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# Comparison of Principals' Leadership Practices by Methods of Professional Development

Marcia J. Grande  
*Walden University*

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Marcia Grande

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Walden University  
2012

Abstract

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Development

by

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MS, Gwynedd Mercy College, 2000

EdM, Temple University, 1988

BA, Temple University, 1978

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Teacher Leadership

Walden University

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## Abstract

Although the roles of instructional leader and lead learner have become central in the work of 21<sup>st</sup> century principals, their professional development has garnered little attention. This quantitative, non-experimental, comparative survey study investigated differences in the self-reported leadership behaviors of principals who identified themselves as using either supported or unsupported professional development. Brain based learning, constructivist learning, and adult learning theories, together with professional development standards, created the conceptual framework for this study. Participants were obtained through a purposive national sampling of 7,000 of 230,600 U.S. principals, delimited to leaders in their school for 2 years or more. The voluntary, anonymous online survey yielded 186 usable surveys. The Principals Instructional Management Rating Scale was used to measure leadership behaviors. The *t*-test of means was used to compare the means of responses from supported and unsupported principals for each leadership domain. Supported principals' means of responses were higher for Domain 1 (defining the school's mission). The difference in means, however was not statistically significant when subjected to the Bonferroni correction adjustment for potential family wise errors. Research suggests the strongest link between student achievement and leadership practices is Domain 1 leadership behaviors, thus warranting further investigation of the use of principals' professional learning communities and trained mentors/coaches. Implications for positive social change include further understanding of the importance of high quality professional development for school leaders to support their work in defining the school's mission.



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## Dedication

This work is dedicated to God who has blessed me with life, love, and abundant opportunities to learn. This work is but a small offering, given in gratitude for all that has first been given to me.

## Acknowledgments

Each of us has many guardians, guides, friends, and fellow travelers throughout life's journey. While it is not possible to acknowledge and thank all of them, I owe much gratitude to those who have blessed me during my doctoral journey. Three groups of people have occupied a place of prominence in supporting and guiding my work.

The first group of people who supported me from start to finish is my family. Many important events have occurred in our family during my doctoral journey--birth, death, illness, marriage, and relocation. Yet across all the events and in the face of common and uncommon challenges, my family's love, support, and encouragement have been unwavering. I am indebted to each of them and humbled by their love, generosity, and dedication through the sacrifices they have knowingly and willingly made on my behalf.

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## Section 1: Introduction to the Study

Public school structures and role functions are rooted in a traditional business model, which is hierarchical and oriented to efficient production of goods or services at the lowest possible cost (Jacobs, 1970). School principals, comparable to middle level managers, have had responsibility for budgeting, scheduling, allocating resources, overseeing the work of teachers, and providing a safe and efficient learning environment for students. However, during the last 2 decades, with the advent of the standards movement in education, represented by the No Child Left Behind Act of 2002 and renewed in 2007 (United States Department of Education, 2011), the purpose of education and therefore the principals' role and responsibilities expanded dramatically. In addition to managerial duties, principals were now expected to create the climate, culture, structures and processes that result in high levels of student achievement for all children and effective learning for adults. These new responsibilities, frequently referred to as instructional leadership, require the principal to demonstrate knowledge of effective instructional strategies, of current educational research, and of understanding how both children and adults learn (Council of Chief State School Officers, 2008; Hallinger, 2011b; Knapp, Copland, Honig, Plecki, & Portin, 2010; Louis, Leithwood, Wahlstrom, & Anderson, 2010; Witziers, Bosker, & Kruger, 2003). Principals are expected to understand, provide, lead, and participate in collaborative, collegial professional development experiences. Fullan (2007) captured the dilemma facing 21<sup>st</sup> century principals:

the principal appears to have the worst of both worlds. The old world is still around, with expectations that the principal will run a smooth school and be

responsive to all; simultaneously, the new world rains down on schools with disconnected demands, expecting that at the end of the day the school constantly should be showing better test results and ideally becoming a learning organization. (p.157)

### **Local Problem That Prompted This Study**

Some principals in southeastern Pennsylvania area schools have been expected to implement new, best practices in their schools without the benefit of having effective professional development to acquire a thorough working knowledge of the concepts and practices. Best practices such as professional learning communities, formative assessment, and data based decision making have been introduced to principals with the expectation that principals will implement these practices in their schools without the benefit of training or support. At times principals have been given access to training via district wide presentations at introductory inservice meetings for the teachers about the topic or practice. School superintendents expected and required principals to implement the practices without the benefit of training by experts or support from people who were trained about the practices.

As a member of the National Staff Development Council Academy class of 2010, I had contact with principals across the country who had the benefit of extensive training and support for initiatives that they were expected to implement. The training and support available to principals in the Academy contrasted strongly with the circumstances and processes in use locally. I also experienced the vast difference of effective professional development afforded me as a member of the academy cohort versus the professional development or training available locally. Training by experts, use of protocols,

assignments that incorporated the training, and feedback about progress in understanding and implementation of the practices exemplified the type of effective professional development and support that creates a sufficient base of knowledge and experience to implement new practices that I received in the Academy. In contrast, the training and support provided locally to educators consisted of inservice presentations followed by group work with colleagues to figure out how to implement the new strategies or practices. Although principals monitored the work of teacher groups, the support they provided was generally ineffective in affecting deep understanding of the new concepts or changes in practice since the principals themselves had not received any more training than the teachers they supervised.

As I participated in discussions with local principals about the new instructional practices they were expected to implement in their schools and about their own training and support to make these changes, it became apparent that a problem exists. Not only were principals not afforded the training and support needed to understand, implement, and monitor new best practices, the principals did not even know about the types of training and support that exist for school principals and that are practiced in some districts nationally.

### **Problem Statement**

The problem that was the basis for this study is that some principals do have the training or experience necessary to address the complex issues of practice for a 21<sup>st</sup> century instructional leader. Since principals' practices directly affect teachers and indirectly affect student achievement (Cotton, 2003; Marzano, 2003; Schmoker, 2006; Taylor, 2010), everyone in the school is impacted by the depth of knowledge and skills of

the principal. Effective instructional leadership practices cannot come through traditional professional development methods that result in informational learning, a method based on the infusion of ideas and methods into existing structures and processes (Guskey, 2000; Harvard Graduate School of Education, 2011). Professional development that is based in ongoing inquiry, reflection, and collegial dialogue about current issues of practice is essential for transformational learning to occur (Donaldson, 2009; Guskey, 2000; Mezirow, 1991; Sergiovanni, 2001). Transformational learning creates a paradigm shift that challenges many long held beliefs, ways of thinking, and processes, as well as the very mindsets of educators themselves (Donaldson, 2009; Martin, 2008; Sergiovanni, 1996). Leaders need to operate comfortably in the new learning paradigm of transformational learning, so they are able to facilitate and support the development of their students and staff as lifelong learners in a learning organization (Donaldson, 2009). The importance of professional development methods and how they affect the instructional leadership practices of principals is discussed further in Section 2.

### **Nature of the Study**

This single stage, cross-sectional, quantitative study investigated whether a significant difference exists between the self-reported leadership behaviors of principals who use supported professional development as the primary method for their own learning and the self-reported leadership behaviors of principals who use unsupported professional development. The independent variable was the principals' type of professional development, supported or unsupported, based upon the primary method of professional development used for their own learning. The dependent variable was the

principals' self-reported leadership practices as measured by the Principals' Instructional Management Rating Scale (PIMRS; Hallinger, 1990b).

This quantitative study used a single stage, cross-sectional survey to gather data from a convenience sample of school principals in the United States. The self-administered, emailed survey was also used in consideration of the amount of time required from participants.

The survey included one question about the method of professional development most often used by principals for their own learning and a 50 question survey about their perceived leadership practices. The question about the method of professional development required participants to read definitions of two different methods of professional development and identify the method that they use most often for their own learning. The questions about leadership practices used an ordinal scale, Likert type format.

I used a sample size computation method to determine the sample size for the study. Based on data in the *Occupational Outlook Handbook, 2010-11* by the U.S. Department of Labor (2010), there were 230,600 school principals employed in the United States during 2008. Based on a population of 230,600, the appropriate sample size for the study was 384 participants, calculated at a 95% confidence level (Custominsight, n.d.; Raosoft, n.d.).

The independent variable was principals' report of the primary method of professional development they use for their own learning: supported and unsupported. I defined supported professional development as learning methods that use collegial dialogue, reflection, and problem solving regarding targeted issues of practice which are

guided by a trained facilitator, mentor, or coach. Unsupported professional development was defined as learning methods that used any other means than supported professional development. Therefore, I defined unsupported professional development as learning methods that do not meet the criteria of using collegial dialogue, reflection, and problem solving regarded targeted issues of practice that are guided by a trained facilitator, mentor, or coach.

The dependent variable was the level of practice of the leadership domains of the PIMRS (Hallinger, 1990b). Participants self-assessed their level of practice on each leadership behavior of the PIMRS.

Data collection procedures followed an adaptation of the three step process recommended by Creswell (1994). The initial survey included a letter of introduction, the survey instrument, and directions for completion and return of the survey. I made follow up contacts to encourage participation.

Participants included currently practicing principals of schools in the United States who were identified through purchased lists of public information about school principals. Additional participants included principals who are members of the School Leaders Network (SLN) and principals who were members of the National Staff Development Council (now Learning Forward) Academy classes of 2010 and 2011 who volunteered to be potential participants.

Comparison of the primary method of professional development used by principals for their own learning and scores of the domains of leadership of the PIMRS (Hallinger, 1990b) was made using a *t*-test of means. Detailed information regarding the nature of the study is discussed in Section 3.

## Research Questions

This study investigated if there is a difference in the self-reported leadership practices of principals who use supported professional development and principals who use unsupported professional development. The research questions investigated if differences exist in leadership practices as measured by the three domains of leadership of the PIMRS. The three domains of leadership are: defining the school's mission, managing the instructional program, and promoting a positive school learning climate.

The three research questions were:

1. Is there a significant difference in the self-reported instructional leadership behaviors of principals who use supported professional development as the primary method for their own learning and the self-reported instructional leadership behaviors of principals who use unsupported professional development in the leadership domain *defining the school's mission*?
2. Is there a significant difference in the self-reported instructional leadership behaviors of principals who use supported professional development as the primary method for their own learning and the self-reported instructional leadership behaviors of principals who use unsupported professional development in the leadership domain *managing the instructional program*?
3. Is there a significant difference in the self-reported instructional leadership behaviors of principals who use supported professional development as the primary method for their own learning and the self-reported instructional leadership behaviors of principals with unsupported professional development in the leadership domain *promoting a positive school learning climate*?

The null hypotheses were that there are no statistically significant differences between the self-reported leadership practices of principals who use supported professional development and principals who use unsupported professional development in each of the three domains of leadership of the PIMRS. The alternative hypotheses were that there are statistically significant differences between the self-reported leadership practices of principals who use supported professional development and principals who use unsupported professional development in each of the three domains of leadership of the PIMRS.

### **Purpose of the Study**

The purpose of this study was to determine if the self-reported instructional leadership behaviors of principals who use supported professional development differed from the self-reported instructional leadership behaviors of principals who use unsupported professional development. Although research studies have reported that the practices of teachers and principals are the two greatest school level factors affecting student achievement (Kruger, Witzers, & Slegers, 2007; Waters, Marzano, & McNulty, 2003), little attention has been paid to how principals continue developing and improving their knowledge, skills, and capacity. Despite empirical studies that have linked teachers' classroom practices to the leadership of their school's principal (Boggs, 1996; Drago-Severson, 2007; Stoll, Bolam, McMahon, Wallace, & Thomas, 2006), the investigation of supportive professional development for principals has been limited. Although the importance of effective professional development for teachers has been in the forefront of school improvement efforts (Darling-Hammond & McLaughlin, 2011; Eun, 2008; Morewood, Ankrum, & Bean, 2009), a focus on the professional development of

principals beyond their certification training and first year or two of practice has been sparse. Although policy statements have begun to address the issue of professional development for leaders (Shelton, 2010), a gap exists in empirical research about the relationship between professional development methods of school principals and their leadership practices. The goal of this study was to investigate if differences exist between the instructional leadership practices of principals who use supported professional development and the instructional leadership practices of principals who use unsupported professional development in the three domains of leadership of the PIMRS.

### **Theoretical Foundations of the Study**

Three theories of learning, brain based learning theory (Caine & Caine, 1997; Jensen, 2000; Sousa, 1995), constructivist learning theory (Bransford, Brown, & Cocking, 1999; Dewey, 1938; Kauchak & Eggen, 2003), and adult learning theory (Knowles, Holton, & Swanson, 1998; Merriam, Caffarella, & Baumgartner, 2007; Mezirow, 1991), provided the foundation for this study. These theories elucidate the processes and components that are essential to transformative learning.

#### **Brain Based Learning Theory**

Brain based learning theory is rooted in recent advances in the neurosciences about how the brain works. A predominant model, the information processing model (Sousa, 1995), conceptualizes how the brain works during learning. Incoming data proceed through a sequential filtering process that determines the importance of new information. The two primary criteria to move data into long term memory and potential storage for future use are: (a) does this new information make sense in relationship to what I already know; and (b) does this information have meaning, value and relevance, to

me? The learner's self-concept as a learner, the emotions tied to previous learning of related subject matter, and the number of memory pathways engaged during the learning process also affect learning (Jensen, 2000; Sousa, 1995; Willis, 2006).

### **Constructivist Learning Theory**

Constructivist learning theory is learner centered (Bransford, Brown, & Cocking, 1999; Morrison, Ross, & Kemp, 2007). Each learner constructs new knowledge based on integration of new information into existing cognitive schemas (Bransford et al., 1999; Kauchak & Eggen, 2003). Connections to prior knowledge create meaning for the learner, elevating the learner's level of knowledge and understanding. A real life, problem based learning context is highly valued in the constructivist tradition. Social interaction with other learners during the learning process exposes learners to multiple perspectives and thinking processes, expanding each learner's base of knowledge, and accelerating the learning process. (Bransford, et al., 1999; Dewey, 1938; Kauchak & Eggen, 2003; Vygotsky, 1978).

### **Adult Learning Theory**

Adult learning theory purports that a number of issues affect adult learners that differ from their younger counterparts. Adult learners value knowledge and skills that will increase their success in daily life, help them to solve problems, and have usefulness and direct application to their perceived needs and desires (Fogarty & Pete, 2004; Merriam, Caffarella, & Baumgartner, 2007; Mezirow, 1991). Adults expect to be recognized as capable of self-direction and to be viewed as bringing valuable experience and knowledge to their new learning (Killion, 2008; Knowles, Holton, & Swanson, 1998; Tallerico, 2005).

Traditional professional development learning formats have often used a lecture, seminar, or workshop format. As knowledge about learning has increased, as reflected in these theories of learning, the knowledge has dramatically changed the context, content, and processes of teaching and learning for both children and adults (Council of Chief State School Officers, 2009; Mezirow, 1991). It is now understood that significant differences exist between simply understanding new information and using new information to create changes in ideas, attitudes, and behavior (Guskey, 2000; Harvard Graduate School of Education, 2011; Merriam, Caffarella, & Baumgartner, 2007). Learning that results in substantive changes in practice requires application of the new information in daily activities, as well as creation of new ideas and products (Merriam, Caffarella, & Baumgartner, 2007; Walker, 2002). Understanding the fundamentals of learning is essential to distinguishing between supported and unsupported professional development, as defined for this study. Methods of supported professional development align with transformational learning. Using these methods creates changes in beliefs, insights, and practice. Methods of unsupported professional development align with informational learning, which results in minor adjustments to current practice (Darling-Hammond & McLaughlin, 2011). Many principals have not had experience in learning communities or with trained mentors or coaches during their tenure as teachers, nor have principal preparation programs adequately addressed the principal's expanded role and responsibilities of being an instructional leader (Kiltz, Danzig, & Szecsy, 2004; Newton & Viczko, 2010). Therefore, it is important that principals' career embedded professional development provides opportunities for them to receive supported, transformational

learning that equips them to effectively model and lead the learning of the adults and children in their schools.

Fundamental to each of the three learning theories is the importance of the prior knowledge and experience of the learner, the importance of *meaning* and *sense making* to the learner's current learning experience, the importance of context, and the need for the learner to be valued by self and others throughout the learning process (Bransford, Brown, & Cocking, 1999; Caine & Caine, 1997; Merriam, Caffarella, & Baumgartner, 2007). The components of these learning theories serve to clarify the difference between acquisition of new cognitive knowledge, informational learning, and transformational learning, which increases knowledge, skills, and capacity (Harvard Graduate School of Education, 2011). The new roles and responsibilities of principals require them to be leaders who are able to transform themselves and their schools continually. Effective learning methods provide the foundation for transformational learning necessary for principals to meet the challenges of 21<sup>st</sup> century school leaders.

### **Operational Definitions**

*Coach/mentor professional development:* Professional development in which principals work with a trained coach/mentor over time (a year or more), use protocols and/or a formal facilitation guide, and use an inquiry based evaluation, reflection, and dialogic process focused on issues of practice (NAESP, n.d.; Weingartner, 2009).

*Informational learning:* Acquisition of new information which may encourage some minor modification of existing practice. Informational learning, also referred to as single-loop learning (Bloom, Castagna, Moir, & Warren, 2005) or first order change

(Roy, 2008), yields incremental change, at best, but does not challenge previous ideas, values, beliefs, or practices (Killion, 2010).

*Instructional leader:* Leaders who use leadership practices that set schools' purposes through a collaborative process of developing its vision, mission, values, and goals which center on high levels of student achievement; develop the capacity of people by modeling and supporting collegial, inquiry-based professional development, continually updating knowledge and skills about best-practices instruction; redesign the climate and culture of the school so that collaboration and continuous improvement are normal practice; and oversee all aspects of the instructional policies and practices in the school (Hirsh & Killion, 2007; Leithwood, Louis, Anderson, & Wahlstrom, 2004; Ontario Principals' Council, 2009; Taylor, 2010).

*Professional development:* Purposeful, ongoing learning through the use of collegial inquiry, data analysis, dialogue, and reflection to increase capacity and improve practice (Garet, Porter, Desimone, Birman, & Yoon, 2001; Lambert, 1998; Learning Forward, 2011; Roy, 2010; Wei, Darling-Hammond, & Adamson, 2010)

*Supported professional development:* The work of principals who use ongoing professional development through facilitated collegial, collaborative, dialogic, reflective examination of current issues of practice as their primary method of learning to improve their knowledge, skills, and capacity.

*Transformational learning:* The result of new knowledge that challenges existing beliefs, ideas, values, attitudes, and methods of practice, changing fundamental thinking, approaches to tasks, and understanding of one's own identity and role (Bloom, Castagna, Moir, & Warren, 2005, Killion 2010, Roy, 2008).

*Unsupported professional development:* The work of principals who do not use ongoing professional development through facilitated collegial, collaborative, dialogic, reflective examination of current issues of practice as their primary method of learning to improve their knowledge, skills, and capacity.

### **Assumptions, Limitations, Scope, and Delimitations of the Study**

I assumed that principals were interested and willing to participate in this study in order to learn about ways to improve their practice. I assumed that principals were thoughtful and truthful in their responses and that answers reflected their perceptions of their actual behaviors rather than what they deemed best practice.

As with all measures of self-report, principals' responses may have been inflated and therefore may not accurately reflect their actual leadership practices (Gay, Mills, & Airasian, 2009). Therefore, I used two research strategies to increase accuracy of self-report: clear directions and anonymity of responses (Gay et al., 2009). Directions to complete the survey stressed the importance of honest reporting of current practice, and I reminded participants that responses were reported in an aggregate rather than individual format.

I assumed that principals were able to distinguish between supported and unsupported professional development based on their own professional experiences. I also assumed that principals were able to identify which type of professional development they use most often for their own learning. Principals' reported perceptions of the primary method of professional development used for their own learning were a limitation of the study. Principals who did not choose a primary method of professional development in response to the survey question were not eligible to participate in the

study. No potential participants contacted me with questions about the methods of professional development or about participation in the study.

The scope of this study involved the population of principals within the United States who agreed to participate in a study about professional development. Participants were solicited from a purchased list of public information, the School Leaders Network, and members of the National Staff Development Council (now Learning Forward) Academy Classes of 2010 and 2011 who volunteered to be participants in the study.

Conclusions were limited by only collecting the self-reported perceptions of participants who volunteered to participate in the study. Volunteers and nonvolunteers have been found to differ in important ways such as education and personality (McMillan, 2004). The sample bias created by using volunteers was addressed by employing the following strategies: soliciting volunteers from a large sample size, using a brief questionnaire, focusing on a problem of interest to the target population, and by recognizing the limitation of the generalizability of results (Creswell, 2005; McMillan, 2004).

Cross sectional data may also be subject to seasonal influences of principals' schedules and duties. Therefore, it was understood that these data reflect a snapshot in time which may be the same as or different from information gathered at another time. The Principal Instructional Management Rating Scale (Hallinger, 1990b) may not include some elements of work that are important to principals' leadership practices and therefore may have provided an incomplete report of their actual leadership practices.

This study was delimited to surveying a sample of principals in the United States who are known through public information or affiliation with the School Leaders

Network, a community partner in this study. The sample was also delimited to principals who have served at least 2 years in their current school.

### **Significance of the Study**

It is impossible to scan current topics in education without repeatedly encountering the subject of school leadership. Information from education journals, books, professional organizations, and state and federal governing bodies have focused educators' awareness of the significant impact school leaders have on teachers and on students' learning and achievement. Research commissioned by the Wallace Foundation concluded, "there are virtually no documented instances of schools being turned around without strong leaders. Leadership undoubtedly is a catalyst to school improvement" (as cited in Shelton, 2010, p. 4).

Concern about what school leaders know and are able to do has resulted in a flurry of leadership standards and competencies across the entire landscape of education (Hallinger, 2011b; Murphy, 2002; Murphy, Elliott, Goldring, & Porter, 2007). The message school leaders across the country have received is that their responsibilities require them to be instructional leaders who create learning organizations that support high levels of student learning and achievement. Colleges and universities have been expected to examine their school leadership programs and redesign them to provide appropriate preparation for school leaders. States are creating tiered and performance based licensure systems (National Conference of State Legislatures, 2010). A third, large scale indicator of a national focus on the importance of school principals is the \$4.35 billion in federal Race to the Top grant funding that was tied to high quality school leadership (National Conference on State Legislatures, 2010; Wallace Foundation, 2009).

Educational research that traditionally focused on student learning and achievement has also explored issues of teacher learning and development. However, supporting the practice of school leaders through effective professional development is a nascent research issue. This study may contribute to the body of knowledge that investigates whether significant differences exist in the instructional leadership practices of those principals who do and those who do not use supported professional development as the primary method of their own learning.

### **Summary**

The role of school principals expanded dramatically during the last several decades. Principals are now required to manage safe and efficient schools, to be instructional leaders who build the capacity of teachers to guide student learning to high levels of achievement, and to establish learning organizations (Schmoker, 2004; Sparks, 2003). Little, if anything, in formal principal preparation programs, teaching experience, or experience as a principal provides the opportunity for principals to learn the requisite skills to be instructional leaders of learning. However, accountability for results operates in real time, so principals must build their own knowledge and skills while engaged in practice, and in the face of continuous assessment of their work.

New knowledge gained through the neurosciences and educational research has greatly expanded information about how people learn. Although this knowledge has begun to be applied to professional development opportunities for teachers, principals have seldom been afforded improved methods of professional development for their learning. Effective professional development produces transformative learning that results in changes in mindsets, beliefs, and behavior as evidenced by substantive changes

in practice. This quantitative survey study investigated if differences in the professional development methods principals use for their own learning was reflected in their self-reported instructional leadership practices. The results of this research study add to the body of information about the possible impact professional development methods may have on principal learning and on their instructional leadership practices.

Section 2 explores the theoretical foundations for the study and reviews related literature about professional development. Section 3 discusses the methodology of the study. Section 4 presents the data analysis of the study, and Section 5 presents conclusions derived from the study, as well as recommendations for future research.

## Section 2: Literature Review

The focus of this study centered on whether there is a difference in the instructional leadership practices of school principals who use supported professional development as the primary method of their own learning compared to the leadership practices of school principals who use unsupported professional development as the primary method of their own learning. Although the roles and responsibilities of the school principal have changed and expanded dramatically during the past 20 years, effective professional development to support the learning and growth of school leaders has not kept pace with the changes. Many studies about effective school leaders (Goldring, Huff, May & Camburn, 2008; Kelehear, 2005; Leithwood & Jantzi, 2006; Murphy, 2002; Murphy, Elliott, Goldring, & Porter, 2007) have focused on what leaders should know and do, but they have not addressed the ways in which principals might acquire and develop the requisite knowledge, skills, and capacities needed to implement those practices.

This literature review is divided into two sections. The first section explores the changed role of the school principal, as well as studies, standards, and laws that have attempted to identify and define the knowledge, capacities, and skills needed by successful school principals for the new millennium. The second section of the review presents brain based, constructivist, and adult learning theory as a unified base of knowledge about how people learn. The convergence of these related learning theories provides a solid base for the examination of effective professional development methods that expand capacity and provide the knowledge and skills necessary to improve principals' leadership practices.

The primary foci of this literature review are the changing role of school principals, learning theory, professional development, and instructional leadership practices. The literature review also includes information related to the research methods used for this study including why they were chosen and how they were completed.

Peer-reviewed journals, theory texts, educational research texts, federal and state legislation and departments of education documents, and professional education resources and organizations were used in the literature search. Key search terms included: *adult learning, coaching, communities of practice, educational leadership, instructional leadership, mentoring, organizational learning, professional development, professional learning communities, school improvement, school principals, school reform, staff development, student achievement, and transformational leadership*. Searches made use of a full range of resources available through Walden University Library including: Academic Search Complete, Academic Search Premier, Education Research Complete, EBSCO, ERIC, ProQuest, SAGE Full-Text Collection, and SAGE Journals Online.

### **The Role of Principals**

The purpose of schools, and therefore the responsibilities of their leaders, has undergone continuous and dramatic change for more than a century. For much of history in this country, education was only available to an elite group of privileged families to educate their children to enable them to navigate their societal roles and duties successfully. However, industrialization of the early 20<sup>th</sup> century brought sweeping changes to the purposes of education. The revised view of schooling was as a vehicle to adequately prepare the masses to be capable workers and to acculturate the large immigrant population. Information about the culture of schools at that time (Flanagan,

1970; Jacobs, 1970; Roush, Bratten, & Gillin, 1971) reported that the leadership structure of schools was aligned with the prevailing scientific business model; school leaders were expected to be autocratic managers charged with responsibilities to keep schools running smoothly and efficiently while asserting their authority over teachers and students.

As modern society continued to develop and to adopt a larger world view, the purpose of schools also evolved. Schools became the crucible of societal issues, with stinging public and political criticism following epic national issues such as the Russian launch of Sputnik, the Civil Rights movement, a high incidence of poverty, and the Vietnam War (Herold, 1971). A clear mission of schools was elusive and unclear. Regarding education in the decade of the 1960s, Jacobs (1970) reported that in their uncertainty, educators were concerned about and responsive to societal pressures and influence rather than focused on their own professional stance and perspective

The last 2 decades of the 20<sup>th</sup> century were rife with national reports including *A Nation At Risk* (The National Commission on Excellence in Education, 1983) and *What Work Requires of Schools* (The Secretary's Commission on Achieving Necessary Skills, United States Department of Labor, 1991), which asserted that educational mediocrity and the poor academic performance of U.S. students not only jeopardized the future workforce, but also the country's standing in the world. Fullan (2007) reported that the call for large scale school reform increased exponentially with initiatives such as whole-school reform (WSR) models championed as the answer to improving schools, and ultimately raising student achievement.

The constant barrage of changing purposes and reforms was not lost on those who were in charge of schools. Donaldson (2001) noted the subtle yet significant point that

references to the term *leadership* did not appear in professional education literature until the 1970s and 1980s. Donaldson (2001) noted that the managerial approach of running schools was accepted until the scope of education broadened to include successfully educating all students. Donaldson chronicled the traditional roles of a school principal as the person who kept the school functioning efficiently, supported district and state goals, made everyday logistical decisions, and functioned as the liaison to the community so teachers were able to do their work. Donaldson (2001) further asserted that these roles and duties befell the school principal by default rather than design as the work of school leaders became unclear and all encompassing.

The 21<sup>st</sup> century ushered in an era of unprecedented expectations that all children will demonstrate high levels of academic achievement as legislated in the No Child Left Behind Act (NCLB), signed into law in 2002 and re-authorized in 2007 (United States Department of Education, 2011). Accountability for student achievement, as measured through standardized state assessments against state learning standards, preempted all other priorities in schools in response to the attendant sanctions and penalties for failure to meet adequate levels of student proficiency. The imperatives of the many decades of failed school reform suddenly had real relevance and urgency, with responsibility falling directly to school leaders.

Fullan (2007) captured the dilemma facing 21<sup>st</sup> century principals:

the principal appears to have the worst of both worlds. The old world is still around, with expectations that the principal will run a smooth school and be responsive to all; simultaneously, the new world rains down on schools with disconnected demands, expecting that at the end of the day

the school constantly should be showing better test results and ideally becoming a learning organization. (p. 157)

Leithwood (2006) acknowledged the dynamic tension between principals' roles in managing their schools to provide stability, while at the same time leading initiatives and changes required to facilitate and support improvements. To determine if school leadership matters in the course of school and student outcomes, Leithwood completed an extensive review of five types of research based evidence: case studies of effects on student learning, quantitative studies of across school effects on student achievement, large-scale studies about the impact of specific leadership practices, large-scale studies of effects on student engagement, and the impact on school improvement initiatives over time, including effects of changes in leadership. Following his extensive analysis of research based evidence, Leithwood reported, "there is not a single documented case of a school successfully turning around its student achievement trajectory in the absence of talented leadership" (p. 182), thus concluding that leadership has very significant effects on school and student outcomes.

Professional development is present in every venue of the education landscape, yet its presence does not insure that learning, insight, or changes in the practices of teachers or school leaders will occur. Every educator who has worked in schools for 5 years or more is able to recite a litany of ideas, initiatives, or silver bullet strategies available for their use. Yet, what happens in schools and how schools are run is apt to be very similar to what has happened in the past than not. Now, more than ever, in the midst of the current high stress and strong accountability climate in education, changes in practice create uncertainty.

Despite changes in knowledge about best practices, most educators continue enacting their theories in use, what they already know and do, than risking use of espoused theories, even if they reflect relevant research or best practices (Schon, 1983). Pollock (2007) presented a clear example of just how difficult it is to implement change. In conversation with a novice teacher, Pollock found that the teacher cited the source of her professional knowledge as using the teaching methods her own school teachers had used when she was a student rather than her own professional training and preservice experiences.

This tacit method of learning rests in one's experience, which may encompass decades-old methods and processes that may be irrelevant or ineffective in today's schools. Elmore (2007) also pointed to this very intertwining and self-perpetuating nature of people and the organizations in which they work as an underlying cause of failed school reform since most administrators have been career-long educators. Elmore stated, "So relying on leaders to solve the problem of systemic reform in schools is, to put it bluntly, asking people to do something they don't know how to do and have had no occasion to learn in the course of their careers" (p. 43), in defense of the perpetuation of traditional leadership practices.

The national mandate for schools to produce high levels of student achievement for all children leads to the question, "What matters?" Research supports the assumption that the school factor that matters most is classroom instruction, the work of teachers. However, research has also shown that the second largest impact of school factors is that of school principals (Cotton, 2003; Hallinger, Bickman, & Davis, 1996; Hallinger & Heck, 1998; Leithwood, Louis, Anderson, & Wahlstrom, 2004). In a continuing effort to

know more, scholars have studied school leaders, exploring styles of leadership, leaders' dispositions and beliefs, leadership activities, training of leaders, perceptions of stakeholders about leaders, and the perceptions of leaders about themselves and their practices (Graczewski, Knudson, & Holtzman, 2009; Leithwood & Jantzi, 2008; Provost, Boscardin, & Wells, 2010; Spillane, White, & Stephan, 2009; Wang, Oh, Courtright, & Colbert, 2011; Witziers, Bosker, & Kruger, 2003).

### **Domains of School Leadership**

School principals' work spans a compendium of duties and functions. Labels for leadership approaches are numerous and often lack clear, agreed-upon definitions, models, or theories. Leithwood (2006) referred to this situation as "leadership by adjective" and cited an example of the definition of "instructional leadership":

Consider, for example, the term "instructional leadership": it typically serves as a synonym for whatever the speaker means by 'good' leadership – with almost no reference to models of instructional leadership that have some conceptual coherence and a body of evidence testing their effects on organizations and students.

(p. 177)

Similarly, Gronn (2003) addressed the on-going confusion between issues of leadership and management while Grissom and Loeb (2009) also explain and intertwine terms as in the case of the meanings of "instructional leadership theory," "transformational leadership theory," and "instruction management" in reference to their work.

Responsibilities of what are commonly termed "organizational management," "instructional leadership," and "transformational leadership" all fall within the realm of

school principals. With competing expectations from various stakeholders, principals' time and attention are frequently scattered across a wide array of needs and issues (Aitken & Aitken, 2008; Gilson, 2008; Grissom & Loeb, 2009). Hopkins quoted a school principal's summation, "I have no job description. I guess that means if it comes up, it's mine" (as cited in Gilson, 2008, p. 2), reflecting the ambiguity of duties and responsibilities that some principals face.

Despite the absence of a single, well-named lens for leadership, Leithwood (2006) used the phrase "leadership according to the evidence" (p. 177) in identifying research based commonalities of practices, behaviors, actions, relationships, and dispositions of leaders that are associated with positive school and student outcomes.

The educational leadership literature has devised numerous categories for principals' attitudes, actions, and behaviors (Camburn, Spillane, & Sebastian, 2010; Finnigan & Stewart, 2009; Grissom & Loeb, 2009; Hallinger & Murphy, 1985; Nettles & Herrington, 2007; Silins & Mulford, 2002). In various ways they include management of the school as an organization, issues of instruction and learning, issues of human and capital resources, and issues of relationships and interactions with various stakeholders.

Leithwood (2006) provided a useful framework of core leadership practices that include: setting directions, developing people, designing the organization, and managing the instructional program which capture these practices. Leithwood's comparison of the framework categories with components of the Interstate School Leaders Licensure Consortium (ISLLC) standards (Council of Chief School State Officers, 1996); Hallinger's model and assessment tool of instructional leadership, Principal's Instructional Management Scale (PIMRS; 1990a); and the 21 "responsibilities" of school

leaders that impacted student outcomes identified in a recent meta-analysis of 70 studies over the last 40 years by Waters, Marzano, and McNulty (2003) provided confirmation of an accurate and appropriate representation of the various domains of school leaders' work. The domains framed by Leithwood (2006) are setting directions, developing people, designing the organization, and managing the instructional program.

### **Setting Directions**

Setting directions, the first domain in Leithwood's (2006) framework--which includes the practices of building a shared vision, setting and fostering acceptance of group goals, and holding high-performance expectations--had the greatest leadership effect on school and student outcomes.

Setting directions was an integral part of extending the concepts and processes of a learning organization to schools. Senge et al. (2000) emphasized the importance of the well-planned, intentional process of developing a shared vision as a way of creating a cohesive understanding, aligned across stakeholders, of a preferred future for the school and its students.

In an investigation of leadership effects on student commitment, Kruger, Witziers, and Slegers (2007) found a significant relationship between principals' vision and their leadership practices. Kruger et al. (2007) concluded that school leaders who have a clear personal vision of what they want to accomplish and need to do are able to prioritize and focus their efforts, as well as solve problems and deal with the many unanticipated issues that arise in their work.

In the work of Graczewski, Knudson, and Holtzman (2009), setting direction focused on the relationship between professional development of the instructional staff

and leadership practices. Graczewski et al.(2009) found that in teacher survey data from a sample of 49 elementary schools, 88% of teachers agreed that their leaders had clearly defined student achievement goals, while more than 75% agreed that the leadership team had also identified specific strategies and provided professional development resources and support to improve teaching and learning goals. These findings suggest a strong relationship between a clear vision that was aligned with student-based school goals and teachers' positive experiences and attitudes about professional development to improve instruction.

In their review of literature to investigate vision, mission, and goals in reference to school leaders, Hallinger and Heck (2001) determined that clear and aligned vision and mission are important underpinnings toward school leaders' effectiveness. A second set of researchers completed a meta-analysis of studies between 1997 and 2006 about the relationship between professional development and student outcomes. Robinson and Timperley (2007) identified "providing educational direction/goal setting" as the first of five key leadership dimensions that emerged from their analysis. According to these researchers, the formation and communication of clear, explicit goals creates a gap between present reality and intended outcomes. The gap creates internal dissonance that they claimed supports commitment and motivation of efforts to achieve the goal, which in turn increases goal related behaviors. According to Robinson and Timperley, clarity of the goals together with the second factor, ensuring strategic alignment that is coherent with strategies, practices, and goals to improve school and student outcomes is of great importance to the success of this sequence.

In the Leadership for Organisational Learning and Student Outcomes project (LOLSO) funded by the Australian Research Council, Mulford (2006) reported data on principals' practices and student outcomes from a multi-year research project that had four phases of data collection and analysis from 3,500 students and 2,500 teachers and principals, comprising half of the secondary schools in South Australia, as well as all secondary schools in Tasmania (total of 96 Australian schools), in addition to case studies in a number of best practice schools. According to Mulford (2006), one of seven practices of school principals that promoted organizational learning was collaborative work to achieve whole-staff consensus on school priorities followed by communication and support of those school goals to students and staff.

### **Developing People**

The category of developing people was second largest in relation to variation in leadership effects in Leithwood's (2006) analysis of leadership studies. Developing people involves expanding the repertoire of teachers' knowledge and skills. The subsequent increased capacity may also contribute to and enhance teachers' self-efficacy, discussed earlier, which is linked to their attitudes, beliefs, motivation, and practices (Leithwood, 2006). The three sets of practices that Leithwood identified within the category of developing people are: providing individualized support/consideration, which is knowing and responding to the needs of individual teachers; professional growth and intellectual stimulation, which is supporting, reflecting, and making changes to practice; and providing an appropriate model, which is demonstrating a positive attitude, openness of practice, and alignment of espoused theories of action and theories in use.

**Knowing and responding to teacher needs.** The importance of knowing and responding to teachers' needs was also confirmed by the results of the LOLSO Project. Mulford (2006) reported that providing individual support, appreciating and valuing of staff, stimulating the intellect, encouraging reflective practice, facilitating professional development, and modeling continual learning and adjustment to practice as important activities of transformational school principals.

Consideration of individual teachers also involves their feelings about the school and their work. Two recent studies suggested that school leaders directly influence the decisions of teachers in their choices of employment. In the first study, Beteille, Kalogrides, and Loeb (2009) examined administrative files and data of the staff and students of a large, urban public school district with a student population of 352,000 children over a span of 6 school years, 2003-2004 through 2008-2009. School principals' effectiveness was categorized through value-added measures of gains in student achievement scores in math and reading that occurred under their leadership. Teachers' effectiveness was also determined through a value-added construct of teacher to student achievement. Findings of this study suggested that principals are able to impact the effectiveness of their staff in several important ways. More effective teachers were less inclined to transfer out of schools while less effective teachers were more inclined to transfer out of schools as ratings of principal effectiveness increased. And, based on math scores as the value-added determinant, data revealed a positive relationship between teacher learning and principal effectiveness.

The second study about teacher needs in relation to employment concerns investigated the reasons that first year teachers attributed to their decisions for leaving or

continuing to teach in a district (Boyd et al., 2009). Boyd et al. used administrative data of teachers and students in New York City public schools together with three sets of survey data to investigate the ascribed reasons for their employment decisions among six clusters of school context factors. According to Boyd et al., of the twelve most important aspects of their job that influenced teachers to leave or to stay, administrative support ranked the highest (more than 40%) and was twice the effect size of the next highest factor (student behavior), and more than four times as much, or more, as each of the remaining 10 factors surveyed (p. 29).

**Supporting teacher growth and change.** A second set of practices within the developing people category of leadership practices focused on principals' efforts to increase professional capacity of their teachers (Leithwood, 2006). In a multi-year qualitative study of four low achieving, high poverty urban elementary schools, Youngs and King (2002) investigated the relationship of principal leadership to professional development outcomes. Data collection included observation of professional development activities; interviews of teachers, principals, district staff, and external professional development providers; school visits; and district achievement, demographic, and fiscal data. Findings positively linked leadership practices which promoted trust among teachers, as well as between teachers and the principal, and that valued collegial inquiry to examine instructional practices to the development and capacity building of teachers.

Principals' effort to develop their teachers' professional capacity was also addressed in a larger study using qualitative interview and document analysis. Drago-Severson (2007) investigated the practices of 25 school principals in facilitating and

supporting the development of their staff, categorizing the results against a “Learning-Oriented Model of School Leadership” which has four pillar practices intended to support adult learning. The four pillar practices are: (a) teaming, (b) provide leadership roles, (c) collegial inquiry, and (d) mentoring. Drago-Severson reported that teaming, the first practice, was the method most widely used by principals to support their teachers’ practice and learning, with almost all principals using teaming in some form. Teaming practices spanned the categories of team teaching, study groups, book clubs, data teams, and grade level or departmental groups. Many principals provided leadership opportunities for their teachers, the second practice, by encouraging them to share their knowledge and expertise with colleagues. More than half of the respondents indicated that they encourage teachers to make presentations locally, regionally, and nationally, as well as within their own schools. Collegial inquiry was identified as the third practice used by the majority of principals for both their teachers’ and their own use to reflect on practice. And almost all principals reported having the fourth practice, mentoring programs, in use in their schools.

May and Suppovitz’s (2011) study demonstrated differentiated effects of principals’ efforts to improve instructional practices. In a longitudinal study over 3 school years, principals of 51 schools in an urban U.S. school district in the southeast kept daily logs of their activities, categorizing their activities and time spent on each activity into nine categories, one of which was instructional leadership. Data were also gathered through a teacher questionnaire given to all teachers in the participating schools during the final year of the study, with responses obtained from 1,608 teachers. The study focused on potential changes in teachers’ instructional practices based on the scope of the

principals' work. The results suggested that changes in teachers' instructional practices are more likely to occur when the principal directs targeted influence to a small number of teachers rather than to the entire staff. Further, teachers who received a greater amount of targeted interactions reported the greatest amount of change. Effective leaders discriminated under what circumstances and with which staff members to use targeted and/or broad-based methods in order to support staff.

**Leading by example.** The third set of practices related to developing people addressed the importance of school leaders' modeling, transparency of practice, and alignment of expressed versus enacted ideas, values, and actions (Leithwood, 2006). Two case studies provided insight into ways that these leadership behaviors impact teacher practices.

The two studies illustrated the modeling effects of principals on teachers. Analysis of data from the multiyear study of four urban elementary schools identified effective leadership practices, contrasted with less effective practices of principals' modeling appropriate behavior and attitudes (Youngs & King, 2002). One example centered around teachers' input to decisions about school programs. In one school, the principal espoused belief in strong and continuous involvement from teachers in decision making and program implementation. Teachers there considered team meetings with the principal as shared leadership opportunities during which they could express their ideas and influence the principal's thoughts and decisions.

However, at another school, the principal's practices did not model positive attitudes or create structures that demonstrated valuing of teachers' ideas or work. Although the school had adopted the Accelerated Schools model, which emulates the

ability of all students to succeed, the principal expressed beliefs that the socioeconomic status of the student population virtually precluded the possibility of widespread student success. Similarly, the principal did not appear to support the work or learning of teachers nor seek their input for school decisions. Although the principal encouraged teachers to pursue literacy training, the training lacked coherence among teachers. Even when teachers continued to develop their knowledge and expertise, implementation of the model did not occur. Likewise, the principal did not provide structures or processes to obtain or use input from staff, nor were staff commonly involved in problem-solving about school issues.

A second case study that contrasted the effects of principals' modeling behavior and attitudes analyzed teachers' professional interactions in two California elementary schools through a social capital model (Penuel, Riel, Kraus, & Frank, 2009). The qualitative case study data provided contrasts in principals' practices, as well as in the culture of both schools with regard to collegial relationships and interactions.

At one school, the principal demonstrated valuing of professionally designed materials and outside expertise. Communication was defined through a formal, hierarchical structure, which did not encourage or support lateral or informal methods. Penuel et al. found that the teachers indicated that they received information through formal channels, had little knowledge of issues or practices beyond their own group, did not consider professional development beneficial, did not receive support or encouragement to implement new ideas into classroom practice, and felt isolated.

In contrast, teachers at the second school reported a different school culture. Collegial interaction was valued, encouraged, and viewed as a means to improving

instructional practice and student outcomes. Teachers were encouraged and supported in both seeking out external information and resources and in collaborative work in developing internal expertise. Communication and teamwork were inclusive, laterally and horizontally, with input routinely sought from the teachers by the principal about all aspects of the school, including hiring. Penuel et al. found differences in reported levels and variability of trust between schools, with significantly lower levels at the first school in comparison to the second.

### **Designing the Organization**

Ranking third among core leadership practices in Leithwood's (2006) analysis was the domain of designing the organization. The set of practices in this leadership domain include creating and supporting a collaborative culture and partnering with external stakeholders to promote school and student outcomes. Prominent leadership domains identified in the ISLLC standards (CCSSO, 1996), Hallinger's (2003) model of instructional leadership, and the 21 Leadership Responsibilities that emerged from Waters, Marzano, and McNulty's (2003) meta-analysis included similar terms and concepts relating to the culture, support, and relational aspects of the school.

The value of collegial collaboration has gained prominence in education, popularized by the concept of professional learning communities (PLCs) during the past two decades (DuFour, DuFour, & Eaker, 2008; Eaker, DuFour, & DuFour, 2002). The 2009 MetLife Survey of the American Teacher provided data about the beliefs of teachers and principals regarding the value of collaboration as a means of improving student outcomes (MetLife, 2010). Results of this survey found that two-thirds (67%) of teachers and three-quarters (78%) of principals agreed (strongly or somewhat) that a

collaborative school culture would have positive effects on student outcomes (p. 9). The types of collaboration identified as occurring most frequently were: teacher teams, distributed leadership responsibilities, and mentoring beginning teachers, while the least common form of collaboration was peer observation of instruction with feedback (p. 9). Additional information from the survey indicated that teachers reported that they spend 2.7 hours each week in collaborative activities with elementary teachers collaborating most often within grade level (87%) while secondary teachers reported subject-based collaboration (74%), regardless of grade level (p. 9).

Schools with the highest levels of collaboration reported consistently larger results with an additional hour per week spent in collaborative activities, and with nine of ten teachers and principals reporting involvement in all collaborative activities as often or always (MetLife, 2010). Further information in the survey provided profiles of the elementary and secondary teachers in higher collaboration schools which revealed a higher level of belief in their students' ownership of responsibility for their learning, attribution of successful outcomes shared with peers, higher levels of trust among colleagues, and higher levels of satisfaction with their careers.

Collaborative school cultures, including home-school partnerships, had positive links to student achievement in a study that compared survey data from 81 schools in Indiana with achievement data in Grades 3, 8, and 10 (Gruenert, 2005). In an investigation of a relationship between a collaborative culture and schools and student outcomes on standardized tests, Gruenert analyzed survey data from 2,750 teachers against student data from the Indiana Statewide Testing for Educational Progress scores during the 2002-2003 school year. Gruenert concluded that math and language arts scores at

elementary, middle, and high school levels were positively correlated with schools that had higher levels of collaboration. Grunert reported the three strongest correlations of positive student outcomes were associated with the factors of: professional development, teachers' attitudes toward their learning in the service of school improvement; unity of purpose, the influence of the mission statement on teaching practices; and learning partnership, parent-teacher communication.

Home-school partnership connections were also reported as important in the results from the 2010 MetLife Survey of the American Teacher (MetLife, 2011). The results of this national survey from 1,003 teachers and 500 principals revealed that school family relationships were considered an important contributing factor to student achievement outcomes. According to the survey, most teachers (88%) and principals (89%) considered positive home school relationships important to student success (p. 25).

A third study around the issue of home-school connections analyzed time use of 65 school leaders in relationship to school outcomes in a large urban Florida district. Researchers gathered data through direct observation of principals, surveys of staff and parents, and administrative data.

In addition to analyzing how principals used their time, this study used survey data of the teachers' assessment of the school's learning environment, of teacher satisfaction, and of parents' assessment of the school (Hornig, Klasik, & Loeb, 2009). Principals' activities were divided among six categories: administration, organization management, day-to-day instruction, instructional program, internal relations, and external relations. Internal relations, which accounted for 15% of administrative time, included interactions with students and staff and communication with or counseling

parents. Time use in the internal relations category was positively associated with teachers' perceptions of the school and of their satisfaction at their school. In contrast, Horng et al. found that parents' perceptions of school safety were positively related to time spent on organizational management, while their overall assessment of the school was significantly and negatively related to time spent on day to day instruction, which included formal and informal work with teachers around instructional issues and doing classroom teaching.

### **Managing the Instructional Program**

The fourth domain of Leithwood's (2006) model of leadership is managing the instructional program. Managing the instructional program includes staffing the program, providing instructional support, monitoring school activity, and buffering staff from distractions to their work.

Managing the instructional program coincides with the dimension of planning, coordinating, and evaluating teaching and the curriculum in nine studies contained in a meta-analysis about leadership and student outcomes by Robinson, Lloyd, and Rowe (2008). Their analysis reported a moderate relationship to student outcomes with leaders in higher performing schools involved in specific practices of four sets of instructional leadership activities. Robinson et al. (2008) found that leaders in higher performing schools were noted as engaging in reflective conversations about instructional matters with teachers, collaborating with teachers about cohesion and integration of curriculum and instruction, advancing and supporting clearly identified best practices instruction, and effectively using data to monitor student progress and guide instruction.

Managing the instructional program was also a component of a study of time use of 65 urban Florida school leaders in relationship to school outcomes (Hornig, Klasik, & Loeb, 2009). Researchers gathered data through direct observation of principals, surveys of staff and parents, and through administrative data. In addition to analyzing principals' time use, this study examined the relationship between principals' activities and school outcomes, as determined by measures of student achievement, staff assessment of the school's learning environment, teacher satisfaction, and parent assessment of the school. Principals' activities were divided among six categories: administration, organization management, day-to-day instruction, instructional program, internal relations, and external relations. Although the category of administrative tasks garnered the largest amount of principals' time (27%), positive school outcomes had a higher association with organizational management activities (21%). Hornig et al. reported that principals who spent more time on organizational management than administrative activities had strong associations with multi-year increases in student achievement, higher levels of staff satisfaction, and positive parent perceptions of the school.

Of additional interest to this study is the fact that despite strong national attention to issues of instructional leadership, the principals in this study spent limited amounts of time on those activities (6.75% on instructional program, 5.88% on day to day instruction; Hornig, Klasik, & Loeb, 2009). The results of this study were in sharp contrast to expected outcomes relative to other research (Louis, Leithwood, Wahlstrom, & Anderson, 2010; Matsumura, Sartoris, Bickel, & Garnier, 2009) in which measures of changes in teachers' instructional practice and student achievement were associated with principals' attention to and involvement in matters of instructional leadership. Hong,

Klasik, and Loeb (2009) found that general teacher satisfaction related strongly with principal attention to instructional areas, although teacher satisfaction at their school were positively associated with principal time given to internal relations.

Instructional leadership was a school factor in Hattie's (2009) synthesis of more than 800 meta-analyses related to student outcomes. Hattie determined that evidence from his analyses strongly supported the positive effects on student outcomes of instructional leadership, in which principals maintained a clear, intense focus on issues of instruction and student achievement, over other types of leadership. Hattie also found that differentiation by components of instructional leadership also yielded notable differences in effects on student achievement.

In their final report of a 6 year study intended to explore educational leadership and its relationship to student outcomes through data collection from nine states, 43 districts, and 180 schools, Louis, Leithwood, Wahlstrom, and Anderson (2010) concluded that the most beneficial practices in support of classroom teachers were school wide focus on high expectations for student achievement, tailored opportunities for professional development, embedding collaboration in the culture and structure of the school, and monitoring and supporting classroom instruction.

Buffering teachers from intrusions into their instructional time is the third aspect of management of the instructional program. In a study of the impact of leadership practices to student achievement, O'Donnell and White (2005) analyzed data from 75 randomly selected middle school educators in Pennsylvania. Using the PIMRS (Hallinger, 1990b), survey data from 75 principals and 250 eighth-grade English and mathematics teachers found that leadership practices in the category of promoting school

climate had the strongest relationship to student outcomes. According to O'Donnell and White (2005), leadership behaviors in this category included valuing teachers through protection from intrusions into instructional time, support of their acquisition and implementation of new skills, and providing acknowledgement of their effort and work through compliments, public recognition, and memos that are added to personnel files.

### **Development of Standards of Practice for School Principals**

In the current era of high accountability, the importance of school and student outcomes has garnered ongoing and intense attention from governing bodies at the national, state, and local levels. Federal government initiatives such as the No Child Left Behind Act (U.S. Department of Education, 2011), which imposed student achievement mandates and potential sanctions, and the enticement of program funding such as School Improvement Grants (SIG), and Race to the Top (RTTT) programs increased pressure to produce high levels of success for all students.

Expansion of the principal's role and responsibilities, absence of a singular well-articulated model of educational leadership, and the increased expectations and accountability for high levels of student achievement created a predictable question: What matters? What are appropriate criteria to prioritize a school leader's daily time and attention?

In an era of accountability, the gold standard is often established by the development of a set of professional standards. Murphy (2005) reported that in light of the increased national and political attention to all aspects of schools and schooling, the National Policy Board for Educational Administration (NPBEA) created the Interstate School Leaders Licensure Consortium (ISLLC) in 1994 to address the needs of the

profession to thoughtfully and intentionally reorient the paradigm and parameters of school leadership.

The work of the ISLLC focused on creation of standards to direct action across the entire landscape of educational administration, from initial training and certification through all milestones and leverage points across the career span. Murphy (2005), then chair of the ISLLC, asserted that strong consensus existed about the inadequacy and ineffectiveness of the historic two pillar base, management and the behavioral sciences, of educational leadership. Murphy reported that over the span of 2 years, the consortium based their work on research and literature about changes that were occurring in schooling, the intended goals of education, the social, political, and economic milieu of the new century, and effective schools and school leaders.

According to Murphy and Shipman (1999), principles that guided the work of the consortium in creation of the standards signaled the dramatic shift in thinking, attitude, and work that faced school leaders in contrast to the former leadership paradigm. The guiding principles were that the standards should:

- reflect the centrality of student learning.
- acknowledge the changing role of the school leader.
- recognize the collaborative nature of school leadership.
- be high, upgrading the quality of the profession.
- inform performance-based systems of assessment and evaluation for school leaders.
- be integrated and coherent.

- be predicated on the concepts of access, opportunity, and empowerment for all members of the school community. (Murphy & Shipman, 1999, p. 218)

In 1996, the ISLLC officially adopted its ‘Standards for School Leaders’ (CCSSO, 1996). Murphy (2005) reported that the standards were intended to inform and direct the preparation, certification, accreditation, licensure, professional development, and practices of school leaders at the local, state, and national levels.

The ISLLC standards stated:

A school administrator is an educational leader who promotes the success of all students by:

- facilitating the development, articulation, implementation, and stewardship of a vision of learning that is shared and supported by the school community.
- advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth.
- managing the organization, operations, and resources for a safe, efficient, and effective learning environment.
- collaborating with families and community members, responding to diverse community interests and needs, and mobilizing community resources
- acting with integrity, fairness, and in an ethical manner.
- understanding, responding to, and influencing the larger political, social, economic, legal, and cultural context. (CCSSO, 1996, pp. 10-21)

The preface of the standards document contained a statement in which the consortia recognized the enormity of school leaders’ jobs. However, it also differentiated effective

leaders as having different beliefs and practices from most of their colleagues, as were specified in the standards (CCSSO, 1996). Each of the standards included three facets of practices of effective school leaders: knowledge (and understanding), dispositions (beliefs, values, and commitments), and performances (facilitation of processes and engagement in activities).

Closer to the daily lives and practices of principals, dramatic shifts occurred in three aspects of schools and schooling that directly affected school leaders: changes in the technical core, the managerial level, and the institutional level (Murphy & Shipman, 1999). For example focus changed from teacher practice to student learning, from dissemination of knowledge to social construction of knowledge between the teacher and students, and from acquisition of knowledge to learning how to learn and to solve problems (Murphy & Shipman, 1999). Beliefs, values, intents, and expectations surrounding education were challenged and changed within the context of increasing accountability and public scrutiny. With the advent of standards that embedded the changed foci of education into accountability for educators, ‘business as usual’ was no longer an option for school leaders.

In a review of the educational leadership literature, Murphy (2002) addressed the continually changing landscape and the subsequent need to redefine, reconceptualize, and re-culture the profession away from discrete specified bodies of knowledge, which had guided it in the past, to the key aspects of the school administrator’s new role and the new valued ends of education. Murphy’s review chronicled the continued refinement of the conceptual framework of instructional leadership both by the authors of the ISLLC standards and the field of education. Sanders and Kearney (2008) reported that a dozen

years after publication of the standards, the ISLLC revised its work, dividing the original standards into two components, the Educational Leadership Policy Standards: ISLLC 2008 (CCSSO, 2008) and its companion publication, Performance Expectations and Indicators for Education Leaders.

The intent of the 2008 policy standards was to establish a foundation to develop policy that addressed structural program elements for school leaders such as content of training programs, licensure, professional development, and evaluation. According to Sanders and Kearney (2008), the coherent policy systems model included the elements of leadership policy standards, leadership performance expectations and indicators, state leadership standards, leadership program standards, and leader assessments and evaluation tools in support of quality leadership, effective teaching, and student learning.

The intent of the performance expectations was to delineate principals' practices. The document describing performance expectations and indicators for educational leaders acknowledged that the original ISLLC Standards, in use by the vast majority of states, was used as a model for many state standards (Sanders & Kearney, 2008). It also asserted:

Because of extensive use of the ISLLC Standards in policies and programs, they are seen as *de facto* national leadership standards. Therefore, they provide the basis for developing and maintaining coherence among system components about administrator certification, preparation, and assessments. (Sanders & Kearney, 2008, p. 5)

An example of the standards' use to assess principals' quality is a small study of 62 Virginia principals in schools spanning from Pre-K through twelfth grade (Kaplan,

Owings, & Nunnery, 2005). The principals' quality was assessed through rubrics created from the ISLLC standards against student achievement data. Kaplan et al. found a strong relationship between principal leadership practices that enacted ISLLC standards and student achievement in this sample of principals. They also found that principals who scored highest on the ISLLC Principal Quality Rubric served in schools with students who scored highest in student achievement, while low scoring principals served in schools with low scoring students.

However, using the almost exclusive use of ISLLC standards in the development and adoption of state standards for school leaders garnered concern and criticism about a potential proclivity toward institutional isomorphism in creating state regulations (Roach, Smith, & Boutin, 2011). Roach et al. (2011) analyzed the data of five key areas of regulations of school leadership, including leadership standards, program approval, licensure and assessment, mentoring, and ongoing professional development for all 50 states.

Confirmatory findings by Sanders and Kearney (2008) also indicated that every state has adopted leadership standards, with the majority directly using the ISLLC standards or revised versions of them. According to Roach, Smith, and Boutin (2011), only four states included any options for educational institutions to develop their own standards, which confirmed concern that the ISLLC standards were being adopted without regard to local contexts or needs at the time of the analysis.

Historically, leadership program approval accreditation occurred through both the National Council for Accreditation of Teacher Education (NCATE) and the National Association of State Directors of Teacher Evaluation and Certification (NASDTEC).

However, accreditation has shifted to a nearly exclusive state alignment with NCATE, which is aligned with ISLLC standards. In their continued concern about the potential for institutional isomorphism, Roach et al. (2009, p. 86) noted, “Fewer than 20% of the states allow or note the existence of other accrediting agencies in their regulations.”

In summary of the concerns about institutional isomorphism, Roach, Smith & Boutin (2011) acknowledged the achievement of ISLLC standards as a means to create a cohesive, re-aligned framework to address the training, needs, and practices of school leaders. However, Roach et al. (2011) also illuminated the potential negative effects of policies that are imported versus developed responsively to local needs, and of the limiting effect on the means through which training program accreditation is now available.

### **Evaluation of School Leaders**

Effective evaluation is an assessment of standards of practice. Evaluation can serve as measures of formative assessment and feedback toward established developmental goals; identify areas of strength and need; and serve as a gateway to advancement through administrative roles (Shelton, 2011). The Wallace Foundation (2009) reported that although much has been learned about effective practices of school leaders to advance student achievement and school goals, the field of education has not developed and adopted cohesive, well-aligned methods and tools to evaluate them.

Consistent with the Wallace Foundation perspective, research findings in several studies revealed that the focus, methods, and instruments of assessment of school principals’ work vary widely. Connections between standards of performance and evaluation convey the importance of what the principal does and also convey priorities of

leadership practice. When evaluation lacks clear connection with school or district goals, personal professional development plans, or leadership standards, principals may not benefit from the evaluation information, nor consider evaluation important.

In one study of Michigan principals, Sun and Youngs (2009) studied congruence between evaluation of the principal and two leadership standards instruments. Survey data were gathered from district leaders, school principals and teachers, ISLLC standards for school leaders, and Michigan Standards of Accreditation (SOLs).

Principals' perceptions of the evaluation system and focus differed from those of district officials. Principals did not consider the issues of student learning, leadership practices, leadership outcomes, or their own professional development as important concerns of the evaluation process (Sun & Youngs, 2009). However, when principals perceived the evaluation purpose as related to accountability for student learning, facilitating school restructuring, and supporting their professional development, principals were likely to set high goals for learning. One recommendation that emanated from that study was for professional development of principals to specifically address instructional leadership issues to increase the capacity, knowledge, and skills of principals who are expected to enact a specific type of instructional leadership (Sun & Youngs, 2009). Principals need to perceive that professional development will advance their success in performing their duties and responsibilities.

Catano and Stronge (2007) evaluated the alignment of 162 Virginia elementary, middle, and high school principals' job descriptions with the district evaluation instrument used to assess their performance. Using textual analysis, quantitative and qualitative data were gathered to determine the degree of alignment with the ISLLC

standards and with the Virginia Standards of Accreditation (SOA). Findings indicated strong alignment with the ISLLC standards, with the exception of the category of responsibilities to larger society, which was present in less than half of the job descriptions. However, alignment with the SOA, used to evaluate principals' work, varied across areas, with the two categories of instructional quality and staff/parent communications having the highest alignment. In contrast to the ISLLC standards, the SOA contained three emergent categories, evaluating areas not contained within the standards of practice. The researchers concluded that school leaders may experience role conflict and role strain when expectations and performance evaluation are not aligned. Given the plethora of responsibilities and tasks within their purview, principals need consistent alignment in focus, direction, and support of their work.

A related problem in the evaluation practices of school principals includes differences in frequency of evaluation, components of evaluation, and who has input into the evaluation. For example, in the national 10 year survey of 3,300 elementary school principals, the National Association of Elementary School Principals (NAESP) (2009) reported that 8% of respondents reported evaluation frequency of "rarely or not at all" (NAESP, 2009, p. 99), 15% of respondents reported student performance data was a component of their evaluation that was "explicitly included" (NAESP, 2009, p. 100), and respondents reported that performance opinions were solicited from stakeholders that included teachers (varied from 32.3% to 14.3%) , parents (varied from 27.1% to 7.2%) and students (varied from 14.3% to 5.9%) (NAESP, 2009, p. 102) for their evaluations. These very real differences in evaluation practices render performance comparisons against standards or across the profession impossible to complete.

Progress is being made as the creation of legislative policy guidelines, mandates, and performance criteria are part of the education conversations occurring nationwide (CCSSO, 2008; DeVita, 2010; Georgia Leadership Institute for School Improvement, 2006). According to information from the National Conference of State Legislatures (Shelton, 2011), 14 states passed legislation in 2010 relating to school leaders' performance, following 10 states in the previous 3 years ( p. 17). Coherence in regulation across states remains elusive. The specificity of legislation passed in 2010 varied greatly. Colorado requires that at least 50% of a principal's evaluation will be determined by student outcomes by 2013-2014 school year, while the language of Connecticut's requirement of evaluation criteria for teachers and principals to consider multiple measures of student academic growth by 2013 is much broader (Shelton, 2011). According to a report by the Council of Chief State School Officers (CCSSO; 2010), some states are working to create their own standards, while others are working together through formal networks such as the State Action for Education Leadership Project organized by CCSSO.

In its perspective document assessing the effectiveness of school leaders, the Wallace Foundation (2009) asserted, "There is little consistency in how assessments are developed, which leadership standards are used, and if the measures are valid and reliable (Wallace Foundation, 2009, p. 4). In a comparative analysis of 20 instruments for measuring principal performance by Condon and Clifford (2009), eight instruments met their criteria for rigor in testing and measurement, as well as having a transparent assessment development process. Only two of the eight instruments were developed within the last 10 years. Nevertheless, some instruments, such as the PIMRS developed

by Hallinger (1990a) have been found to contain high alignment with elements of the ISLLC standards (Leithwood, 2006). Condor and Clifford (2009) reported that the eight instruments measure different models of educational leadership and use methods spanning from self-assessment surveys to surveys of several stakeholders to acquire 360-degree feedback.

Professional education organizations are also working to effectively define principals' jobs and construct realistic evaluation tools and processes. In July 2011, the National Association of Elementary School Principals and the National Association of Secondary School Principals announced a joint initiative of their groups to create national guidelines for effective principal evaluation (Connelly & Bartoletti, 2011). And, in a continuing effort to bring cohesiveness to the evaluation of school principals, the National Board for Professional Teaching Standards (NBPTS) (2009) announced that it is engaged in an initiative to develop national board certification for principals, "to create a consistently reliable process to develop, recognize and retain effective principals (NBPTS, 2009, unp.)." Addressing a whole-school focus, the certification seeks to support principals' creation of "a culture of learning that: advances student learning and engagement; recruits and retains the best teachers; and improves teacher and school performance" (unp). Professional standards and certification will improve the consistency with which principals' jobs are defined, directed, and evaluated. It will provide clarity about the essential practices and priorities of effective school leaders.

### **Effective Professional Learning Theory**

During the last several decades, professional development has captured attention from the education community. Traditional staff development in the form of workshops

and seminars is considered ineffective in changing practice. Advances in neuroscience have helped to advance understanding of how people learn, as well as a number of key issues of importance to adult learners. The confluence of brain based learning theory, constructivist learning theory, and adult learning theory provide a solid theoretical base for effective professional development.

### **Brain Based Learning Theory**

Brain based learning is a concept that emerged during the past several decades as the neurosciences were increasingly able to identify and track many aspects of brain function (Caine, & Caine, 1991; LeDoux, 1996, 2002; Ratey, 2001; Sousa, 1995; Wolfe, 2001; Zull, 2002).

Two aspects of brain based learning are important in consideration of the potential outcomes of professional development for principals: how the brain learns and the learning environments needed to support learning. Both components are keystones of principals' formal and informal learning and serve as important criteria in distinguishing between supported and unsupported professional development.

The first aspect of brain based learning, how the brain learns, is important to the understanding of effective professional development for principals. The complexity of how the brain works in relationship to learning, as well as the principles of brain/mind learning, are beyond the scope of this work. However, two issues about how the brain learns are noteworthy in reference to this research.

First, the brain attends to new information that makes sense to its existing cognitive schemas and to information that has meaning, with meaning having the greater importance for learning. According to the literature (Bransford, Brown, & Cocking,

1999; Caine, Caine, & Crowell, 1999; Sousa, 1995), learning occurs through creation of and connection to existing patterns and cognitive schema which evolve into prevailing views and understanding of life and of self, a person's values and beliefs.

Secondly, immersion in multiple complex and concrete learning experiences are critical for learning. Every experience creates and changes synapses, resulting in creation of neural networks (learning) and modifies the structure of the brain. Multiple learning experiences of appropriately complex challenges also increase motivation, attention, and learning. (Bransford, Brown & Cocking, 1999; Caine & Caine, 1991; Wolfe, 2001)

The learning environment in which the learning occurs is also an important concept of brain based learning. In their meta-analysis of research about human learning, Bransford, Brown, and Cocking (1999) reported the importance of four inter-connected and overlapping types of learning environments that create a system to facilitate and support learning. Brain based learning literature (Bransford, Brown, & Cocking, 1999; Jensen, 2000; Schenk, 2003; Sousa, 1995) is replete in reporting that learning environments are important for all learners, including students, teachers, and school leaders and that environmental considerations and issues either enhance or impede the learning process.

According to Bransford, Brown, and Cocking (1999), four environments are important considerations for knowledge construction and movement of the knowledge into long-term memory so the information is available for transfer, application, and new learning. The first, the learner centered environment, focuses on the learner as a person who possesses knowledge, skills, attitudes and beliefs based on previous experiences. The second, the knowledge centered environment, includes the person's prior knowledge

and sense-making, with emphasis on existing cognitive schemas and the automatic process of attempting to integrate new knowledge and experiences into existing ones. The third is the assessment centered environment, that attends to the interactive aspect of learning in which one receives on-going feedback about their performance and has the ability to revise and improve their work. And the fourth environment is community centered which represents connections among learners such as in communities of practice, and connections to the larger community.

Brain based learning theory posits that new neural networks are formed when learners have multiple opportunities to address new learning that connects with existing cognitive schemas, which make sense and have meaning to the learner. Constructing learning in ways that value the individual and their prior knowledge and that occurs within a community of learners who collaborate and engage in reciprocal input and feedback is coherent with the constructs of brain based learning.

In a review of the literature about the importance of using information from the neurosciences to improve student outcomes, Nunnolley, Whaley, Mull, and Hott (2003) identified practical considerations for principals. Their review yielded four categories of practice: encourage an enriched emotional environment, establish policies and procedures that support brain based instruction, provide professional development for teachers to become more knowledgeable about brain based teaching; and align brain based practices with standards. Interestingly, these four practices focused on an informational level of learning which increases what one knows, but may or may not support changes in practice.

Powell and Kusuma-Powell (2009) provided an effective contrast of an education leader's efforts to support development of a learning organization. The case study example presented by Powell and Kusuma-Powell focused on meaningful conversations as an example of brain based learning theory in leadership practices. The principal in the case study modeled reflective dialogue in a team meeting with teachers. Modeling is an effective way of making use of mirror neurons which are unable to distinguish between seeing an action and doing it.

Powell and Kusuma-Powell (2009) posited that teachers need three things to change practice: clear expectations for reflective dialogue, time in which it could occur, and the professional development to develop the procedural knowledge of how it is done. The principal in the case study (Powell & Kusuma-Powell, 2009) chose to model the skill, which provided an opportunity for the teachers, who were observers, to gain experience with the skill through their mirror neurons.

### **Constructivist Learning Theory**

Constructivism is an outgrowth of the work of psychologists and educators including Piaget, Vgotsky, and Dewey, all of whom considered learning a dynamic process that relies on active engagement of the learner in constructing meaning from new knowledge and experiences. Like brain based learning, Piaget's work (as cited in Walker, 2002) conceptualized the learner as an active agent in fitting new knowledge against existing cognitive schemas to determine its meaning and relevance. Gangon and Collay (2006) summarized the constructivist view as the dynamic interplay between knowledge and action.

Kauchak and Eggen (2003) identified the primary characteristics of constructivist learning theory as: (a) learners construct their own understanding, (b) new learning depends on current understanding, (c) learning is facilitated by social interaction, and (d) meaningful learning occurs within authentic learning tasks.

Constructivism views learning as a dynamic interplay between prior knowledge and experiences contrasted with new information, rather than a passive process of filling the learner with information (Vygotsky, 1978; Dewey, 1938). Vygotsky's zone of proximal development construct addresses learning facilitated by social interaction. The zone of proximal development is represented by learning that has not been demonstrated during independent work, but emerges as a result of interaction with others. Dewey also valued authentic learning tasks as a requirement for deep learning that facilitates application of knowledge or skills.

Learning theory literature (Bransford, Brown & Cocking, 1999; Gagnon & Collay, 2006; Stepan, Saigo, & Ebert, 1999) lists the structure of constructivism as focused on the importance of the learner and the learning process, emphasizing that learning continues across the lifespan and is demonstrated through on-going conceptual development.

### **Adult Learning Theory**

Andragogy, the field of adult education, is dominated by the seminal work of Malcolm Knowles' core issues of adult learners. Knowles' findings cluster around the structure and content of the learning as well as learners' self-efficacy. The six core principles of Knowles' model of andragogy, as cited in Knowles, Holton, and Swanson (1998) are: (a) the learner's need to know, (b) self-concept of the learner, (c) prior

experience of the learner, (d) readiness to learn, (e) orientation to learning, and (f) motivation to learn (p. 4).

The core principles illuminate important issues for adult learners. Adults are interested in learning things that will benefit them immediately and that have direct application to their real-life situations. Adults also view themselves as able of self-direction and expect to be viewed as such by others. Adult learners prefer a structure in which they enjoy maximum control of their learning, have the ability to know their progress, and are able to use resources, including their own prior knowledge and experience. Adults also value informal, collaborative learning experiences where they are able to learn from interaction with peers, as well as from a facilitator. According to Knowles, Holton, and Swanson (1998), adult learners value feedback throughout the learning process as they make progress in their acquisition of new knowledge and skills.

Gregory and Kuzmich (2007) categorized andragogical needs into four areas. Adults prefer learning that is experiential and proceeds from their present base of skill and knowledge competences. Adults value learning content that has self-evident benefits and meets their immediate needs. Adult learners feel comfortable in a learning environment in which they are given choice about their learning and about the sequence of their learning content. And, adults enjoy interactive rather than passive learning processes.

Another element that differentiates the needs of adult learners from children is their wealth of life experience. Although life experiences of adult learners is a valuable resource, it can also hinder acquisition of new learning when it confronts well-established ideas, concepts, or processes (Morrison, Ross, & Kemp, 2007). Strong emotions attached

to prior learning experiences or topics may have positive or negative effects on learning (Mackeracher, 2004). And, according to researchers (Drago-Severson, 2004; Taylor, Marienau, & Fiddler, 2000) for adult learners, the maximum benefit of learning occurs when learning is transformational rather than informational, changing the learner's capacity, as well as their knowledge and skills.

The three contemporary theories of learning, brain based learning, constructivist learning, and adult learning, inform concepts, structures, and strategies of effective professional development for school leaders. Supported professional development, as defined for this study, reflect these theories of learning.

### **Effective Professional Learning Standards**

Learning Forward, formerly the National Staff Development Council (NSDC), a professional education organization, addresses professional learning issues with educators, with leaders in the field, and with policy makers. Working in collaboration with professional education organizations, representatives from higher education, and national policy makers, Learning Forward published newly revised standards for professional learning in July 2011 (Learning Forward, 2011). The seven standards, designed to promote and support the professional learning and effectiveness of all adults and students, addressed the contexts, requirements, and processes necessary to achieve those outcomes.

The introduction to the professional learning standards (Learning Forward, 2011) includes a fundamental premise directly related to this study. The professional learning standards of Learning Forward includes the assertion that effective professional learning provides the single greatest pathway of on-going learning opportunities for educators

across the entire span of their careers, which also makes it greatest leverage point to support and improve student, educator, and school success. Conversely, according to the professional learning standards (Learning Forward, 2011), without effective professional learning experiences to guide, develop, and refine professional practice, neither educators nor their students, are well-served.

The seven standards listed by Learning Forward (2011) address: learning communities, leadership, resources, data, learning designs, implementation, and outcomes. While the standards are synergistically integrated parts of effective professional development, four elements are of specific importance to this study. The four elements are: the context of learning communities, the requirements of leadership, learning designs, and the implementation process.

The first element, the professional learning communities' standard, includes use of the knowledge, experiences, and skills of committed colleagues to engage in inquiry, data analysis, reflection, and the implementation and evaluation of changes to provide mutual support of ongoing learning and improvement (Learning Forward, 2011). Professional learning communities, as defined in this standard, include the elements of the theories of learning and are an example of supported professional development.

The second element, the leadership standard includes three parts: develop capacity for learning and leading, advocate for professional learning, and create support systems for professional learning. Two important responsibilities included in the leadership standard by Learning Forward (2011) are that leaders articulate the importance of professional learning and that they model learning as an important element of professional practice through their own, intentional learning activities.

The third element, the learning design standard, has three parts: apply learning theories, research, and models; select learning designs; and promote active engagement. In keeping with contemporary learning models, this standard advocates the application of the elements of “active engagement, modeling, reflection, meta-cognition, application, feedback, ongoing support, and formative and summative assessment that support change in knowledge, skills, dispositions, and practice” (Learning Forward, 2011, p. 40). These learning design elements, and the intended outcomes, align with brain based learning theory, constructivist learning theory, and adult learning theory, as discussed earlier.

The fourth element, the professional learning standard, focuses on implementation and includes application of change research, sustained implementation, and use of constructive feedback (Learning Forward, 2011). According to this element (Learning Forward, 2011), effective formal learning for school leaders requires focused learning goals, with support for implementation provided over a span of 3 to 5 years, constructive feedback, and refinement of practice to improve outcomes.

### **Effective Professional Development Methods**

In their research about the design of effective professional development for principals, Cranston and King (2003) identified a number of consistent elements. As might be anticipated, the elements align with effective professional learning theory and with effective professional learning standards. While the components are important, implementation with integrity of the methods, structures, and processes is necessary to obtain potential high yield learning outcomes.

Three program elements that correlated with positive outcomes were identified in a study of 25 professional development programs across 14 states (Blank, de las Alas, &

Smith, 2008). The study examined the quality of program implementation and the effects of professional development for math and science teachers as gauged by teachers' content knowledge and changes in instructional practice in relationship to gains in student achievement.

Blank, de las Alas, and Smith (2008) found that one third of the professional development programs, which had been nominated for review by their states, had measurable effects. Ten programs demonstrated improvements in teacher content knowledge, four programs changed instructional practice, and seven resulted in gains in student learning.

Three key elements were identified in the programs that yielded measurable positive effects. The elements were: program focus on content knowledge of the academic subjects, training and follow-up support of subject related pedagogy, and a minimum of 50 program hours (Blank, de las Alas, and Smith, 2008). These three program elements are consistent with supported professional development in their ongoing focus on meaningful issues and pedagogy of practice, the immersion in multiple complex and concrete learning experiences (from one to three years), and the format of working and learning in a peer cohort.

In a synthesis of literature, drawing on his work for the National College of School Leadership in England, Glatter (2009) summarized four key elements related to contemporary school leadership and leadership development. First he concluded that both formal and informal learning have been recognized as valuable, and that school leaders would benefit from support of a wide scope of job-embedded learning with peers and colleagues. Second, he posited that it is important to support development of instructional

leadership responsibilities, including distributed leadership strategies, to avoid role overload. Third, Glatter suggested future study about integration of various types of learning to enhance leadership development. And, fourth, Glatter acknowledged the importance of leaders' skills and competences in areas related to double loop learning such as flexibility, creativity, and the ability to learn how to learn. Glatter suggested that it is important to learn more about these attributes and how to support their development.

Effective professional development, as conceptualized for this study, requires coherence with effective professional learning theory and with effective professional learning standards. Effective professional development, also referred to as supported professional development in this study, fits the framework of professional learning communities and of mentoring. However, supported professional development as provided by professional learning communities and mentoring require those processes to be authentic and used with the integrity of high standards of their respective conceptual frameworks (Kelehear, 2003).

### **Professional Learning Communities**

Professional learning communities are an outgrowth of the concept of learning organizations, as described by Senge (1990). This concept advocated that organizations learn how to learn rather than focus on accruing larger amounts of discrete information or skills. Senge described those organizations as places where “people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together” (p. 3).

According to Senge (1990) organizations require continuous engagement in four disciplines: (a) personal mastery, the lifelong expansion of one's capacity; (b) mental models, the deliberate evaluation and re-defining one's predominant attitudes, beliefs, and values; (c) shared vision, the mutual construction of a compelling vision of a preferred future; and (d) team learning, a team's continuously co-constructed engagement in learning. In his later work, *Schools That Learn* (Senge, 2000), Senge added a fifth discipline: systems thinking, which is maintaining a holistic view of the interconnected and overlapping parts and processes of an organizational system.

Hord (2004) defined key characteristics of Professional Learning Communities (PLCs), built on the concept of learning organizations, combined with her personal experience as an educator and as a researcher at Southwest Educational Development Laboratory (SEDL). The five major characteristics of Professional Learning Communities delineated by Hord (2004) were: supportive and shared leadership, shared values and vision, collective learning together with application of that learning, supportive conditions, and shared personal practice. These themes of effective, best practice PLCs have been widely accepted throughout the education community (DuFour & Eaker, 1998; DuFour, DuFour, Eaker, & Many, 2006; Hord & Sommers, 2008; Ontario Principals' Council, 2009) and serve as a conceptual framework within which this study is based.

Essential to the creation of PLCs are valuing and seeking change as an avenue to improve professional practice in order to enhance student outcomes (Hord, 2004). This mindset is imperative to the purpose and function of PLCs as it differentiates them from groups of educators who collaborate to refine existing practices. This qualitative

difference between a PLC and a collaborative group is in keeping with the differences in double loop and single loop learning, as set forth by Argyris and Schoen (1974). Double loop learning expands capacity by learning how to do different things, rather than modifying existing practices. The focus, intent, values, and beliefs in PLCs engender the double loop learning that is needed to empower educators and uphold the success of all students.

In a survey of international PLC literature, Stoll, Bolam, McMahon, Wallace, and Thomas (2006) identified the necessity of like-minded people who commit to work together within a culture built on norms of shared, reflective practice with the goal of improving professional practice and student outcomes as fundamental to establishing PLCs. The five characteristics of effective PLCs they reported, much like those of Hord (2004), were: shared values and vision, collective responsibility, reflective professional inquiry, collaboration, and the promotion of both group and individual learning (Stoll, Bolam, McMahon, Wallace, & Thomas, 2006). Both the culture and practices are important in ensuring the deeper, double loop learning of PLCs, in contrast to typical collegial collaboration among educators.

Case study data of a school leader implementing brain based learning professional development strategies by Powell and Kusuma-Powell (2009) also identified five key aspects of effective learning communities: shared norms and values, focus on student learning, collaboration, deprivatized (shared) practice, and reflective dialogue.

In a 2 year study of efforts to develop an instrument to assess organizational barriers to implementation of a PLC, Williams, Brien, Sprague, and Sullivan (2008) used mixed-methods action research data from four pilot schools in Canada. The schools

included rural and urban schools, as well as K-12 students, that judged themselves as receptive to PLCs. Each school's principal had participated in some type of PLC-related training. Of importance to this study were the four themes that emerged from both the literature and the study data (Williams et al., 2008). The four themes were: culture, leadership, teaching, and professional growth and development. Culture addressed the importance of peer relationships and collaboration. Leadership encompassed issues of shared leadership and data-based decision processes. And the categories of leadership and professional growth and development addressed alignment of practices with individual, group, and organizational capacity.

A principal who is knowledgeable about and committed to providing a school culture that values PLC structures and practices is a powerful resource to the school, its staff, and its students. The principals' knowledge and beliefs about how to best facilitate ongoing improvements in his or her school can dramatically impact school and student outcomes.

The importance of differentiation between collaborative work and work in effective PLCs was highlighted in a survey study that tested a theoretical model of the relationship between the instructional leadership practices of principals and student achievement (Heck, Larsen, & Marcoulides, 1990). Data from principals and teachers in schools that had consistently high or low levels of student achievement over 3 years, as measured by the California Assessment Program (CAP) was measured against principals' instructional practices. Results of the study validated three variables as important elements of instructional leadership, (a) management of the school's governance structure, (b) the school's instructional organization, and (c) school climate. However,

findings suggest that elements of these leadership practices occurred in both effective and ineffective schools. Heck et al. (1990) concluded that the differences in effects were related to principals' beliefs about what they considered important to influence.

In a case study of three principals who improved student achievement in high poverty schools, Jacobson, Brooks, Giles, Johnson and Ylimaki (2007) identified the common beliefs and practices of successful elementary school principals. Using state achievement and school improvement data, interviews with the principals, a group of teachers, and a group of support staff together with focus group interviews with at least two groups of parents and two groups of students from each school, Jacobson et al. identified perceptions of stakeholders of the key beliefs and practices of the principals that may have contributed to improved student achievement.

The researchers concluded that all three principals articulated and enacted beliefs and practices that aligned with three "essential practices of school leaders" (Leithwood and Riehl as cited by Jacobson et al, 2007, p. 309). The three categories of the essential practices of school leaders were: (a) setting directions, (b) developing people, and (c) redesigning the organization.

Setting directions for a school requires communication of a clear, consistent, singular mission and vision of the needs and expected achievement accomplishments of the children. The principals in this study conveyed them as central tenets of their beliefs and expectations. The principals' commitment to developing people included conveying expectations and making decisions to increase the knowledge, skills, and capacities of their staffs in service of the school's mission and vision. According to Leithwood and Riehl (as cited by Jacobsen, Brooks, Giles, Johnson, & Ylimaki, 2007), redesigning the

organization began at the start of each principal's arrival at the school when each principal immediately articulated and enacted the creation of a safe and nurturing environment.

School leaders' understanding of and commitment to authentic PLC practices directly affects the work and practices of teachers. Addressing issues of PLC implementation, Westbrook and Hord (2000) offered insights into the overview of seven case studies of PLCs. Westbrook and Hord (2000) identified the common factors that contributed either to the success or to the demise of PLCs in each school. The factors of trust, honoring of teacher' voice, focus on students, and concern about coherence of school improvement initiatives with existing school goals aligned with PLC dimensions. However, they observed that, "...perhaps most especially shared and supportive leadership-tended to bode well for the full development and complete implementation of the PLC model" (Westbrook & Hord, 2000, p. 4).

PLCs provide the structure, processes, and practices to support deep levels of professional learning that cohere with effective professional learning theory and with established standards of professional development. Authentic PLCs provide the opportunity for double loop learning that is essential to the continuing refinement of effective leadership practices in a standards-based, accountability environment and era.

### **Mentoring**

Like PLCs, effective mentoring is an example of supported professional development that empowers educators to expand knowledge, skills, and capacity. Mentoring is based on the model of establishing trusting relationships between two colleagues to develop knowledge, skills, and capacity through collaborative exploration,

examination, and evaluation of issues of practice. This conceptual base found in education literature (Drago-Severson, 2006; Kiltz, Danzig, & Szecsy, 2004; Spiro, Mattis, & Mitgang, 2007) sets the expectations that mentors will engage in a process of collegial inquiry, dialogue, reflection on practice, deprivatized (shared) practice, and constructive feedback that build knowledge, skills, and capacity.

Mentoring in the context of education in public K-12 schools in the United States is often used as a method of professional development, primarily for new, less experienced professionals. In this context, seasoned practitioners are paired with less-experienced practitioners who are usually in the preliminary or early stages of their work. Historically used to provide support for new teachers, the practice of mentoring, at times also referred to as coaching, has expanded to include school leaders.

The Education Alliance at Brown University (EABU), in collaboration with professional education leadership organizations, created a guide for school districts and education groups wishing to implement or refine mentoring programs for school leaders (EABU, 2003). The guide reported that professional organizations, districts, and states have begun to incorporate mentoring into their leadership programs. For example, the Rhode Island Center for School Leadership, started by the Rhode Island Association of School Principals, the Massachusetts Elementary School Principals Association, and the Texas Elementary Principals and Supervisors Association provide a mentoring component in the leadership programs through their state organizations (EABU, 2003). An example of a program at the district level is the Albuquerque, New Mexico school district's voluntary program, Extra Support for Principals (ESP) to support first year principals. Spiro, Mattis, and Mitgang (2007) reported that almost half of the states had

legislation that requires mentoring for new school principals, most often for a period of one year.

A study by the New Administrators Institute, reported, “What [principals] value most of all from their coaches is the opportunity for reflective conversations, emotional, and moral support, and the affirmation that they are doing a good job” (New Administrators Institute as cited in The Educational Alliance at Brown University, 2003, p. 15).

Perceptions about mentoring were also positive when school leaders reported about their use of mentoring for professional development of their teachers (Drago-Severson, 2006). Principals noted that dialogic inquiry and reflection on practice necessitated surfacing, discussing, and reconfiguring participants’ tacit assumptions, beliefs, and values, which led to new ways of thinking and to new practices. Rather than informational learning, outcomes that adjusted existing practices, principals viewed mentoring as resulting in transformational learning, often leading to new practices by both mentees and mentors. Transformational learning outcomes are coherent with effective professional learning theory and effective professional learning standards.

Data revealed that mentoring programs in states and districts often lacked elements such as selection criteria for mentors, mentor training, defined methods of matching mentors and mentees, or defined content and processes for the mentoring process (Spiro, Mattis, & Mitgang, 2007). Without program goals, participant training, or specified content, it was perceived that mentoring may devolve into buddy systems, which do not effectively contribute to the development of knowledge, skills, or dispositions that support principal success.

Authentic mentoring provides the opportunity for supported professional development. The Wallace Foundation proposed quality guidelines for principal mentoring programs that uphold program integrity. The recommendations were: meaningful mentor training; a term of mentoring of at least one year, preferably two or three; and the program goal of expanding capacity to enable principals to effectively facilitate change in the service of teaching and learning in their schools (Spiro, Mattis, & Mitgang, 2007) The elements of authentic, high quality mentoring encompass the components of effective professional learning theory and effective professional learning standards which in turn create the conditions for transformational learning for school leaders.

### **Principals' Professional Growth and Learning**

Principals are expected to successfully integrate multiple roles such as management, to provide a safe and stable learning environment; instructional leadership, to assist teachers and students in successful learning for all students; and transformational leadership, to continually reform and improve the school to achieve school and community goals. The interplay and overlap of roles is evident in the updated Interstate School Leaders Licensure Consortium Educational Leadership Policy Standards (CCSSO, 2008) as Standard 3 states, “An education leader promotes the success of every student by ensuring management of the organization, operations, and resources for a safe, efficient, and effective learning environment” and includes Function E: “Ensure teacher and organizational time is focused to support quality instruction and student learning” ( p. 14). Thus in this single element of the ISLLC standards, organizational management and instructional leadership are part of the same practice. Supported practice through high

quality professional development appears to be an important aspect of effective education leadership.

Collaboration in a professional learning community environment is one way that school leaders receive support for their practice. In their analysis of international results of the Program for International Student Achievement (PISA), Hargreaves, Shirley, Harris, and Boyle (2010) found that the two highest international performers, Finland and the province of Alberta, Canada engage in collaborative professional development for their school leaders.

One example of collaboration in Finland is high school principals in Tampere, who meet regularly to discuss issues of practice and share resources as needed. According to Hargreaves, Shirley, Harris, and Boyle (2010), “Their individual and common interests are seen as being the same” (p. 18). Hargreaves et al. (2010) also found that school leaders in Alberta, Canada, the second highest international performer, collaborate through networks within and across districts, and access mutual resources through Alberta Initiative for School Improvement (AIS) for school improvement initiatives.

At the same time, principals have not necessarily focused on their own professional learning and growth, based on the amount of time they devote to it. In a study that evaluated the use of daily logs in assessing what school leaders do, Camburn, Spillane, and Sebastian (2010) used data from 48 principals gathered during seven periods during a 3 year period from the spring of 2005 through spring of 2007. Each daily log served as a report of principals’ time use over 5 consecutive school days between 6:00 A.M. and 7:00 P.M. on nine identified domains that were organized into five areas:

school management, instructional leadership, planning and setting goals, boundary spanning, and personal development

When Camburn, Spillane, and Sebastian (2010) compared the data from the daily logs to an experience-sampling instrument, both rank ordering of the domains and percentages of time use were comparable. Time use percentages were also found to be very similar. The top three categories of principals' time use were: student affairs (23% daily logs, 20% experience-sampling), instructional leadership (19% both daily logs and experience-sampling), and personnel issues (14% both daily logs and experience sampling). The area of professional growth, considered of great importance for this study, yielded a consistently minimal amount of time from both daily logs (5.56%) and experience sampling (5.47%) data (p. 720). In noting the small amount of time devoted to professional growth, the researchers suggested that "the press of daily activities leaves little time for reflection and personal growth (p. 721)." One might conclude that in the absence of substantial time dedicated to their own professional learning, most leaders would continue current and past practice in their leadership activities and decisions.

In the midst of the changing and expanding role of the principal, it is necessary for principals to not only be cognizant of the new paradigms, processes, and formats of education, but to have the experience and skill to lead teachers, parents, and students to and through them. To create and lead a learning organization that continuously up-dates and re-invents itself, while simultaneously ensuring successful learning for its students, the educational leader needs to engage in and model his or her own learning. This need, juxtaposed against the urgency of on-going change and accountability, requires that the leader's professional development is expedient, efficient, and effective. Learning theory

provides a platform from which to move forward, while research results provide answers about what works.

### **Professional Development of School Leaders**

Professional development of school leaders spans from pre-service training across their careers. Research has identified specific components of high quality training that supports development of skills, knowledge, and capacity of effective school leaders. Continuing development of effective leadership practices is supported through career embedded high quality professional development.

#### **Preservice Training**

The traditional two-pronged platform of school leadership programs offered by colleges and universities, emanated from the business sector, which emulated management approaches, and from the social sciences (Murphy, 2005). As education has been enveloped in rapid changes in the social and political environment, the responsibilities of school leaders have become complex and expansive. Many leadership preparation programs did not anticipate or meet the challenges of the changes in learning needs of principals. The 2001 Public Agenda survey of school administrators reported negative perceptions about preparation programs, and nearly 70% of principals surveyed felt that their preservice programs did not adequately prepare them for the job (Public Agenda as cited in EABU, 2003, p. 10). Information in the 2001 Public Agenda (as cited in Darling-Hammond, LaPointe, Meyerson, Orr, & Cohen, 2007, p. 4) survey also found that about half of the superintendents considered it difficult to find well prepared principal candidates, and even more challenging in high need schools.

During the past 20 years, a number of nongovernmental organizations, such as the Danforth Foundation, the National Commission on Excellence in Educational Administration, the National Policy Board for Education, the Wallace Foundation, the CCSSO, the ISLLC, and the Southern Regional Education Board, have been involved in guiding and supporting the development of policy to create cohesion across education, from accreditation of preservice programs through licensure and career professional development (Roach, Smith, & Boutin, 2011). Noting the changes in policy and the large scale use of ISLLC standards nationally, Pounder (2011) noted the overall “effect of often reducing preparation program curricular variability and blurring the lines between preparation, licensure, induction, and ongoing professional development, resulting in a continuous development and renewal system to promote leader quality” (p. 259). Although Darling-Hammond, LaPointe, Meyerson, and Orr (2007) found that alignment has largely been accomplished through these efforts, preservice programs still vary in content, structure, perceived quality, and outcomes.

Drawing from research on effective school leadership, which included factors in the instructional leadership and transformational leadership conceptual frameworks, Darling-Hammond, LaPointe, Meyerson, Orr, and Cohen. (2007) used evidence of strong outcomes to identify and study eight exemplary education leadership development programs in the United States. Data were gathered through studies of policy documents; interviews of program faculty, participants and graduates, and district staff; surveys of participants and graduates; observations of graduates in their jobs as principals, surveys of teachers with whom the principals work; and school achievement and practices information (Darling-Hammond, LaPointe, Meyerson, and Orr 2007). The researchers

were interested in the outcomes of the programs, as well as the programs' components and processes.

Darling-Hammond, LaPointe, Meyerson, Orr, and Cohen (2007) reported that exemplary preparation program graduates enacted effective leadership practices more than principals who were not trained in exemplary programs. In comparison to graduates from other programs, principals from exemplary programs reported feeling more confident and well prepared for a leadership position, had positive attitudes about the principalship, worked longer hours than their counterparts, spent a higher percentage of time enacting instructional leadership activities, and expressed interest in continuing in a school leadership career (Darling-Hammond et al, 2007a). And teachers who worked in schools with exemplary program trained principals reported their leaders' strong support and encouragement of data driven decisions, collaboration, and effective professional development when compared to teachers in a national survey.

An additional advantage that appeared to be related to completion of exemplary programs was the percentage of graduates employed as school leaders. According to Darling-Hammond, LaPointe, Meyerson, Orr, and Cohen (2007), data revealed that a higher percentage of graduates of exemplary programs were employed as principals (60%) or assistant principals (20%) within 3 years of program completion in comparison to 20% - 30% nationally.

In their analysis of the exemplary programs, the researchers examined two aspects of the programs that are relevant to this study: the components of and supports within the programs and program delivery (Darling-Hammond, LaPointe, Meyerson, Orr, & Cohen 2007). The academic programs and the internships of exemplary programs were well-

aligned and cohesive, with knowledge, skills, and field experiences enhancing and building on one another. Program components that were identified in exemplary preservice programs by Darling-Hammond, LaPointe, Meyerson, Orr, and Cohen. (2007) included: selective applicant screening for candidates with demonstrated leadership capacity; ISLLC standards based curriculum with a strong focus on instructional leadership; a learner centered environment that actively engaged students in inquiry, problem solving, and reflection on practice; experienced, knowledgeable staff and faculty in the university program and at the practicum site; cohort structure with mentor and advising support; and internships in which students were given active participation in a wide range of leadership roles and responsibilities.

Components of inservice professional development in exemplary programs were well aligned with the academic program, including instructional leadership concepts and practices. Additionally, institutional supports such as peer coaching, mentoring, and principals' peer networks, were also generally available to students in exemplary programs (Darling-Hammond, LaPointe, Meyerson, Orr, & Cohen, 2007). These institutional supports are coherent with the elements of effective professional development and with elements of effective learning theory as previously discussed.

Of importance to this study was the finding that inservice and professional development experiences appeared to mediate and reduce the positive effects of the exemplary program outcomes. Researchers found that implementation of effective leadership practices by students who were trained in exemplary programs was strongly affected by professional development experiences during their internship and after they

were hired as principals. Darling-Hammond, LaPointe, Meyerson, Orr, and Cohen (2007) concluded:

Candidates who did not participate in strong internships that were closely coordinated with their coursework, or who did not receive continuing professional development once they were in the field, were less likely to report high levels of effective practices. Thus, principals' capacities were influenced by the joint capacity of their pre- and in-service programs to implement the standards in coherent and comprehensive learning experiences, both before and after they entered the field. (p. 21)

One additional study examined exemplary leadership preparation programs as contrasted with conventional programs in relationship to principals' leadership practices, school climate, and school improvement (Orr & Orphanos, 2011). Orr and Orphanos (2011) contrasted survey data of 65 principals who graduated from one of four exemplary programs with data from a national sample of 111 principals.

Research based indicators of exemplary leadership preparation programs used by Orr and Orphanos (2011) to categorize programs as exemplary or conventional, as identified in reference to the Darling-Hammond, LaPointe, Meyerson, Orr, and Cohen (2007) study above, were: a cohesive, well developed theory of effective school leadership; curriculum with a strong focus on instructional leadership and transformational leadership skills and practices; a learner centered environment that actively engaged students in inquiry, problem solving, and reflection on practice; experienced, knowledgeable staff and faculty in the university program and at the practicum site; cohort structure with mentor and advising support; and internships in

which students were given active participation in a wide range of leadership roles and responsibilities.

Results of this study indicated that the program quality, as found in the exemplary leadership programs, together with an internship that had a strong mentor principal and used immersion in leadership activities, were related moderately strongly to development of leadership capacity, as evidenced by instructional and transformational leadership practices (Orr & Orphanos, 2011). A second finding of a moderately strong effect was the positive relationship of effective leadership practices to both school improvement progress and school effectiveness climate. A third finding relevant to this study was that the presence and cohesion of all program components, including the structure, content, staffing, and internship, work in concert in developing the knowledge, skills, and leadership capacity of principals. The researchers reported that four cohesive elements appear to create a synergistic effect in creating the learning conditions that foster effective leadership development. The four program qualities are: “instructional leadership-focused program content, integration of theory and practice, knowledgeable faculty, and a strong orientation to the principalship as a career” (Orr & Orphanos, 2011).

In her study of the quality of program components related to self-perceived leadership capacity and conceptions of that position, Orr (2011) used survey data from 470 graduate students who completed leadership training at one of 17 college or university based programs. Results confirmed previous research (Darling-Hammond, LaPointe, Meyerson, Orr, & Cohen, 2007) of graduates’ overall positive ratings of their programs and of perceptions of their learning (Orr, 2011). Data indicated that programs vary in structure, components, content, and focus. Coherence across the academic

program content and learning experiences with field internships varied and were related to ratings of their learning and of their perceptions of careers in school leadership (Orr, 2011). Orr (2011) also found that interest in actively pursuing a career as a school leader was positively related to internship quality.

The final study examining research about training programs for school principals studied a sample of students from one program. A study by Perez, Uline, Johnson, James-Ward, and Basom (2011) chronicled the knowledge, skill, and capacity development of eight graduate students in a cohort of education leadership master's level students. Data were gathered through three rounds of personal interviews over the space of the 18 month program. The data revealed that participation in the program resulted in deepening of insight into the complexities of being a principal. Specific areas of changed perceptions and skills included: development and implementation of a shared vision for school improvement; the use of collaboration to develop trust and create stakeholder buy-in; the need to engage staff in activities that increase knowledge, skills, and capacity; and using data to address student learning problems (Perez et al., 2011). Students also reported growing confidence regarding their leadership skills and capabilities in working with teachers to solve problems of practice and student achievement, which was signaled by adoption of a leader versus teacher perspective.

Perez, Uline, Johnson, James-Ward, and Basom (2011) noted that there was one student among their study participants who did not change his perceptions or deepen his leadership skills, based on interview data they gathered. This student entered the program as a self-described "born leader" which appeared to inhibit his engagement in learning activities, both in the academic program and the field experience (Perez et al., 2011, p.

246). The student's interview responses conveyed his attitude of having learned nothing of value and of having missed the valuable learning experiences that were available during his internship.

Efforts to determine how to ensure that participants benefit fully from the program in the future led to identification of two potential areas for program improvement (Perez, Uline, Johnson, James-Ward, & Basom, 2011). First, this student entered the program with limited experience with diverse populations or with high risk students. Second, the fieldwork principal may not have fully understood the significance or potential learning impact of having the participant engage in on-going, authentic problems of practice during his internship. Perez et al. (2011) reported that these insights led to consideration of program changes in screening of candidates and of identification of exemplary principals to work as mentors who ensure participant engagement in authentic leadership learning experiences during their fieldwork.

In her review of a number of studies including Orr (2011), Orr and Orphanos (2011), and Perez, Uline, Johnson, James-Ward, and Basom. (2011), Pounder (2011) identified five important findings that emerged from this research. The five findings were: (a) exemplary leadership preparation programs have specific structures, characteristics, and content. These include elements of instructional leadership and transformational leadership as previously identified; (b) self-reported perceptions of participants learning outcomes enhanced realistic perceptions of principals' roles and responsibilities, underscored the importance of collaboration and use of data to build staff and organizational capacity and improve student outcomes, and increased leadership skills that positively oriented school climate; (c) internships of exemplary programs that

included authentic leadership activities and strong mentor principal support increased learning and career interest in school leadership; (d) school leaders from exemplary programs were more apt to serve in high-need schools and improve teacher quality and retention which are both associated with improvement in student achievement; and (e) school conditions mediate the positive effects of leaders from exemplary preparation programs ability to implement the highly effective leadership practices that they have learned.

Career embedded professional development builds upon the school leaders' training. As Darling-Hammond, LaPointe, Meyerson, Orr, and Cohen (2007b) reported, high quality leadership practices that are the result of exemplary training programs may be mediated by the support and further development leaders receive through the quality of professional development throughout their careers.

### **Career Embedded Professional Development**

Professional development opportunities for practicing principals vary in structure, content, and continuity. The continuum of professional development for principals spans from state or district mandated, well defined, closely monitored programs to isolated offerings chosen by each school leader.

During the past two decades, national and state policies have driven many education reforms including attention to career embedded professional development for practicing leaders. Although more than a decade of reform focused on teachers, research on connections between principals and improved student outcomes gained prominence by the turn of the century. Augustine and Russell (2010) believed that the release of the ISLLC standards in 1996 did much to accomplish its goals of reorienting education,

including state considerations of standards, evaluation, and development for school leaders.

**State regulations for professional development.** State regulations for professional development may be loosely defined or may mandate specific processes that must be used for creating, implementing, and evaluating professional development of school leaders.

New Jersey is a state that has a highly specified process for professional development of school leaders. In 2003, New Jersey adopted the ISLLC standards, and is in the continuing process of developing policies and regulations to guide its school leaders. New Jersey has attempted to embed peer interdependence in its professional development model.

Each school leader in New Jersey is required to create and implement an individualized Professional Growth Plan (PGP) for a 3 to 5 year period of service (New Jersey Department of Education, 2008). The PGP is subject to a peer review process which includes a self-selected Peer Review Committee (PRC) that collaborates in the creation, implementation, revision, and final review of the PGP. The PGP culminates in an end of period presentation to the Superintendent or PRC who provide feedback to the principal. Successful completion of the PGP results in continued state certification and re-initiates the next professional development cycle.

**State action for education leadership project.** Continued involvement by private foundations concerned about education, together with professional organizations such as the CCSSO created impetus for continued focus on school leaders' practices. A 3 year grant initiated by the Wallace Foundation in 2001 was provided to the State Action

for Education Leadership Project (SAELP), a national consortium led by the CCSSO to spur interest by states in creating policy to support effective school leadership. Grants were provided to 15 selected states as incentive to lead national action in developing education leadership policy. Grants were extended based on demonstrated progress in the six areas of focus which included education and professional learning of school leaders (The Wallace Foundation, n.d.). At the inception of SAELP, each state had different policies and programs in place, therefore each state used the SAELP funds in a different way.

Connecticut, a SAELP grant state, was active in addressing education issues in the 1980s through The Education Enhancement Act and companion legislation, which focused on ensuring teacher quality. In 1999 Connecticut approved standards for school leaders, with The Connecticut Administrator Test (CAT) required for certification in 2001. A list of SAELP accomplishments by Connecticut Department of Education (2004) included several that addressed professional development for school leaders: development of statewide School Leader Evaluation and Professional Development Guidelines, survey of school leader induction programs, and the Connecticut Urban Leadership Academy.

Connecticut also received SAELP II funds which were used for three SAELP Breakthrough Ideas that focused on distributed leadership, formalized induction for school improvement, and continuous professional development and capacity building for school improvement (Connecticut Department of Education, 2004). The list of statewide leader development strategies of the professional development breakthrough idea (Connecticut Department of Education, 2004, pp. 67-68) included examination of and

proposal of changes to certification laws and regulations, developing LEAD Urban District Networks to share ‘lessons learned’ and best practices, and establishing a web based ‘clearing house’ providing information about professional development offerings so administrators could plan their professional development.

SAELP funds allocated to Illinois in 2005 resulted in Public Act 094-1039 intended to address the entire career span of principals, from aspiring to practicing principals. According to the Illinois State Board of Education (2011), this legislation included recognition of teacher leadership status, required mentoring for novice principals, and created the Illinois Distinguished Principal Leadership Institute for master principal training and recognition.

According to the Illinois State Board of Education (2011) additional SAELP funds for Illinois in 2006 focused leadership training, a study of school climate to assess working conditions for principals, team based professional development, including addition of a School Administrative Manager, and development of outcomes based standards for principals. The final round of SAELP funds again focused on aspects of principal preparation.

A third SAELP granted state, Delaware created an extensive, cohesive leadership system that is nationally recognized. Since first receiving the funds in 2001, Delaware has adapted the ISLLC standards as Delaware School Leadership Standards, the foundation for Delaware’s Cohesive Leadership System. According to information from the Delaware Department of Education (2011), the system includes a three tiered licensing system and a mandatory 3 year mentoring program for all educators.

The Vision 2015 Executive Leadership Academy document chronicled the intensive research based, collaborative work of school and role alike teams over four sessions. Participants developed common understandings of “best practice” concepts and effective leadership behaviors based on international case studies and on leadership and effective school research. Information from the Delaware Department of Education (2011) also listed shadowing of principals, collegial dialogue, and reflection on practice as methods also used to investigate issues related to roles, responsibilities and time use, in advance of formulating strategies and plans for implementation of effective practices in their schools.

**District provided professional development.** While some states mandated specific professional development for school principals, some districts took the lead in creating in-depth professional development programs for their educators. One district that created an extensive, highly cohesive mandatory professional development system for school leaders is Community School District 2 in New York City. Fink and Resnick reported that under the leadership of superintendent Elaine Fink, District 2 made strides in school improvement efforts for more than a decade, in part through professional development for principals initiated by Fink.

The central construct of the district wide professional development program created and enacted by Fink is nested learning communities. The communities configured the district as a learning organization with a dominant culture of learning for everyone, regardless of position or experience. The ‘intellectual glue’ of the district was shared theories of learning and instruction that were under continuous scrutiny, inquiry, and development (Fink & Resnick, 2001, p. 601).

Principals' professional development embodied an apprenticeship model in which learning occurred in a variety of settings and was directly focused on the needs and goals of individual schools and principals. The nested learning communities included four types of support: principals' conferences and institutes; principals' support groups and study groups; peer learning in communities of practice; and individual coaching. Fink and Resnick (2001) reported that all principals were expected to engage in almost every aspect of the nested learning communities every year.

Principals' conferences and institutes involved monthly day long conferences which focused on issues of teaching and learning. Beginning of the year meetings focused on school test data as a guide to identifying needs and determining goals for the district. The conferences were central to developing a District 2 'point of view' regarding subject content, expectations, and high quality professional practices. Fink and Resnick (2001, p. 601) reported that the conferences were viewed as important, but insufficient to support continuous development of principals' knowledge and skills regarding instruction. Principals were also expected to attend institutes and seminars with teachers, most often available through external providers, to continuously increase and update their instructional knowledge and repertoire.

The second learning venue in District 2 was support groups and study groups for principals. Problem sharing was central to the content of the support groups for new principals, which were facilitated by a deputy superintendent. The deputy superintendent modeled problem sharing and solving, and guided the new principals through examination of the problems in their schools in relationship to their leadership behaviors. A second set of support groups was for principals of schools with the largest at risk

student populations. The support groups were led by the superintendent, who included observation information garnered through her frequent school visits as part of the discussion of successes and problems in the schools. Principals' study groups was a third type of professional development group in District 2. According to Fink and Resnick (2001, p. 602-603), these groups were led by a deputy superintendent or a peer and centered on a specific topic or problem of practice chosen in advance of the meeting, most often focused on leadership to foster implementation of effective instructional practices.

The third type of professional development support in District 2 was peer learning through communities of practice which included intervisitation and buddying. The first aspect of learning in the principals' communities of practice, intervisitation, was a cornerstone of peer learning in the district. Intervisitation, an example of supported professional development in a professional learning community, involved principals' visitation of one another's schools to observe classes, sit in on staff meetings, and analyze specific instructional practices. The principal of the visitation school might also visit the guest principal's school to gain information for suggestions and continued dialogue. Fink and Resnick (2001, p. 602) reported that buddying was an informal process in which two or three principals met together frequently to discuss and problem solve regarding problems of instructional practice and leadership issues.

The fourth avenue of support for principals in District 2 was individual coaching. Individual coaching, mirroring the apprenticeship model, embedded learning within daily practice. Coaching by the district administration focused on the principals' creation of goals and objectives for themselves and their schools; creation and defense of an annual

budget; examination of instructional practices; analysis of individual student data; and mentoring by a successful principal when needed. An annual supervisory walk through by the superintendent and deputy superintendents together with the school principal exemplified the on-going, integrated system of support and evaluation in District 2. The walk through included: analysis of data, observation in every classroom, discussion of observations, and formulation of goals for the school and principal. Although Fink and Resnick (2001, p. 603-606) considered this the most formal support process, the walk through encapsulated the district's intense, singular focus on teaching and learning.

The professional development system for principals in District 2 exemplified an extensive district level support system. Some principals access professional development through networks that are not state or district specific, but may occur through professional organizations, institutions of higher learning, independent organizations, or through national reform programs.

#### **Professional development through professional organizations and networks.**

The Principals' Leadership Network, founded in 2000 through the joint efforts of the National Association of Elementary School Principals (NAESP) and the Principals Leadership Network (PLN) at the Education Alliance at Brown University, created a network for principals in a region of Massachusetts. Newby (2004) reported that the Merrimack Network's planned focus was on identification and delineation of coherent, exemplary leadership and instructional practices including: high expectations for all students, state aligned curriculum, formative use of student data to inform instruction; and creation of a coherent K – 12 instructional plan .

One example of a research-based model of leadership networking to support and develop school leaders' knowledge, skills, and capacity by a private organization is The School Leaders Network (SLN). Founded in 2006, SLN was an outgrowth of a group of school principals who met in 2000 as thought partners for the United States Department of Education and the Rainwater Charitable Foundation about school leadership issues. The principals then served as the Principals' Leadership Network for 5 years. The SLN created school leaders networks nationally, providing facilitation, training, and development for school leaders within the context of action research methods and processes based on adult learning theory. SLN (n.d., a) has established networks nationwide, collaborates with districts and principal centers, and is an avenue for principal learning.

Many SLN principal schools have reported gains in student achievement. Student achievement results for 2009-2010 reported for SLN principal schools included: Massachusetts high schools average graduation rate of 83%; New York City SLN schools achieved higher than city average scores across all culture indicators; mean scale score gains in 2010 were positive in 100% of SLN K-8 schools in Rochester, New York; and San Antonio. Research data reported by SLN (n.d., c) indicated that SLN led schools increased math proficiency rates 74%, in comparison to a 65% gain in comparison schools.

A 2008 study of the effects of the SLN program model, by Dr. Sam Intrator of The Department of Education and Child Study at Smith College (SLN, n.d.c), found positive effects on leadership practices. According to Intrator (2008) ninety-four percent of the SLN leaders reported a positive impact on their work with teachers; 83% indicated

that SLN learning affected leadership practice in implementation of initiatives to improve teaching and learning, and 92% reported that SLN support helped them to create a shared vision for their school.

**Professional development through principal centers.** Principals' centers, which provide fee for service support, are also sources of networking, through temporary peer learning communities, used by some school leaders. Four examples of principals' centers include: The Principals' Center at Harvard University, The Connecticut Principals' Center, The Colorado Principals' Center, and the Midwest Principals Center.

The Principals' Center at the Harvard Graduate School of Education provides intensive summer leadership institutes that create opportunities for principals to collaborate about issues of practice (Harvard, 2011). The Connecticut Principals' Center provides summer institutes and programs which focus on career span professional development issues, from aspiring principals to principals with extensive experience (Connecticut Principals' Center, 2011). The Colorado Principals' Center provides single and multi-day workshops, learning networks, and school visitation (Colorado Principals' Center, 2011). And the Midwest Principals' Center (2011), together with district partner, provides workshops and other professional development services to school leaders in the Chicago and Midwest region of the country.

### **Rationale for Quantitative Research Method**

This study seeks to determine if a relationship exists between principals' primary methods of professional development for their own learning and their leadership practices as measured by the PIMRS (Hallinger, 1990b). Seeking to determine whether how principals learn is connected to their leadership practices requires use and application of

research methods that identify patterns through assessment or measurement of specific behaviors, abilities, or practices. According to Creswell (2005), quantitative research has three primary characteristics: collecting and analyzing numeric data, measurement of distinct attributes, and procedures of relating factors about groups of people in surveys (p. 41). Morrison (2002) emphasized that a positivist approach to educational research uses the scientific method, including the application of quantitative research processes. Key features of the positivist tradition cited by Morrison (2002) included: people are the objects of educational research, only verifiable information that is independent of the observer may be considered as data, theories are clearly defined because they are based on empirical confirmatory data, human behaviors and attributes can be considered as variables, and predictions of similar relationships among the same variables may be made in the future when they are present in similar circumstances.

In order to determine if a difference exists between the leadership practices of principals who use supported professional development for their own learning and the leadership practices of principals who use unsupported professional development, it is necessary to specifically and clearly identify each aspects of what is being investigated, as well as to use precise methods of measurement and analysis. Creswell (2005) identified characteristics of quantitative methods related to each step in the process of research. In a quantitative study, the research problem is clearly described and explained. Review of the literature has high value in justification for the research problem and for the need for the study. The purpose of a quantitative study is very clearly and specifically defined, focused on facts and data. Data collection occurs from a large number of participants using clear precise instruments that provide numeric data. Data analysis and

interpretation follow scientific methods for analysis of significance, interpretation of trends or relationships among variables, and comparison with data from previous studies or from predictions. And, the final step of the research process, reporting and evaluating research, occurs in an objective, fact-based manner, free of interpretation, bias, or speculation.

Hallinger (2011a) reviewed 3 decades' use of the PIMRS in doctoral research. Hallinger's review of research used critical synthesis to reveal and analyze trends in the set of 130 doctoral studies. He subjected the data to further analysis using the Mantel-Haenszel test, an analysis of differences between variables (p. 279). Hallinger's analysis found that of four conceptual models, 65 of 130 studies used an antecedent-effects model, in which the effects of personal or organizational variables on leadership practices were studied. Although administrative preparation for the principalship was listed as a variable, methods of professional development of principals was not included among the studies analyzed. Hallinger included antecedent-effects studies among those he categorized as "weak two-factor conceptual models" (Hallinger, 2011a, p. 286). His negative characterization of these studies was based, in part, to their use in an atheoretical manner, which lacked connections to possible theoretical implications of the results. While using a two-factor conceptual model of antecedent effects, this study rests on theoretical concepts of effective learning theory and of effective professional development concepts, and analyzed leadership practices data in relationship to effective professional development.

### **Summary**

Accountability for positive school and student outcomes rests directly on school leaders (Marks & Printy, 2003). As principals' roles and responsibilities continue to expand and change, principals need effective professional development to enact leadership that builds capacity in their staff and school in order to improve teaching and learning. Section 3 addresses the research method used for the study.

### Section 3: Research Method

In this quantitative study using a cross-sectional survey design, I sought to determine if a difference exists between the self-reported leadership behaviors of principals who use supported professional development as the primary means of their own learning and the self-reported leadership behaviors of principals who use unsupported professional development. In this section I review the research design and approach, the setting and sample instrumentation and materials, data collection and analysis, the research questions and related hypotheses, procedures used to protect participants, and the role of the researcher.

#### **Research Design and Approach**

A comparative cross-section survey design was used to test the three research questions. The intent of this study was to attempt to identify if differences exist between the instructional leadership behaviors of principals who use supported professional development as the primary method for their own learning and the instructional leadership behaviors of principals who use unsupported professional development. The independent variable was the primary method of professional development identified by school principals that is used for their own learning. The dependent variable was the self-reported instructional leadership behaviors of principals as measured by the three domains of the Principal Instructional Management Rating Scale (Hallinger, 1990b; Appendix B).

Surveys are an effective and relatively quick way of measuring perceptions at a given point in time for a large number of people (Creswell, 2005). Using surveys is a very common way to gather a wide range of nonexperimental data about a population

which permits comparison of data between two groups within a population (McMillan, 2004). However, using a survey also has some disadvantages. One disadvantage is that the use of surveys does not provide information that allows cause and effect explanations of data (Creswell, 2005). A second disadvantage is the potential for a low response rate (Creswell, 2005; Gay, Mills, & Airasian, 2009). A low response rate may result in sample bias in which some members or groups within the general population are under reported or unreported because volunteer respondents and nonrespondents may differ in important ways (Creswell, 2005; McMillan, 2004).

One survey question was used to obtain information about the primary method of professional development used by participants for their own learning (Appendix A). Leadership practices were measured by the PIMRS (Hallinger, 1990b). The PIMRS has been used for nearly 30 years as a survey tool to study principals' perceived leadership practices (Gieselmann, 2009; O'Donnell & White, 2005; Pavan & Reid, 1991), which is the focus of this study.

### **Setting and Sample**

This study used a nonprobability sampling method. A nonprobability sampling method provides economy of time and expense in carrying out the study. In addition, nonprobability sampling has advantages of improving the response rate over a random sample method and ease in administering the survey to participants (McMillan, 2004). However, nonprobability sampling has the disadvantage of being less representative of the entire population, making it more difficult to accurately describe the population or to generalize the results beyond the population that was surveyed (Fogelman as cited in Coleman & Briggs, 2002; Gay, Milles, & Airasian., 2009; McMillan, 2004).

Participants were obtained from a pool of currently practicing principals of elementary and secondary schools in the United States who were identified through purchased lists from public information, principals who are part of the School Leaders' Network, and principals who were members of the National Staff Development Council's Academy classes of 2010 and 2011 who volunteered to be potential participants in the study. In addition, the sample was delimited to participants who have been principals in their current schools for 2 years or longer.

According to the *Occupational Outlook Handbook 2010-11* (US Department of Labor, 2010), 230,600 elementary and secondary school administrators were employed nationally in 2008. This population size was used to calculate sample size using a sample size calculator (Custominsight, n.d.; Raosoft, n.d.) For a population of 230,600, the appropriate sample size for this study was calculated as 384 participants, at a 95% confidence level (Custominsight, n.d.; Raosoft, n.d.). A purchased list of more than 80,000 potential participants gathered from public information was used to invite principals to participate in the survey. In addition, SLN provided a list of some principals in their network, and a number of LF principals volunteered to be potential participants in the study. A list of approximately 100 additional potential participants was obtained through the public information area of the NAESP website. A smaller number of responses than the recommended sample size would lower the validity and decrease the level of significance of the study results. Advice was solicited from my committee members due to a slow and low response rate.

Principals who met the criteria of being currently practicing principals of elementary or secondary schools in the United States and who have been principals in

their current schools for 2 years or longer were eligible to participate in the study.

Participants who are not currently practicing principals in the United States or who have not been principals in their current schools for 2 years or longer were informed in the letter of invitation that they are not eligible to participate. Although demographic data were not collected since the research questions did not include that information, it was a limitation of the study. Since I used an Internet administered survey that was completely anonymous, it was necessary for me to rely on the honesty of the respondents regarding their eligibility to participate in the study.

### **Instrumentation and Materials**

A questionnaire was used to obtain information about the primary method of professional development used by principals for their own learning and about their leadership practices. In this section, information about the development of the PIMRS, as well as its validity and use in measuring concepts of leadership practice, are provided. Detailed information about the format of the questionnaire and how participants complete the survey are also included in this section. Scoring of the PIMRS and recommendations for interpretation of the results are also addressed.

#### **Survey Question Regarding Professional Development**

I created a survey question about the methods of professional development used by principals (Appendix A). The information sought was limited to the type of professional development used by participants as the primary means of their own learning. There were two categories of principals' professional development, supported and unsupported. Supported professional development included those methods that align with effective learning theory and effective professional development, as discussed in

Section 2 and defined in Section 1. Supported professional development methods included facilitated, on-going focus on the principal's own practice using a formal inquiry and reflection process (such as within a principals' PLC/network or with a trained mentor/coach) as defined in Section 1.

Unsupported professional development included methods that do not align with effective learning theory and effective professional development, as discussed in section 2. Unsupported professional development methods included: learning information focused on educational topics and practices through avenues such as attending seminars, conferences, administrative team meetings, and/or book study with colleagues, as defined in section 1.

### **Principal Instructional Management Rating Scale**

Hallinger (1990b) included the option of using or not using Part I of the PIMRS, which collects demographic information about participants. Since demographic questions are not relevant to this study, I did not include Part I of the PIMRS in the survey. The PIMRS (Appendix B) is the second part of the survey that was used in this study. The PIMRS is a 50 question survey based on a conceptual framework of principal leadership behaviors developed by Hallinger in 1982 and revised in 1990 (Hallinger, 2011a). According to Hallinger (2003), prior to the creation of the PIMRS, no instrument existed that measured principal leadership behaviors. The instrument was first validated in 1983 and, according to Hallinger, subsequent doctoral studies have validated the instrument's face validity, content validity, and discriminant validity (Hallinger, 2011a)). Some researchers in the field consider the PIMRS the most researched instrument for measuring leadership behaviors of school principals (Leithwood, Louis, Anderson, & Wahlstrom,

2004). Leithwood's (2006) comparison of the framework categories of the PIMRS, ISLLC standards, and 70 studies during the past 4 decades on which a meta-analysis was conducted by Waters, Marzano, and McNulty (2003) provided confirmation that the conceptual framework of the PIMRS remains a relevant framework of principals' leadership practices. Hallinger (2011a) reported that the PIMRS has been used in 130 doctoral dissertations over the past 3 decades and that a number of the dissertations have revalidated the PIMRS as a measure of instructional leadership.

The conceptual framework of the PIMRS was developed based on three dimensions of the school leader's role: defining the school's mission, managing the instructional program, and promoting a positive school learning climate (Hallinger, 2011a). The original form of the instrument had 11 subscales with 72 items that used a Likert type 5 point scale. The revised scale resulted in a 10 subscale instrument that included 50 items, with 5 items per subscale, using a Likert-type 5 point response scale (Hallinger, 2011a). There are three parallel forms of the PIMRS, one each for teachers, principals, and supervisors of principals (Hallinger, 2011a). Hallinger (1990a) identified the 10 subscales in the principal questionnaire as: frame the school goals, communicate the school goals, supervise and evaluate instruction, coordinate the curriculum, monitor student progress, protect instructional time, maintain high visibility, provide incentives for teachers, promote professional development, and provide incentives for learning.

The PIMRS is a behaviorally anchored rating scale (BARS), as defined by Latham and Wexley (cited in Hallinger, 1990b, p. 10). Hallinger used the standards for BARS development in the identification of specific performance expectations and behaviors that were clearly and specifically defined, such that both a supervisor and

employee would agree upon their meaning. However, in deference to extant literature's identification of effective principals' behavior as differing from the norm of the general population of principals, Hallinger (1990b, p. 14) reported that he only used the standards and not the BARS methodology.

Hallinger (1990b) reviewed the five steps he used to develop the PIMRS. Based on his review of extant effective schools research, 11 leadership job functions of school principals as instructional managers emerged. Second, he solicited opinions of leadership practitioners at both the district and school levels to create a list of specific behaviors within each job function category. Third, Hallinger supplemented the list of critical behaviors, at times using additional research information. Fourth, each behavior was rewritten so it addressed a single, easily identified behavior, which resulted in a list of 89 critical behaviors. And finally, each behavior statement was rewritten so it fit a uniform sentence stem and had a 1 to 5 response scale. Hallinger (1990b) reported that in his study, the three role groups who completed the questionnaire were: teachers (teacher's form,  $n = 104$ ), elementary school principals (principal's form,  $n = 10$ ), and district level supervisors (supervisor's form,  $n = 3$ ).

Hallinger used five criteria to judge the PIMRS: content validity (with a minimum average agreement of .80 among raters), reliability (subscales reliability coefficient of at least .80 for internal consistency, discriminant validity (variance in principal rating within schools less than between schools), construct validity (subscale items inter-correlate more strongly to one another than to other items), and construct validity (school documents validate principals' job functions and behaviors).

Data from the teachers' group were used to assess the reliability and validity of the PIMRS (Hallinger, 1990b). Hallinger reported that he used to judge the PIMRS: content validity, reliability, discriminant validity, and two forms of construct validity (subscale inter-correlation and documentary support).

Content validity for the 11 categories of job functions ranged from a low of 80% for the subscale professional development to a high of 100% for the subscale incentives for teachers using Cronbach's test of internal consistency of agreement among judges (Hallinger, 1990b; 2011a). According to Hallinger, subsequent studies have often used Ebel's test for determining interrater reliability, which is considered a more reliable measure test of reliability of scores from a set of schools where respondents within schools rated a feature of the school (Hallinger, 2011a).

In Hallinger's original validation study, reliability of the identified behavior ranged from a low of .78 on incentives for teachers, to .90 on three job dimensions: supervision/evaluation, curricular coordination, and monitoring student progress (Hallinger, 1990b). Discriminant validity, the accuracy of the subscales' content to the behaviors in a particular category, was assessed through a one-way analysis of variance. Nine of the eleven subscales were statistically significant at the .05 level or less, with the subscales of professional development and academic standards not achieving a level of significance (Hallinger, 1990b).

Construct validity, comparison of the intercorrelation between each pair of subscales with each subscale's reliability coefficient, was based on the data from 104 teachers. All intercorrelation coefficients were statistically significant at the  $p = .01$  level (Hallinger, 1990b). Construct validity was further investigated through document

analysis comparison with each subscale against principal ratings by teachers on the subscales. Results indicated strong documentary evidence in relationship to five of the six selected subscales, and Hallinger determined that the document analysis ‘generally supported the construct validity of those subscales’ (p. 13).

Overall results of the appraisal across the five criteria used to assess the reliability and validity of the PIMRS reported by Hallinger (1990b) verified that the instrument is an appropriate measure of the critical behavioral elements of the school principals’ instructional management role.

The conceptual framework of the PIMRS is divided into three dimensions of the school leader’s role. The three dimensions are further delineated by job functions, which constitute the subscales of the instrument (Hallinger, 1990b). The framework of the PIMRS is presented in the following Table:

Table 1

*Domains and Subscales of the Principal Instructional Management Rating Scale*

<i>Domain/Dimension of a Principal’s Role</i>	<i>Subscales (Functions) Within Domain</i>
Defining the School’s Mission	Framing the School’s Goals Communicating the School’s Goals
Managing the Instructional Program	Supervising and Evaluating Instruction Coordinating the Curriculum Monitoring Student Progress
Promoting a Positive School Learning Climate	Protecting Instructional Time Promoting Professional Development Maintaining High Visibility Providing Incentives for Teachers Providing Incentives for Learning

The goal of this study was to determine if there is a difference between the leadership practices of principals who use supported professional development and the leadership practices of principals who use unsupported professional development, as measured by the PIMRS (Hallinger, 1990b). Each domain includes subscales, each of which contains five questions. Every question is formatted to begin with the same sentence stem. For example, in the survey subcategory of *frame the school goals*, question 1 is: To what extent do you develop a focused set of annual school-wide goals? Question 2 is: To what extent do you frame the school's goals in terms of staff responsibilities for meeting them? (p. 2). Response options are formatted in a five point Likert type scale from 1, signifying 'almost never,' to "5" signifying "almost always" (Hallinger, 1990b).

A partial example of the subscale "Frame the School Goals" follows. The complete PIMRS is located in Appendix B.

**To what extent do you . . . ?**

	ALMOST NEVER					ALMOST ALWAYS
<b>I. FRAME THE SCHOOL GOALS</b>						
1. Develop a focused set of annual school-wide goals	1	2	3	4	5	
2. Frame the school's goals in terms of staff responsibilities for meeting them	1	2	3	4	5	
3. Use needs assessment or other formal and informal methods to secure staff input on goal development	1	2	3	4	5	

Scoring directions by Hallinger (1990a) stated that several methods of scoring may be used, depending on the way the assessment is being used. For example one may compute item averages, item distributions, subscale averages and subscale distributions

(Hallinger, 1990a). Computation of averages is obtained through averaging the scores of the item or subscale for each group of respondents (Hallinger, 1990a). Distribution scores are also obtained in a straightforward manner by recording the frequency of each response, from 1 to 5 (Hallinger, 1990a).

Hallinger (1990a) recommended that scores are viewed as reflective of the degree of instructional leadership being provided by a school principal rather than a measure of the principal's effectiveness. Hallinger (1990a) noted that even though higher scores indicate greater activity, they do not necessarily indicate greater effectiveness since school and district factors may mitigate the importance of any school leadership activities.

### **Data Collection**

A letter of invitation to participate in the study, together with a link to the study location on SurveyMonkey, was emailed to potential participants. The survey questionnaire, which included a professional development methods question (Appendix A) and the 50 question survey about instructional leadership behaviors, Part II of the PIMRS (Appendix B), was accessible to all potential participants on the SurveyMonkey site within a single time frame. The letter of invitation (Appendix D) included an option to request a paper survey together with a self-addressed stamped envelope. My contact information was included in the letter of invitation to potential participants in the event that they wished to seek clarification about procedures to complete the survey or who wanted additional information about the study itself.

E-mailed survey distribution and data collection through a web-based survey tool has advantages and disadvantages. Advantages of this method include contact with a large number of potential participants in a speedy and economical manner and assurance

of anonymity of participants since identifying information is not gathered from respondents (Creswell, 2005; Gay, Mills, & Airasian, 2009). In addition, data are easily downloaded into statistical programs, and options to view data in graph or table form are available (Gay et al., 2009). Disadvantages of web-based survey tools may include difficulties with obtaining email addresses, participants' access to computers, participants' lack of ease with using technology and lack of interest in completing an on-line assessment, lower response rates than face to face data collection methods, and the possibility of response sets in completing the survey (Creswell, 2005; Gay et al., 2009; McMillan, 2004).

A modification of the follow-up sequence, as recommended by Creswell (1994) was used. Since there was an abundance of potential participants who received an initial email invitation at some point during the first six weeks of the study, the follow-up sequence included a single additional contact to a sample of potential participants. The follow-up contact consisted of resending the initial e-mail together with the SurveyMonkey link to the questionnaire to a sample of potential participants at 6 weeks following the initial contact. The survey link was closed during the 7<sup>th</sup> week of the study, therefore potential participants who received the invitation to participate but do not complete the survey within 7 weeks of the initial contact were not able to participate in the study.

### **Data Analysis**

The PIMRS includes a cover page, a two part questionnaire of demographic information and instructional leadership behaviors, and a final page of information about the survey's author and how the survey was developed. Part I of the questionnaire, which

collects demographic information not relevant to this study, was not used. Part II of the PIMRS is the 50 question survey about instructional leadership behaviors, which takes approximately 5 to 10 minutes to complete. All responses were accepted, however only full data sets were used for the data analysis. Wave analysis, sometimes used to check for response bias, was not needed since fresh invitations were sent to potential participants on a daily basis. All responses completed with integrity to the content and intent of the survey were considered for inclusion in the study.

The data derived from the questionnaire that includes information about the primary method of professional development used by principals for their own learning and the PIMRS, Principal Form 2.0 (Hallinger, 1990b) were analyzed using descriptive and inferential statistics from the Statistical Package for the Social Sciences 20.0 (SPSS, 2010). Descriptive statistics included the mean, standard deviation, variance, and distribution of each leadership domain. The *t*-test was used to obtain group comparison scores between participants who use supported or unsupported professional development, as determined by their primary method of professional development used for their own learning (part 1 of the survey).

The PIMRS is a 50 item questionnaire that surveys the leadership practices of school principals on 10 job functions. Data analysis used descriptive and inferential statistics to answer research questions. The mean scores of principals who reported using supported and unsupported professional development was calculated and compared through the independent samples *t* test of the groups' scores for each research question. Group scores used to calculate the *t* values included sample means, group variances, and the sample size (Creswell, 2005; Gay, Mills, & Airasian, 2009; McMillan, 2004). A *p*

value of  $p < .05$  was used with the  $t$  value to calculate the level of significance to determine whether to accept or reject the null hypothesis for each research question.

### **Research Questions and Related Hypotheses**

1. Is there a significant difference between the self-reported instructional leadership behaviors of principals who use supported professional development as the primary method for their own learning and the self-reported instructional leadership behaviors of principals who use unsupported professional development in the leadership domain *defining the school's mission*?
2. Is there a significant difference between the self-reported instructional leadership behaviors of principals who use supported professional development as the primary method for their own learning and the self-reported instructional leadership behaviors of principals who use unsupported professional development in the leadership domain *managing the instructional program*?
3. Is there a significant difference between the self-reported instructional leadership behaviors of principals who use supported professional development as the primary method for their own learning and the self-reported instructional leadership behaviors of principals who use unsupported professional development in the leadership domain *promoting a positive school learning climate*?

I hypothesized that a statistically significant difference does exist between the instructional leadership practices of principals who use supported professional development and the instructional leadership practices of principals who use unsupported professional development as measured by the leadership domains of the PIMRS.

### **Ethical Considerations**

I made very intentional and specific efforts to ensure the rights and well-being of people as participants in this study were upheld and protected. The study was proposed and conducted with high regard and consideration of the issues of respect for persons, beneficence, and justice, in accordance with 45 CFR 46 of the Code of Federal Regulations.

Respect for persons includes clear disclosure to potential participants of: the purpose and procedures of the study, potential risks and benefits of being in the study, participants' rights, explanation of security measures used for the study, contact information to the researcher and associated institution, how to obtain an alternative study protocol, opportunities to ask questions, and the opportunity to discontinue and withdraw from the study at any time without negative consequences. This information was communicated to participants in the letter of invitation to participate in the study. Contact information to both the Walden University representative and me was provided to prospective participants to address questions or concerns that may have arisen at any time. Due to the on-line method of communication with potential participants, participation in the study, and data collection, affirmative response to the consent question together with the act of completion and return of the study was deemed as signifying informed consent of participants.

Respect for persons rests on the understanding that all potential participants are autonomous agents. Questions, concerns, and interests of all participants are important ethical considerations of the study. Beneficence, care and concern about potential or anticipated harm and benefits to participants were addressed in several ways. These

included the nature and purpose of the study, issues of confidentiality during and after completion of the study, and the handling and storage of all study data.

The purpose of this study was to determine if differences exist in the leadership practices of school principals who use supported professional development as their primary method for their own learning and the leadership practices of principals who use unsupported professional development. The intent of the study was to gain information that may be helpful to school principals about the methods they use in the acquisition of skills, knowledge, and capacities.

This cross-sectional survey study requires one single activity of participants, which was to complete the on-line survey. Therefore, one potential source of discomfort for participants lay in self-reflection and answering questions about their leadership practices. Completing the 51 question survey was estimated to take about 5-10 minutes of time, which may have caused temporary inconvenience to participants regarding their time use.

Participation in the survey was anonymous. The survey distribution and data collection was done through SurveyMonkey, a web-based survey tool and service (<http://surveymonkey.com>). Although I knew the e-mail addresses of potential participants, participants did not meet me or have direct contact with me, unless they chose to convey comments about the study, about their noneligibility to participate in the study or completion of it, or conveyed well wishes regarding the study. To complete the survey, participants connected to an on-line link to the survey, with responses collected through the link. SurveyMonkey, which does not enable or store cookies on participants' computers, therefore participation in the study was not recorded on participants'

computers. Individual responses were separated from e-mail addresses by SurveyMonkey. I assigned a numeric code to each survey upon its receipt. Therefore names or any identifying information were not collected and were not used in reporting the results of the study. Study data were coded and will be kept in a locked cabinet for a period of 6 years. The key to the code will also be kept in a secured cabinet for 6 years, but will be in a separate location from the data.

A single brief follow-up e-mail was sent to a sample of potential participants that included both a *thank you* for your participation message for those who had already completed the survey and a reminder/request prompt to complete the survey for those who intend to participate but had not yet completed the survey.

The third aspect of ethical considerations to protect human research participants is justice, fair, and equitable treatment for the burden and benefits of this study. According to the *Occupational Outlook Handbook* 2010-11 (US Department of Labor, 2010), 230,600 school principals were employed in the United States in 2008. Based on accepted sample size calculations, 384 participants were needed for this study to represent the population of principals in the United States. However, invitations to participate were sent to more than 7,000 potential participants across the United States. All surveys that were completed and returned within the study timeframe were accepted for the study.

Contact information about potential participants was obtained through a purchased list gathered through public information, from an e-mail address of a portion of SLN members, and from email addresses provided by National Staff Development Council Academy class members of 2010 and 2011 who volunteered to be potential

participants in the study. It is anticipated that results of this study will be openly accessible through a dissertation database, therefore the information acquired through this study will be widely accessible to those who are interested in the information. Potential benefits of the study will be for the entire population of principals, school leaders, or others in education who are interested in knowing if differences exist in leadership practices of school principals who use supported or unsupported professional development as the primary method of professional development for their own learning.

### **Role of the Researcher**

I used a self-administered, cross-sectional questionnaire accessed through SurveyMonkey to provide anonymity to participants throughout the study. Anonymity of participants eliminated potential researcher bias, interference, or distortion in survey administration, data collection, and data analysis. I provided contact information to potential participants in the letter of invitation for the study so potential participants could contact me if they had questions or concerns about the study.

### **Summary**

In summary, this quantitative study using a cross-sectional survey design was based on descriptive and inferential statistical analysis of the potential differences between the leadership practices of principals who use supported professional development as the primary method for their own learning and the leadership practices of principals who use unsupported professional development as the primary method for their own learning.

Data were gathered by an online survey through the SurveyMonkey website. Section 3 described the research design; population and sample; instrumentation; data

collection and analysis; protection of participants' rights; and the role of the researcher for this study. Data about professional development methods used by principals for their own learning were gathered through one survey question, while data about leadership behaviors were gathered through self-reported responses to the 50 item PIMRS Likert-type survey.

For this study, school principals were defined as the primary administrative leaders of schools in the United States who voluntarily participated in the study. The population in this study was also limited to principals who have been the principal in their current school for a term of 2 years or longer.

Section 4 presents the results of the research data. Section 5 includes discussion of the results of the study, conclusions, and recommendations for future study and research.

#### Section 4: Data Analysis

The purpose of this section is to present the analysis of the data collected in this study which investigated whether differences exist in the leadership practices of school principals who use supported or unsupported methods of professional development for their own learning, as measured by the PIMRS (Hallinger, 1990b). Three research questions guided this study:

1. Is there a significant difference between the self-reported instructional leadership behaviors of principals who use supported professional development as the primary method for their own learning and the self-reported instructional leadership behaviors of principals who use unsupported professional development in the leadership domain *defining the school's mission*?
2. Is there a significant difference between the self-reported instructional leadership behaviors of principals who use supported professional development as the primary method for their own learning and the self-reported instructional leadership behaviors of principals who use unsupported professional development in the leadership domain *managing the instructional program*?
3. Is there a significant difference between the self-reported instructional leadership behaviors of principals who use supported professional development as the primary method for their own learning and the self-reported instructional leadership behaviors of principals who use

unsupported professional development in the leadership domain  
*promoting a positive school learning climate?*

This section is divided into four parts. Information about the research method and tools used for the study is presented in part one. The data analysis is presented in part two. Findings of the data analysis are presented in part three. And a summary of the findings is presented in part four.

### **Research Method and Tools**

This study used a comparative cross-section survey design. The survey was distributed by an emailed letter of invitation with an embedded link to SurveyMonkey, an independent survey service, to access the survey. Data were collected for seven weeks. Potential participants were selected from a purchased list of more than 80,000 school principals nationwide, organized by state, and which also included Washington, the District of Columbia. In addition, the School Leaders' Network, a community partner in this study, also provided email addresses for approximately half of the 250 principals in their network.

I sent invitations to participate in the study as blind emails to groups of principals in a completely random selection from a variety of states. When I used this method, many emails were identified as spam or greylisted and blocked. I received fewer blocks by sending each email to a few principals within a single state, using addresses attached to only one or two internet servers per email, and by reducing the number of individuals in the distribution list to less than 10 per email.

I sent emails to principals in each state on a continuous alphabetical rotation by state name, including Washington, the District of Columbia to assure relatively equal

national distribution. I sent an invitation to participate in the study to a total of more than 7,000 principals across the country. The School Leaders' Network principals, who were among those who received invitations ( $n = 97$ ), were located in three states: California, Massachusetts, and Texas.

The primary method of professional development used by principals for their own learning was measured by a question in which principals chose between two mutually exclusive responses (Appendix A). One response, "Facilitated, on-going focus on my leadership practices using a formal inquiry and reflection process (such as within a principals' PLC/network or with a trained mentor/coach)" was designated as *supported professional development*. The other response, "Learning information focused on educational topics and practices (such as attending seminars, conferences, administrative team meetings, and/or book study with colleagues)" was designated as *unsupported professional development*.

The PIMRS (Hallinger, 1990b) was used as a tool for gathering information about the instructional leadership behaviors of school principals. Part II of the PIMRS, which uses self-report of the extent to which principals engage in specific leadership behaviors consists of 50 individual questions and uses a five point (1-5) Likert-type response format (Appendix B). Hallinger organized the 50 questions into ten subscales, with five questions in each subscale. In addition, Hallinger clustered the subscales into three leadership domains: defining the school's mission, managing the instructional program, and promoting a positive school learning climate Hallinger & Murphy, 1985).

The three research questions in this study focused on perceived leadership practices as measured by each of the three domains. Each of the three research questions

focused on one of the three leadership domains of the PIMRS. The scores obtained in each domain were calculated as a scaled variable mean score. The scaled variable mean scores for each domain were converted into Likert response means since the response options were in a 1 to 5 Likert type response format. Scores obtained in each domain were converted into a scaled variable score. The scaled variable mean scores were also converted into Likert response scale means.

### **Data Analysis**

An emailed letter of invitation was sent to 7,000 school principals nationwide. Due to the internet filters used by states and school districts, and to the anonymous methodology and format used for this study, it is not possible to know how many invitations reached the potential participants. In addition, since no demographic data were collected in the study, it is not possible to know how many invitations reached participants who did not meet the eligibility requirements of having been a principal at the school for 2 or more years. Although a total of 210 principals (3% of 7,000 invitations sent) responded, it is not possible to know an accurate response rate. Given the lack of full information about how many of the 7,000 invitations were actually received, I chose to use the 3% return rate, although the actual return rate could be higher.

This lack of information about how many potential participants actually received the invitation to participate in the study is a limitation of the study. In addition, the lack of information about how many principals received the invitation but did not meet the criteria to participate is a second limitation of the study. I used only the number of invitations sent and the number of responses received as the basis for my data analysis.

Of the 210 surveys, 24 were incomplete and did not provide adequate data for scoring, which yielded a total of 186 usable surveys. Two-thirds of the respondents ( $n = 124$ ) indicated that unsupported professional development was the primary method used for their own learning, while one-third of the respondents ( $n = 62$ ) indicated that supported professional development was the primary method used for their learning.

Descriptive and inferential statistics were calculated for each domain. Measures of central tendency and a two-tailed  $t$ -test were used to analyze data. An independent samples  $t$  test, two tailed, was used to evaluate whether statistically significant differences existed in each of the PIMRS leadership domains between the group of principals who indicated that they use supported professional development for their own learning and the group of principals who use unsupported professional development. A statistically significant difference was found in domain one ( $p = .02$ ), but differences in domain two ( $p = .173$ ) and in domain three ( $p = .228$ ) were not statistically significant at the alpha level  $p < .05$ .

However, to decrease the possibility of an inflated Type I error that can result from a family wise error across tests, the Bonferroni correction method was used. The Bonferroni correction method, recognized as a stringent criterion for determining significance, reduces the alpha value by dividing the chosen alpha value by the number of comparisons (Weisstein, n.d.). For this study, the corrected alpha value is  $p = .017$  ( $.05/3 = .017$ ). When corrected, a statistically significant difference was no longer obtained in domain one.

Domain one, defining the school's mission, included 10 questions in two subscales: subscale one (frame the school's goals) and subscale two (communicate the

school's goals). Possible scores in domain one ranged from 10 to 50. Scores for the domain ranged from 25 to 50.

Domain two, managing the instructional program, included 15 questions in three subscales: subscale three (supervise & evaluate instruction), subscale four (coordinate the curriculum) and subscale five (monitor student progress). Possible scores in domain two ranged from 15 to 75. Scores for the domain ranged from 38 to 75.

Domain three, promoting a positive school learning climate, included 25 questions in five subscales: subscale six (protect instructional time), subscale seven (maintain high visibility), subscale eight (provide incentives for teachers), subscale nine (promote professional development), and subscale ten (providing incentives for learning). Possible scores in this domain ranged from 25 to 125. Scores for domain three ranged from a low of 64 to a high of 125.

Table 2

*Comparison of Leadership Behaviors of Principals Who Use Supported or Unsupported Professional Development*

<i>Domain</i>	<i>N</i>	<i>M (SD)</i>	<i>Likert Scale Mean</i>	<i>t</i>	<i>df</i>	<i>p</i>
Defining the School's Mission						
Supported	62	43.08 (4.2)	4.31	2.36	148.53	.020*
Unsupported	124	41.41 (5.2)	4.14			
Managing the Instructional Program						
Supported	62	63.52 (7.6)	4.23	1.37	125.77	.173
Unsupported	124	61.89 (7.8)	4.13			
Promoting A Positive School Learning Climate						
Supported	62	101.15 (12.3)	4.05	1.21	119.18	.228
Unsupported	124	98.85 (11.9)	3.95			

*Note.* \*  $p < .05$ , two-tailed;  $p = .017$ , Bonferroni correction.

### Findings

Three research questions served as a basis for exploring the idea that differences in a principal's primary method of professional development for his or her own learning may be reflected in his or her leadership behaviors. Findings of the data analysis are reported by review of each question.

RQ1: Is there a significant difference between the self-reported instructional leadership behaviors of principals who use supported professional development as the primary method for their own learning and the self-reported instructional leadership

behaviors of principals who use unsupported professional development in the leadership domain *defining the school's mission*?

$H_{01}$ : There is not a statistically significant difference between the self-reported instructional leadership behaviors of principals who use supported professional development as the primary method for their own learning and the self-reported instructional leadership behaviors of principals who use unsupported professional development in the leadership domain *defining the school's mission*.

An independent-samples  $t$  test was conducted to evaluate the hypothesis,  $H_{01}$ , there is not a statistically significant difference in the self-reported instructional leadership behaviors of principals who use supported professional development and the self-reported instructional leadership behaviors of principals who use unsupported professional development in the leadership domain *defining the school's mission*. The test was significant,  $t(149) = 2.36, p = .02, 95\% \text{ CI } [0.27, 3.07]$ , therefore the null hypothesis,  $H_{01}$ , was rejected. However, when subjected to the Bonferroni correction, a conservative measure employed to avoid a Type I error, the data failed to obtain significance at the reduced alpha level of  $p = .017$ . Principals who use supported methods of professional development ( $M = 43.08, SD = 4.17$ ) reported engaging in the leadership behaviors of the PIMRS domain *defining the school's mission* more frequently than principals who use unsupported methods of professional development ( $M = 41.41, SD 5.22$ ).

RQ2: Is there a significant difference between the self-reported instructional leadership behaviors of principals who use supported professional development as the primary method for their own learning and the self-reported instructional leadership

behaviors of principals who use unsupported professional development in the leadership domain *managing the instructional program*?

$H_{02}$ : There is not a statistically significant difference between the self-reported instructional leadership behaviors of principals who use supported professional development as the primary method for their own learning and the self-reported instructional leadership behaviors of principals who use unsupported professional development in the leadership domain *managing the instructional program*.

An independent-samples  $t$  test was conducted to evaluate the hypothesis,  $H_{02}$ , there is not a statistically significant difference in the self-reported instructional leadership behaviors of principals who use supported professional development and the self-reported instructional leadership behaviors of principals who use unsupported professional development in the leadership domain *managing the instructional program*. The test was not significant,  $t(126) = 1.37, p = .17, 95\% \text{ CI } [-7.25, 3.98]$ , therefore I failed to reject the null hypothesis,  $H_{02}$ . No statistically significant difference was found between the self-reported leadership behaviors of principals who use supported methods of professional development ( $M = 63.52, SD = 7.56$ ) and principals who use unsupported methods of professional development ( $M = 61.89, SD = 7.82$ ) in the leadership behaviors of the PIMRS domain *managing the instructional program*.

RQ3: Is there a significant difference between the self-reported instructional leadership behaviors of principals who use supported professional development as the primary method for their own learning and the self-reported instructional leadership behaviors of principals who use unsupported professional development in the leadership domain *promoting a positive school learning climate*?

$H_{03}$ : There is not a statistically significant difference between the self-reported instructional leadership behaviors of principals who use supported professional development as the primary method for their own learning and the self-reported instructional leadership behaviors of principals who use unsupported professional development in the leadership domain *promoting a positive school learning climate*.

An independent-samples  $t$  test was conducted to evaluate the hypothesis,  $H_{03}$ , there is not a statistically significant difference in the self-reported instructional leadership behaviors of principals who use supported professional development and the self-reported instructional leadership behaviors of principals who use unsupported professional development in the leadership domain *promoting a positive school learning climate*. The test was not significant,  $t(119) = 1.21, p = .23, 95\% \text{ CI } [-1.45, 6.03]$ , therefore I failed to reject the null hypothesis,  $H_{03}$ . No statistically significant difference was found between the self-reported leadership behaviors of principals who use supported methods of professional development ( $M = 101.15, SD = 12.25$ ) and principals who use unsupported methods of professional development ( $M = 98.85, SD = 11.92$ ) in the leadership behaviors of the PIMRS domain *promoting a positive school learning climate*.

### Summary

This quantitative study explored whether significant differences exist in the perceived leadership practices of school principals who use supported methods of professional development for their own learning and the perceived leadership practices of school principals who use unsupported methods of professional development for their own learning as measured by the PIMRS. The three research questions addressed whether

differences exist in each of the three leadership domains of the PIMRS: defining the school's mission, managing the instructional program, and promoting a positive school learning climate.

An anonymous, on-line survey was used to collect self-reported data from a national sample of principals ( $n = 186$ ) for 7 weeks. Review of the analysis of the data revealed that only the differences between the mean scores of groups of principals in domain one, defining the school's mission,  $t(149) = 2.36, p = .02$  were statistically significant at the  $p < .05$  alpha level. Differences in domain two, managing the instructional program,  $t(126) = 1.37, p = .17$ , and in domain three, promoting a positive school learning climate,  $t(119) = 1.21, p = .23$ , were not statistically significant. However, the differences in all three domains, defining the school's mission,  $t(149) = 2.36, p = .02$ , managing the instructional program,  $t(126) = 1.37, p = .17$ , and promoting a positive school learning climate,  $t(119) = 1.21, p = .23$ , did not achieve a level of statistical significance in relationship to the reduced alpha value ( $p = .017$ ) of the Bonferroni correction.

Section 4 presented the analysis of the data for this study. Section 5 includes an interpretation of the findings, implications for social change, recommendations for action, and recommendations for further study.

## Section 5: Discussion, Conclusions, and Recommendations

In this section I present an overview of the purpose of the study, as well as a summary of the findings. I also present conclusions regarding the outcomes of the study relative to the research questions and to the literature. My presentation of implications for social change, recommendations for action, and recommendations for further study, and my final conclusions complete the information in Section 5.

This quantitative non-experimental, cross-sectional survey design study investigated whether differences exist in the leadership behaviors of principals who use supported professional development as the primary method for their own learning in contrast to the leadership behaviors of principals who use unsupported professional development. The leadership behaviors were measured through responses to an anonymous on-line survey that used the 50 question Principal Instructional Management Rating Scale and one professional development question.

The 50 questions of the PIMRS were clustered into three leadership domains: defining the school's mission, managing the instructional program, and promoting a positive school learning climate (Hallinger & Murphy, 1985). Each of the three research questions was based on one PIMRS domain. The *t*-test of means was used to determine whether statistically significant differences existed between the responses of the group of principals who used supported professional development and the responses of the group of principals who used unsupported professional development in each leadership domain. Principals who used supported professional development reported higher implementation of the leadership practices than principals who used unsupported professional development in all three domains, however only scores in domain one, defining the

school's mission, demonstrated statistically significant differences between the two groups at the .05 alpha level.

Research about the methods of professional development for school principals is nascent. No comparison studies were located in which the leadership behaviors of school principals were compared by methods of professional development, therefore it is not possible to examine the results of this study in relationship to past research that investigated the same variables.

Hallinger (2011a) investigated the use of the PIMRS in doctoral studies over the past 3 decades. In his report of the 65 dissertations that studied antecedent effects on the leadership practices of school principals, none of the antecedent effects were stated as methods of professional development. The antecedent effects of studies investigated by Hallinger were principal demographics, school context, and demographics and contexts, none of which are similar to methods of professional development.

One study about principals who received supported professional development (Intrator, 2008) sought feedback from principals who participated in the National School Leaders Network (now School Leaders Network), a principals' professional learning community, regarding their experiences in the community and their perceptions about the impact of those experiences on their leadership practices.

Intrator (2008) reported that principals who participated in the program perceived there was a substantial positive impact ranging from a low of 58% to a high of 73% on the leadership areas of educational vision, building a school wide shared vision, focus on whole school priorities, school wide collaboration, and strong professional learning communities (p. 47). However, the perceptions of leadership behaviors of the principals

who participated in supported professional development were not compared with the perceptions of leadership behaviors of a group of principals who received unsupported professional development.

The focus of research question 1 was whether differences exist in the leadership practices of principals in the first domain, defining the school's mission. The mean score of principals who used supported professional development ( $M = 4.31$ ) was higher than the mean of principals who used unsupported professional development ( $M = 4.14$ ), which was a statistically significant difference,  $t(149) = 2.36, p = 0.02, 95\% CI[0.27, 4.0]$  (see Table 1). Domain one includes two subscales: frame the school's goals and communicate the school's goals (Hallinger & Murphy, 1985). The central importance of leadership surrounding vision, mission, and goals is replete in education literature (DuFour, DuFour, & Eaker, 2008; Kruger, Witziers, & Slegers, 2007; Robinson & Timperley, 2007) and is reflected in its prominence in education leadership standards (CCSSO, 2008; NAESP, 2008; NASSP, 2010). Leithwood, Louis, Anderson, and Wahlstrom (2004) found that domain one practices were the largest factor in a principal's impact on student outcomes. These leadership practices are important and may also serve as a springboard to the development of learning communities and a learning organization (Robinson, 2010).

The focus of research question 2 was whether differences exist in the leadership practices of the two groups of principals in the second domain, managing the instructional program. Domain two includes three subscales: supervise & evaluate instruction, coordinate the curriculum, and monitor student progress (Hallinger & Murphy, 1985). Although the mean score of principals who used supported professional

development ( $M = 4.23$ ) was higher than the mean of principals who used unsupported professional development ( $M = 4.13$ ) the difference was not statistically significant (see Table 1). Although significant differences were not found between the two groups of principals in this study, important connections have been demonstrated between the leadership practices of domain two and positive outcomes for students. In their synthesis of 70 research studies over 30 years evaluating connections between leadership practices and student achievement, Waters, Marzano, and McNulty (2003) reported the leadership practices of domain two, including knowledge of and attention to curriculum, instruction, and data monitoring, had significant links to student outcomes. Research by May and Supovitz (2011) also found that the amount of targeted time principals engaged in domain two practices with individual teachers impacted the teachers' instructional practices, although the effect did not generalize to other teachers in the school.

The focus of research question 3 was whether differences exist in the leadership practices of the two groups of principals in the third domain, promoting a positive school learning climate. Domain three includes five subscales: protect instructional time, maintain high visibility, provide incentives for teachers, promote professional development, and provide incentives for learning (Hallinger & Murphy, 1985). Although the mean score of principals who used supported professional development ( $M = 4.05$ ) was higher than the mean of principals who used unsupported professional development ( $M = 3.95$ ) the differences were not statistically significant (see Table 2). Although significant differences were not found between the two groups of principals in this study, these leadership practices are important. Connections have been found between the leadership practices of domain three and support of teachers making changes in their

instructional practices (Hallinger & Heck, 2010; Leithwood, Louis, Anderson, & Wahlstrom, 2004) and positive effects on student achievement (McGuigan & Hoy, 2006; Waters & Grubb, 2004b).

Research has also found connections between domain three leadership practices and middle school students' achievement in reading and mathematics (O'Donnell & White, 2005). O'Donnell and White found that teachers' positive ratings of principals' leadership in domain three practices were strongly associated with improved student outcomes.

### **Interpretation of the Findings**

#### **Defining the School's Mission**

My analysis of the data revealed that the largest differences in perceived leadership practices of principals in this study were in the PIMRS domain one, defining the school's mission. Principals who use supported professional development for their own learning reported engaging in domain one leadership behaviors at a statistically significant higher level ( $p < .05$ ) than principals who use unsupported professional development.

Domain one leadership practices are recognized as important in the work and success of principals through their prominence in standards for school leaders. In addition to the standards, principals' responses to challenges and their facilitation and support of the development of a learning organization through learning communities in their schools are two important aspects of domain one practices.

**Leadership standards.** Establishing a school's mission and goals around student progress is central to education leadership standards (CCSSO, 2008; NAESP, 2008;

NASSP, 2010; Sanders & Kearney, 2008). Sanders and Kearney (2008) termed these practices as “the most important actions required of K-12 education leaders to improve teaching and learning” (p. 1). Hallinger (2011b) considered the practices in domain one as central to establishing a learner centered school.

Two prominent professional organizations for school principals, the National Association of Elementary School Principals (NAESP) and the National Association of Secondary School Principals (NASSP), articulated the central importance of vision, mission, and goals, domain one leadership practices, in their standards. NAESP (2008) included the concepts of vision, values, and goals around student learning in three of its six standards and strategies for leading learning communities. At the secondary level, setting instructional direction was ranked first of the ten 21<sup>st</sup> century principal leadership skills by the National Association of Secondary School Principals (NASSP, 2010).

The standards for school leaders reflect the importance of domain one leadership practices of setting a school’s vision, mission, and goals, which has been replete in education research and literature for several decades (Collinson, Cook, & Conley, 2006; DuFour, DuFour, Eaker, & Many, 2006; Hord & Sommers, 2008; Peterson & Deal, 2002; Reeves, 2011; Robinson, 2010; Schlechty, 1990). These same central requisites for organizational success have also been identified by business leaders (Bossidy & Charan, 2002; Collins, 2001; Covey, 1989; Kouzes & Posner, 2002; Senge, 1990).

The use of supported professional development inculcates not only specific domain one practices, but, due to its transformative nature, facilitates changes in thinking, beliefs, values, and understanding. These dynamic transformational learning processes in which people learn how to learn, how to engage in processes that challenge their

thinking, beliefs, values, and behaviors (Argyris & Schon, 1974) are the requisite skills and processes used in the two pronged process of organizational visioning and goal setting. These processes rely strongly on the skills of inquiry and reflection, which principals use and develop during supported professional development, in order to generate realistic, yet far reaching preferred future conceptualizations of the school and its stakeholders. Experience using these processes promotes the development of knowledge, skills, and capacities that differ substantively from those of unsupported professional development which may contribute to the difference in the level of these leadership practices between the two groups of principals.

**Response to challenges.** The changed intent and goals of public education (Murphy, 2005), together with increased governmental accountability and reduced fiscal resources, are but a few of the challenges faced by school principals each day. Two common methods of responding to challenges are by either using an inquiry and reflection process or by seeking out and importing preformulated programs.

Principals who use inquiry and reflection about their leadership practices, which are learned through supported professional development, are able to continuously reframe and reformulate their work, point of view, and behavior so they are able to make conscious, informed decisions about how to lead their school and respond to challenges (Evans & Mohr, 1999; NAESP, 2008; NASSP, 2010; Stewart, Prebble, & Duncan, 1997; Zimmerman, 2011). The process of learning that continually builds capacity, knowledge, and skills differs from importing a program (Goleman, Boyatzis, & McKee, 2002). In choosing to use these methods, principals themselves become experts, substantively changed in their capacities to identify complex issues, identify problems, and determine

solutions to the problems that are unavailable to those who engage in situational problem solving, whose skills and capacities remain at a novice level (Bransford, Brown, & Cocking, 1999). Using supported professional development processes engages principals in grappling with fundamental issues of what is being done and why. It is this learning process that provides the basis for principals to use different leadership behaviors and to use leadership behaviors differently from principals who use unsupported professional development.

One leadership behavior that principals use was reflected in what Schon (1983) terms a “dilemma of rigor or relevance” (p. 42). According to Schon, many professionals routinely choose to engage in the rigorous practices of highly publicized, popular remediation techniques and methods without fully investigating their relevance or applicability to the unique needs and situational issues. Schon believed that when leaders choose rigor over relevance, it results in framing problems within preexisting parameters that ignore significant issues and prevent the development of the best solutions. Principals who use inquiry and reflection on practice of supported professional development for their own learning have had the opportunity to develop the capacity and habit of intentionally, systematically, and deliberately examining any intervention or strategy in deference to its relevance as part their decision making process. The ability to use these practices allows principals to maintain consistency and coherence in their responses to challenges in ways that align with the school’s vision and mission (Schmoker, 2004; Sparks, 2003).

Thomas (2008) suggested that when educators search for quick fixes and adopt the mindset that it is a waste of time to reinvent the wheel, they skip the critical to

success inquiry and reflection process by importing other people's interventions (wheels), often dooming new initiatives to failure. Senge et al. (2000) believed that relying on the rapid development of solutions to problems kept organization and individual attention and energy directed toward crisis management instead of addressing root causes through the supported professional development practices of inquiry and reflection. Vander Ark (2006) also recounted disastrous results of importing a well honed, highly successful, *best practices* process, by attempting to import it in a fully developed form into a new school. One leadership behavior that principals who use supported professional development learn how to do is to value the learning that each group needs to do in determining relevance of an intervention and of embracing the change process as a way of maintaining integrity to the school's vision, mission, and goals.

A related leadership behavior that principals who use supported professional development have practice doing is focusing on the process of learning instead of on isolated programs or strategies. Principals who engage in job embedded learning (Goleman, Boyatzis, & McKee, 2002) develop their skills and capacities as lead learners who continuously model critical learning practices for adults. Research has shown that principals' role modeling of their commitment to learning led to parallel commitments by teachers and students (Fleming, 2004; Jacobson, Brooks, Giles, Johnson, & Ylimaki., 2007; Ontario Principals' Council, 2009). A far reaching effect of principals' modeling a commitment to job embedded, lifelong learning and development facilitated the transformation of a school into a learning community (Ontario Principals' Council, 2009).

It is this deep appreciation for and understanding of the transformation that occurs through these learning processes in individuals and groups, as well as a commitment to the learning of every adult and every student in a school, that enables principals who use supported professional development to do things differently in setting the school's vision, mission, and goals as the first step in becoming a learning organization that uses professional learning communities as a vehicle for learning by all.

**Learning organizations based in professional learning communities.** One leadership behavior that principals who use supported professional development for their own learning do differently from principals who use unsupported professional development, as found in this study, is engage in higher levels of practice in the leadership domain defining the school's mission. It is this very group of leadership practices, establishing vision, mission, values and goals that are the foundation of PLC work and organizational learning (DuFour, DuFour & Eaker, 2008; Hord & Sommers, 2008; Ontario Principals' Council, 2007; Senge et al., 2000). According to Senge (1990), generative, transformational learning occurs when people are interdependently connected through a clear and compelling vision. Reporting on their extensive PLC work with schools and districts across the country, DuFour, DuFour, and Eaker (2008) found that this group of practices is most often ignored or simply set into place absent group learning processes in group work that lacks the rigor and substance of authentic PLCs.

This single leadership behavior that principals who use supported professional development do differently from principals who use unsupported professional development is in fact the rudder that sets the course for the learning of everyone in the school and the power behind their learning. In the face of the multiplicity of challenges

and the plethora of decisions faced by educators each day, a clear vision provides a definitive guide for work and learning. Senge (1990) believed that power and energy for learning organizations is derived primarily from its shared vision. Grunert (2005) found that a line of sight of the school's mission existed in schools where true collaboration was a cultural norm. According to Grunert (2005), this powerful line of sight enabled employees to understand the school's mission well enough to articulate it to others. Principals who are learners understand the qualitative differences in professional learning communities that are the fulcrum of transformational adult learning compared to educators who use a PLC label for ordinary, superficial group work. Collinson, Cook, and Conley (2006) cited the lack of research about organizational learning in schools as an indication that its importance and relevance have not yet been recognized.

The culture of every adult engaging in learning through intentional job-embedded processes is central to creating a learning organization (Senge, 1990). Creation of a learning organization in schools requires change in culture, climate, and practices so adults understand the interrelationship of their learning to the learning of the children and the collaborative processes needed to develop and sustain them. Although change directives and initiatives may emanate from the central office level, it is the principals who are the catalysts for change in their schools (Hord & Sommers, 2008; Morrissey & Cowan, 2004). Supovitz (2002) documented the failure of a reform initiative to develop communities of practice primarily because no one had experience with the inquiry and reflection practices required for their success. In order to change the climate and culture in schools and to meet the learning needs of teachers, principals must understand how to lead and support teacher learning (Hammer & Gateley, 2006; Wood, 2007). Principals

who are actively engaged learners through supported professional development for their own learning have had the opportunity to acquire the capacities, knowledge, and expertise to support and lead learning communities in their school (McGhee & Lew, 2007).

Learning organizations are the cumulative result of groups of educators within an organization working together in networks as learning communities. However, many school leaders themselves do not have personal knowledge or experience with the processes and deep levels of learning that occur in professional learning community work. Reports from professional learning community experts indicate that many groups who work together and refer to themselves as professional learning communities lack the structures, processes, and practices that are central elements of professional learning communities (DuFour, DuFour, & Eaker, 2008; Schmoker, 2005; Supovitz, 2002).

Leadership experts in both the worlds of education and business recognize the importance of the cluster of direction setting behaviors. In addition to the benefits of facilitating the development and implementation of shared vision, mission, values, and goals to set the direction of work within schools, the differences in engaging in these leadership behaviors, or not engaging in them, may reflect important differences in the type of skills that are used. Experts in leadership report that those who operate as managers have a different focus and engage in different activities than those whom they term leaders.

### **Management versus Leadership**

Although the group of principals who used supported professional development scored higher in the leadership domain two, managing the instructional program, and

domain three, promoting a positive school learning climate, than the group of principals who used unsupported professional development, the differences were not statistically significant at the  $p < .05$  alpha level. Subscales such as supervising and evaluating instruction, coordinating the curriculum, monitoring student progress, protecting instructional time from interruptions, and providing incentives for teachers are tasks that are well-defined and bounded in their expectations and responsibilities in comparison to domain one leadership practices. While the leadership practices of domain two and domain three are important to successful school leadership, they may be insufficient to accomplish high levels of student and school success without the clarity and focus of domain one practices.

In their qualitative study about instructional leadership, Graczewski, Knudson, and Holtzman (2009) found notable differences in principal activities such as classroom observations, feedback to teachers about their instruction, knowledge about the teachers' professional development needs, and provision of professional development, domains two and three activities. The differences in the leadership behaviors of the principals in these areas were directly tied to the clarity and specificity of the school's vision, mission, and goals, identified as domain one leadership practices in this study.

Although principals in four elementary schools engaged in the same domain two and domain three behaviors, their outcomes and effectiveness differed widely, based on information gathered from the teachers at the schools (Graczewski, Knudson, & Holtzman, 2009). For example in two schools, identified as Abbott and Aurora, the principals had high coherence and engagement scores in focus, clarity, and specificity of the school's vision, mission, and goals. In these schools, the principals, the leadership

teams, and the teachers were able to explain what the goals meant, how they looked in practice, and how to achieve them. Teachers in these schools were able to identify and engage in detailed discussion about the school's vision, mission, and goals, and gave clear examples of how activities such as instructional planning, classroom lessons, classroom observations and feedback, teachers' own learning needs, and professional development activities were connected to them.

In two other elementary schools, identified as Bartlett and Bradley, in which the principals had low coherence and engagement scores in focus, clarity, and specificity of the school's vision, mission, and goals, domain one leadership practices, the principals, the leadership teams, and the teachers spoke in vague generalities about what guided their decisions and behaviors related to domain two and domain three practices (Graczewski, Knudson, & Holtzman, 2009). The principals and the teachers were able to state the school's goals, but were not able to explain what they meant or what exactly needed to happen to attain them. In addition, those practices that are categorized as domain two and three in this study, such as instructional planning, classroom observations, and professional development, were evaluated by the teachers as lacking usefulness, coherence, and value in achieving improvement in school and student outcomes.

Collins (2001) provided a helpful framework for distinguishing between leaders who focus on accomplishing tasks and initiatives such as domain two and domain three practices from those who focus on building organizational and personal capacity, grounded in domain one leadership knowledge and behaviors. Collins characterized a person who organizes and supervises people and materials in pursuit of specified objectives as a competent manager. In contrast, he described an effective leader as a

person who invigorates and inspires people to higher levels of performance in response to a focused, compelling organizational vision.

Kotter (1996) also distinguished between management and leadership focus and work. According to Kotter, managers focus effort and resources on specific objectives to create short term wins, while leaders focus on the organizational structures and systems to bring about large scale changes or reform. In their study of school leadership, Louis, Leithwood, Wahlstrom, and Anderson (2010) found that high scoring principals had an organizational vision with specific goals to achieve the vision, together with a personal vision. In contrast, low scoring principals had general goals without a specific school level vision, and they focused on performing their jobs rather than on personal visionary goals (Louis et al., 2010).

The results of this study appear to agree with Collins' (2001) and Kotter's (1996) differentiation of tasks, as well as with differences found by Louis, Leithwood, Wahlstrom, and Anderson (2010), since principals who use both supported and unsupported professional development for their learning have similar levels of engagement in the domain two and domain three leadership practices, which reflect what might be termed the management responsibilities and activities of school leaders. In this study, principals who use supported professional development that rely on inquiry, reflection on practice, and collegial dialogic problem solving, reported engaging in the tasks that involve the development of dynamic, capacity building and system wide learning and improvement at somewhat higher levels, which meet the criteria of statistical significance at the alpha level of  $p < .05$  in domain one of the PIMRS (Hallinger, 1990b). This modest difference does not maintain a level of significance when

subjected to the conservative Bonferroni correction criteria of a  $p = .017$  alpha level. In addition, limitations of this study, which were discussed earlier, limit the applicability of its results to the principals who participated in this study.

In summary, it appears that the PIMRS (Hallinger, 1990b) leadership domain of defining the school's mission, is central to organizational and leadership success, based on recent research and leadership literature. School principals may recognize the importance of these practices to the success of their leadership as evidenced by their identification of these practices as an area of need for professional development over a period of 20 years (NAESP, 2008). A central concern of this study was about methods of professional development experienced by school principals in support of the development of knowledge, skills, and capacities identified in research and by principals themselves as essential to their work.

### **Implications for Social Change**

The results of this study revealed a modest but significantly higher implementation of practices surrounding the development, communication, and mutual responsibility for school goals and the school mission by principals who reported using supported professional development for their own learning. Leadership literature, in both education and in the business sector, purports the critical value of these leadership practices as vital to the success of the organization (Boylan, 1995; Collins, 2001; DuFour, DuFour, & Eaker, 2008; Fullan & St. Germain, 2006; Senge et al., 2000). In addition, the use of these practices creates a model of practice for the development of a learning organization in which members learn to diagnose problems and create solutions and processes tailored to their own needs rather than blindly importing ideas from other

schools or institutions that may or may not work (DuFour, 2008; Fullan, 2000; Goleman, Boyatzis, & McKee, 2002; Senge et al., 2000; Thomas, 2008; Wagner, et al., 2006).

A school principal is the single most influential person in a school, whose work touches the lives of students, families, staff, and the community. The knowledge, skills, and capacities of the school leader serve as a linchpin for student achievement and school success (Reeves, 2004). Changes in the nature and purpose of schooling during the past few decades, formalized by the No Child Left Behind Act (U.S. Department of Education, 2011), have dramatically changed and expanded the role and responsibilities of school principals. In deference to these changes, Cambron-McCabe (in Senge et al., 2000) reframed the view of educational administration programs from training administrators to educating leaders.

School leaders, leadership practices (Hallinger & Heck, 1998; May & Supovitz, 2011), theories of leadership, and leadership training programs, certification, and licensure (Waters & Grubb, 2004a) have been subjected to intense ongoing scrutiny and debate. Standards for what school leaders should know and be able to do have been developed at the national level by the CCSSO (2008) and by professional education organizations (NAESP, 2008; NASSP, 2010), as well as at the state level by departments of education. Standards and performance based evaluation criteria and processes to assess school principals, which increasingly include links to student achievement, are in various stages of discussion and development (Clifford & Ross, 2011; O'Donnell & White, 2005; Reeves, 2004; Willen, n.d.).

Vast amounts of time have been dedicated to important education issues such as the learning needs of students and teachers (Hammer & Gately, 2006; Wood, 2007), a

viable and coherent curriculum (Marzano, 2003; Schmoker, 2006), types and frequency of student assessment (Black, Harrison, Lee, Marshall, & Wiliam, 2003; Burke, 2010; Chappuis, 2009), academic supports and interventions for students (Brown-Chidsey & Steege, 2005; Mellard, & Johnson, 2008; Wright, 2007), best practices of instruction, and the use of professional learning communities to advance teacher knowledge and improve professional practice (Murphy & Calway, 2008; Robinson, 2010). However, the learning needs, development, and support of the school principal, who is sometimes referred to as the instructional leader or the lead learner of the school, have garnered much less attention (Sparks, 2003; Sun, 2011; Wiser, 2012).

This study may contribute to an increased awareness of the importance of effective professional development for principals to school leaders themselves, to school districts, to professional education organizations, and to policy makers. Intentional life long learning through the use of research based, effective learning methods is a central premise in the field of education, yet it appears that the very person described as the school's lead learner, and the person who touches the lives and work of everyone in a school, may not be afforded the benefit of professional development that is based in effective learning theory.

The idea for this study arose from observations of school principals who were told to implement, lead, and oversee educational processes, structures, and strategies for which they were given no training beyond that which was received by and with their teachers, nor any meaningful support beyond the initial training. It is my hope that this study contributes to the awareness of the need to provide career-long, high quality

support and professional development to those who lead our schools, so that each child is able to fully grasp the promise and gift of a high quality education.

### **Recommendations for Action**

Despite research and recommendations emphasizing the critical need for career long effective support and development for school principals, the gap between policy, as outlined in the ISLLC standards (CCSSO, 2008) and state standards, and practice remains intact. Therefore, my recommendations for attending to the professional development of school leaders parallel those found in the literature (Collinson, 2008; Colvin, 2009; Hill, Jeffrey, McWalters, Paliokas, Seagren, & Stumbo, 2010; Murphy & Calway, 2008; Sun, 2011; The Wallace Foundation, 2012; Waters & Grubb, 2004a).

Attending to the professional development needs of school leaders is the ethical and professional responsibility of colleges and universities, policy makers, researchers, professional education organizations, grant and funding groups, school superintendents, and of principals themselves. Thus it is appropriate for those groups to review this study and other studies that examine differences that exist in school leaders' practice when principals use different methods of professional development and to incorporate this knowledge into their work.

The standards and accountability era and its attendant drive to assess the effectiveness of school leaders analyzed every aspect of principal's skills and knowledge, beginning with their training. Even though professional development is considered as occurring after a school principal begins his or her professional career, professional development is the extension and continuation of preservice training received in colleges of education programs. Therefore colleges and universities should review the results of

this study so the training they provide supports new principals with not only the knowledge, but also the skills and capacities needed to succeed in the 21<sup>st</sup> century principalship.

While many colleges and universities now use cohort groupings for students to proceed through the program together, which are intended to simulate the supported professional development method of professional learning communities, these experiences do not function as learning communities unless they are intentionally constructed to operate at a deeper level of reflection, dialogue, and collegial inquiry than required to complete coursework (Donaldson, 2009). Since the 21<sup>st</sup> century principal is expected to be the top instructional leader, the person who is knowledgeable about constructing, supporting, and evaluating professional learning communities at his or her school (Sparks, 2003), it is recommended that colleges and universities include this method of supported learning experience and training in their preservice training programs. Without these training experiences, the school principal is likely to enter the field deficient in the key knowledge, skills, expertise, and capacities needed to engage in career long supported professional development and to provide comparable supported professional development for the school's faculty. Principal training programs should include experiential, interdependent learning about real life situations of practice. Colleges of education need to take note of different methods of learning and intentionally include supported learning experiences so school principals enter the profession knowing how to continue their own learning and support the learning of others (Donaldson, 2009).

A second group of people who need to understand the implications of this study are the education policy makers at the national, state, and local levels. While the

development and implementation of standards is an important framework for school leadership practice, it does not provide learning or change practice. Similarly, policy that delineates assessment procedures and tools purports to measure practices. It does not provide learning.

Policy makers need to intentionally delineate high quality training, professional development, and support required for school principals to learn the knowledge, skills, learning strategies, and capacities needed to meet the standards of practice is needed, but remains missing. The specified professional development for school leaders must meet the criteria of supported professional development, in alignment with contemporary learning theory instead of its traditional requirement of fulfilling a specified number of hours within a given period of time. Since policy makers also assert their leverage over pre service training in colleges and universities, it is imperative that they require the inclusion of authentic learning experiences that align with contemporary learning theory to ensure that school principals are fully prepared to succeed when they enter the profession.

A third audience to whom this study may be of interest is that of the professional organizations which support school principals and their work. These organizations might include the National Association of Elementary School Principals, the National Association of Secondary School Principals, the American Association of School Administrators, Learning Forward (formerly the National Staff Development Council), the Association for Curriculum and Staff Development, and the School Leaders Network (a community partner in this study). In recent years, advocacy and support for school principals has grown to include standards and expectations for what school principals

should do to promote learning by students and adults (NAESP, 2008; NASSP, 2010). The results of this study provide information useful to those outcomes.

The first of 10 skills for effective principals outlined by NASSP (2010), the skill of learning and leading by example, addressed a central concern of this study.

Informational learning about programs, practices, and strategies was recognized as insufficient, in contrast to professional development that includes personal reflection on practice and collegial dialogic inquiry, as an essential component of the process of improving practice (NASSP, 2010). In reference to these leadership behaviors, NASSP (2010) stated:

Too often, principals share best practices with colleagues in terms of programs and approaches to leading, but never get around to reflecting on and discussing the personal elements of their success, or their strengths or weaknesses- which more often than not are the very things that enabled a best practice to be successfully adopted (p. 1)

NASSP emphasized the importance of that practices that I term supported professional development in building capacity for effective school leadership. Continuing attention to supported professional development that aligns with contemporary learning theory by NAESP, NASSP, AASA and ASCD will help to get the message directly to school leaders about the importance of their engagement in effective professional development for their own learning and will also provide the tools and support school leaders need to improve their practices. These organizations need to embrace and move forward with new data that may contribute to their existing ideas, avenues of inquiry, and support for principals

Learning Forward, which focuses its work on providing and improving professional development for educators, would find this study of interest in support of its work. Active at many levels including research, policy, advocacy, and practice, Learning Forward is in a unique position to leverage knowledge from this and similar studies into nationally disseminated information and practice.

The School Leaders' Network (SLN), a community partner in this study, will find this study directly applicable to its work. The School Leaders' Network is an organization specifically dedicated to providing supported professional development to school principals and to helping them to be lead learners and become effective instructional leaders. It is recommended that SLN continues to volunteer to participate in future research about the importance of support for school principals as a valued community partner.

Aside from school principals themselves, school superintendents best recognize the enormous challenges faced by school leaders and are those who seek to improve and support the outcomes of school principals' work and lives. School superintendents, the third group of people who will benefit from this study, determine the type of professional development and support that are provided for school principals (Knapp, Copland, Honig, Plecki, & Portin, 2010). The results of my study align with the strong, exemplary leadership of a New York City superintendent who made the professional development of school principals a top priority in her administration (Fink & Resnick, 2001) and with the recommendations of other researchers (Knapp, et al., 2010).

Fink and Resnick (2001) created structures, processes, and protocols in which effective professional development methods such as reflection on practice, professional

learning communities, shared practice, mentoring, coaching, formative evaluation, and dialogic inquiry in service of learning by and support for the school principals in her district. The context of this study aligns with the leadership provided by Superintendent Fink. Although the differences in leadership practices were confined to domain one, defining the school's mission, Fink provided support to school principals in all aspects of their work. My study provides basic ideas and information for school superintendents to begin to create a learning organization by providing professional development support that is based on contemporary learning theory for their school principals.

The final group of people who may have interest in the study is school principals themselves. Although often caught up in the daily demands and challenges of leading their schools, many school principals welcome ideas about how to improve their practice. One such example, discussed in section 2, was a group of principals who went far beyond the requirements of a grant supported professional leadership project (Hipp & Weber, 2009). This group formed their own learning network and jointly authored a book that chronicled the development of their knowledge and capacities, individually and as a group. School principals who may not receive organizational support are able to use the information in this study to implement supported professional development for their own learning.

School principals have responsibility for their students, their staff, and their school. Principals who took the time to participate in this anonymous study are examples of school leaders who want to learn, improve, and contribute to educational research. Learning complete information about the study, the premise of the study, the underpinning theories of learning, the different methods of professional development that

were studied, and the outcome of the study, will equip study participants to learn more about effective professional development for their own learning.

Information about this study may be disseminated in a variety of ways. The study may be developed into an article for an education or professional development journal. The study may be presented as a seminar or conference session. This study will be included in the ProQuest Dissertation archives, as well as the Walden University dissertation archives.

### **Recommendations for Further Study**

Several limitations of this study suggest the use of different research methods for future study. Using both quantitative and qualitative research methods would broaden the information gathered about the primary method of professional development used by school principals and about their leadership practices. There are six recommendations for future study.

The first recommendation is to use all three forms of the PIMRS (Hallinger, 1990b), the principal, teacher, and supervisor forms, to compare leadership practices of principals who use supported and unsupported methods of professional development for their own learning. This study relied solely on the self report of principals about their leadership practices. According to Hallinger (2011), the most accurate report of principals' leadership practices using the PIMRS has been obtained from teachers. Although it is possible that errors inherent in self report (Gay, Mills, & Airasian, 2009) would be similar in both groups of principals, it is suggested that future research uses triangulated data that is available from using principal, teacher, and supervisor reports.

A second recommendation is to use a larger sample size. Lack of achieving participation of the required sample size of 384 participants is a limitation of this study and limits the generalizability of the results beyond this study. In addition, without demographic data about the sample, it is unknown how the principals who participated in the study compare with the entire population of principals who were potential participants. Not knowing how representative the sample of participants of school principals is of the general population of school principals who meet eligibility criteria is an additional limitation of the study that also limits the generalizability of its results beyond the group of principals who participated in the study.

I encountered substantial roadblocks in data collection due to spam filters of internet servers used by schools, which impeded my success in achieving the required sample size of 384 participants. As reported in section 4, it was necessary to limit the number of people in the distribution list of each email to minimize their being identified as spam and blocked or greylisted. One possible way to eliminate this problem might be a study completed by a national professional education organization that has established on going contact with educators through its newsletters or other contacts.

A third recommendation for future study is to compare the leadership practices of school principals who use supported and unsupported professional development for their own learning using qualitative methods such as principal interviews and focus groups. Interviews and focus groups would allow researchers to gather specific details about leadership practices and methods of professional development, and to use follow up questions in response to participants' answers. A fourth recommendation for future study is to compare the leadership practices of school principals who use supported and

unsupported professional development for their own learning by using other leadership questionnaires or surveys. While the results for research question 1 of this study were significant at the  $p < .05$  alpha level, the difference in the scores of the two groups was modest. Since other leadership evaluation tools have been developed which use different categories and indices, it may be useful to examine whether differences exist in leadership behaviors of principals who use supported and unsupported professional development using additional assessment methods and tools.

The PIMRS (Hallinger, 1990b) has been recognized as the most frequently used tool to measure leadership behaviors in education, and is therefore a very appropriate tool. However, other tools have been developed to investigate and measure leadership practices that might yield different or additional information. Two such tools are the Leadership Practices Inventory (LPI; Kouzes & Posner, 2002), an evaluation designed for business leaders, and the Vanderbilt Assessment of Leadership in Education (VAL-ED; Murphy, Goldring, Cravens, Elliott, & Porter, 2007; Porter, Murphy, Goldring, & Elliott, 2008). Like the PIMRS, both the LPI and VAL-ED have individual self-assessment components, as well as 360° assessment options that include co-workers and supervisors, which again provides triangulated data. The VAL-ED was intentionally designed to align with the ISLLC (CCSSO, 2008) standards for school leaders, thus using that tool would afford the opportunity to assess differences in leadership practices directly to ISLLC and many state standards. However, using other tools may require a significant financial investment.

A fifth recommendation for future study aligns with researchers in the field (Heck & Hallinger, 2005; Leithwood & Jantzi, 2006) in their recommendation that successful

leadership practices and their underpinnings need to be studied. It is my recommendation that successful leadership practices should be studied through the lens of professional development to determine which methods of high quality, career long learning best support principals in meeting their learning challenges of 21<sup>st</sup> century leadership.

A sixth, and final recommendation for future study is that supported professional development for school principals is studied. Garet, Porter, Desimone, Birman, and Yoon (2001) spoke to the need for research about generative, transformational professional development, while Hill, Jeffrey, McWalters, Paliokas, Seagren, and Stumbo (2010) advocated for supported professional development for principals, as they take on the challenges of creating 21<sup>st</sup> century learning environments in their schools.

Almost 3 decades ago Little (1984) found notable differences in implementation of teaching practices between those learned through traditional professional development, in which the principal was passive, and what I have termed supported professional development, in which the principal functioned as a directly involved change agent. Little (1984) noted that although the implementation results were high, the principals lacked preparation for or familiarity with the practices required of them in a change agent role. Almost 25 years later, Intrator (2008) reported an overall positive impact on principals' leadership practices, including their educational vision, focus on system thinking and crucial issues, and strength of professional learning communities, gained through supported professional development as part of the National School Leaders' Network.

Powell and Kusuma-Powell (2009) contended that organizational learning is tied to brain based learning processes and requires leadership by those who are able to use inquiry and reflection to lead professional learning communities. Garet, Porter,

Desimone, Birman, and Yoon (2001) suggested that if we seek to improve schools, we need to focus on using effective professional development that includes active learning and collective participation. And Webster-Wright (2009) reviewed 2 decades of research that revealed the conceptual and pragmatic differences between the traditional use and form of professional development programs to support and maintain skills and authentic, transformative learning. It is imperative for us to give immediate attention to the process of learning and support for school leaders with a clear and focused eye to the qualitative differences in leadership practices and outcomes related to them.

### **Discussion**

Knowledge gained over the past few decades about how people learn is nothing less than amazing. Information from the neurosciences provides a window into how people learn. It provides confirmatory evidence that constructivist learning theory is on target about essential elements and processes of learning. The convergence of this information, together with consideration of adult learners' needs, formed the theoretical base for this study.

The study, which focused on the leadership practices of principals who used different methods of professional development for their own learning, brought principals center stage as leaders and learners. Most of what has been written and studied about school principals has focused on other things. Studies about learning methods, processes, and needs have focused on students and teachers. The principal, whose ideas, influence, and actions affect everyone in the school, has largely been ignored as a learner.

The world of schools and schooling changed dramatically over the past 3 decades. The principal's role and responsibilities, including oversight, support, and evaluation of

new programs, expanded exponentially. If we truly expect school principals to be successful instructional leaders and lead learners, we need to invest in methods that provide transformational learning and support for them. Informational learning, available through unsupported professional development, which makes minor adjustments to current practice, is insufficient to confront the challenges of 21<sup>st</sup> century education for all students. Transformational learning, through supported professional development, which fosters creation of new ideas, belief, strategies, and capacities, is essential for school leaders to facilitate professional learning communities and develop a learning organization.

This type of learning requires implementing high quality professional development that aligns with contemporary learning theories of brain based learning, constructivist learning, and adult learning. Contemporary learning theories require routine use of processes that include inquiry, collegial dialogic conversations, reflection on practice, and inclusion in guided peer learning networks. Use of these dynamic processes to address issues of practice results in different understandings, ideas, values, goals, beliefs, practices, processes, and structures than existed in the past.

The demands of the accountability and assessment era have changed the current paradigm of education. The reality is that the changed goals and purposes of education, to educate all children to high levels of achievement, requires letting go of the current paradigm of learning and embracing risk taking to engage in real, transformational learning for children and adults. Children, teachers, and principals will demonstrate the benefits of transformational learning when they are given the opportunities, experience, and support for this type of learning.

The results of this study showed that principals who received supported professional development engaged in leadership practices surrounding the school's vision, mission, values, and goals at higher rates than principals who did not receive supported professional development. Research, as discussed in Section 2 and in the interpretation of the results in section 5, has identified these leadership behaviors as the foundation of professional learning communities and learning organizations. When provided with supported professional development, school principals become equipped to do the work needed to support transformational learning and successful outcomes for teachers and their students.

A dual thrust for change is essential for districts to become learning organizations that support and empower principals as lead learners. School districts need to seek out and embrace their own transformation into learning organizations. The demands of accountability require significant change, and districts will and are being charged with becoming different than they have ever been. The second prong of change is in the schools of education of colleges and universities, which need to learn about learning so they can train and develop lead learners and instructional leaders to head schools and school districts. Authentic, transformational learning and support need to be part of the lives of school leaders, from their first educational leadership class until they retire from the profession.

Recent attention to school principals has focused on the framework and measuring sticks of standards and assessments for what principals need to know and be able to do. Although valuable, it is the learning opportunities provided through supported professional development that changes ideas, skills, knowledge, and capacities that needs

to take center stage. Now is the time to do the work, to reinvent the wheel, to commence the transformational learning that is the heart of education for children and for the adults who teach and lead them!

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## Appendix A: Method of Professional Development Survey

Please choose only **one**:

The **primary method** that I use for my professional development is:

- \_\_\_\_\_ 1. Facilitated, on-going focus on *my leadership practices* using a formal inquiry and reflection process (such as within a principals' PLC/network or with a trained mentor/coach)
- \_\_\_\_\_ 2. Learning information focused on *educational topics and practices* (such as attending seminars, conferences, administrative team meetings, and/or book study with colleagues)

Appendix B: Principals Instructional Management Rating Scale (Part II)

**PRINCIPAL INSTRUCTIONAL MANAGEMENT  
RATING SCALE**

**Principal Form**

Published by:

**Dr. Philip Hallinger**

7250 Golf Pointe Way  
Sarasota, FL 34243  
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**Principal Form 2.0**

This questionnaire is designed to provide a profile of your leadership. It consists of 50 behavioral statements that describe principal job practices and behaviors. You are asked to consider each question in terms of your leadership over the past school year.

Read each statement carefully. Then circle the number that best fits the specific job behavior or practice as you conducted it during the past school year. For the response to each statement:

- 5 represents *Almost Always*
- 4 represents *Frequently*
- 3 represents *Sometimes*
- 2 represents *Seldom*
- 1 represents *Almost Never*

In some cases, these responses may seem awkward; use your judgment in selecting the most appropriate response to such questions. Please circle only one number per question. Try to answer every question.

Thank you.

Principal Form 2.0 2

## To what extent do you . . . ?

	ALMOST NEVER			ALMOST ALWAYS	
<b>I. FRAME THE SCHOOL GOALS</b>					
1. Develop a focused set of annual school-wide goals	1	2	3	4	5
2. Frame the school's goals in terms of staff responsibilities for meeting them	1	2	3	4	5
3. Use needs assessment or other formal and informal methods to secure staff input on goal development	1	2	3	4	5
4. Use data on student performance when developing the school's academic goals	1	2	3	4	5
5. Develop goals that are easily understood and used by teachers in the school	1	2	3	4	5
<b>II. COMMUNICATE THE SCHOOL GOALS</b>					
6. Communicate the school's mission effectively to members of the school community	1	2	3	4	5
7. Discuss the school's academic goals with teachers at faculty meetings	1	2	3	4	5
8. Refer to the school's academic goals when making curricular decisions with teachers	1	2	3	4	5
9. Ensure that the school's academic goals are reflected in highly visible displays in the school (e.g., posters or bulletin boards emphasizing academic progress)	1	2	3	4	5
10. Refer to the school's goals or mission in forums with students (e.g., in assemblies or discussions)	1	2	3	4	5

	ALMOST NEVER		ALMOST ALWAYS		
<b>III. SUPERVISE &amp; EVALUATE INSTRUCTION</b>					
11. Ensure that the classroom priorities of teachers are consistent with the goals and direction of the school	1	2	3	4	5
12. Review student work products when evaluating classroom instruction	1	2	3	4	5
13. Conduct informal observations in classrooms on a regular basis (informal observations are unscheduled, last at least 5 minutes, and may or may not involve written feedback or a formal conference)	1	2	3	4	5
14. Point out specific strengths in teacher's instructional practices in post-observation feedback (e.g., in conferences or written evaluations)	1	2	3	4	5
15. Point out specific weaknesses in teacher instructional practices in post-observation feedback (e.g., in conferences or written evaluations)	1	2	3	4	5
<b>IV. COORDINATE THE CURRICULUM</b>					
16. Make clear who is responsible for coordinating the curriculum across grade levels (e.g., the principal, vice principal, or teacher-leaders)	1	2	3	4	5
17. Draw upon the results of school-wide testing when making curricular decisions	1	2	3	4	5
18. Monitor the classroom curriculum to see that it covers the school's curricular objectives	1	2	3	4	5
19. Assess the overlap between the school's curricular objectives and the school's achievement tests	1	2	3	4	5
20. Participate actively in the review of curricular materials.	1	2	3	4	5

ALMOST  
NEVERALMOST  
ALWAYS**V. MONITOR STUDENT PROGRESS**

21. Meet individually with teachers to discuss student progress	1	2	3	4	5
22. Discuss academic performance results with the faculty to identify curricular strengths and weaknesses	1	2	3	4	5
23. Use tests and other performance measure to assess progress toward school goals	1	2	3	4	5
24. Inform teachers of the school's performance results in written form (e.g., in a memo or newsletter)	1	2	3	4	5
25. Inform students of school's academic progress	1	2	3	4	5

**VI. PROTECT INSTRUCTIONAL TIME**

26. Limit interruptions of instructional time by public address announcements	1	2	3	4	5
27. Ensure that students are not called to the office during instructional time	1	2	3	4	5
28. Ensure that tardy and truant students suffer specific consequences for missing instructional time	1	2	3	4	5
29. Encourage teachers to use instructional time for teaching and practicing new skills and concepts	1	2	3	4	5
30. Limit the intrusion of extra- and co-curricular activities on instructional time	1	2	3	4	5

ALMOST  
NEVERALMOST  
ALWAYS**VII. MAINTAIN HIGH VISIBILITY**

31. Take time to talk informally with students and teachers during recess and breaks	1	2	3	4	5
32. Visit classrooms to discuss school issues with teachers and students	1	2	3	4	5
33. Attend/participate in extra- and co-curricular activities	1	2	3	4	5
34. Cover classes for teachers until a late or substitute teacher arrives	1	2	3	4	5
35. Tutor students or provide direct instruction to classes	1	2	3	4	5

**VIII. PROVIDE INCENTIVES FOR TEACHERS**

36. Reinforce superior performance by teachers in staff meetings, newsletters, and/or memos	1	2	3	4	5
37. Compliment teachers privately for their efforts or performance	1	2	3	4	5
38. Acknowledge teachers' exceptional performance by writing memos for their personnel files	1	2	3	4	5
39. Reward special efforts by teachers with opportunities for professional recognition	1	2	3	4	5
40. Create professional growth opportunities for teachers as a reward for special contributions to the school	1	2	3	4	5

ALMOST  
NEVERALMOST  
ALWAYS**IX. PROMOTE PROFESSIONAL DEVELOPMENT**

41. Ensure that inservice activities attended by staff are consistent with the school's goals	1	2	3	4	5
42. Actively support the use in the classroom of skills acquired during inservice training	1	2	3	4	5
43. Obtain the participation of the whole staff in important inservice activities	1	2	3	4	5
44. Lead or attend teacher inservice activities concerned with instruction	1	2	3	4	5
45. Set aside time at faculty meetings for teachers to share ideas or information from inservice activities	1	2	3	4	5

**X. PROVIDE INCENTIVES FOR LEARNING**

46. Recognize students who do superior work with formal rewards such as an honor roll or mention in the principal's newsletter	1	2	3	4	5
47. Use assemblies to honor students for academic accomplishments or for behavior or citizenship	1	2	3	4	5
48. Recognize superior student achievement or improvement by seeing in the office the students with their work	1	2	3	4	5
49. Contact parents to communicate improved or exemplary student performance or contributions	1	2	3	4	5
50. Support teachers actively in their recognition and/or reward of student contributions to and accomplishments in class	1	2	3	4	5

### ABOUT THE AUTHOR

Professor Dr. Philip Hallinger, author of the *Principal Instructional Management Rating Scale* (PIMRS), received his doctorate in Administration and Policy Analysis from Stanford University.

He has worked as a teacher, administrator, and professor and as the director of several leadership development centers. He has been a consultant to education and healthcare organizations throughout the United States, Canada, Asia, and Australia. He is currently Professor and Executive Director of the College of Management, Mahidol University, in Thailand. The *PIMRS* was developed with the cooperation of the Milpitas (California) Unified School District, Richard P. Mesa, Superintendent. As a research instrument, it meets professional standards of reliability and validity and has been used in over 150 studies of principal leadership in the United States, Canada, Australia, Europe, and Asia.

The scale is also used by school districts for evaluation and professional development purposes. It surpasses legal standards for use as a personnel evaluation instrument and has been recommended by researchers interested in professional development and district improvement (see, for example, Edwin Bridges, *Managing the Incompetent Teacher*, ERIC, 1984). Articles on the development and use of the *PIMRS* have appeared in *The Elementary School Journal*, *Administrators Notebook*, *NASSP Bulletin*, and *Educational Leadership*.

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Additional information on the development of the *PIMRS* and the rights to its use may be obtained from the publisher (see cover page).

## Appendix C: Letter of Permission to use the PIMRS

October 4, 2011

Marcia Grande  
Walden University

Dear Marcia:

As copyright holder and publisher, you have my permission as publisher to use the *Principal Instructional Management Rating Scale (PIMRS)* in your research study. In using the scale, you may make unlimited copies of any of the three forms of the PIMRS.

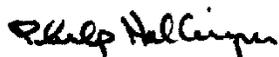
Please note the following conditions of use:

1. This authorization extends only to the use of the PIMRS for research purposes, not for general school district use of the instrument for evaluation or staff development purposes;
2. *The user must include a reliability analysis in the study if suitable quantitative data has been collected;*
3. The user agrees to send a soft copy of the *completed study* to the publisher upon completion of the research.
4. The user agrees to send a soft copy of the *data set* and coding instructions to the publisher upon completion of the research in order to enable further instrument development.

The user has permission to adapt items as necessary for the research.

Please be advised that a separate *permission to publish* letter will be sent after the publisher receives a soft copy of the completed study and I have confirmed that you included a reliability analysis.

Sincerely,



Professor Philip Hallinger  
7250 Golf Pointe Way  
Sarasota FL, 34243  
Hallinger@gmail.com

#### Appendix D: Letter of Invitation to Participate

Dear School Principal,

You are invited to participate in a research study about whether differences exist in leadership practices of principals who use different types of professional development as the primary method for their own learning. This study is being conducted as part of the requirements of a doctoral degree in the School of Education at Walden University. Participation in the study is voluntary and anonymous.

The one-time on-line survey will take about 5-10 minutes to complete. Eligibility to participate in the study requires that you have been the principal of your current school for 2 or more years and that the school is within the United States. Complete information about the study is provided at the beginning of the survey.

To access the study information and survey, please click on the link below.

[Link information here](#)

If you have any questions or concerns about the study, please feel free to contact me. A copy of the study will be available within a year at ProQuest Dissertations ([www.proquest.com](http://www.proquest.com)).

I sincerely thank you for considering participating in this study.

Marcia J. Grande

## Appendix E: Informed Consent Document

### Informed Consent Information

Welcome! This page is part of the informed consent process. The "consent" question is at the bottom of the page, following information about the study. I encourage you to read the full information about the study, how to have questions answered about the study or about your rights as a potential participant, how to indicate your consent to participate in the study, and to print and keep a copy of this document for your records.

As a school principal, you are invited to take part in a research study about whether differences exist in leadership practices of principals who use different types of professional development as the primary method for their own learning. Eligibility to participate in the study requires that you have been the principal of your current school for 2 or more years and that the school is within the United States. If you agree to be in this study, please complete this one-time survey that will take about 5-10 minutes of time. This voluntary, anonymous study, conducted through SurveyMonkey, is being completed as part of the requirements of a doctoral degree in the School of Education at Walden University.

SurveyMonkey encrypts responses and does not enable cookies on your computer hard drive. Responses will be separated from e-mail contact information and reported together with responses of other participants. The researcher will code responses and separate the code and data information. Study codes and data will be kept by the researcher for 5 years in secured cabinets, as required by the university, after which time they will be destroyed.

The survey consists of 51 questions. One question, which has two response options, is about the primary professional development method you use for your own learning. The remaining 50 questions, which use a 5 point Likert-type response scale, are about your leadership practices.

Here are two sample questions:

To what extent do you develop a focused set of annual schoolwide goals?

To what extent do you participate actively in the review of curricular materials?

The results of the study may add to the knowledge about the ways in which professional development supports the leadership and work of school principals. No compensation will be provided for participation in the study.

Your decision to participate or not to participate will be respected. There is no penalty for choosing not to participate or for withdrawing from the study. You may withdraw from the study by exiting the survey link at any time up until you submit the completed survey. There are minimal risks to your participation in the study which include possible

temporary discomfort at reflecting on your leadership practices and at completing a survey.

If you have any questions or concerns about the study, please feel free to contact me. If you have any questions about your rights as a study participant, you may contact the Walden University representative or the Institutional Review Board. Walden University's approval number for this study is 12-22-11-0046406e and it expires on December 21, 2012. A copy of the study will be available within a year at ProQuest Dissertations ([www.proquest.com](http://www.proquest.com)).

I sincerely thank you for your consideration of participating in this study.

Marcia J. Grande

## Curriculum Vitae

Marcia J. Grande

- EDUCATION: M.S., Educational Administration, 2000  
Elementary Principal Certification  
Gwynedd-Mercy College  
Gwynedd Valley, PA
- Elementary Instructional I Certification, 1997  
Cabrini College  
Radnor, PA
- Continuing Education, 1993-1994, 2005  
Saint Joseph's University  
Philadelphia, PA
- Continuing Education, 1993  
The Pennsylvania State University  
University Park, PA 16802
- Ed. M., Counselor Education, 1988  
Elementary Counselor Certification  
Temple University  
Philadelphia, PA
- B.A., Psychology, Summa Cum Laude, 1978  
Temple University  
Philadelphia, PA
- A.A., Human Relations, Summa Cum Laude, 1974  
Montgomery County Community College  
Blue Bell, PA

PROFESSIONAL  
EXPERIENCE:

Elementary Guidance Counselor, 1991 – Present  
Instructional Support Teacher, 1/2003 – 6/2003  
Instructional Support Teacher, 1/2002 – 6/2002  
Upper Perkiomen School District  
East Greenville, PA

Consultant  
GRANDe IDEAS, LLC, 2003 – Present  
Souderton, PA

Consultant and Adjunct Instructor, 1996 – 2005  
Gwynedd-Mercy College  
Gwynedd Valley, PA

Adjunct Instructor, 1995 – 1998  
Temple University  
Philadelphia, PA

Clinical Counselor, 1990 – 1992  
Montgomery Guidance Center  
Harleysville, PA

Head Social Worker, 1983 – 1990  
Easter Seal Society, Montgomery County  
Kulpsville, PA