. Certainly, the professional development can only serve to increase the knowledge base of principals and ultimately impact teachers and students in a positive manner.

Implications

Elementary school principals face mounting challenges to lead their schools toward a vision of academic excellence. Now, more than ever before, it is not enough to hire and retain capable principals – they must also believe in their own abilities to successfully meet the challenges they face (Tshannen-Moran & Gareis, 2004). Success is now measured by standards-driven testing and the principals' sense of efficacy is at the heart of maintaining the best course of action while meeting the critical demands inherent in the role of the principal. Although this research did not reveal a relationship between the perceptions of self-efficacy and MAP scores among elementary principals, enhancing leadership self-efficacy must remain at the forefront for improving the quality of leadership in our schools. As social cognitive theory suggests, mastery experiences are powerful components of the process of improving self-efficacy beliefs (Bandura, 1997). When principals experience success in their roles as leaders, efficacy beliefs increase and expectations for future performances are more likely to be proficient (Tschannen-Moran & Hoy, 2007). High quality professional development must play a leading role in influencing the development of high perceptions of self-efficacy among principals and in creating positive experiences for principals, making it possible to choose the course of action yielding the most benefits to the principals and to their schools.

Future Research

This study did not discover a relationship between MAP scores and the perceived self-efficacy of principals, however, further research is warranted. Perhaps, future research could associate self-efficacy with other types of assessments, standardized assessments or common assessments, given throughout the school year. Although some

standardized tests are administered only one time during a school year, common assessments and some standardized assessments can be used as progress monitoring systems and may be a better choice for inclusion in future research. When looking at MAP scores for only one year, it is not possible to see any pattern of change or growth and by using another type of assessment, longitudinal growth patterns in student achievement and perceptions of self-efficacy may, in fact, be revealed.

Although the connection between a given course of action to improve student achievement and the leadership ability to make that decision is critical, this decision is most effective when focusing on areas where the research has proved to improve student achievement (Waters & Grubb, 2004). The role of the principal is much too large to spend time on efforts that have not proved to be effective in improving student achievement. Yet, few indications exist in the research to assist principals in determining precisely which leadership functions have a greater impact on student achievement than other functions (Waters & Grubb) and precisely which leadership behaviors yield positive results (Goleman, 2000). This simple delineation of the role of the principal could have profound implications for the daily actions of the principal and more importantly for the preparation and professional development activities experienced by successful principals. It would also be important for research to study those functions that are most closely aligned with improving student achievement and to introduce professional development for administrators that focuses more precisely on those functions. Hopefully, this focus would ultimately lead to higher levels of self-efficacy among principals.

Summary

The purpose of this study was to determine if a relationship existed between the perception of self-efficacy by elementary school principals and student achievement in leading their schools in an era of change and heightened accountability. The importance of effective instructional leadership cannot be minimized and by determining the self perceptions of skills of instructional leaders and efficacy among elementary principals, a relationship between instructional leadership, self efficacy, and student achievement was the focus of this research. One hundred twenty-three Missouri principals of various building grade configurations including Prekindergarten through sixth grade completed the Principal Sense of Efficacy Scale (Tschannen-Moran & Gareis, 2004).

MAP scores from spring 2009 testing were used to determine if a relationship existed between those scores and the perceived self-efficacy of principals. The self-efficacy scores were placed in three groups, low scores, moderate scores, and high scores based on the nine-point range for answers. Likewise, MAP scores were placed in two groups, based on the percentages of students scoring in the Advanced/Proficient levels on the MAP. The chi-square nonparametric test of significance was used to compare frequencies occurring in each of the groups to determine if a relationship existed between the communication arts and math MAP scores and the perceived efficacy scores. There was no indication of a relationship between the MAP scores and the perceived efficacy scores of elementary principals.

Professional development methods and broad topics of professional development were studied to determine if a relationship existed between the professional development of principals and their perceptions of self-efficacy. The top three choices of professional

development topics were filtered to determine if efficacy scores were higher for the principals participating in formal and focused professional development related to the topics of use of data, improving student achievement, and assessment. Eighty-six principals participated in all three of these professional development topics, however, no significant differences in the mean scores of perceived self-efficacy existed between this group filtered by professional development topics and the whole survey sample.

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Appendix A

PRINCIPAL SENSE OF EFFICACY SCALE

Principal Questionnaire

This questionnaire is designed to help us gain a better understanding of the kinds of things that create challenges for principals in their school activities.

Directions: Please indicate your opinion about each of the questions below by marking one of the nine responses in the columns on the right side. The scale of responses ranges from "None at all" (1) to "A Great Deal" (9), with "Some Degree" (5) representing the mid-point between these low and high extremes. You may choose any of the nine possible responses, since each represents a degree on the continuum. Your answers are confidential.

Please respond to each of the questions by considering the combination of your *current* ability, resources, and opportunity to do each of the following in your present position.

"In your current role as principal, to what extent can you..."	None at All	Very Little	Some Degree	Quite a Bit	A Great Deal				
1. facilitate student learning in your school?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
2. generate enthusiasm for a shared vision for the school?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
3. handle the time demands of the job?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
4. manage change in your school?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
5. promote school spirit among a large majority of the student population?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
6. create a positive learning environment in your school?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
7. raise student achievement on standardized tests?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
8. promote a positive image of your school with the media?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
9. motivate teachers?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
10. promote the prevailing values of the community in your school?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
11. maintain control of your own daily schedule?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
12. shape the operational policies and procedures that are necessary to manage your school?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
13. handle effectively the discipline of students in your school?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
14. promote acceptable behavior among students?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
15. handle the paperwork required of the job?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
16. promote ethical behavior among school personnel?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
17. cope with the stress of the job?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
18. prioritize among competing demands of the job?	①	②	③	④	⑤	⑥	⑦	⑧	⑨

Appendix B
PERMISSION NOTIFICATION FROM
SURVEY AUTHOR



The College Of
WILLIAM & MARY

School of Education
Post Office Box 8795
Williamsburg, Virginia 23187-8795
Fax: (757) 221-2988

Megan Tschannen-Moran, Ph.D.
Wakefield Distinguished Associate Professor
mxtsch@wm.edu
(757) 221-2187

July 2009

Janet Moak
103 Church Street
Bonne Terre, MO 63628
573-358-0214 home phone
573-576-8141 cell phone

Dear Janet Moak

I am pleased to learn of your interest in studying principal self-efficacy. There is very little research to date and it would be useful for us to know more about this construct. I am particularly interested in your study and what you will find about the role that instructional leadership plays.

You have my permission to reproduce and distribute the Principal Sense of Efficacy Scale that I developed with Dr. Christopher Gareis for your research.

Tschannen-Moran, M. & Gareis, C. (2004). Principals' sense of efficacy: Assessing a promising construct. *Journal of Educational Administration*, 42, 573-585.

Please be sure to properly cite this measure in your dissertation and any publications or presentation that may arise from your study.

You may download a copy of the instrument from my website at <http://mxtsch.people.wm.edu> .

I would like to receive a brief summary of your results when you are finished.

Sincerely,

Megan Tschannen-Moran

Appendix C
INFORMED CONSENT FORM

To: [Email]

From: moakmoak2000@yahoo.com

Subject: Principal Efficacy Survey

Body: Dear Elementary School Administrator,

My name is Janet Moak and I am a graduate student at the University of Missouri/Columbia in the department of Educational Leadership and Policy Analysis. As part of the requirements for graduation, I am completing a research study to be included in a dissertation on the self perceptions of elementary school principals' sense of efficacy and the effects on student achievement as determined by performance on the Missouri Assessment Program.

As an elementary school principal in Missouri, you are being asked to participate in this research study.

Your contact information was provided through the Missouri Department of Elementary and Secondary Education website. Participation in this study is voluntary and will involve completing a brief questionnaire. The total anticipated time required to complete the questionnaire is approximately 10 minutes. You are invited to access, complete, and submit the questionnaire via [surveymonkey.com](https://www.surveymonkey.com) by clicking on the following URL:

<https://www.surveymonkey.com/s.aspx>

By December 16, 2009. Your participation in this study is not expected to cause you any risks greater than those encountered in everyday life. Once completed, the results of this study may be shared with other university professors or other participants; however, your name and identity will not be revealed and your record will remain confidential. To maintain confidentiality, I ask that you refrain from placing any personally identifiable information on the questionnaire. All data on [surveymonkey.com](https://www.surveymonkey.com) will remain in an

electronically secure file where I will be the only investigator having access. All hard copy data will be maintained in a locked file cabinet in my locked office for three years after the project is completed. All information will be reported as aggregate data, with no identification of your person or district included in the reporting of data. Finally, although data obtained through surveymonkey is accessed through an individual code, all codes will be deleted from any/all documents once the data collection is complete and analysis of data has been completed.

Your participation benefits may include reading and using the findings to make decisions related to instructional leadership in your school. You may choose not to participate or withdraw at any time without any penalty or loss of benefits to which you are otherwise entitled.

Should you have questions about this research or would like to receive an executive summary of the findings, you may contact Janet Moak at (573) 358-0214 or via e-mail at moakmoak2000@yahoo.com. For questions about this research or the research investigator, you may contact my advisor, Paul Watkins at (573) 651-2136 or at pwatkins@semo.edu.

If you have any questions regarding your rights as a participant in research, please feel free to contact the Campus Institutional Review Board at (573) 882-9585.

Sincerely,

Janet Moak
103 Church Street
Bonne Terre, MO 63628

Department of Educational Leadership & Policy
Analysis
University of Missouri
202 Hill Hall
Columbia, MO 65211

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
<https://www.surveymonkey.com/optout.aspx>

Vita

Janet Kay Moak was born August 10, 1955 in Bonne Terre, Missouri. After attending public schools in Missouri, she received the following degrees: B.M.E. in music education from Central Methodist College in Fayette, Missouri (1977); M.S. in Education Administration from the University of Kansas – Lawrence (1992); Ed.S. in Education Administration from Southeast Missouri State University in Cape Girardeau (1995). She is married to Steven D. Moak, a teacher in the North St. Francois County R-I School District and has two children, Jessica Doyel and Anthony Barber. She is presently the principal of Parkside Elementary School in the North St. Francois County R-I School District.