Moving Forward on Common Ground: A Mixed Methods Exploration of National Standards

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MOVING FORWARD ON COMMON GROUND: A MIXED METHODS

EXPLORATION OF NATIONAL STANDARDS

AND SCHOOL DISTRICT IMPLEMENTATION

by

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2003

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ABSTRACT

Moving Forward on Common Ground: A Mixed Methods Exploration of National Standards and School District Implementation

by

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There is extant literature regarding teacher professional development; however, there is limited research in the area of “high-quality” teacher professional development practices which are advocated for at the government and district levels based on Learning Forward’s (formerly National Staff Development Council – NSDC) guidelines for school reform.

The intent of this proposed research study is to examine the professional development practices of three elementary schools in a large urban area in the southwest region of the United States, and how well the professional development practices align with Learning Forward’s national standards for constructing effective professional development. Administrators and teachers anonymously in person completed the Standards Assessment Inventory (SAI) survey instrument. The survey is based upon the National Staff Development Council’s (NSDC) standards currently known as Learning Forward in the three strands of (a) context, (b) process, and (c) content.
A qualitative research paradigm (Phase 2) was used to analyze the semi-structured open-ended interview questions. The researcher conducted face-to-face interviews with the principals and three teachers from each of the identified schools.

The phases occurred sequentially and had equal status. The findings from the research can be used as recommendations to key players (e.g., district professional development facilitators, principals, coaches, etc.) to guide in the improvement of future teacher professional development programs which will impact the academic achievement outcomes of our nation’s greatest resource — America’s children.
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Additionally, I wish to acknowledge and thank Joellen Killion of Learning Forward for giving me permission to modify the SAI survey, Annie L. P. Smith and Dr. Sandra Mack who unselfishly gave of their time to assist me while I assembled this document. Lastly, a special thank you to Dr. Celeste M. Hunter for proofreading and editing my paper; accomplishing this goal would have been much more difficult had it not been for your support. I will forever be indebted to you.
DEDICATION

*Family and friends are flowers in life’s garden. ~author unknown~*

This dissertation is dedicated to my loving husband, Jim. You have been my inspiration for pursuing a career in education. Thanks for allowing me to spread my wings, soar, and grab this opportunity to earn a Doctorate Degree in Educational Leadership. Without your support and love for me this would not have been possible.

Amore!

To my uncle Henry Lee Jones, thank you for the unconditional love you showered upon me. You were there for many milestones in my life. I truly regret that you won’t physically be here for this auspicious occasion. However, I know that you will be looking down on me as I walk across the stage to receive the education doctorate degree.

This dedication is also extended to my children, Anicia and Brian, and my grandchildren, Xavier, Diamond, Christina, and Amelia. May you benefit from the sacrifices of others and use education as a vehicle to gain the knowledge to sustain you throughout your lives. I also want to thank my mother, extended family, and friends who are too numerous to mention that encouraged me along this voyage. Last, however, by no means least, I would like to acknowledge the participants in this study, my cohort family, and God for providing me with the fortitude to stay on course and finish the task.
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CHAPTER 1

INTRODUCTION

Change that emanates from teachers lasts until they find a better way (Barth, 1990, p.10).

Educational reform movements in the United States and around the world are setting ambitious goals for student learning. Many factors contribute to achieving these goals. However, the changes in classroom practices demanded by the reform visions ultimately rely on teachers (Fullan & Miles, 1992; Spillane, 1999). A particular target for criticism is the prevalence of single-shot, one-day workshops that often make teacher professional development “intellectually superficial, disconnected from deep issues of curriculum and learning, fragmented, and noncumulative” (Ball & Cohen, 1999, pp. 3–4).

In recent years, researchers have increasingly focused on what makes professional development effective. This is an improvement compared with the decades in which little attention was directed to the outcomes of professional development and much to evaluations of teacher satisfaction with professional development experiences (Frechtling, Sharop, Carey, & Vaden-Kiernan, 1995).

Despite the recognition of its importance, the professional development currently available to teachers does not adequately address their needs in the 21st century. And because there is no coherent infrastructure for professional development, professional development represents a “patchwork of opportunities—formal and informal, mandatory and voluntary, serendipitous and planned” (Wilson & Berne, 1999, p.174). Each year, schools, districts, and the federal government spend millions of dollars on in-service seminars and other forms of professional development that are fragmented, intellectually
superficial, and do not take into account what we know about how teachers learn (Ball & Cohen, 1999; Putnam & Borko, 2004). Sykes (1996) characterized the inadequacy of conventional professional development as “the most serious unsolved problem for policy and practice in American education today” (p. 465).

According to Hayes (1997), “One-shot” knowledge-transmission programs do not achieve their aims of effecting a change in teacher behavior. This is because participants are passive learners and the presenter has no knowledge of their beliefs and knowledge levels. Darling-Hammond (1998) asserted, "We need to deepen our understanding of what good professional development opportunities look like in different contexts, through concrete images, examples, and experiences" Moving beyond the “one-shot” method of teacher professional development to collaboration among peers is essential to teacher growth” (p. 71).

Professional development generally refers to ongoing learning opportunities available to teachers, and other education personnel, through their schools and districts. Effective professional development is seen as increasingly vital to school success and teacher satisfaction. With schools today facing an array of complex challenges—from working with an increasingly diverse population of students, to integrating new technology in the classroom, to meeting rigorous academic standards and goals—observers have stressed the need for teachers to be able to enhance and build on their instructional knowledge (National Commission on Teaching & America's Future, 1996).

As pointed out by the National Commission on Teaching and America’s Future (NCTAF, 2004), in most districts, professional development is characterized by, (a)
periodic in-service days, (b) generic workshops that offer little continuity or application, (c) the transfer of knowledge and discrete skills from “experts” to teachers, (d) a focus on improving individual practices, and (d) pull-out delivery strategies and or add-ons to the regular school day. This type of professional development, where external experts advised and or delivered learning events to address the identified deficiencies in teachers’ knowledge was based upon a ‘deficit’ model of professional development (Clayton, 2009). This method is in direct contrast to Knowles’ adult learning theory regarding how teachers as adult learners learn. Even so, many teachers still appear to receive the bulk of their professional development through some form of the ‘one-shot’ workshop. Survey data from the National Center for Education Statistics (NCES) show that in 2000, teachers typically spent about a day or less in professional development on any one content area. Meanwhile, only 18 percent of teachers felt that the training they received was connected "to a great extent" to other school improvement activities, while 10 percent to 15 percent (depending on the content area of the training) reported that they were given significant follow-up materials or activities. The proportion of teachers who felt their professional-development activity significantly improved their teaching ranged from 12 percent to 27 percent (NCES, 2000).

According to Fullan (2001), school reform initiatives have “failed to penetrate the classroom door” (p. 57). In addition, typical professional development opportunities for teachers have become “a landscape littered with failed approaches” (Liberman & Miller, 2001, p. 174). Changes in classroom practices demanded by the reform visions ultimately rely on teachers. Therefore, educational leaders and teachers must devise a new approach
to increase teacher knowledge in order to impact student academic achievement (Fullan & Miles, 1992). Fullan (2001), stated, “high quality” professional development for teachers must be (a) embedded in practice, (b) continuous and on-going, (c) on-site and school based, (d) integrated with school reform efforts, and (e) centered around teacher collaboration.

The February 2009 report from the Professional Learning in the Learning Profession revealed that schools in the United States have moved backward in providing the vast majority of teachers with the kind of ongoing, intensive professional learning that research shows has a substantial impact on student learning. It states in 2008, teachers nationwide had fewer opportunities to engage in sustained professional learning opportunities than they had four years earlier. They were also half more likely to report collaborative efforts in their schools than teachers did in 2000. According to Fullan (2001), “It is one of life’s great ironies: schools are in the business of teaching and learning, yet they are terrible at learning from each other; if they ever discover how to do this, their future is assured” (p.92).

Background of the Study

Glatthorn, (1995) believed “teacher development is the professional growth a teacher achieves as a result of gaining increased experience and examining his or her teaching systematically” (p.41). In addition to ‘knowing what’ and ‘knowing how’, teachers must also be competent in ‘knowing why’ and ‘knowing when’ (Calderhead & Shorrock, 1997). The professionalization of teachers is a long-term process that includes regular opportunities and experiences planned systematically to promote growth and
development. Cochran-Smith and Lytle, (2001) refer to this new model of teacher education, as a ‘revolution’ in education, and even a ‘new paradigm’ of professional development.

“It's time to stop just talking about education reform and start actually doing it. It's time to make education America's national mission.” – President Barack Obama, November 4, 2009. The Obama administration’s reauthorization plan (NCLB Act of 2001) supports teachers by providing them with, (a) increasing collaboration time. There will be more support for time for teachers to collaborate, mentor, and work together to improve their practice, (b) holding preparation programs accountable. Making sure teacher and leader preparation programs are accountable for preparing their graduates to be successful in classrooms. Increase the investment in preparation, (c) funding relevant professional development. Providing districts with support to implement professional development that is proven to give teachers knowledge and skills that help them improve their classroom practice, and (d) improving principal leadership. More focus will be put on principal development and improving the quality of school leadership, including holding principals to the same effectiveness standards as teachers (Osama, 2011).

On July 24, 2009, President Barack Obama and Secretary of Education Arne Duncan announced the American Recovery and Reinvestment Act (ARRA) which provided $4.35 billion for the Race to the Top Fund (RTTT), a competitive grant program designed to encourage and reward States that are creating the conditions for education innovation and reform; achieving significant improvement in student outcomes, including making substantial gains in student achievement, closing achievement gaps, improving
high school graduation rates, and ensuring student preparation for success in college and careers; and implementing ambitious plans in four core education reform areas: (a) Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy; (b) Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction; (c) Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and (d) Turning around our lowest-achieving schools (Race, 2009).

“Teaching at Risk: A Call to Action,” the report released by The Teaching Commission (2004), states therefore, “helping our teachers to succeed and enabling our children to learn is an investment in human potential, one that is essential to guaranteeing America’s future freedom and prosperity” (p. 11). A leadership practice suited to helping teachers learn according to Leithwood is transformational leading. This model conceptualizes transformational leadership along seven dimensions:

1. Building school vision;
2. Establishing school goals;
3. Providing intellectual stimulation;
4. Offering individualized support;
5. Modeling best practices and important organizational values;
6. Demonstrating high performance expectations;
7. Creating a productive school culture; and developing structures to foster participation in school decisions (Leithwood, 1992).

Virtually all treatment of transformational leadership claim that among its more direct effects are employee motivation and commitment, leading to the kind of extra effort required for significant change (Yukl, 1994). Therefore, effective school restructuring requires both first and second-order changes (e.g., changes in core technology, leadership that is sensitive to organization building, developing shared vision; creating productive work cultures; distributing leadership to others; and the like (Leithwood, 1992). Professional development for teachers must move from the ‘traditional system’ to a ‘standard-base system’ as identified by Learning Forward.

Statement of the Problem

Educational reform imposed at the federal, state, and district level require teachers to become “highly qualified” in order to enhance their teaching practices and ultimately increase student academic achievement outcomes. However, these mandates tend to be underfunded, don’t clearly define what constitutes highly qualified professional development, nor provide systems with guidelines regarding how effective professional development programs should be designed, implemented, or evaluated. According to Louis V. Gerstner, Jr., former chairman of IBM and chairman of The Teaching Commission, "The quality of teachers in our schools affects every aspect of our society, from jobs to national security." Although districts are moving teacher improvement from the back burner to the forefront of their school improvement plans, teacher professional development in the 21st century is still woefully inadequate.
The literature has recognized quality teachers as the most important link to student academic achievement. In 1998, several economists estimated that at least 7.5 percent of the variation in student achievement resulted directly from teacher quality and noted that the actual number could be as high as 20 percent (Hanushek, 1998). This is also supported by a growing body of research that shows student achievement is more heavily influenced by teacher quality than by students’ race, class, prior academic record, or school a student attends. This effect is particularly strong among students from low-income families and African American students. The benefits associated with being taught by good teachers are cumulative. Research indicates that the achievement gap widens each year between students with most effective teachers and those with least effective teachers. This suggests that the most significant gains in student achievement will likely be realized when students receive instruction from good teachers over consecutive years (Center for Public Ed, 2012).

Hawley & Valli (1999) asserted, “Professional development in most school districts has had a small, ineffective role in the professional lives of teachers and little impact on student learning.” School leaders are not often equipped with the skills and knowledge needed to help adults challenge and change beliefs and behaviors (Marzano, Waters, McNulty, 2005.) Research tells us that teacher professional development is only sustainable if the organizational conditions are appropriate (Lieberman, 2000, p. 221). Change is a gradual and difficult process. It must also address all areas of the school that contribute to or inhibit teacher learning and student outcomes (Hawley & Valli, 1999). Educational bureaucracies often prescribe "one size fits all" solutions that many times
ignore the specific training and developmental needs of teachers within their specific contexts (Lieberman, 2000, p. 221).

Purpose of the Study

The intent of this two-phase sequential mixed methods case study was to research the influence of Learning Forward’s Standards as perceived by principals and teachers from three elementary schools in a large urban area in the southwest region of the United States in the areas of content, process, and context. And determine how well the professional development practices at the three schools aligned with the guidelines outlined by Learning Forward for designing effective teacher professional development activities.

Research Questions

These three guiding questions were explored;

1. How do the professional development practices as mandated by the district in the three schools reflect the practices outlined by Learning Forward?
2. What is the District’s approach for designing professional development as reflected by the new Learning Forward Standards?
3. What are the similarities and differences between teachers’ perceptions and administrators’ perceptions regarding how the professional development practices at their schools reflect the practices outlined by Learning Forward?
Research Design and Methodology

The researcher selected to mix quantitative and qualitative data through the use of a single study mixed methods research design project for this study. Its central premise is that the use of quantitative and qualitative approaches in combination provides a better understanding of research problems than either approach alone (Creswell, 2005). Mixed methods research encourages the use of multiple worldviews or paradigms rather than the typical association of certain paradigms for quantitative researchers and others for qualitative researchers. Mixed methods research is “practical” in the sense that the researcher is free to use all methods possible to address a research problem. It is also “practical” because individuals tend to solve problems using numbers, words, and inductive and deductive thinking. It is natural, then, for individuals to employ mixed methods research as the preferred mode of understanding the world (Johnson and Christensen, 2003). Researchers can situate numbers in the contexts and words of participants, and they can frame the words of participants with numbers, trends, and statistical results. Both forms of data are necessary today. In recent years, many authors have begun to advocate for mixed methods research as a separate methodology or design. Tashakkori and Teddlie (2003) called mixed methods research the “third methodological movement” (p. ix). This means that in the evolution of research methodologies, mixed methods now follows quantitative approaches and then qualitative approaches as the third movement.

The Standards Assessment Inventory (SAI) survey was administered during phase one to acquire statistical quantitative data about teachers’ perceptions regarding
professional development practices at their respective worksites. Statistics from a one-way ANOVA were used to analyze the survey data in the areas of content, context, and process. The reasons for following up with the qualitative research in the second phase was to better comprehend and inform the quantitative results. Semi-structured interview questions were used to explore aspects of professional development practices with participants from phase one. A comparison was made between the perceptions of administrators and teachers concerning the alignment of their professional development practices with the guidelines of Learning Forward.

Conceptual Framework

The focal point of this study is Learning Forward’s Standards for Professional Learning (formerly known as the National Staff Development Council-NSDC). They are the third iteration of standards outlining the characteristics of professional learning. The standards make explicit that the purpose of professional learning is for educators to develop the knowledge, skills, practices, and dispositions they need to help students perform at higher levels (Learning Forward, 2011). The seven standards for professional learning consist of (a) learning communities, (b) leadership, (c) resources, (d) data, (e) learning designs, (f) implementation, and (g) outcomes. The phrase “Professional learning that increases educator effectiveness and results for all students” opens each standard. There are four key elements in the new stems, educators, effectiveness, results, and all students. The following is a list of the new standards that have been identified as the guide for effective educator professional development.
LEARNING COMMUNITIES: Professional learning that increases educator effectiveness and results for all students occurs within learning communities committed to continuous improvement, collective responsibility, and goal alignment. Professional learning within communities requires continuous improvement, promotes collective responsibility, and supports alignment of individual, team, school, and school system goals. Learning communities convene regularly and frequently during the workday to engage in collaborative professional learning to strengthen their practice and increase student results. Learning community members are accountable to one another to achieve the shared goals of the school and school system and work in transparent, authentic settings that support their improvement.

LEADERSHIP: Professional learning that increases educator effectiveness and results for all students requires skillful leaders who develop capacity, advocate, and create support systems for professional learning. Leaders throughout the pre-K-12 education community recognize effective professional learning as a key strategy for supporting significant school and school system improvements to increase results for all students. Whether they lead from classrooms, schools, school systems, technical assistance agencies, professional associations, universities, or public agencies, leaders develop their own and others' capacity to learn and lead professional learning, advocate for it, provide support systems, and distribute leadership and responsibility for its effectiveness and results.

RESOURCES: Professional learning that increases educator effectiveness and results for all students requires prioritizing, monitoring, and coordinating resources for educator
learning. Effective professional learning requires human, fiscal, material, technology, and time resources to achieve student learning goals. How resources are allocated for professional learning can overcome inequities and achieve results for educators and students. The availability and allocation of resources for professional learning affect its quality and results. Understanding the resources associated with professional learning and actively and accurately tracking them facilitates better decisions about and increased quality and results of professional learning.

**DATA:** Professional learning that increases educator effectiveness and results for all students uses a variety of sources and types of student, educator, and system data to plan, assess, and evaluate professional learning. Data from multiple sources enrich decisions about professional learning that leads to increased results for every student. Multiple sources include both quantitative and qualitative data, such as common formative and summative assessments, performance assessments, observations, work samples, performance metrics, portfolios, and self-reports. The use of multiple sources of data offers a balanced and more comprehensive analysis of student, educator, and system performance than any single type or source of data can. However, data alone do little to inform decision making and increase effectiveness.

**LEARNING DESIGNS:** Professional learning that increases educator effectiveness and results for all students integrates theories, research, and models of human learning to achieve its intended outcomes. Integrating theories, research, and models of human learning into the planning and design of professional learning contributes to its effectiveness. Several factors influence decisions about learning designs, including the
goals of the learning, characteristics of the learners, their comfort with the learning process and one another, their familiarity with the content, the magnitude of the expected change, educators' work environment, and resources available to support learning. The design of professional learning affects its quality and effectiveness.

**IMPLEMENTATION**: Professional learning that increases educator effectiveness and results for all students applies research on change and sustains support for implementation of professional learning for long-term change. The primary goals for professional learning are changes in educator practice and increases in student learning. This is a process that occurs over time and requires support for implementation to embed the new learning into practices. Those responsible for professional learning apply findings from change process research to support long-term change in practice by extending learning over time. They integrate a variety of supports for individuals, teams, and schools. Finally, they integrate constructive feedback and reflection to support continuous improvement in practice that allows educators to move along a continuum from novice to expert through application of their professional learning.

**OUTCOMES**: Professional learning that increases educator effectiveness and results for all students aligns its outcomes with educator performance and student curriculum standards. For all students to learn, educators and professional learning must be held to high standards. Professional learning that increases results for all students addresses the learning outcomes and performance expectations education systems designate for students and educators. When the content of professional learning integrates student curriculum and educator performance standards, the link between educator learning and
student learning becomes explicit, increasing the likelihood that professional learning contributes to increased student learning. When systems increase the stakes for students by demanding high, equitable outcomes, the stakes for professional learning increase as well (Learning Forward, 2012).

The other three lenses utilized were adult, transformational leadership, and transformational learning theories. Knowles, (1980), differentiated adult learning from the way children learn and developed the term “andragogy,” which is defined as the art and science of helping adults learn which is in contrast to pedagogy the art and science of how children learn. Knowles, (2005), identified the following andragogical assumptions of the adult learner: (a) learner’s need to know, (b) self-concept, (c) prior experience, (d) readiness to learn, and (e) orientation to learning. Based on these assumptions he created five principles which are regarded as the theory of andragogy;

1. *The need to know* — adult learners need to know why they need to learn something before undertaking to learn it;

2. *Learner self-concept* — adults need to be responsible for their own decisions and to be treated as capable of self-direction;

3. *Role of learners' experience* — adult learners have a variety of experiences of life which represent the richest resource for learning. These experiences are however imbued with bias and presupposition;

4. *Readiness to learn* — adults are ready to learn those things they need to know in order to cope effectively with life situations;

5. *Orientation to learning* — adults are motivated to learn to the extent that
they perceive that it will help them perform tasks they confront in their life situations.

Views of school leadership are changing largely because of current restructuring initiatives at the federal, state, and local levels. The problem, according to Douglas Mitchell and Sharon Tucker (1992), is that we have tended to think of leadership as the capacity to take charge and get things done. This view keeps us from focusing on the importance of teamwork and comprehensive school improvement. Perhaps it is time, to stop thinking of leadership as aggressive action and more as a way of thinking about ourselves, our jobs, and the nature of the educational process.

According to Mary Poplin (1992), education now calls on administrators to be "the servants of collective vision," as well as "editors, cheerleaders, problem solvers, and resource finders," instructional leadership, she declares, has outlived its usefulness. Therefore, “instructional leadership” is “out” and “transformational leadership” is “in.”

Leithwood (1992) finds that transformational leaders pursue these fundamental goals: Helping staff develop and maintain a collaborative professional school culture. This means staff members often talk, observe, critique, and plan together. Norms of collective responsibility and continuous improvement encourage them to teach each other how to teach better. Transformational leaders involve staff in collaborative goal setting, reduce teacher isolation, use bureaucratic mechanisms to support cultural changes, share leadership with others by delegating power, and actively communicate the school's norms and beliefs.
Significance of the Study

In recent years, researchers have increasingly focused on what makes teacher professional development effective. This trend is an improvement compared with the decades in which little attention was directed to the outcomes of professional development and much to evaluations of teacher satisfaction with professional development experiences (Frechtling, Sharop, Carey, & Vaden-Kiernan, 1995). Recent research explores the complex links between the designs of professional development, teachers’ learning during professional development activities, and subsequent changes in classroom practice (Borko, 2004).

Given the climate of educational reform this study is timely in its focus on the design and implementation of effective teacher professional development that increases teacher pedagogical knowledge and student academic achievement. The study is significant because the findings will add to the limited existing data on the design of professional development activities based on Learning Forward’s new standards and teachers as adult learners. It will also benefit the administrators and professional development facilitators from the large urban school district regarding the teachers’ perceptions of the professional development activities currently available. The results of this study should provide school districts with data to evaluate their current staff development programs and determine if changes should be made. The results from the study also serve as an evaluation of the current professional development programs based on the perception of the respondents in the study. This data can be used by key stakeholders to determine if changes should be made to the design of existing professional development
activities. Lastly, it outlines the requirements for comprehensive professional development planning.

**Limitations**

The research for this study was limited to three elementary schools in a large urban area in the southwest region of the United States. Therefore, generalize ability of the study is limited to only situations that are similar to the three elementary schools. Research tells us that students who fall behind in reading in the early grades very rarely catch up to their grade level in reading ability in middle school or high school. The target population for this study was \( n=98 \) kindergarten through \(-5^{th}\) grade elementary classroom teachers and specialists (e.g., art, music, physical education, librarian or literacy). The sampling was purposeful however; the survey data were limited to principals and teachers which voluntarily participated in the study.

This mixed method research study utilized self-reporting data. Findings of the study were based on the perception data of respondents and the assumption that they will respond honestly. Additionally, in the quantitative phase of the study there is a potential risk of a non-response error, (e.g., failure of respondents to answer certain questions). The study will only be applicable if the context is similar to the reader’s. The study is further limited because it relies on perceptions. While perceptions are important, they are also subjective.

**Delimitations**

The researcher purposely excluded middle and high school teachers from the study. It was limited to 150 elementary school teachers within a large urban area in the
southwest region of the United States. Therefore, the study is specific to the three reporting elementary schools. Therefore, recommendations for obtaining “high quality” teacher professional development programs may not be applicable to other school settings.

Assumptions

The researcher has the following assumptions regarding this study; Principals will understand the importance of developing teacher professional development activities based on the way teachers learn as adults (andragogy). Teachers have prior knowledge of Learning Forward’s Standards and definition for “high quality” professional development. The final assumption is that principals and teachers responded truthfully to the Standards Assessment Inventory (SAI) survey and the semi-structured open-ended interview questions.

Definition of Terms

The following definitions were utilized for the understanding of this study:

**Adequate Yearly Progress (AYP):** The minimum level of improvement that states, school districts and schools must achieve each year (U.S. Department of Education, 2003). It is how individual states measure progress toward achieving state academic standards.

**Adult:** One who has arrived at a self-concept of being responsible for one’s own life, of being self-directing (Knowles, 1980).

**Adult learning:** Adult learning has been viewed as a process of being freed from the oppression of being illiterate, a means of gaining knowledge and skills, a way to satisfy
learner needs, and a process of critical self-reflection that can lead to transformation (Cranton, 1994).

**Adult Learning Theory (Andragogy):** A set of ideas about how adults learn new skills or information (Knowles, 1980, 43).

**Constructivist Learning:** A theory of learning based on the principle that learners construct meaning from what they experience; thus, learning is an active, meaning-making process (Mezirow, 1990).

**Content Standards:** Refers to the “what” of staff development. Content decisions begin with an examination of what students must know and be able to do. Staff development content addresses the knowledge and skills that ensure all students are successful (NSDC, 2001).

**Context Standards:** Address the organization, system, and culture in which the new learning will be implemented. These standards describe the structures that must be in place for successful learning to occur (NSDC, 2001).

**Elementary school:** The main point of delivery for primary education; for the purpose of this study, it includes schools with grades Kindergarten through fifth.

**Empowerment School:** The concept of empowerment is anchored in the belief that, if schools are to be held accountable for student achievement, they should be given the freedom to determine what will best accomplish their goals and to deploy the resources that they have been allocated to implement their choices (Clark County School District, 2006).
**High-Quality Professional Development:** Focuses on the knowledge, skills and attitudes required of teachers, administrators and other school employees to help students learn and perform at the highest levels. High quality professional development is results-driven, standards-based, and job-embedded (NSDC, 2001).

**Learning Forward:** Is the largest non-profit professional association committed to ensuring success for all students through staff learning and school improvement. These standards provide the framework for a new vision of effective professional development for schools, districts, and states (Learning Forward, 2011). Prior to September 2010, Learning Forward was known as the National Staff Development Council (NSDC).

**No Child Left Behind Act of 2001 (NCLB):** An Act by Congress intended to close the achievement gap through accountability, flexibility, and choice (NCLB Act, 2001).

**Pedagogy:** According to Knowles, (1980) pedagogy is, “derived from the Greek words paid meaning “child,” and agogos, meaning “leader of.” So, pedagogy literally means “the art and science of teaching children” (p.43).

**Process Standards:** Refers to the “how “of staff development. It describes the learning processes used in the acquisition of new knowledge and skills. Process standards address the use of data, evaluation, and research (Learning Forward, 2011).

**Professional Development:** Professional development means a comprehensive, sustained, and intensive approach to improving teachers’ and principals’ effectiveness in raising student achievement (Learning Forward, 2011).
Professional Learning Communities (PLC): The term describes a collegial group who are united in their commitment to an outcome. In the case of education, the commitment would be to student learning. The community engages in a variety of activities including sharing a vision, working and learning collaboratively, visiting and observing other classrooms, and participating in shared decision making (Hord, 1997). DuFour, R., DuFour, R, Eaker, R., & Many, T. (2006) defines a PLC as “A professional learning community is composed of collaborative teams whose members work interdependently to achieve common goals linked to the purpose of learning for all” (p. 3).

Transformational learning: “The process of learning through critical self-reflection, which results in the reformation of a meaning perspective to allow a more inclusive, discrimination, and integrative understanding of one’s experience” (Mezirow, 1990 p. xvi).

Organization of the Study Proposal

The study was written as a five chapter dissertation. Chapter one introduces the study including the statement of the problem, purpose of the study, research questions, research design and methodology, conceptual framework, significance of the study, limitations, delimitations, assumptions, and definition of terms. Also contained in this chapter is the conceptual framework which is based on Learning Forward’s Standards, adult and transformational learning and transformational leadership theories.

Chapter 2 relates to the literature on teacher professional development. Chapter 3 is a presentation of the structure for this mixed method research design and the procedures used to gather data for the study. Chapter 4 described the findings from the
quantitative and qualitative phases of the study. Chapter 5 consists of a summation of the study. It contains the conclusion and recommendations for further research.
Figure 1 Conceptual Framework

Transformational Leadership
Applying Learning Forward's Standards & Definition for Professional Learning

Learning Forward's Standard Assessment Inventory (SAD) Based on the Principles of Andragogy

Teachers' Professional Development Experiences and Perceptions

Education Reform "highly qualified" Teachers & Increased Student Academic Achievement

Obama Administration Guidelines for Teacher Professional Development
CHAPTER 2

REVIEW OF THE LITERATURE

What I hear, I forget; What I see, I remember; What I do, I understand. – Confucius 451 B.C.E

People can be encouraged to change, but if the structure of the system in which the individuals work does not support them or allow enough flexibility, improvement efforts will fail. Similarly, if the organization's governance, policies, structures, time frames, and resource allocation are changed but the individuals within the organization do not have opportunities to learn how to work within the new system, the improvement effort will fail. - Todnem & Warner (1994).

After years of striving to establish rigorous student achievement standards across the country, efforts are now focused on formulating and implementing education policies that make realizing the standards possible. These policies include increased attention to teaching quality and the role of professional development in its creation. Teaching to rigorous standards and basing practice on what is known about teaching and learning demand much more of teachers, including a deeper knowledge of subject matter; a better understanding of how students learn and think; the ability to make complex, on-the spot decisions; and a commitment to working closely with colleagues to design rich learning activities and appropriate assessments. Professional development is an essential element of comprehensive or “systemic” reform. The nation can adopt rigorous standards, set forth a visionary scenario, compile the best research about how students learn, change textbooks and assessment, promote teaching strategies that have been successful with a
wide range of students, and change all the other elements involved in systemic reform—but without professional development, school reform and improved achievement for all students will not happen. Unless the classroom teacher understands and is committed to standards-based reform and knows how to make it happen, the dream will not be realized. To meet increased demands will require a carefully crafted, well supported professional development design. “Unless you have a theory about how to support instructional practice, you don’t have a prayer” (Elmore, 2002).

Defining Professional Development

With the reauthorization of the No Child Left Behind Act (NCLB, 2001), school districts around the country are engaging in serious education reform. One of the key elements in these reforms is teacher professional development. Over the years, a vast number of definitions have been derived for professional development. According to the American Federation of Teachers (AFT) (2008), professional development is a continuous process of individual and collective examination of practice. It should empower individual educators and communities of educators to make complex decisions, identify and solve problems, and connect theory, practice, and student outcomes. It should also enable teachers to offer students the learning opportunities that will prepare them to meet world-class standards in given content areas and to successfully assume adult responsibilities for citizenship and work. The professional development should (a) ensure depth of content knowledge, (b) provide a strong foundation in the pedagogy of particular discipline, (c) in addition to content knowledge, professional development should provide more general knowledge about the teaching and learning processes and
about schools as institutions, (d) effective professional development is rooted in and reflects the best available research, (f) contribute to measurable improvement in student achievement, (g) effective professional development expects teachers to be intellectually engaged with ideas and resources, (h) effective professional development provides sufficient time, support, and resources to enable teachers to master new content and pedagogy and to integrate these into their practice, lastly (i) professional development should be designed by representatives of those who participate in it, in cooperation with experts in the field.

Merriam Webster dictionary, defines professional development as “activities to enhance professional career growth.” Fullan (1991) expands the definition to include “the sum total of formal and informal learning experiences throughout one’s career from pre-service teacher education to retirement” (p.326). Grant (1996) suggests a broader definition of professional development that includes the use of technology to foster teacher growth. Professional development … goes beyond the term ‘training’ with its implications of learning skills, and encompasses a definition that includes formal and informal means of helping teachers not only learn new skills but also develop new insights into pedagogy and their own practice, and explore new or advanced understandings of content and resources. This definition of professional development includes support for teachers as they encounter the challenges that come with putting into practice their evolving understandings about the use of technology to support inquiry-based learning … Current technologies offer resources to meet these challenges and provide teachers with a
cluster of supports that help them continue to grow in their professional skills, understandings, and interests (p. 24).

National Foundation for the Improvement of Education (NFIE), 2001 defines high-quality professional development as that which: (a) has the goal of improving student learning at the heart of every school endeavor, (b) fosters a deepening of subject matter knowledge- a greater understanding of learning and a greater appreciation of student needs; (c) helps teachers and other staff meet the needs of who learn in different ways and who come from different cultural, linguistic, and socioeconomic backgrounds; (d) provides adequate time for inquiry, reflection, and mentoring and is an important part of the normal working day; (e) is rigorous, sustained, and adequate to the long-term change of practice; and (f) is teacher designed and directed, incorporates the best principles of adult learning and involves shared decisions designed to improve the school.

The National Staff Development Council NSDC (2008) currently known as Learning Forward, stated, “The greatest threat in the field of professional development is confusion.” Throughout the United States there “are potpourri definitions for professional development.” In order for teachers to affect student academic achievement through knowledge gained in professional development experiences a unified definition of professional development is required. In 2009 the NSDC adopted a new definition for professional development, which states, “The term “professional development” means a comprehensive, sustained, and intensive approach to improving teachers’ and principals’ effectiveness in raising student achievement” (NSDC, 2009). According to Learning Forward professional development fosters a collective responsibility for improved
student performance and must be comprised of professional learning that is aligned with rigorous state student academic achievement standards, as well as related local educational agency and school improvement goals;

1. Is conducted among educators at the school and facilitated by well-prepared school principals and/or school-based professional development coaches, mentors, master teachers, or other teacher leaders;

2. Primarily occurs several times per week among established teams of teachers, principals, and other instructional staff members where the teams of educators engage in a continuous cycle of improvement that;

3. Evaluates student, teacher, and school learning needs through a thorough review of data on teacher and student performance;

4. Defines a clear set of educator learning goals based on the rigorous analysis of the data;

5. Achieves the educator learning goals by implementing coherent, sustained, and evidenced-based learning strategies, such as lesson study and the development of formative assessments, that improve instructional effectiveness and student achievement;

6. Provides job-embedded coaching or other forms of assistance to support the transfer of new knowledge and skills to the classroom;

7. Regularly assess the effectiveness of the professional development in achieving identified learning goals, improving teaching, and assisting all students in meeting challenging state academic achievement standards;
8. Informs ongoing improvements in teaching and student learning;
9. May be supported by external assistance (NSDC, 2009).

If the definition is to be effectively translated into implementation, it will require the support of all educational key personnel. Greater clarity about the definition and functioning of effective professional development efforts rests in developing stronger theories connecting practices with results (Guskey, 1996). Although the definitions vary slightly, the common thread among them is fostering teacher growth through enhanced learning in order to affect student academic achievement.

History of Staff Training in Education

Staff development efforts in American schools can be traced to the initiation of the Teacher Institutes in the early 19th century (Richey, 1957). But instead of a history characterized by steady progress based on advances in our knowledge and understanding, the history of staff development is characterized primarily by disorder, conflict, and criticism. Nearly every major work on the topic of staff development has emphasized the failings of these efforts. For example, Corey (1957) stressed that while there was strong evidence of a growing need for continuing professional development among school persons, it was also apparent that "much of what goes for in-service education is uninspiring and ineffective" (p. 1). Davies (1967) offered an even stronger condemnation in his testimony before the Senate Subcommittee on Education. He concluded, "In-service education is the slum of American education—disadvantaged, poverty stricken, neglected, psychologically isolated, riddled with exploitation, broken promises, and conflict."
Advances in research on effective schools and the variables that contribute to instructional effectiveness have increased attention on the need for high quality staff development programs (Bloom, 1976). Howey and Vaughan (1983) described the current practice of staff development as “a potentially well-supported (in terms of resources) enterprise that is fragmented, not frequently engaged in on a continuing basis by practitioners, not regarded very highly as it is practiced, and rarely assessed in terms of teacher behavior and student learning outcomes” (p. 97).

Only in the past decade has the professional development of teachers been considered a long-term process that includes regular opportunities and experiences planned systematically to promote growth and development in the profession. This shift has been so dramatic that many have referred to it as a ‘new image’ of teacher learning, a ‘new model’ of teacher education, a ‘revolution’ in education, and even a ‘new paradigm’ of professional development (Cochran-Smith and Lytle, 2001; Walling and Lewis 2000).

In 1980 Joyce & Showers (p. 384), believed that "modeling, practice under simulated conditions, and practice in the classroom, combined with feedback" was the most productive training design. Although some teachers may apply skills to the teaching situation after practice and consistent feedback; however, for some other teachers coaching on how to apply the new skill is necessary (Showers, Joyce, & Bennet, 1987).

According to the Gottesman and Jenning’s Model (1994), training of peer coaches occurs in the following steps; (a) request for a visit, (b) the visit, (c) review notes and list some possibilities, (d) talk after the visit, and (e) process review. Unlike in-services or workshops peer coaching allows educators of equal status to collaborate. It is non-
evaluative, voluntary, and initiated by the person being coached. This reflective coaching model is designed to have the learner reflect on concerns and do most of the talking. The major responsibility of the coach during this step is to keep the teacher talking.

This new model of professional development has several characteristics aimed at increasing teacher skills; it is based on constructivism rather than on a ‘transmission-oriented model.’ As a consequence, teachers are treated as active learners (Lieberman, 1994). It is perceived as a long-term process as it acknowledges the fact that teachers learn over time. As a result, a series of related experiences (rather than one-off presentation) is seen to be the most effective as it allows teachers to relate prior knowledge to new experiences (Cohen, 1990; Ganser, 2000; Lieberman, 1994; Dudzinski, 2000). Regular follow-up support is regarded as an “indispensable catalyst of the change process” (Schifter, and Bastable, 1999). It is perceived as a process that takes place within a particular context. Contrary to the traditional staff development opportunities that did not relate ‘training’ to actual classroom experiences, the most effective form of professional development is that which is based in schools and is related to the daily activities of teachers and learners (Guskey, 1994).

In the past decade has the professional development of teachers been considered a long-term process that includes regular opportunities and experiences planned systematically to promote growth and development in the profession. This shift has been so dramatic that many have referred to it as a ‘new image’ of teacher learning, a ‘new model’ of teacher education, a ‘revolution’ in education, and even a ‘new paradigm’ of professional development (Cochran-Smith & Lytle, 2000).
Knowles’ Model of Andragogy

A defining condition of being human is that we have to understand the meaning of our experience. For some, any uncritically assimilated explanation by an authority figure will suffice. But in contemporary societies we must learn to make our own interpretations rather than act on the purposes, beliefs, judgments, and feelings of others. Facilitating such understandings is the cardinal goal of adult education. Transformative learning develops autonomous thinking (Mezirow 1997, p. 5). Andragogy is a set of assumptions about how adults learn. Its roots can be traced back to Alexander Kapp, a German grammar teacher who used it to describe Plato’s educational theory (Knowles, Holton, and Swanson 1998, p. 59). It appeared again in 1921 when another German, Social Scientist, Eugene Rosenstock claimed that “adult education required special teachers, special methods, and a special philosophy” (Knowles, Holton, and Swanson 1998, p. 59).

Knowles (1968) laid the foundation for a systematic theory about adult learning. He compared the differences in the way adults learned vs. children’s learning style. Andragogy has been defined as “any intentional and professionally guided activity that aims at a change in adult persons” (Knowles, Holton, & Swanson, 2005, p. 60). Knowles—began to use the concept to explore “the art and science of how adults learn” (Knowles et al., 2005, p. 61). The primary assumptions of Knowles’ andragogical model are;

1. “Adults need to know why they need to learn something before they learn it.”
2. Adults “need to be seen…and treated by others as being capable of self-direction.”

3. Adults bring a great deal of experience to their learning and “the richest resources for learning reside in the adult learners themselves.”

4. Adult’s readiness to learn is triggered by their “moving from one developmental stage to another.”

5a. “Adults are motivated to learn to the extent that they perceive the learning will help them perform tasks or deal with problems that they confront in their life situations.”

5b. Adults learn “most effectively when [new learnings] are presented in the context of application to real-life situations.”

6. “Adults are responsive to some external motivators…but the most potent motivators are internal pressures” (Knowles et al., 2005, pp. 64-68).

Having insight into how adults learn is invaluable to the instructional leader as he/she collaborates with staff to provide relevant professional development, which follows the vision and mission of the school.

Teachers as Adult Learners

The diversity of their life experiences, education, and personalities increases with age and shapes their outlook on educational experiences, past and present. These experiences also influence their perspective on future educational events, including their motivation to engage in professional development activities (Lawler, 2000). An aspect of adult learner diversity is the diversity of learning styles and the various ways learners
strategize to learn successfully. Many authors (Cranton, 1992; Kolb, 1984; Lawler, 1991; Merriam and Caffarella, 1999; Smith and Kolb, 1986) note the importance of understanding learning styles and encourage us to acknowledge these differences and find strategies to incorporate learning activities that are inviting and positive. Adults can learn by reading, listening, and watching, but they will learn better if they are actively involved in the learning process. According to Matthew Miles (1995),

A good deal of what passes for “professional development” in schools is a joke. It’s everything a learning environment shouldn’t be: radically under resourced, brief, not sustained, designed for “one size fits all,” imposed rather than owned, lacking any intellectual coherence, treated as a special add-on event rather than as part of a natural process, and trapped in the constraints of the bureaucratic system we have come to call “school.” In short, it’s pedagogically naïve, a demeaning exercise that often leaves its participants more cynical and no more knowledgeable, skilled, or committed than before (p.3).

Little (1997) purports professional development plans that were once characterized simply as a laundry list of activities have moved towards defining links between student learning goals, staff development resources and, in some cases, identifying criteria by which staff development investments will be evaluated. The following synthesizes researchers characteristics of professional development aimed at increasing teacher skills. It is based on constructivism rather than on a ‘transmission-oriented model’. As a consequence, teachers are treated as active learners (Lieberman, 1994). It is perceived as a long-term process as it acknowledges the fact that teachers
learn over time. As a result, a series of related experiences (rather than one-off presentations) is seen to be the most effective as it allows teachers to relate prior knowledge to new experiences (Cohen, 1990; Ganser, 2000; Lieberman, 1994; Dudzinski, 2000). Regular follow-up support is regarded as an “indispensable catalyst of the change process” (Schifler, and Bastable, 1999). It is perceived as a process that takes place within a particular context. Contrary to the traditional staff development opportunities that did not relate ‘training’ to actual classroom experiences, the most effective form of professional development is that which is based in schools and is related to the daily activities of teachers and learners (Guskey, 1994).

Adult Learning Theory and Professional Development Design

Cranton, (1996), states the use of adult learning theory is being suggested as a new way of delivering and structuring professional development for adults. The premise is there is a better way for adults to learn than the traditional pedagogy. Differentiating professional development is monumental because individual differences among people increase with age; therefore, adult education must make optimal provision for differences in style, time, place, and pace of learning.

There is continuity between Lindeman’s philosophy and Malcolm Knowles’ adult learning theory. Lindeman was a pioneer in adult education. “It is generally accurate to say that adult education as articulated by Eduard C. Lindeman is a derivative of Deweyan progressive education” (Stewart, 1987). As a social philosopher Lindeman largely facilitated, rather than invented, adult education theory which he describes as; A cooperative venture in non-authoritarian, informal learning, the chief purpose of which is
to discover the meaning of experience; a quest of the mind which digs down to the roots of the preconceptions which formulate our conduct; a technique of learning for adults which makes education coterminous with life and hence elevates living itself to the level of adventurous experiment (Lindeman, 1926b).

In a paper which he co-wrote with Martha Anderson in 1927 he used the term ‘andragogical’ as formulated by Alexander Kapp. He used it to describe elements of Plato’s educational theory. Andragogy (andr- meaning 'man') could be contrasted with pedagogy (paid- meaning 'child' and agogos meaning 'leading') (Davenport 1993, p. 114).

However, the main thing to consider when designing teacher staff development is which model is most effective for which outcomes with which teachers.

According to Killion (1999), rigor in curricular programs is only obtainable if teachers receive support and practical training in content knowledge, instruction, and classroom practices. These needs can be best met through comprehensive professional development activities that address the needs of teachers as adult learners.

One focus of the NCLB 2012 Reauthorization Act is to improve student academic achievement. Therefore, in order to increase student academic achievement, teacher instructional practices must change through effective professional development activities. This means shifting from the deficit model of teacher professional development (e.g., one-shot or in-service workshops, fix-it model, or flavor-of-the-month, etc.) to the incorporation of models based on adult learning theories (colleague collaboration, sustainability, on-the-job) into professional development program designs. Therefore, to increase teacher growth and meet the deadline of increasing student academic
achievement, adult learning and the standards prescribed by Learning Forward for
effective professional development should be incorporated in the design of teacher
professional development activities. The NEA (2006) supported Learning Forward’s
standards and calls upon Congress and the Administration to:

Provide incentives to states and schools districts to implement the
standards for professional development created by the National Staff
Development Council (NSDC) for staff development – based on extensive
research and input from the professional community – they represent the most
thorough guidance for professional learning available to schools, districts, and
educators. According to the literature over 40 states have adopted or adapted
Learning Forward’s Standards for Professional Learning which was written in
conjunction with 17 other professional associations (e.g., ASCD, American Federation of
Teachers (AFT), U.S. Department of Education, and National Education Association).

Transformational Learning Theory

According to Taylor (1998), ‘The teacher’s role is establishing an environment
that builds trust and care and facilitates the development of sensitive relationships among
learners is a fundamental principle of fostering transformative learning’ (p. 17).

Jack Mezirow developed the transformational learning theory and describes it as
being “constructivist, an orientation which holds that the way learners interpret and
reinterpret their sense experience is, central to making meaning and hence learning”
(Mezirow, 1994, p. 222). This theory requires the learner to be reflective, open to the
perspectives of others, and more accepting of new ideas. Most of the meaning structures
that Mezirow developed are understood and developed through reflection. He states that "reflection involves a critique of assumptions to determine whether the belief, often acquired through cultural assimilation in childhood, remains functional for us as adults" (Mezirow, 1994, p. 223). He "sees its purpose based on a rediscovery of power such that the more critically aware learners become the more they are able to transform society and subsequently their own reality" (Taylor, 1998, p. 17).

Mezirow's (1994, p. 224) ten steps of transformational learning are;

1. The learner experiences a disorienting dilemma;
2. Self-examination reveals feelings of guilt, shame or inadequacy;
3. Critical assessment of cognitive assumptions, emotional and social expectations takes place, often with help from others;
4. There is recognition that others share similar experiences and have successfully negotiated the process of change;
5. The learner examines options for new roles, relationships, and actions;
6. Learner builds competence and self-confidence by exploring new roles;
7. The learner further considers new possible courses of action;
8. In this process the learner acquires knowledge and skills for implementing those possible plans;
9. Provisional attempts are made in new roles, building confidence in new perspectives and relationships;
10. Reintegration into society is possible based on the learner's new perspective.
As described by Mezirow (1997), transformative learning occurs when individuals change their frames of reference by critically reflecting on their assumptions and beliefs and consciously making and implementing plans that bring about new ways of defining their worlds. His theory describes a learning process that is primarily "rational, analytical, and cognitive" with an "inherent logic" (Grabov 1997, pp. 90-91).

“Transformative educators may help others, and perhaps ourselves, move toward a fuller and more dependable understanding of the meaning of our mutual experience”. (Mezirow, 2003, p. 60); therefore, it is imperative that adult educators create "the conditions for and the skills of effective adult reasoning and the disposition for transformative learning—including critical reflection and dialectical discourse" (Mezirow, 2003, p. 62).

Hill, Ball, and Rowan, (2005) offered evidence to support teacher pedagogical content knowledge in mathematics contributed to gains in students’ mathematics achievement. The analysis from a one year linear mixed-model methodology found that teachers’ mathematical knowledge was significantly related to student achievement gains in both first and third grades after controlling for key student- and teacher-level covariates.

Another study which supports the strong relationship that links the improvement of teachers’ practice and the increasing levels of students’ achievement is that reported by Cohen (1997). This study discovered that: “Teachers who participated in sustained curriculum-based professional development reported changes in practice that, in turn, were associated with significantly higher student achievement scores on state
These findings provide support for policy initiatives designed to improve students’ achievement by improving teachers’ pedagogical knowledge.

Transformational Leadership

Leithwood (1992) asserts teachers' motivation for development is enhanced when they internalize goals for professional growth. This process, Leithwood found, is facilitated when they are strongly committed to a school mission. When leaders give staff a role in solving non-routine school improvement problems, they should make sure goals are explicit and ambitious but not unrealistic. Transformational leadership is valued by some, says Leithwood, because it stimulates teachers to engage in new activities and put forth that "extra effort." He found that transformational leaders use practices primarily to help staff members work smarter, not harder. "These leaders shared a genuine belief that their staff members as a group could develop better solution than the principal could alone," concludes Leithwood.

Ideas, culled from several sources on transformational leadership (Sagor, Leithwood, Leithwood and Jantzi, Poplin, 1992), recommended that principals visit each classroom every day; assist in classrooms; encourage teachers to visit one another's classes. As well as involve the whole staff in deliberating on school goals, beliefs, and visions at the beginning of the year. Help teachers work smarter by actively seeking different interpretations and checking out assumptions; place individual problems in the larger perspective of the whole school; avoid commitment to preconceived solutions; clarify and summarize at key points during meetings; and keep the group on task but do
not impose your own perspective. Evidence of the effects of transformational leadership, according to Leithwood, is “uniformly positive.” He cites two findings from his own studies; (a) transformational leadership practices have a sizable influence on teacher collaboration, and (b) significant relationships exist between aspects of transformational leadership and teachers’ own reports of changes in both attitudes toward school improvement and altered instructional behavior.

Role of Principal in Teacher Professional Development

Instructional leadership encompasses hierarchies and top-down leadership, where the leader is supposed to know the best form of instruction and closely monitors teachers' and students' work. One of the problems with this says Mary Poplin (1992), is that great administrators aren't always great classroom leaders and vice versa. Another difficulty is that this form of leadership concentrates on the growth of students but rarely looks at the growth of teachers. Since she believes that education now calls on administrators to be "the servants of collective vision," as well as "editors, cheerleaders, problem solvers, and resource finders," instructional leadership, she declares, has outlived its usefulness.

Phil Schlechty (2001) believes school leaders must become “transformational” rather than “transactional.” “transformational leadership,” he writes, “requires the leader to embrace and cause others to embrace new and revolutionary assumptions” rather than “… only to improve operational effectiveness based on well-established and commonly accepted assumptions” (p.165).
Importance of Teacher Professional Learning

Effective professional development is considered the center of educational reform (Dilworth & Imig, 1995). In 1997 Schlechty divulged, change in schools is much more urgently needed than most teachers and school administrators seem to realize. Indeed, I believe that if schools are not changed in dramatic ways very soon, public schools will not be a vital component of America's system of education in the 21st century. It is critical for teacher growth and student achievement.

When teachers are given the opportunity, via high-quality professional development, to learn new strategies for teaching to rigorous standards, they report changing their teaching in the classroom (Alexander, Heaviside, & Farris, 1998). The National Commission on Mathematics and Science Teaching for the 21st Century (2000) said that professional development should (1) deepen teachers' knowledge of the content being taught; (2) sharpen teaching skills in the classroom; (3) keep up with developments in the individual fields, and in education generally; create and contribute new knowledge to the profession; and (5) increase their ability to provide explicit feedback to students.

To be effective, professional development should be based on curricular and instructional strategies that have a high probability of affecting student learning—and, just as important, students’ ability to learn (Joyce and Showers, 2002). Easton (2004) argued if schools are to change to meet their increasingly urgent needs, teachers will have to move from being trained or developed to becoming active learners. Significant change will require educators to alter their attitudes and behaviors. It is clearer today than ever that educators need to learn, and that's why professional learning has replaced
professional development. Developing is not enough. Educators must be knowledgeable and wise. They must know enough in order to change. They must change in order to get different results. They must become learners, and they must be self-developing.

Some educators are resistant to change, however, this statement by Dennis Sparks reiterates why they should engage in “high quality” professional learning.

Too many students learn far less than they are capable of achieving. This problem is particularly acute in schools serving high concentrations of low-income students and is a tragic waste of human potential. In addition to the personal loss borne by these students, our democracy and economic well-being suffer when young people are unprepared to fully assume their responsibilities as citizens and wage earners in an increasingly complex world. Stephanie Hirsh, Executive Director of Learning Forward stated this year the reason their name changed from National Staff Development Council to Learning Forward was because learning is at the heart of our purpose and that learning creates our future (2012).

Learning Forward Standards

According to S. Hirsch (video communication, 2012), it has been ten years since the first set of standards were developed. First the standards have been reduced from 12 standards to just seven; key statements identify what is most essential about effective professional learning. The content, context and process organizer is less prominent in these standards because we recognize that it is a holistic process and that all seven standards are equally important if we want professional learning to lead to its intended
results. Thirdly we have reduced the content standard expectations to just one and that new content standard is called outcomes, because it relates to the performance standards that we hold for educators and students. And finally we have a new stem that opens each standard which states, professional learning that increases educator effectiveness and results for all students ... There four key elements in the new stem are, educators, effectiveness, results, and all students. The expectation of the organization is that the standards will improve the quality of professional learning across this and other countries and when planning professional development activities the standards should become the document that guides that process.

Hirsch (2012) further stated these standards call for a new form of educator learning. Learning is first in our new name, reminding us that learning is at the heart of our purpose and that learning creates our future. The decision to call these Standards for Professional Learning rather than Standards for Professional Development signals the importance of educators taking an active role in their continuous development and places emphasis on their learning. The professional learning that occurs when these standards are fully implemented enrolls educators as active partners in determining the content of their learning, how their learning occurs, and how they evaluate its effectiveness. The standards give educators the information they need to take leadership roles as advocates for and facilitators of effective professional learning and the conditions required for its success. Widespread attention to the standards increases equity of access to a high-quality
education for every student, not just for those lucky enough to attend schools in more advantaged communities.

Increasing the effectiveness of professional learning is the leverage point with the greatest potential for strengthening and refining the day-to-day performance of educators. For most educators working in schools, professional learning is the singular most accessible means they have to develop the new knowledge, skills, and practices necessary to better meet students' learning needs. The use of Standards for Professional Learning by school systems and educators indicates commitment to effective professional learning. Further, the uses of the standards to plan, facilitate, and evaluate professional learning promises to heighten the quality of educator learning, performance of all educators, and student learning. Increased educator effectiveness makes possible a shift from current reality to the preferred outcomes of enhanced student learning results -- a goal to which all educators subscribe.

The NSDC (2009) standards for teacher professional development include three domains for improved staff development trainings based on adult learning:

1. **Context Standards** - *Staff development that improves the learning of all students...*

   (a) Organizes adults into learning communities whose goals are aligned with those of the school and district. (*Learning Communities*)

   (b) Requires skillful school and district leaders who guide continuous instructional improvement. (*Leadership*)

   (c) Requires resources to support adult learning and collaboration. (*Resources*)
2. **Process Standards** - *Staff development that improves the learning of all students...*

(a) Uses disaggregated student data to determine adult learning priorities, monitor progress, and help sustain continuous improvement. (*Data-Driven*)

(b) Uses multiple sources of information to guide improvement and demonstrate its impact. (*Evaluation*)

(c) Prepares educators to apply research to decision making. (*Research-Based*)

(d) Uses learning strategies appropriate to the intended goal. (*Design*)

(e) Applies knowledge about human learning and change. (*Learning*)

(f) Provides educators with the knowledge and skills to collaborate. (*Collaboration*)

3. **Content Standards** - *Staff development that improves the learning of all students...*

(a) Prepares educators to understand and appreciate all students; create safe, orderly and supportive learning environments; and hold high expectations for their academic achievement. (*Equity*)

(b) Deepens educators’ content knowledge, provides them with research-based instructional strategies to assist students in meeting rigorous academic standards, and prepares them to use various types of classroom assessments appropriately. (*Quality Teaching*)

(c) Provides educators with knowledge and skills to involve families and other stakeholders appropriately. (*Family Involvement*)
The new standards have equal value and are geared toward outcomes. The findings for this study were based on data from the 2001 and 2011 standards. The seven new standards focus attention on educator learning that relates to successful student learning. Implicit in the standards are several prerequisites for effective professional learning. They are so fundamental that the standards do not identify or describe them. These prerequisites reside where professional learning interests with professional ethics. Professional learning is not the answer to all the challenges educators face, but it can significantly increase their capacities to succeed. When school systems, schools, and education leaders organize professional learning aligned with the standards, and when educators engage in professional learning to increase their effectiveness, student learning will increase.

The first perquisite states, educators’ commitment to students, all students, is the foundation of effective professional learning. Committed educators understand that they must engage in continuous improvement to know enough and be skilled enough to meet the learning needs of all students. As professionals, they seek to deepen their knowledge and expand their portfolio of skills and practices, always striving to increase each student’s performance. If adults responsible for student learning do not continuously seek new learning, it is not only their knowledge, skills, and practices that erode over time. They also become less able to adapt to change, less self-confident, and less able to make a positive difference in the lives of their colleagues and students.

Number two reads each educator involved in professional learning comes to the experience ready to learn. Professional learning is a partnership among professionals who
engage with one another to access or construct knowledge, skills, practices, and dispositions. However, it cannot be effective if educators resist learning. Educators want and deserve high-quality professional learning that is relevant and useful. They are more likely to fully engage in learning with receptive hearts and minds when their school systems, schools, and colleagues align professional learning with the standards.

Three indicates, because there are disparate experience levels and use of practice among educators, professional learning can foster collaborative inquiry and learning that enhances individual and collective performance. This cannot happen unless educators listen to one another, respect one another’s experiences and perspectives, hold students’ best interests at the forefront, trust that their colleagues share a common vision and goals, and are honest about their abilities, practices, challenges, and results. Professional accountability for individual and peer results strengthens the profession and results for students.

Prerequisite four reminds us, like all learners, educators learn in different ways and at different rates. Because some educators have different learning needs than others, professional learning must engage each educator in timely, high-quality learning that meets his or her particular learning needs. Some may benefit from more time than others, different types of learning experiences, or more support as they seek to translate new learning into more productive practices. For some educators, this requires courage to acknowledge their learning needs, and determination and patience to continue learning until the practices are effective and comfortable (Learning Forward, 2011). The
Crosswalk provides a comparison of the standards (Learning Forward, 2011) (see Appendix 8).

Effective Teacher Professional Development Models

There is a growing consensus in the literature regarding the elements of effective professional development for teachers; it incorporates principles of adult learning: Adult learners need to be self-directed; they display readiness to learn when they have a perceived need; and they desire immediate application of new skills and knowledge (Knowles, 1980). Effective professional development is embedded in the reality of schools and teachers' work. It is designed with teacher input. It fosters critical reflection and meaningful collaboration. It is internally coherent and rigorous, and it is sustained over the long term (Little, 1993; Renyi, 1996; Sparks & Hirsch, 1997). Promising professional development is aligned with effective teaching and learning outcomes.

Lawler and King (2000, pp. 21-22) present six adult learning principles to guide professional developers: “create a climate of respect, encourage active participation, build on experience, employ collaborative inquiry, learn for action, and empower the participants” Each of these principles is grounded in the literature and practices of adult education.

Focusing heavily on teachers, Little (1997) identifies four points that contribute to ‘outstanding’ professional development programs. These programs; (a) emphasize teachers’ individual and collective responsibilities for student achievement and well-being, and make inquiry into student learning a cornerstone of professional development; (b) organize teachers’ work in ways that reduce teacher isolation and enhance
opportunities for teacher learning, both inside and outside the school; (c) employ staff
development resources in ways that increase the school’s ability to acquire feedback on
its own performance, identify emerging demands and opportunities, and make well
informed use of new ideas, materials, and colleagues; and (d) conduct staff and program
evaluation in ways that are consistent with teacher learning.

Similarly, Sparks & Loucks-Horsley (1989) identified the following
characteristics of successful teacher development and emphasized that they can and
should be applied to professional development for all associated with schools: (a)
collegiality and collaboration; (b) experimentation and risk taking, (c) incorporation of
available knowledge bases; (d) participant involved in goal setting, implementation,
evaluation, and decision making; (e) time to work on staff development and assimilate
new learning; (f) leadership and sustained administrative support; and (g) designs built on
principles of adult learning and the change process. The objective of these principles is to
support teachers in their efforts to expand the knowledge and academic achievement of
their students through differentiated instruction.

According to Church (2009), professional development programs should meet the
varied needs of staff and support effective professional development practices. Hirsh and
Sparks (1997) suggested a paradigm shift in staff development and provided 11 major
shifts that should be made to move away from the less effective traditional approach. Of
these 11 they identified the following seven that need to be included in effective
professional development policies: (a) expanding professional development rather than
the district, (b) ensuring job-embedded learning, (c) organizational development, (d)
focus on the school allowing teachers to be the experts, (e) include content-specific skills, (f) explore new roles for teacher leaders, and (g) focus on continued improvement.

Common components of district wide professional development programs were found in the research by (Darling-Hammond & McLaughlin, 1995; Little, 1993; Hirsh & Sparks, 2000). They concluded that in order for professional development to be effective it should reflect the components listed:

1. The professional development should provide teachers with opportunities for collaboration and coaching.
2. The participants should be actively engaged in reflection, inquiry, research, and collective problem solving.
3. The professional development should be grounded in instructional practices, assessments, and results specific to the participants; content area or school improvement process.
4. The professional development should be ongoing, sustained, rigorous, and job-embedded.
5. The participants should have the necessary resources and opportunities to grow and learn effectively.

Professional Learning Communities

Learning communities can be traced back to the early 1980s. Rosenholtz (1989) brought teachers' workplace factors into the discussion of teaching quality, maintaining that teachers who felt supported in their own ongoing learning and classroom practice were more committed and effective than those who did not receive such confirmation.
McLaughlin and Talbert (1993) confirmed Rosenholtz's findings, suggesting that when teachers had opportunities for collaborative inquiry and the learning related to it, they were able to develop and share a body of wisdom gleaned from their experience. Adding to the discussion, Darling-Hammond (1996) cited shared decision making as a factor in curriculum reform and the transformation of teaching roles in some schools. In such schools, structured time is provided for teachers to work together in planning instruction, observing each other's classrooms, and sharing feedback. These and other attributes characterize professional learning communities.

According to Huffman and Hipp (2003), PLCs are a way of working; "a school's professional staff members who continuously seek to find answers through inquiry and act on their learning to improve student learning" (p. 4). Research states learning communities are an effective design which engages teachers in the planning of their own learning opportunities designed around existing skills and knowledge of each teacher and the needs of their students. Proponents of this approach to professional development include Michael Fullan, Andy Hargreaves, Roland Barth, Rick Stiggins, Larry Lezote, Richard DuFour, and the guru of professional learning communities (PLC) Dennis Sparks. DuFour (2005) identified three big ideas that characterize the basis of all professional learning communities: ensuring that students learn, building a culture of collaboration, and focusing on results.

Salazar (2008) stated, high-impact leaders build the capacity and will of the school to deliver on the understood promise of a valuable education for every student. Everyone works together toward a common goal. The sizes of the teams vary according
to their responsibility. Typically, the entire staff meets once or twice a month. While small groups meet weekly to discuss matters such as the school improvement plan, and standards students are required to master. The learning community expands on the activities of teacher professional development and works in tandem with the principal and other school staff to evaluate strategies designed to increase student achievement.

It is clear from both McLaughlin and Talbert's (1993) and Newmann and Wehlage's (1995) research that school-based professional learning communities provided educators with the kinds of organizational structures that made professional learning both continuous and sustainable. As researchers and practitioners have immersed themselves in the study of how to best serve practicing teachers in their professional growth and development, the idea of building Professional Learning Communities (PLCs) has continued to surface (Darling-Hammond & Richardson, 2009; DuFour, Eaker, & DuFour, 2005; Hord & Sommers, 2008; McLaughlin & Talbert, 2006; Wei et al., 2010). Although the creation of a PLC is inherent to the culture of each particular school, the following elements and conditions underlie the foundation of all PLCs: focus on learning, a collaborative culture, collective inquiry, action orientation, commitment to continuous improvement, and results orientation (DuFour et al., 2005; Hord & Sommers, 2008).

Schools have long been recognized as a place where students are taught. Now it is necessary to create a paradigm shift to view schools as a place where students learn. In a PLC, the main goal of the members is the learning of students. DuFour (2005) suggested educators explore three questions when examining student learning: (a) What do we want each student to learn? (b) How will we know when each student has learned
it? (c) How will we respond when a student experiences difficulty in learning (p. 33)?

These three questions create the framework from which a PLC can collaborate to ensure student learning by improving instructional practice. However, to achieve this goal the PLC must understand that learning is not confined solely to the student. Instead, the staff’s continued learning must be pursued to strengthen student achievement and truly develop a community of learners (DuFour, 2005; Hord & Sommers, 2008; Hughes & Kristonis, 2006). To promote the continued learning of teachers in a PLC, Senge (2000), suggest five disciplines that should be incorporated into the daily work of the educator; Personal mastery involves deepening personal vision, developing patience, and seeing reality objectively. Mental models are the ingrained assumptions, generalizations, or even pictures and images that influence how we understand the world and how we take action. Educators must be aware of their mental models and adjust them to dispel any preconceived notion of students learning; creating a shared vision. All people, administrators, teachers, students, and parents, have an educational vision which should be shared to encourage experimentation and creativity within the school. Team learning begins with a dialogue that allows participants the opportunity to think together and learn from each other. Lastly system thinking focuses on the whole school or educational system, instead of the parts (pp. 7-8). When educators maintain these five principles at the forefront of their daily work, a continued effort to question and reflect upon classroom practice ensues, and learning becomes a constant occurrence.
Previous Studies

With policymakers, school leaders, and education experts increasingly recognizing teacher effectiveness as a key to improving student learning, growing attention and resources are being devoted to developing effective professional development for teachers (Learning Forward, 2010). The following studies offer compelling evidence that teachers are one of the most critical factors in how well students achieve.

A case study of state policies and strategies published by Learning Forward and Stanford University identified four geographically diverse states where students made significant gains as reported on the National Assessment of Educational Progress (NAEP). These states also reported high levels of teacher participation in staff development programs. The shared characteristics of the states that contributed to their success were identified as: (a) developing multiple accountability systems, (b) monitoring quality, (c) induction and mentoring programs, (d) implementing professional learning community models, (e) creating networks of intermediary organizations, and (f) addressing federal mandates and accountability requirements in constructive ways (Wei, Darling-Hammond, Jaquith, Mindich, 2010). Although, the four states approached teacher professional learning differently the desire to increase teacher capacity and student academic achievement outcomes was unanimous.

A 2000 study by the National Staff Development Council examined the award-winning professional-development programs at eight public schools that had made measurable gains in student achievement. The study found that in each of the schools,
"the very nature of staff development [had] shifted from isolated learning and the occasional workshop to focused, ongoing organizational learning built on collaborative reflection and joint action." Specifically, the study found that the schools' professional-development programs were characterized by collaborative structures, diverse and extensive professional-learning opportunities, and an emphasis on accountability and student results (WestEd, 2000).

A 2000 longitudinal study commissioned by the U.S. Department of Education tracked the experiences of teachers participating in activities financed by the federal Eisenhower Professional Development Program (primarily for efforts in mathematics and science). The study found that professional development that focused on "specific, higher-order teaching strategies"—for example, the use of problems with no obvious solutions—increased teachers' use of such strategies. That was particularly the case, the study found, if the professional-development activity was collaborative in format; involved participation of teachers from the same subject, grade, or school; provided "active learning" opportunities for teachers; and was consistent with the teachers' goals and other activities (Porter, Garet, Demione, Yoon, & Birman 2000). Such reports supporting changes in the way teacher training is conceived and organized are, in effect, supplemented by others that focus more directly on the content of successful professional development programs. On the whole, those studies lend little support to the generalized curricula often associated with the workshop model. Instead, they suggest that professional development is most successful when it exposes teachers to content that
helps them deepen and contextualize their subject-area knowledge and prepares them to respond to individual student needs.

In a 2000 study of effective teacher practices, a researcher for the Educational Testing Service linked higher student test scores in math with teachers' professional-development training in higher-order thinking skills—for example, devising strategies to solve different types of problems—and in working with special populations of students. The study found a similar jump in science-test scores in connection with teachers who had had professional-development training in hands-on laboratory skills. The study's data suggest that other, more all-purpose types of training content—e.g., i.e., classroom management, interdisciplinary instruction, collaborative learning—had a minimal or negative effect on student scores (Wenglinsky, 2000).

Evaluating Teacher Professional Development

According to research evaluations of teacher professional development in the past assessed teachers’ satisfaction with the presenter or their experience immediately upon its completion. Professional development evaluations in the 21st century need to focus on the impact of teacher professional development and how it influences teacher classroom practices and student academic achievement outcomes.

Guskey (2003) states, using five critical levels of evaluation, you can improve your school's professional development program. But be sure to start with the desired result—improved student outcomes.

1: Participants' Reactions
The first level of evaluation looks at participants' reactions to the professional development experience. This is the most common form of professional development evaluations and the easiest type of information to gather and analyze.

At Level 1, you address questions focusing on whether or not participants liked the experience. Did they feel their time was well spent? Did the material make sense to them? Were the activities well planned and meaningful? Was the leader knowledgeable and helpful? Did the participants find the information useful?

2: Participants' Learning

In addition to liking their professional development experience, we also hope that participants learn something from it. Level 2 focuses on measuring the knowledge and skills that participants gained. Although you can usually gather Level 2 evaluation information at the completion of a professional development activity, it requires more than a standardized form. Measures must show attainment of specific learning goals. This means that indicators of successful learning need to be outlined before activities begin. You can use this information as a basis for improving the content, format, and organization of the program or activities.

3: Organization Support and Change

At Level 3, the focus shifts to the organization. Lack of organization support and change can sabotage any professional development effort, even when all the individual aspects of professional development are done right.

At Level 3, you need to focus on questions about the organization characteristics and attributes necessary for success. Did the professional development activities promote
changes that were aligned with the mission of the school and district? Were changes at
the individual level encouraged and supported at all levels? Were sufficient resources
made available, including time for sharing and reflection? Were successes recognized and
shared?

4: Participants' Use of New Knowledge and Skills

At Level 4 We ask, did the new knowledge and skills that participants learned
make a difference in their professional practice? The key to gathering relevant
information at this level rests in specifying clear indicators of both the degree and the
quality of implementation. Unlike Levels 1 and 2, this information cannot be gathered at
the end of a professional development session. Enough time must pass to allow
participants to adapt the new ideas and practices to their settings. Because
implementation is often a gradual and uneven process, you may also need to measure
progress at several time intervals. You may gather this information through
questionnaires or structured interviews with participants and their supervisors, oral or
written personal reflections, or examination of participants' journals or portfolios. The
most accurate information typically comes from direct observations, either with trained
observers or by reviewing video-or audiotapes. These observations, however, should be
kept as unobtrusive as possible.

5: Student Learning Outcomes

Level 5 addresses "the bottom line": How did the professional development
activity affect students? Did it benefit them in any way? The particular student learning
outcomes of interest depend, of course, on the goals of that specific professional
development effort. In addition to the stated goals, the activity may result in important unintended outcomes. For this reason, evaluations should always include multiple measures of student learning (Joyce, 1993). Measures of student learning typically include cognitive indicators of student performance and achievement, such as portfolio evaluations, grades, and scores from standardized tests.

Level 5 information about a program's overall impact can guide improvements in all aspects of professional development, including program design, implementation, and follow-up. In some cases, information on student learning outcomes is used to estimate the cost effectiveness of professional development, sometimes referred to as "return on investment" or "ROI evaluation" (Parry, 1996; Todnem & Warner, 1993).

According to Guskey (2001) a lot of good things are done in the name of professional development. But so are a lot of rotten things. What educators haven't done is provide evidence to document the difference between the two. Evaluation provides the key to making that distinction. By including systematic information gathering and analysis as a central component of all professional development activities, we can enhance the success of professional development efforts everywhere.

The Standards Assessment Inventory, which is the survey instrument for this study, is a viable tool to use to build a comprehensive professional development plan. It identified the following steps for assessing the effectiveness of teacher professional development activities;
1. Created evaluations of professional development that help teachers identify how frequently and how well they are implementing new strategies or using new curriculum materials;

2. Ensured that school improvement teams and principals know and understand strategies for monitoring the quality of implementation of new classroom practices;

3. Developed ways to access teacher needs such as through the Concerns-Based Adoption Model (CBAM) which provides a framework for describing the Levels of Use of new instructional practices (NSDC, 2008)

Hall & Hord (2011) strongly supported the Learning Forward’s Implementation Standard. According to Hall & Hord, “Change is learning. It’s as simple and complex as that” (p. 6). The authors devised a metaphor to illustrate the importance of identifying, implementing, transferring, and monitoring new professional development practices. Implementation of new practices with fidelity by teachers in the classroom will impact student academic achievement outcomes. The metaphor creates a visual representation of how individuals move between the stages (e.g., Concern, Levels of Use, and Innovation Configurations) of the Concerns-Based Adoption Model (CBAM). As identified by the authors, ultimately, the path to school improvement relies on change and learning. High levels of implementation are not achieved until practitioners adopt and implement new practices. Lastly, formative and summative assessments should be administered to determine the stage of the individuals as they advance across the bridge. This data can serve as a baseline to determine the level of use of the new instructional practices and how to best
assist in moving them along the bridge.

Summary

In order to meet the challenges imposed on teachers in the 21st century, relevant professional development has to be embedded into the daily work practice of teachers. Effective professional development has an impact on the teachers in and out of the classroom. Despite their popularity, “one-shot” knowledge-transmission programs do not achieve their aims of effecting a change in teacher behavior (Hayes, 1997).

According to Little (1997) effective professional development must be inclusive, intensive, job embedded, and sustained. Further, it is important that efforts be maintained, monitored, and applied throughout all phases of professional development. Teachers must transition from being developed to becoming professional learners in order to affect the academic outcomes of the diverse student population they educate. In order to accomplish this goal, teacher learning opportunities must be embedded in the day-to-day operations of the job. Also, the development of professional learning activities must take into consideration the principles of adult learning and the various learning styles of teachers. These characteristics of adult learners have been described by Knowles in his andragogical model of teaching. These characteristics include the need to be self-directing, the possession of a wealth of previous experience, an intrinsic motivation for learning, and the preference for a task-centered orientation to learning (Knowles, 1980; Merriam and Caffarella, 1991).
CHAPTER 3
RESEARCH METHODS AND METHODOLOGY

Introduction

Limited studies have been conducted on the perception of principals and teachers based on Learning Forward’s revised standards. The study described the thoughts of elementary principals and teachers through the conceptual framework of Learning Forward, adult, and transformational learning, and transformational leadership.

The researcher selected mixed quantitative and qualitative data through the use of a single study mixed methods research design project for this study. This research method was best suited for this study because the researcher wanted to record the thoughts of the respondents as well as gain quantitative data regarding teacher professional development at the elementary level. Its central premise is that the use of quantitative and qualitative approaches in combination provides a better understanding of research problems than either approach alone (Creswell, 2005). Mixed methods research encourages the use of multiple worldviews or paradigms rather than the typical association of certain paradigms for quantitative researchers and others for qualitative researchers. Mixed methods research is “practical” in the sense that the researcher is free to use all methods possible to address a research problem. It is also “practical” because individuals tend to solve problems using numbers, words, and inductive and deductive thinking. It is appropriate, then, for individuals to employ mixed methods research as a preferred mode of understanding the world (Johnson and Christensen, 2004). Researchers can situate numbers in the contexts and words of participants, and they can frame the
words of participants with numbers, trends, and statistical results. Both forms of data are necessary today. In recent years, many authors have begun to advocate for mixed methods research as a separate methodology or design. Tashakkori and Teddlie (2003,) called mixed methods research the “third methodological movement” (p. ix). This means that in the evolution of research methodologies, mixed methods now follows quantitative approaches and then qualitative approaches as the third movement.

A cross-sectional survey design was utilized for the study. A cross-sectional survey collects data to make inferences about a population of interest (universe) at one point in time. Cross-sectional surveys have been described as snapshots of the populations about which they gather data. (Lavrakas, 2008). Creswell (2008) has referred to this design as the most popular in educational research. Teachers completed the Standards Assessment Inventory (SAI) survey. A modified version was created with permission from Joellen Killion of Learning Forward and was administrated to the principals of the three participating schools. Phase two involved detailed exploration (face-to-face interviews) with nine teachers (three from each school) and the principal from each of the participating schools.

Purpose of the Study

The intent of this two-phase sequential mixed methods case study was to research the influence of Learning Forward’s Standards as perceived by principals and teachers from three elementary schools in a large urban area in the southwest region of the United States in the areas of content, process, and context. And determine how well the professional development practices at the three schools aligned with the guidelines
outlined by Learning Forward for designing effective teacher professional development activities that increase teacher knowledge and capacity.

Research Questions

The Learning Forward Standards Assessment Inventory (SAI) survey and a semi-structured interview protocol will be used to answer the following questions for this mixed method research study;

1. How do the professional development practices as mandated by the district in the three schools reflect the practices outlined by Learning Forward?
2. What is the District’s approach for designing professional development as reflected by the new Learning Forward Standards?
3. What are the similarities and differences between teachers’ and administrators’ perceptions regarding how the professional development practices at their schools reflect the practices outlined by Learning Forward?

Selection of Participants

The sampling method for this study was purposive. Creswell (2005) stated, purposeful sampling means that inquirers intentionally select participants who have experience with the central phenomenon or the key concept being explored. The three schools selected to participate in the study were chosen based on the demographic characteristics in the areas of (a) total students, (b) FRL), (c) LEP, (d) transiency, (e) pupil expenditure, (f) and AYP designation. (see Table 1).
Table 1

Demographic Characteristics of the Three Schools

<table>
<thead>
<tr>
<th></th>
<th>Washington</th>
<th>Lincoln</th>
<th>Franklin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Students</td>
<td>602</td>
<td>576</td>
<td>714</td>
</tr>
<tr>
<td>Free Reduced Lunch</td>
<td>399</td>
<td>458</td>
<td>458</td>
</tr>
<tr>
<td>Limited English</td>
<td>132</td>
<td>62</td>
<td>60</td>
</tr>
<tr>
<td>Transiency Rate</td>
<td>30.5%</td>
<td>42.7%</td>
<td>35.7%</td>
</tr>
<tr>
<td>Pupil Expenditure</td>
<td>$8,960</td>
<td>$10,848</td>
<td>$8,327</td>
</tr>
<tr>
<td>AYP Designation</td>
<td>adequate</td>
<td>improvement</td>
<td>watch</td>
</tr>
</tbody>
</table>

A purposeful sample allowed the researcher to select (N=150) certified teachers from three schools in a large urban area in the southwest region of the United States based on the purpose of the study. To achieve pertinent information, certain inclusion criteria were imposed. The participants that qualified for sample selection were employees of the respective schools who voluntarily chose to participate in the Standards Assessment Inventory (SAI) survey and interviews. The respondents were; principals, certified Kindergarten through 5th grade classroom teachers, and specialists (e.g., music, art, physical education, or librarian) from Washington, Lincoln, or Franklin Elementary school. Each of the female principals that participated in the research study holds a Doctorate of Educational degree. One had 31 or more years of administrative experience, of which 11-15 years were at her current location. Principal number two had 11-15 years of administrative experience and has been the administrator at her current school for 6-10 years. The third principal’s experience ranged from 6-10 years, which is the same number of years she has been employed at her current work location.
In addition, the researcher solicited individuals to participate in the interviews. Of the teachers that volunteered, nine were randomly selected (subset of phase one) to participate in a face-to-face interview. The three principals were also interviewed using a predetermined set of questions. Teachers and principals were interviewed by the researcher. Pseudonyms were given to each participant in the face-to-face interviews to ensure anonymity. The pseudonyms are no way linked to personal characteristics of the participants.

Ethical Considerations

The study required the participation of human subjects; therefore, certain ethical issues were addressed (e.g., consent and confidentiality). Prior to receiving consent from the participants the researcher disclosed all pertinent details of the study and its aim. Participation was strictly voluntary and participants were aware that they could withdraw from the study at any given time. The confidentiality of the participants was censured by not revealing their names or personal information in the study.

Description of the Instrument

The paper-pencil version of the Standards Assessment Inventory (SAI), developed by the National Staff Development Council (currently known as Learning Forward) and the Southwest Educational Development Laboratory (SEDL) was the main data-gathering instrument for the quantitative phase of the study (see Appendix 4). The instrument assesses how well a school’s professional learning practices align with Learning Forward’ Standards for Professional Learning (NSDC, 2001). The questionnaire was divided into two main sections: demographic and the survey proper. The first section
solicited biographical characteristics of the teachers based on (a) teaching position, (b) years teaching, (c) years at current location, (d) and age group.

The second section of the survey instrument was structured using a five-position Likert scale format. Originally there were 60 questions; however, due to a technological glitch only 59 questions were included in the teacher survey. The SAI was used to measure respondents’ level of agreement or disagreement with questions, (1= Never, 2= Seldom, 3= Sometimes, 4= Frequently, and 5= Always). This scale is typically used in surveys to ascertain degrees of response to a statement (Fowler, 2001). The final question on the survey asked teachers to provide pertinent contact information if they are willing to participate in a 15-20 minutes follow-up interview session.

The Standards Assessment Inventory (SAI) survey (NSDC, 2001) was modified to assess principals’ perceptions on how well their professional development activities aligned with Learning Forward’s standards (see Appendix 5). Permission to modify the SAI was requested by the researcher. The approval to modify the SAI was granted on April 18, 2012, from Joellen Killion Learning Forward, Senior Advisor, via e-mail.

The first section solicited demographic characteristics of the principals based on (a) years as an administrator, (b) years at current location, (c) and age. The second section of the 54 question survey instrument was structured using a five-position Likert scale format. It was used to measure respondents’ agreement or disagreement with questions, (1= Never, 2= Seldom, 3= Sometimes, 4= Frequently, and 5= Always). During the initial phone call, the three principals verbally agreed to participate in the interview process.
The final question on the SAI survey asked respondents to provide pertinent contact information in order to schedule an interview date and time with the researcher.

The nine teacher interviewees were randomly selected based on participants’ willingness to volunteer for the study. The interviewees were informed in advance that the sessions would be audio-taped and transcribed verbatim in order to ensure accuracy of responses. The purpose of the semi-structured open-ended questions was to gather additional data regarding professional development practices at their respective schools. Gall, Gall, & Borg (2003) surmised, this open-endedness allows the participants to contribute as much detailed information as they desire and it also allows the researcher to ask probing questions as a means of follow-up. Standardized open-ended interviews are likely the most popular form of interviewing utilized in research studies because of the nature of the open-ended questions, allowing the participants to fully express their viewpoints and experiences (see Appendices 6 & 7).

Instrument Reliability Analysis

The Standards Assessment Inventory (SAI) survey instrument was chosen because of its strong validity and reliability. During the testing of the instrument, 20 schools participated in three studies that resulted in the final 60-question survey. According to the SEDL’s report from NSDC (2009), Cronbach’s alpha for overall instrument reliability were consistent and high across all three pilot studies (a = .98). Cronbach’s alphas were .99 (43) subscales for content; 97 (7) items for context; and .91 (3) items process. Reliability estimates for all 12 subscales ranged from good to strong
across standards (a = .71 to .98). The variance explained by the overall three factor solution was 79.1% (NSDC, 2010).

**Procedures for Collecting Data**

The first step in determining how to effect teacher professional development at a specific site is to assess the current state of the activities. According to Trochim (2006), the group administered questionnaire yields a high response rate. The data collection strategy of this study was a sequential explanatory design. The researcher utilized the Standards Assessment Inventory (SAI) as the framework for the survey and questionnaire process.

The researcher met with the superintendent from Area II, explained the purpose of the study, and requested assistance with identifying three schools in Area II based on the following criteria; (a) socio-economic status, (b) Adequate Yearly Progress (AYP) designation, (c) Free Reduced Lunch (FRL) (e.g., 80-90%) and (c) an Empowerment school). The superintendent made the initial contact with prospective principals via email regarding their willingness to participate in the study. Upon receiving consent from the facility principals, the superintendent forwarded the researcher the names of the principals willing to participate in the study.

The researcher contacted the principals via telephone and sent an electronic administrator cover letter (see Appendix 3) detailing the study and inviting their staff to participate in the Standards Assessment Inventory (SAI) survey and interviews. Participation in the study was strictly voluntary and was open to all K-5 teachers and specialists of the identified schools.
The researcher contacted the principals several days later and scheduled the date and times to administer the group surveys and interviews. An email was sent to the principals one week prior to the scheduled administration of the surveys and interviews as a reminder. The following protocol for conducting the group surveys and interviews were performed by the researcher;

1. Distribution of teacher cover letters;

2. Teacher survey consent forms were distributed and signed prior to the administration of the SAI survey;

3. Teacher interview consent forms were distributed and completed prior to the interview process;

4. Teacher interview questions were provided to teacher prior to the interview for their review. The researcher took anecdotal notes, audio-taped, and transcribed the interviews to ensure accuracy of responses;

5. Principal interview (questions) and survey consent forms were sent electronically prior to the survey and interview dates. The consent forms and the SAI surveys were collected by the researcher and the interviews were conducted.

The principal and two teachers at Washington Elementary were not available to be interviewed the initial day the SAI survey was administered. Therefore, a follow-up telephone call and email correspondence were sent requesting her to determine her availability and identify two teachers that would be willing to participate in a face-to-face interview. Two days later the researcher received a call from the principal with the
names, date, and times the interviews could be conducted. The morning of the identified
date the researcher conducted the three interviews. This completed the data gathering
process. According to Krejcie and Morgan (1970), the sample size required to represent
the opinion of 150 elementary teachers (defined population) is 108.

In the first phase of the study (quantitative) the data were collected using the
Standards Assessment Inventory (SAI) survey. Information regarding teacher perceptions
on professional development practices in the strands of, context, process, and content
were collected via a self-administered paper-pencil version of the survey instrument.

Participants in the study were certified teachers and principals from Washington,
Lincoln, and Franklin Elementary schools. Teachers received notification of the survey
dates via their principal. On the day the survey was administered the researcher
distributed and collected the consent forms and surveys. The consent forms were
collected separately from the surveys in order to maintain anonymity of the respondents.
The researcher placed the raw data into an Excel spreadsheet. A one-way Analysis of
Variance (ANOVA) was conducted for the three strands.

In phase two of the study the researcher conducted individual interviews with nine
teachers and three principals regarding professional development practices. A set of semi-
structured interview questions were asked of each respondent; however, in some
instances the researcher asked additional questions based on a respondents response to a
specific question. Interviews are ideally suited to examine the dynamics of professional
development activities. In contrast to quantitative research, qualitative research probes
what lies beneath the surface and will provide insight into the beliefs of teachers
regarding professional development activities at their respective worksites. Data gathered via tape recorded interviews were transcribed and coded to ensure exactness and verifiability. To ensure accuracy of the audio recordings, the researcher took notes throughout the interview session. Patton (2002) stressed that although there is no universal prescription for collecting data in qualitative research, “what is not optional is the taking of field notes” (p. 302).

The qualitative process of data analysis is an inductive one, in which the data is examined from a "bottom-up" approach (Creswell, 2007). The specific data is examined to identify more general themes that will be used to understand the meaning of the data. The researcher read the data transcripts numerous times searching for responses pertinent to the research questions and ideas for a suitable coding scheme. Making these memos becomes an important first step in forming broader categories of information, such as codes of themes (Creswell & Plano Clark, 2007). Trustworthiness was maintained by interpreting the data but remaining true to the respondents’ response.

Procedures for Analyzing Data

Descriptive statistics was used to describe the basic features of the data in this research study. According to Creswell (1994), the descriptive method of research involves gathering information on present existing conditions; in this case the alignment of professional development practices with Learning Forward’s standards and definition of professional development. Descriptive statistics provide simple summaries about the sample and the measures. Together with simple graphics analysis, they form the basis of virtually every quantitative analysis of data (Trochim, 2006). The data generated from
multiple sources was systematically organized. Summary reports from the Standards Assessment Inventory (SAI) survey questions were analyzed using ANOVA. The report is organized by strands in the areas of Context, Process, and Content. The twelve standards are distributed among the three strands.

Table 2

<table>
<thead>
<tr>
<th>Standards by Strand</th>
<th>Context</th>
<th>Process</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Learning communities</td>
<td>Data-driven practices</td>
<td>Equity</td>
</tr>
<tr>
<td>Leadership</td>
<td></td>
<td>Evaluation</td>
<td>Quality teaching</td>
</tr>
<tr>
<td>Resources</td>
<td></td>
<td>Research-based decisions</td>
<td>Family Involvement</td>
</tr>
<tr>
<td></td>
<td>Design</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Collaboration</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The transcripts from the interviews were printed. A matrix was created to show the responses of the open-ended questions. Frequency and patterns were color coded and tallied. Codes were categorized into themes and meta-themes (Creswell, 2008). The same procedure was performed on the principal responses. Results were aggregated by demographical data such as tenure, current position (principal/teacher), years in current position, and age.

A content analysis was conducted of the interview questions to further describe the respondents’ perceptions of professional development practices at their worksites. A separate matrix was created representative of the responses to the open-ended questions by the principals and teachers. The responses from the interviews were placed in the matrix and each open-ended question was color coded based on the themes.
that emerged. The common themes in the areas of content, context, and process were recorded and tallied. Interview quotes were used in chapter 4 to deepen understanding of the survey responses and to give participants a voice.

Summary

This chapter re-stated the purpose and research questions as well as presented information regarding the interviews, instrumentation, data collection, and data analysis. The data collected from the SAI survey and interviews described the perceptions of elementary school teachers and principals regarding professional development practices and their respective worksites and how well they align with Learning Forward’s standards. The results section, Chapter 4, will address the research questions and describe the data collection in two phases. Chapter 5 consists of a summation of the study. It contains the conclusion and recommendations for further research.
CHAPTER 4

FINDINGS OF THE STUDY

Introduction

The data analysis and results of the study are presented in this chapter. The purpose of this two-phase sequential mixed methods case study was to research the influence of Learning Forward’s Standards as perceived by principals and teachers from (pseudonyms) Washington, Franklin, and Lincoln elementary schools in the areas of content, process, and context. And determine how well the professional development practices at the three schools aligned with the guidelines outlined by Learning Forward for designing effective teacher professional development activities. Teachers completed the Standards Assessment Inventory (SAI) survey. A modified version of the SAI was administered to principals. During the qualitative phase of the study interviews were conducted with nine teachers (three from each of the participating school) and the three principals. The data were collected, and analyzed to reflect the perceptions of the respondents.

The preliminary contact with the principals regarding the research study was made by the area superintendent. Upon receiving consent from the facility principals, the superintendent forwarded the researcher the names of the principals willing to participate in the study. The researcher contacted the principals via telephone and sent an electronic administrator cover letter detailing the study and inviting their staff to participate in the Standards Assessment Inventory (SAI) survey and interviews. Participation in the study was strictly voluntary and was open to all K-5 teachers and specialists of the identified
schools. The researcher contacted the principals several days later and scheduled the date and times to administer the group surveys and interviews. An email was sent to the principals one week prior to the scheduled administration of the surveys and interviews as a reminder. The principal and two teacher interviews at Washington Elementary were needed to complete the interview process. The researcher contacted the principal via email to determine when the interviews could be completed. The principal located two teachers willing to participate in the interviews. The teachers and principal were interviewed consecutively and this completed the data gathering process.

The data collected from the SAI survey was tabulated in Excel an analysis of variance was run on the Learning Forward 2001 and 2011 standards in the strands of content, process, and context. A content analysis was conducted to discover themes that emerged from the semi-structured open-ended interview questions.

Demographic Data

The first part of the SAI survey solicited biographical data from the respondents. Teachers were asked to identify (a) current teaching position, (b) total years teaching, (c) years at current location, and (d) age group. Principals provided information regarding (a) total administrative years, (b) years at current location, and (c) age group. The results from the data are displayed in Tables one through six.

The participants in this study were 98 certified teachers and three principals from three elementary schools in a large urban area in the southwest region of the United States. Permission to conduct research at the three schools was granted by the Area
Superintendent and the principals of the selected sites. The researcher administered the surveys at each of the school sites.

The personal characteristics of teachers and principals are found in Tables 1 through 5. Thirty-nine educators were primary teachers (K-2), 33 intermediate (3rd. - 5th.), 11 special education, and 15 specialist (e.g., computer specialist, counselor, behavior specialist, learning strategist, speech, and student support). An examination of Table 3 revealed that primary grades (K-2) were the most represented grade levels.

Table 3

<table>
<thead>
<tr>
<th>Participants’ Current Teaching Position</th>
<th>Percentage</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>11.23%</td>
<td>11</td>
</tr>
<tr>
<td>1st</td>
<td>14.29%</td>
<td>14</td>
</tr>
<tr>
<td>2nd</td>
<td>14.29%</td>
<td>14</td>
</tr>
<tr>
<td>3rd</td>
<td>13.27%</td>
<td>13</td>
</tr>
<tr>
<td>4th</td>
<td>7.14%</td>
<td>7</td>
</tr>
<tr>
<td>5th</td>
<td>3.06%</td>
<td>3</td>
</tr>
<tr>
<td>Special education</td>
<td>11.22%</td>
<td>11</td>
</tr>
<tr>
<td>Specialist</td>
<td>15.31%</td>
<td>15</td>
</tr>
</tbody>
</table>

n=98

As displayed in Table 4, more than one-half of respondents had ten years or less of experience in the educational field.
Table 4

*Participants’ Years in Education*

<table>
<thead>
<tr>
<th>Total years in teaching</th>
<th>Percentage</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>28.57%</td>
<td>28</td>
</tr>
<tr>
<td>6-10</td>
<td>34.69%</td>
<td>34</td>
</tr>
<tr>
<td>11-15</td>
<td>15.31%</td>
<td>15</td>
</tr>
<tr>
<td>16-20</td>
<td>8.16%</td>
<td>8</td>
</tr>
<tr>
<td>21-25</td>
<td>5.10%</td>
<td>5</td>
</tr>
<tr>
<td>26-30</td>
<td>5.10%</td>
<td>5</td>
</tr>
<tr>
<td>31 or more</td>
<td>3.06%</td>
<td>3</td>
</tr>
</tbody>
</table>

n=98

The number of years teachers have been at their current location was also small with approximately 90% being ten years or fewer. Most were five years or less at their current teaching location. This question is slightly different than the aforementioned question regarding tenure in the profession. A breakdown is contained in Table 5.

Table 5

*Participants’ Years at Current School*

<table>
<thead>
<tr>
<th>Years teaching at current school</th>
<th>Percentage</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>58.82%</td>
<td>60</td>
</tr>
<tr>
<td>6-10</td>
<td>31.37%</td>
<td>32</td>
</tr>
<tr>
<td>11-15</td>
<td>5.88%</td>
<td>6</td>
</tr>
<tr>
<td>16-20</td>
<td>0.98%</td>
<td>1</td>
</tr>
<tr>
<td>21-25</td>
<td>2.94%</td>
<td>3</td>
</tr>
</tbody>
</table>

n=98

One-third of respondents reported being in their 30’s; while 22% were in their 40’s. Another 25% were 51 or above. The age groups of teachers are found in Table 5.
Table 6

*Participants’ Age*

<table>
<thead>
<tr>
<th>Age</th>
<th>Percentage</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-30</td>
<td>17.7%</td>
<td>17</td>
</tr>
<tr>
<td>31-40</td>
<td>35.35%</td>
<td>35</td>
</tr>
<tr>
<td>41-50</td>
<td>22.22%</td>
<td>22</td>
</tr>
<tr>
<td>51-60</td>
<td>14.14%</td>
<td>14</td>
</tr>
<tr>
<td>61 or older</td>
<td>11.11/5</td>
<td>11</td>
</tr>
</tbody>
</table>

n=98

All of the principals were females and hold Doctor of Education degrees. As displayed in Table 5, 33% had been an administrator for 6-10 years, 33% 11-15 years, and 33% for a range of 31 or more years of administrative experience. The number of years the principals reported being at their current location was also small with 66% being at their site for 10 years or fewer. The third principal had been an administrator in her building more than 11, but fewer than 15 years. The age of the principals varied significantly with the youngest being 31-40, principal number two reported her age in the range of 51-60, and the veteran principal’s age was in the range of 61 or older. The personal characteristics of the principals are contained in Table 7.
Table 7

Personal Characteristics of Principals

<table>
<thead>
<tr>
<th>Item</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Administrative Years</td>
<td></td>
</tr>
<tr>
<td>0-5 years</td>
<td>1</td>
</tr>
<tr>
<td>6-10 years</td>
<td>1</td>
</tr>
<tr>
<td>11-15 years</td>
<td>1</td>
</tr>
<tr>
<td>16-20 years</td>
<td></td>
</tr>
<tr>
<td>21-25 years</td>
<td></td>
</tr>
<tr>
<td>26-30 years</td>
<td></td>
</tr>
<tr>
<td>31 or more years</td>
<td>1</td>
</tr>
<tr>
<td>Years at current location</td>
<td></td>
</tr>
<tr>
<td>0-5 years</td>
<td></td>
</tr>
<tr>
<td>6-10 years</td>
<td>2</td>
</tr>
<tr>
<td>11-15 years</td>
<td>1</td>
</tr>
<tr>
<td>16-20 years</td>
<td></td>
</tr>
<tr>
<td>21-25 years</td>
<td></td>
</tr>
<tr>
<td>26-30 years</td>
<td></td>
</tr>
<tr>
<td>31 or more years</td>
<td></td>
</tr>
<tr>
<td>Age Group</td>
<td></td>
</tr>
<tr>
<td>20 - 30</td>
<td></td>
</tr>
<tr>
<td>31 – 40</td>
<td>1</td>
</tr>
<tr>
<td>41 - 50</td>
<td></td>
</tr>
<tr>
<td>51 – 60</td>
<td>1</td>
</tr>
<tr>
<td>61 or older</td>
<td>1</td>
</tr>
</tbody>
</table>

n=3

Table 8 represents the Standards Assessment Inventory (SAI) 60-questions survey in the areas of context, process, and content. Five questions were asked in each of the identified standards.
A summary of the respondents' demographic data is as follows: 98 teachers responded to the SAI survey. The greatest numbers of respondents had been at their current work location for 0-5 years (58.82%), and have been in the educational field for...
6-10 years (34.69%), and their ages ranged from 31-40 which is (35.35%) of the population.

Analysis of Data

Learning Forward Strands- Context, Process, & Content

Three models were analyzed for the best fit with the data. The first model included data from the three strands from NSDC’s 2001 standards in the areas of context, process, and content. The next model pertained to the 12 NSDC 2001 Standards for Staff Development: (a) Learning Communities, (b) Collaboration, (c) Leadership, (d) Resources, (e) Data-driven, (f) Evaluation, (g) Design, (h) Research-Based, (i) Learning, (j) Equity, (k) Quality Teaching, and (l) Family Involvement. The last model represents the new 2011 Learning Forward (formerly NSDC) seven standards: (a) Learning Communities, (b) Leadership, (c) Resources, (d) Data, (e) Learning Designs, (f) Implementation, and (g) Outcomes.

For the first model, the researcher examined the three 2001 strands. A one-way Analysis of Variance (ANOVA) was conducted for the Context strand. There were significant differences between schools. \( F_{(2, 93)} = 16.49, p < .05 \). A post hoc analysis, using Tukey HSD indicated that there were significant differences between all three schools, with Washington at the highest score (\( M = 51.64, s = 5.84 \)), followed by Franklin (\( M = 46.04, s = 9.22 \)). The lowest score was at Lincoln (\( M = 41.21, s = 7.20 \)).

Table 9 reflects the results from the post hoc analysis and the analysis of variance is displayed in Table 10.
Table 9

School means and standard deviations for 2001 Learning Forward professional development strands

<table>
<thead>
<tr>
<th></th>
<th>Washington</th>
<th>Franklin</th>
<th>Lincoln</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context</td>
<td>51.64 (5.84)</td>
<td>46.04 (9.22)</td>
<td>41.21 (7.20)</td>
</tr>
<tr>
<td>Process</td>
<td>101.71 (12.42)</td>
<td>85.88 (19.29)</td>
<td>76.33 (13.39)</td>
</tr>
<tr>
<td>Content</td>
<td>37.43 (8.20)</td>
<td>42.59 (8.86)</td>
<td>47.44 (5.99)</td>
</tr>
</tbody>
</table>

Table 10

Analysis of variance for 2001 Learning Forward professional development strands

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between</td>
<td>2</td>
<td>917.58</td>
<td>16.49*</td>
<td>.26</td>
</tr>
<tr>
<td>Within</td>
<td>93</td>
<td>55.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>95</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Process</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between</td>
<td>2</td>
<td>5414.64</td>
<td>24.19*</td>
<td>.34</td>
</tr>
<tr>
<td>Within</td>
<td>93</td>
<td>223.85</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>95</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Content</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between</td>
<td>2</td>
<td>841.90</td>
<td>13.73*</td>
<td>.23</td>
</tr>
<tr>
<td>Within</td>
<td>94</td>
<td>61.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>96</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A one-way ANOVA indicated there were significant differences between all schools in the Process strand, $F_{(2, 93)} = 24.19, p < .05$. Post hoc analysis indicated that the highest score was at Washington ($M=101.71, s=12.42$), Franklin ($M=85.88, s=19.29$), and Lincoln ($M=76.33, s=13.39$).

The analysis of the Content strand, $F_{(2, 94)} = 13.73$, indicated that Lincoln ($M=37.43, s=8.20$), was considerably lower than Franklin and Washington. However,
there was no statistically significant difference between Franklin (M=42.59, s = 8.86) and Washington (M=47.436, s= 5.99).

For the second model, ANOVA was conducted for each 2001 standard. For the specific standard Learning Communities within the Context strand significant differences between schools was identified, F (2, 93) =12.93. Washington (M=16.89, s=2.50), was significantly different from Lincoln and Franklin. There was no difference between Lincoln (M=13.26, s=2.83) and Franklin (M=14.65, s =3.46).

For the specific standard Leadership within the Context strand significant differences between schools was identified, F= (2, 94) =16.04. Lincoln (M=13.67, s=3.18) had significantly lower scores than Franklin and Washington. There is no difference between Franklin (M=15.85, s=3.00) and Washington (M=17.5, s=1.93).

For the specific standard Resource within the Context strand significant differences between schools was identified Resource, F= (2, 94) = 11.76. Washington (M-17.25, s=2.27) had significantly higher scores than Lincoln and Franklin. There was no difference between Franklin (M=15.41, s=3.10) and Lincoln (M=14.29, s=2.21).

Individual Standards Within the Process Strand (2001)

For the specific standard Data-Driven within the Process strand no significant differences were identified between the 3 schools, F= (2, 94) =14.86, n.s. The means for each school were Lincoln, M=12.71, s=2.42; Franklin, M=14.07, s=3.95; and Washington, M=16.64, s=2.45.

For the specific standard Evaluation within the Process strand, there were no significant differences between the 3 schools, F= (2, 94) =23.66, n.s. The means for each
school were Lincoln=12.02, s=3.06; Franklin, M=14.44, s=3.25; and Washington, M=16.82, s=2.11.

For the specific standard Research within the process strand, there were no significant differences between the 3 schools, $F=21.97$, n.s. The means for each school were Lincoln, M=13.73, s=2.71; Franklin, M=14.73, s=3.13; and Washington, M=17.93, s=1.90.

For the specific standard Design within the process strand, there were no significant differences between the 3 schools, $F=19.97$, n.s. The means for each school were Lincoln M= 11.74, s=3.19; Franklin, M=14.22, s=3.80; and Washington, M=16.71, s=2.72.

For the specific standard Learning within the process strand, there were no significant differences between the 3 schools, $F=13.22$, n.s. The means for each school were Lincoln, M=13.33, s=2.23; Franklin, M=14.63, s=3.68; and Washington, M=16.79, s=2.41. A review of Table 11’s entries reveals the various means and standard deviations among the three schools based on 2001 standards.

Table 11

<table>
<thead>
<tr>
<th>Standard</th>
<th>Washington</th>
<th>Franklin</th>
<th>Lincoln</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Comm.</td>
<td>16.89 (2.50)</td>
<td>14.65 (3.46)</td>
<td>13.26 (2.83)</td>
</tr>
<tr>
<td>Leadership</td>
<td>17.05 (1.93)</td>
<td>15.85 (3.00)</td>
<td>13.67 (3.18)</td>
</tr>
<tr>
<td>Resource</td>
<td>17.25 (2.27)</td>
<td>15.41 (3.10)</td>
<td>14.29 (2.21)</td>
</tr>
<tr>
<td>Data-Driven</td>
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<td>14.07 (3.95)</td>
<td>12.71 (2.42)</td>
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<tr>
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<td>14.44 (3.25)</td>
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<td>14.73 (3.13)</td>
<td>13.73 (2.71)</td>
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<td>14.22 (3.80)</td>
<td>11.74 (3.19)</td>
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<tr>
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<td>16.79 (2.41)</td>
<td>14.63 (3.68)</td>
<td>13.33 (2.23)</td>
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<tr>
<td>Quality</td>
<td>13.57 (1.81)</td>
<td>12.30 (2.74)</td>
<td>10.62 (2.45)</td>
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<td>Family Invl.</td>
<td>16.54 (2.63)</td>
<td>14.19 (3.54)</td>
<td>12.79 (3.07)</td>
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<tr>
<td>Equity</td>
<td>17.25 (2.59)</td>
<td>16.11 (3.00)</td>
<td>14.02 (3.52)</td>
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</table>
For the specific standard Quality within the content strand, there were no significant differences between the 3 schools, $F = (2, 94) = 13.40$, n.s. The means for each school were Lincoln, $M=10.62$, $s=2.45$; Franklin, $M=12.30$, $s=2.74$; and Washington, $M=13.57$, $s=1.81$.

For the specific standard Family Involvement within the content strand, there were no significant differences between the 3 schools, $F = (2, 94) = 12.35$, n.s. The means for each school were Lincoln, $M=12.79$, $s=3.07$; Franklin, $M=14.19$, $s=3.54$; and Washington, $M=16.54$, $s=2.63$.

For the specific standard Equity within the content strand, Lincoln ($M=14.02$, $s=3.52$) had significantly lower scores, $F = (2, 94) = 9.53$, however, there were no significant difference between Franklin ($M=16.11$, $s=3.00$), and Washington ($M=17.25$, $s=2.59$).

For the third and final model, ANOVA was conducted on the seven standards. For the 2011 Learning Communities standard there were significant differences between all 3 schools for this standard ($F = (2, 93) = 17.76$, $p < 0.05$), Washington ($M=33.71$, $s=4.12$) scores were the highest and significantly different from the other two schools, Franklin ($M=29.23$, $s=6.50$) was significantly higher than Lincoln ($M=26.05$, $s=5.11$), but lower than Washington.

For the 2011 Data-driven standard, there were significant differences between all 3 schools $F = (2, 94) = 22.33$, $p < 0.05$. Washington’s scores were the highest ($M=33.43$, $s = 4.44$) and significantly different from the other two schools. Franklin was higher ($M=28.52$, $s=6.80$) than Lincoln but lower than Washington ($M= 24.74$, $s=4.84$).
For the 2011 Learning Design standard there were significant differences between all 3 schools $F= (2, 93) =23.76, p < 0.05$. Washington’s scores are significantly higher ($M=34.64, s=4.42$) than Franklin and Lincoln. Franklin’s scores are lower ($M=28.77, s=6.57$) than Washington but higher than Lincoln ($M=25.48, s=5.32$).

For the 2011 Leadership standard there were significant differences between all 3 schools, $F= (2, 94) =16.04, p < 0.05$. Washington’s scores were higher ($M=17.50, s=1.93$) than Franklin and Lincoln. Franklin was lower ($M=15.85, s=3.00$) than Washington but higher than Lincoln ($M=13.67, s=3.18$).

For the 2011 Resources standard there were significant differences between all 3 schools, $F= (2, 94) =11.76, p < 0.05$. Washington’s scores are higher ($M=17.25, s=2.27$) than Franklin and Lincoln. Franklin is lower ($M=15.40, s=3.10$) than Washington but higher than Lincoln ($M=14.29, s=2.21$). Tables 12 and 13 provide an analysis of variance and display the means and standard deviations for the 2011 Learning Forward Standards.

Table 12 (reference Tables 12 & 13)

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
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<th>$\eta^2$</th>
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<td>493.86</td>
<td>17.76*</td>
<td>.28</td>
</tr>
<tr>
<td>Within</td>
<td>93</td>
<td>27.81</td>
<td></td>
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<tr>
<td>Total</td>
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<td></td>
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<tr>
<td>Between</td>
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<td>640.45</td>
<td>22.33*</td>
<td>.32</td>
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<tr>
<td>Within</td>
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<td>707.16</td>
<td>23.76*</td>
<td>.34</td>
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<tr>
<td>Within</td>
<td>93</td>
<td>29.76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>95</td>
<td></td>
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</tr>
</tbody>
</table>
### Table 13

**School means and standard deviations for 2011 Learning Forward specific standards**

<table>
<thead>
<tr>
<th>Standard</th>
<th>Washington</th>
<th>Franklin</th>
<th>Lincoln</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Comm.</td>
<td>33.71 (4.12)</td>
<td>29.23 (6.50)</td>
<td>26.05 (5.11)</td>
</tr>
<tr>
<td>Leadership</td>
<td>17.50 (1.93)</td>
<td>15.85 (3.00)</td>
<td>13.67 (3.18)</td>
</tr>
<tr>
<td>Resource</td>
<td>17.25 (2.27)</td>
<td>15.41 (3.10)</td>
<td>14.29 (2.21)</td>
</tr>
<tr>
<td>Data-Driven</td>
<td>33.43 (4.44)</td>
<td>28.52 (6.80)</td>
<td>24.74 (4.84)</td>
</tr>
<tr>
<td>Learning Design</td>
<td>34.64 (4.42)</td>
<td>28.77 (6.57)</td>
<td>25.48 (5.32)</td>
</tr>
</tbody>
</table>

For the 2001 Learning Standard there were significant differences between all three schools, $F = (2, 94) = 13.22, p < 0.05$. Washington’s scores are higher ($M = 16.79, s = 2.41$), than Franklin and Lincoln. Franklin is lower ($M = 14.63, s = 3.68$) than Washington but higher than Lincoln ($M = 13.33, s = 2.23$).

In 2011 the content strand was identical to the 2001 outcome strand, $F = (2, 94) = 13.73$, indicated that Lincoln ($M = 37.43, s = 8.20$), was considerably lower than Franklin and Washington. However, there was no statistically significant difference between Franklin ($M = 42.59, s = 8.86$) and Washington ($M = 47.436, s = 5.99$).

The principle component analysis indicated that the 2011 standards were the best fit to the data. The ANOVAs suggested that the 2011 standards were the most informative. The three 2001 strands provided too little information, though there was good discrimination between the three schools. The strand items may not have significant details as to why there are differences between the three schools. The 2001 standards provided too little discrimination between the three schools. For example data, evaluation research, design, learning, quality, and family involvement showed no significance difference between the schools. 2011 standards discriminated well with significant difference in every standard except content. There is no difference between the 2001 and
2011 content strand. Even though the survey instrument is over ten years old and
designed for different standards, the items were effective in discriminating between the
different practices at the various schools that participated in the study.

Principle Component Analysis

Vaden-Kierman, Hughes-Jones, and McCann,(2008) identified a three factor
model using principle axis factoring with oblimin rotation, we took a more conservative
approach using principle component analysis with varimax rotation. PCA was selected to
maximize variation in the data and because we assumed the standards were not
correlated. Varimax rotation was selected to minimize complexity in the mode. We tested
the 2001 three factors and the 2011 seven factors: since we were testing two models, we
forced factors into a solution instead of relying on factor loadings and scree plots. For the
2001 three factor model the overall variance explained was 53.27% , with the first factor
explaining 43.24% of the variance; 5.35% was explained by the second factor and 4.69%
for the third factor. This is significantly lower than Vaden-Kierman, Hughes-Jones, and
McCann’s model. The criterion for loading onto a factor was .40. Thirty-six items loaded
onto factor one which predominantly fell within the process strand. The second strand
had 23 items which focused around professional development; 23 items in the 3\textsuperscript{rd}
component. We had 14 items with cross loading, mostly between the 2\textsuperscript{nd} and 3\textsuperscript{rd} factors.
This did not occur in the National Staff Development Council’s (NSDC) final report.

Learning Forward 2011 Standards

The second model was based on Learning Forward’s 2011 Standards for
Professional Learning. Sixty-five (64.93\%) percent of the total variance was accounted
for in this model. The four new factors contributed between 2.44% and 3.63% per individual factor. The first factor has 18 items, 15 in the second, 11 in the third, 10 items in the fourth, and nine in the fifth.

This section addressed each research question to ensure that the findings from the study were accurately represented.

Research Question 1

How do the professional development practices as mandated by the district in the three schools reflect the practices outlined by Learning Forward? The Standards Assessment Inventory (SAI) provides schools, school systems, state, provincial, and other education agencies data about the effectiveness and quality of their professional development program by examining the degree to which it aligns with Standards for Staff Development and Learning Forward's definition of quality staff development (NSDC, 2001). The survey was used to measure respondents’ level of agreement or disagreement with questions, based on Likert scale responses, (1= Never, 2= Seldom, 3= Sometimes, 4= Frequently, and 5= always). The survey questions are divided into three strands content, context, and process that contain a total of 12 standards. The following survey questions correspond with this research question;

1. Our school uses educational research to select programs.
2. We have opportunities to practice new skills gained during staff development.
3. Our faculty learns about effective ways to work together.
4. Teachers are provided opportunities to gain deep understanding of the subjects they teach.

5. Teachers are provided opportunities to learn how to involve families in their children's education.

6. The teachers in my school meet as a whole staff to discuss ways to improve teaching and learning.

7. Our principal’s decisions on school wide issues and practices are influenced by faculty input.

8. Teachers at our school learn how to use data to assess student learning needs.

9. We use several sources to evaluate the effectiveness of our professional development on student learning (e.g., classroom observations, teacher surveys, conversations with principals or coaches).

10. We make decisions about professional development based on research that shows evidence of improved student performance.

11. At our school, teacher learning is supported through a combination of strategies (e.g. workshops, peer coaching, study group, joint planning of lessons, and examination of student work).

12. We receive support implementing new skills until they become a natural part of the instruction.

13. The professional development that I participate in models instructional strategies that I will use in my classroom.
Research Question 2

What is the District’s approach for designing professional development as reflected by the new Learning Forward Standards? This question was best answered by the process standards in the categories of: (a) Uses disaggregated student data to determine adult learning priorities, monitor progress, and help sustain continuous improvement (Data-Driven), (b) Uses multiple sources of information to guide improvement and demonstrate its impact. • (Evaluation), (c) Prepares educators to apply research to decision making (Research-Based), (c) Uses learning strategies appropriate to the intended goal (Design), (d) Applies knowledge about human learning and change (Learning), and (e) Provides educators with the knowledge and skills to collaborate(Collaboration)(NSDC,2001) . The following survey questions correspond with research question two. The data are presented in Table 8.

Research Question 3

What are the similarities and differences between teachers’ perceptions and Administrators’ perceptions regarding how the professional development practices at their schools reflect the practices outlined by Learning Forward?

Based on a content analysis of the face-to-face interviews, the data revealed that the teachers and principals believed that teacher collaboration in the design of effective professional development activities was important for teacher pedagogical knowledge, growth, and student academic achievement. The principals collectively felt that they were best suited in the role of facilitator. One principal stated, “As the principal I provide
support and materials.” However, 44% of the teachers indicated that the final decision regarding professional development topics was at the discretion of the principal.

One component of effective teacher professional development encouraged by Learning Forward is the use of professional learning communities (PLC). Five of the nine teachers representing (55%) stated that their school functions as a PLC. Thirty-three percent said, “Not that I know of” and 12% said, “No.” Two or (66%) of the principals stated that their school was a professional learning community. The third principal indicated that her school did not function as a PLC.

When asked how does your school incorporate the Learning Forward Standards in professional development activities? Sixty-six percent of the teachers stated that they were not familiar with Learning Forward. The other (33%) did not state whether or not their school incorporated the Learning Forward Standards in the design of professional development, however, one person remarked, “We have the learning communities, leadership who listens to us, and lots of research.” Of the three principals only one was familiar with Learning Forward. She stated,

Learning Forward Standards are used through grade level meetings, learning communities, committees, and cadres. Standards are used in alignment with our SIP team, ongoing school improvement, increase accountability, providing support and distributing responsibilities school-wide. Additionally, Learning Forward Standards are used to prioritize, monitor, and coordinate resources and support professional development to ensure proper implementation and effective best practice (B. Baker, personal communication, April 16, 2012).
Survey questions four through 16 also correspond with this research question. The following standards were compared: research-based, collaboration, quality of teaching, family involvement, learning communities, recourses, leadership, design, and evaluation.

Principal Themes

Two themes (data-driven and collaboration) emerged from the principal interview data:

Theme 1: Data-driven: Two principals agreed that analyzing student data was essential when identifying the school’s professional development needs. The 2011 Learning Forward Standards for Professional Learning established by Learning Forward states, professional learning that increases educator effectiveness and results for all students uses a variety of sources and types of student, educator, and system data to plan, assess, and evaluate professional learning (Learning Forward, 2011). The following quote from one of the principals supports this finding: “Ongoing student assessment and data-driven results are utilized to identify academic areas to support professional development opportunities.”

Theme 2: Collaboration: All of the principals considered collaboration a key element in developing effective professional development activities. Another stated, “Learning and literacy strategist and grade level teams cooperatively set-up Professional Learning Community (PLC) agendas.” According to the principal at Lincoln, the school follows an Empowerment Model; the decision making structure is as follows: (a) all individuals work collaboratively and constructively, (b) all decisions are made and carried out to meet District goals, (c) authority for decisions is delegated as close as possible to the
individuals affected by the decision, (d) Opportunity is provided to all stakeholders for input, (e) all individuals seek understand the basis for a decision and demonstrated commitment to that decision once the decision has been made, and (f) only those individuals accountable for the results can direct or reverse a decision associated with the attainment of those results. Additionally, the team is responsible for assisting the principal in development of the school budget, expenditure of funds, and the school improvement plan (SIP).

The principals from all three schools considered components of Learning Forward’s standards (e.g., data-driven and collaboration) important in the development of teacher growth through professional development activities. However, only one principal was familiar with the nonprofit organization.

According to B. Baker (personal communication, April 16, 2012), I am familiar with this organization through our curriculum department. Learning Forward is a nonprofit, international membership association of educators with a focus on increasing student achievement through more effective professional learning, according to its website. Learning Forward is involved with innovation internally and supports schools across the country. The organization also actively influences federal legislation, for instance, the reauthorization of the No Child Left Behind Act.

**Teacher Themes**

Three themes (collaboration, SIP, and professional development topics) emerged from the teacher interview data:
**Theme 1: Collaboration:** There was an interest across schools to participate in professional development that is designed for groups of teachers (e.g., grade levels or school-wide). Professional development designed for groups of teachers has a number of potential advantages.

C. Clark, (personal communication, April 16, 2012) stated the following:

First, teachers who work together are more likely to have the opportunity to discuss concepts, skills, and problems that arise during their professional development experiences. Second, teachers who are from the same school, department, or grade are likely to share common curriculum materials, course offerings, and assessment requirements. By engaging in joint professional development, they may be able to integrate what they learn with other aspects of their instructional context. Third, teachers who share the same students can discuss students' needs across classes and grade levels. Finally, by focusing on a group of teachers from the same school, professional development may help sustain changes in practice over time, as some teachers leave the school's teaching force and other new teachers join the faculty.

Professional development may help contribute to a shared professional culture, in which teachers in a school or teachers who teach the same grade or subject develop a common understanding of instructional goals, methods, problems, and solutions (McLaughlin & Talbert, 1993.) This aligns with the focus of Learning Forward’s Learning Communities: Professional learning that increases educator effectiveness and
results for all students occurs within learning communities committed to continuous improvement, collective responsibility, and goal alignment. Collective participation in the same activity can provide a forum for debate and improving understanding, which increases teachers' capacity to grow (Ball, 1996). Furthermore, Knapp (1997) emphasizes that change in classroom teaching is a problem of individual learning as well as organizational learning, and that organizational routines and establishing a culture supportive of reform instruction can facilitate individual change efforts.

Similarly, in a recent survey conducted by Berry, Daughtrey, and Wieder (2010) for the Teachers Network (and supported by the Ford Foundation), 68% of the 1,210 teachers in the sample reported that they turned to other teachers for help about teaching, and 74% reported that they turned to other teachers for support. In addition, close to 80 percent of respondents reported that their involvement in the Teachers Network was a major reason for their intention to stay in the teaching profession. These findings underscore the importance of opportunities for teacher collaboration and their role in teachers’ commitment to the profession.

**Theme 2: School Improvement Plan:** This theme emerged from the question on School Improvement Plan (SIP). To measure the alignment of the professional development activity with the District standards and school improvement goal(s) each interview respondent was asked if the professional development activity aligned with their SIP goals. The school goals and activities (e.g., Accelerated Reader®, science, Study Island®, growth model, etc.) varied; however, 78% of the respondents indicated that the professional development activity in which they participated aligned with their SIP.
According to Learning Forward, *Staff development that improves the learning of all students*...Organizes adults into learning communities whose goals are aligned with those of the school and district (NSDC, 2001). The research of Abdal-Haq (1996) and Ferraro (2000) suggest that effective professional development consists of inquiry, action research, reflection, collaboration, and mentoring. Of the categories identified these were the ones least participated in by the respondents in this research study.

**Theme 3: Professional Development Topics:** The aforementioned professional development topics identified by the teachers were mostly programs vs. content.

Accelerated Reader was identified by 33% of the teachers as the last professional development activity they participated. The next highest professional development activity attended by 22% of the teachers was in the content area of science. Seven of the teachers indicated that there have been follow-up trainings which represent 78% of the respondents. Of the teachers that participated in the professional development workshops and presentations 77% indicated that they were linked to the school’s improvement plan; 22% said they were not sure. The registered trademark programs are designed to aide teachers in differentiated classroom instruction through the use of technology. Teacher comments regarding the need for and the benefit of various types of professional development activities are stated below:

According to D. Dowl (personal communication, April 14, 2012), I was a long term sub for a year in an elementary school I felt like professional development was over my head and I didn’t think people took the time to explain things to me – here they are
more than willing to take the time to help me – I didn’t feel as though the professional development from February was a waste of time at all.

Another respondent commented that the school does a good job. There is a collaborative effort. The school staff development is always valuable. The district staff development days are not valuable. Overall, professional development is good here. There needs to be a method for teachers for collaboration (B. Baker, personal communication, April 14, 2012). In the final comment the respondent expressed a need for more professional development based on differentiated instruction and something to address the needs of English Language Learners (ELL).

Five respondents representing 55% of the teachers interviewed stated teachers in their buildings offer recommendations for professional development topics, however the same 55% indicated that the principal decides what professional development topics are ultimately presented. Learning Forward has outlined how effective teacher professional development activities should be designed. However, when the researched asked, how does your school incorporate the Learning Forward Standards in professional development activities? The number of teachers who stated they were unfamiliar with Learning Forward’s standards was significantly high at 78%. The other 22% did not openly state the purpose of the standards, however, they offered strategies used at their location (e.g., effective teaching strategies, supportive teacher leadership, learning communities, and research).
Summary

This chapter presented the findings relative to each of the three research questions. The descriptive analysis included mean scores and frequency distribution. A content analysis was conducted to code and find emerging themes on the face-to-face teacher and principal interviews. A narrative was written to capture the perceptions and experiences of the respondents as they related to professional development practices. The analysis of the data revealed that teachers felt overall professional development activities at their schools were beneficial; however, their greatest concern was the lack of time to collaborate with their grade levels. Time for educators must be directed toward curricular and instructional strategies to ensure students gain content and skills knowledge base that will enhance their future learning ability (Joyce & Showers, 2002).

Additionally, teachers stated that they would like to see more professional development on differentiated instruction and something to address the needs of ELL students. The responses from the principals indicated that they thought teacher input regarding professional development topics was essential. Two of the principals stated professional development implementation is the sole responsibility of the specialist or academic leaders. Chapter 5 consists of a summation of the study. It contains the conclusion and recommendations for further research.
CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

The reauthorization of NCLB requires districts to ensure “high-quality” professional development for teachers, in order to improve student academic achievement, and close the achievement gap. The new reform has moved beyond having every child make the grade on state-defined education standards by the end of the 2013-2014 school year. The Obama administration is pushing for states and school districts to take on ambitious and comprehensive reforms, and to encourage the broad identification, dissemination, adoption, and use of effective policies and practices. State and school district grantees will be required to develop and implement comprehensive plans, in collaboration with other stakeholders, to dramatically improve student outcomes, including focusing on rigorous college- and career-ready standards and high-quality assessments; providing better information to families to help them evaluate and improve their children’s schools, and to educators to help them improve their students’ learning; supporting effective teachers and school leaders; turning around persistently low-performing schools; and supporting innovative models for reform (Blueprint, 2010).

This research was conducted to examine the influence of Learning Forward’s Standards as perceived by principals and teachers from three elementary schools in a large urban area in the southwest region of the United States in the areas of content, process, and context. And determine how well the professional development practices at the three schools aligned with the guidelines outlined by Learning Forward for designing...
effective teacher professional development activities. The Standards Assessment Inventory (SAI) created by SEDL formerly (Southwest Educational Development Laboratory) for NSDC, grounded in NSDC’s standards which reflect the theoretical foundations and promising practices in school-based professional development was used to capture the data from the quantitative phase of the study (NSDC, 2010). The narrative section from the face-to-face interviews in conjunction with the quantitative data was strategically analyzed to determine the effectiveness of their professional development in order to make targeted improvements.

The researcher contacted three principals regarding the research study in a large urban area in the southwest region of the United States. The three principals and 98 teachers completed the SAI survey. Face-to-face interviews were conducted with the three principals and three teachers from each of the schools. The Likert scale questions were analyzed statistically using ANOVA. A content analysis was conducted on the semi-structured open-ended questions. The questions were coded and the emerging themes identified. The data results can be used by the schools and district administrators to build a school-based comprehensive professional development plan.

Findings of the Study

The findings of the study were described based on the following;

Research Question 1

How do the professional development practices as mandated by the district in the three schools reflect the practices outlined by Learning Forward?
The 2011 standards revealed in the Learning Communities there were significant differences among the three schools. Washington’s scores were significantly higher than Lincoln and Franklin. In the strand of data-driven, Washington scores were higher than both Lincoln and Franklin. The results for learning design are the same, Washington’s results higher than both of the other schools. There are significant differences among the schools in the leadership strand. Washington’s scores are higher than Lincoln and Franklin, Lincoln is lower than Washington but higher than Franklin. In the final strand resource the differences are still prevalent with Washington out scoring Lincoln and Franklin. Lincoln is lower than Washington, but higher than Franklin. Eighty-eight percent of the professional development activities attended by respondents dealt with programs. Seventy-seven percent indicated that there has been a follow-up training.

Research Question 2

What is the District’s approach for designing professional development as reflected by the new Learning Forward Standards?

The data suggest that Washington’s approach to designing professional development is better aligned with the guidelines outlined by Learning Forward more than Lincoln or Franklin. Franklin’s results were less than Washington’s and Lincoln’s in all of the standards. One hundred percent of the professional development activities at Franklin were programs (e.g., science and Study Island). However, teachers indicated that they would like future professional development in the area of Common Core, peer collaboration, and goal setting.) The data cited in Table 14 indicate that Washington’s means is greater than Franklin and Lincoln based on the 2011 standards.
Table 14

*Comparison of Schools by Means Based on 2011 Standards*

<table>
<thead>
<tr>
<th>School</th>
<th>Data-driven</th>
<th>Learning Design</th>
<th>Leadership</th>
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<tr>
<td>Washington</td>
<td>M=33.43</td>
<td>M=34.64</td>
<td>M=17.50</td>
</tr>
<tr>
<td>Franklin</td>
<td>M=28.52</td>
<td>M=28.77</td>
<td>M=15.85</td>
</tr>
<tr>
<td>Lincoln</td>
<td>M=24.74</td>
<td>M=25.48</td>
<td>M=13.67</td>
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</table>

Research Question 3

What are the similarities and differences between teachers’ perceptions and Administrators’ perceptions regarding how the professional development practices at their schools reflect the practices outlined by Learning Forward?

The qualitative data reports that 78% of the teachers and 66% of the principals were unfamiliar with Learning Forward’s Standards for Professional Development. However, all agreed that teacher professional development was beneficial to teacher growth and student achievement. Sixty-six percent of the schools indicated that they operate as professional learning communities, which is supported by Learning Forward as an effective model for increasing teacher capacity through collaboration. Teachers and principals were in favor of peer collaboration; however, teachers felt that they did not receive adequate amounts of time to meet with grade level teams and specialist in order to acquire the skills necessary to implement new practices.

Recommendations for Further Study

“If you fail to plan, you plan to fail” Benjamin Franklin

The purpose of this study was to examine the perceptions of teachers and principals at three elementary schools regarding professional development practices. The current study
was completed using a cross-sectional survey design; however, replication of this study within the same schools using a longitudinal design may give better clarity and provide a more accurate account of the professional development experiences of the respondents based on observations over a longer period of time. Additionally, the researcher could administer both pre and post surveys and add more interview questions focusing on the type of professional development teachers participated within a specific timeframe.

The research was conducted in the 5th largest school district in the United States with a total of 217 elementary schools, however, only three elementary schools participated in the study. Replication of the study with the addition of a larger population (e.g., a specific performance zone) may provide a better description of teachers’ perceptions regarding the alignment of their professional development practices based on Learning Forward’s Standards. The study could also analyze the demographic data based on teacher tenure (e.g., second or third year in comparison to veterans – 5 years of experience or more).

Since Learning Forward is in the process of developing new teacher and administrator assessments, this study could be replicated with respondents from elementary, middle, and high school teachers and administrators using the 2013 survey instruments. Teachers and principals in the study were unfamiliar with the research regarding Learning forward or the standards. Therefore, replication of the study in a region of the United States that has adopted or adapted the Learning Forward Standards as their guide to designing effective teacher professional development programs may add depth to the teachers’ perceptions.
Recommendations for Practice

According to the Professional Development in the United States: Trends and Challenges Executive Summary, teachers in urban or rural schools and those serving larger proportions of low-income and minority students have not received the professional development opportunities afforded teachers in suburban districts (Professional Development, 2008). The results of this study have implications for practice for administrators, teachers, and district professional development facilitators. Teachers and principals in the study could benefit from acquainting themselves with Learning Forward’s Standards for designing effective high-quality professional development programs and the research behind them. The results from the Standards Assessment Inventory (SAI) survey when used in conjunction with the SAI work packet (e.g., worksheet and summary of SAI results) can be used to create a school-based professional development plan geared toward teacher learning and increased student academic achievement.

Conclusions

This study analyzed quantitative and qualitative data gathered from the Standards Assessment Inventory (SAI) survey and face-to-face teacher and principal interviews to determine teachers’ perceptions of professional development at their worksites for the current school year. The biographical data was obtained from the first section as well as questions based on a Likert responses. Data on each of these variables were obtained from the survey. The qualitative data analyzed included the face-to-face teacher and principal interviews. A conceptual framework based upon the Learning Forward
professional development standards guided this study. The three strands focused on the standards for professional development in the areas of content, context, and process. The overall results from the study indicated that the respondents thought their professional development was aligned with the features outlined in earning Forward’s Standards for Professional Development.

In order to meet the challenges imposed on teachers in the 21st century relevant professional development has to be embedded into the daily work practice of teachers. Effective professional development has an impact on the teachers in and out of the classroom. Despite their popularity, “one-shot” knowledge-transmission programs do not achieve their aims of effecting a change in teacher behavior (Hayes, 1997). This is because participants are passive learners and the presenter has no knowledge of their beliefs and knowledge levels. Therefore, schools have to move away from the ‘in-service’ model and implement relevant teacher professional development, which is collaborative between teachers, administrators, parents, and the community. Effective professional development must be inclusive, intensive, and sustained. Further, it is important that efforts be maintained, monitored, and applied throughout all phases of professional development (Little, 1997). Teachers must transition from being developed to becoming professional learners in order to affect the academic outcomes of the diverse student population they educate. In order to accomplish this goal teacher learning opportunities must be embedded in the day-to-day operations of the job. The development of the professional learning activities must take into consideration the various learning styles of teachers.
Professional development programs need to be planned to address the learner’s needs and should be goal focused (e.g., Bondy & Ross 2005). Program implementers need to consider how a program addresses the learner’s needs. Evaluation of professional development aims to determine a program’s effectiveness and improve it. A formative evaluation can be conducted at an interval or intervals to determine a program’s progress, while a summative evaluation is conducted at the conclusion of a program. Both formative and summative evaluations aim to gather information for enhancing the program by pinpointing effective aspects and targeting practices for improvement (Cook & Fine, 1997). Data collection and evaluation can alert “participants about whether new ideas are being implemented and, more importantly, can signal whether an activity is having its intended effects on student outcomes” (Freedman, Ascheim, & Devlin-Scherer, 1995). Although evaluations should be considerate of the time and energy required from participants, evaluation information should include data on participant outcomes, organizational outcomes, and student outcomes (National Staff Development Council, 1995, p. 27). The reauthorization of the No Child Left Behind Act of 2001 demands that school leaders link student learning goals to professional development and educational resources. In order to accomplish this task, schools need to use student assessment results systematically to identify professional development needs and to design professional development opportunities accordingly (Holloway, 2003). Additionally, school leaders are responsible for helping teachers modify and target their own instruction, based on the assessment data. This process entails data collection, analysis, establishing priorities, and
setting goals linked to student learning and professional development activities (Guskey, 2003). Professional development should connect to goals related to student learning, be reflective in nature, and viewed as a continual process.

According to Stephanie Hirsh (2012), at a time when the nation is moving quickly to adopt common core standards and schools are challenged to accelerate gains in student achievement to meet federal mandates, states and districts need to move more aggressively to provide continuous teacher professional development.

This mixed method research study was conducted to ascertain the perceptions of elementary teachers and principals regarding the alignment of their professional development practices with Learning Forward’s Standards for professional learning. The findings showed that teachers want to engage in professional development activities that pertain to content vs. programs. They enjoyed collaborating with their peers; however, they stated more time is required in order to effectively learn, implement, and evaluate new practices.

Research confirms that teacher knowledge of subject matter, student learning, and teaching methods are all important elements of teacher effectiveness (National Foundation for the Improvement of Education (NFIE, 2001). One size does not fit all; therefore, teacher professional development needs to be designed to fit the needs of the individual organization. It should be data-driven, job-embedded, research-based, valuated, and designed based on the way teachers as adults learn.
Permission Letter for Survey Modification

April 18, 2012

Sharon K. Cogan
1353 Via Savona Drive
Henderson, Nevada 89052

Dear Ms. Cogan:

This letter confirms that you have permission to use and adapt principal-related questions from Learning Forward’s, formerly the National Staff Development Council, and Standards Assessment Inventory for use only in your doctoral research at the University of Nevada at Las Vegas.

I wish you all the best in your doctoral research study and look forward to learning the results of your study.

Sincerely,

Joellen Killion

Joellen Killion/Senior Advisor
10931 W. 71st, Place/Arvada, CO 80004-1337/C303-520-6790/F303-432-0959 - joellen.killion@learningforward.org/www.learningforward.org

Every educator engages in effective professional learning every day so every student achieves.
Sample Teacher Cover Letter

Dear Potential Respondent,

My name is Sharon Cogan; I am a third grade teacher at an elementary school within the district. I am also a doctoral student in the Educational Leadership Program at the University of Nevada at Las Vegas. I am conducting a study of professional development practices at three elementary schools within the Clark County School District. The objective of this research project is to determine whether professional development activities are being designed according to the guidelines of the Learning Forward's standards and definition. Your participation will enable me to articulate to principals and the district how to design professional development activities which meet the needs of teachers as adult learners in order to impact student academic achievement.

If you choose to participate, you will be given a paper copy of the Standards Assessment Inventory (SAI) survey. You may decline to answer any questions that make you uncomfortable. Your responses will not be identified with you personally, nor will anyone be able to determine which school you are affiliated. None of your responses on the survey will in any way influence your present or future employment with the Clark County School District.

I hope you will take 20-25 minutes to complete the survey. Without the help of people like you, research on teacher professional development could not be conducted. Your participation is voluntary and there is no penalty if you do not participate.

If you have any questions or concerns about completing the questionnaire or about participating in this study, you may contact me at (702) 541-2894, (702) 799-5540, or, skcogan@interact.ccsd.net. If you have any questions about your rights as a research subject, you may contact the University of Nevada at Las Vegas Institutional Research Board office, at (702) 895-2794 or www.unlv.edu/Research/OPRS/.

Sincerely,

Sharon Cogan

Sharon Cogan, M. Ed.
Educational Leadership
University of Nevada at Las Vegas
Sample Administrator Cover Letter

Dear Elementary Administrator:

My name is Sharon Cogan; I am a third grade teacher at an elementary school within the district. I am also a doctoral student in the Educational Leadership Program at the University of Nevada at Las Vegas. I am conducting research in the area of teacher professional development practices. This research will help teachers, administrators, and district personnel to better understand how effective professional development activities can impact teacher pedagogical knowledge and student academic outcomes. I plan to publish/distribute results of this study that focus on teachers’ perception regarding professional development practices and how they align with the National Staff Developments’ guidelines for effective professional development based on the data provided by survey respondents.

I would greatly appreciate your staff completing the Standards Assessment Inventory (SAI) survey published by the National Staff Development Council. Since the validity of the results depend on obtaining a high response rate, your participation is crucial to the success of this study. The first portion of the SAI survey consists of demographic questions. The second section consists of 60 questions, five questions from each of the 12 standards in the areas of (a) content, (b) context, and (c) process. A 5-point Likert scale will be used to measure respondents’ agreement or disagreement with questions, (1= Never, 2= Seldom, 3= Sometimes, 4= Frequently, and 5= Always). The survey will take approximately 20 minutes to complete.

If you have any questions about this study, you can contact the person(s) below:

Sharon Cogan, Principal Investigator  Dr. James Crawford, Committee Chair
(702) 541-2894          (702) 895-4949
(702) 799-5540, or        email address: jrcrawford@unlv.edu
skcogan@interact.ccsd.net.

If you have any questions about the rights of your staff as research subjects, you may contact the University of Nevada at Las Vegas Institutional Research Board office, at 702-895-2794 or www.unlv.edu/Research/OPRS/.

Sincerely,

Sharon Cogan, M. Ed.
Educational Leadership
University of Nevada at Las Vegas
Learning Forward’s (SAI) SURVEY (Teacher)

Thank you for taking the time to complete this survey. **Completion Instructions**: Please mark the responses that most accurately reflect your experiences at your school (0=Never, 1=Seldom, 2=Sometimes, 3=Frequently, and 4=Always).

**The purpose** of the Standards Assessment Inventory (SAI) is to help schools and Districts assess how well their professional learning practices align with the Learning Forward Standards for Staff Development.

**The following questions relate to the** Learning Forward’s 12 standards organized into three categories: (a) context, (b) process, and (c) content.

**Part I: Demographic Information**

1. What is your current teaching position?
   - Kindergarten
   - First Grade
   - Second Grade
   - Third Grade
   - Fourth Grade
   - Fifth Grade
   - Specialist: (Art, Music, Physical Education, Librarian, or Literacy) other:

2. How many years have you been teaching?
   - 0-5 years
   - 6-10 years
   - 11-15 years
   - 16-20 years
   - 21-25 years
   - 26-30 years
   - 31 or more years

3. How long have you been at your current school?
   - 0-5 years
   - 6-10 years
   - 11-15 years
   - 16-20 years
   - 21-25 years
   - 26-30 years
   - 31 or more years

4. What is your age?
   - 20 - 30
   - 31 - 40
   - 41 - 50
   - 51 - 60
   - 61 or older
Please **BUBBLE** the responses that most accurately reflect your experiences at your school.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Seldom</th>
<th>Sometimes</th>
<th>Frequently</th>
<th>Always</th>
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</thead>
<tbody>
<tr>
<td>1. Our principal believes teacher learning is essential for achieving our school goals.</td>
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<td>2. Fellow teachers, trainers, facilitators, and/or consultants are available to help us implement new instructional practices at our school.</td>
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<td>3. We design evaluations of our professional development activities prior to the professional development program or set of activities.</td>
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<td>4. Our school uses educational research to select programs.</td>
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<td>5. We have opportunities to practice new skills gained during staff development.</td>
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<td>6. Our faculty learns about effective ways to work together.</td>
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<td>7. Teachers are provided opportunities to gain deep understanding of the subjects they teach.</td>
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<td>8. Teachers are provided opportunities to learn how to involve families in their children's education.</td>
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<td>9. The teachers in my school meet as a whole staff to discuss ways to improve teaching and learning.</td>
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<td>10. Our principal’s decisions on school wide issues and practices are influenced by faculty input.</td>
<td>0</td>
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<td>11. Teachers at our school learn how to use data to assess student learning needs.</td>
<td>0</td>
<td>1</td>
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<tr>
<td>12. We use several sources to evaluate the effectiveness of our professional development on student learning (e.g., classroom observations, teacher surveys, conversations with principals or coaches).</td>
<td>0</td>
<td>1</td>
<td>2</td>
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<tr>
<td>13. We make decisions about professional development based on research that shows evidence of improved student performance.</td>
<td>0</td>
<td>1</td>
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<tr>
<td>14. At our school, teacher learning is supported through a combination of strategies (e.g. workshops, peer coaching, study group, joint planning of lessons, and examination of student work).</td>
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<td>15. We receive support implementing new skills until they become a natural part of the instruction.</td>
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<td>0</td>
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<td>16. The professional development that I participate in models instructional strategies that I will use in my classroom.</td>
<td></td>
<td>0</td>
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<tr>
<td>17. Our principal is committed to providing teachers with opportunities to improve instruction (e.g., observations, feedback, collaborating with colleagues).</td>
<td></td>
<td>0</td>
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<tr>
<td>18. Substitutes are available to cover our classes when we observe each other’s classes or engage in other professional development opportunities.</td>
<td></td>
<td>0</td>
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<td>19. We set aside time to discuss what we learned from our professional development experiences.</td>
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<td>20. When deciding which school improvement efforts to adopt, we look at evidence of effectiveness of programs in other schools.</td>
<td></td>
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<tr>
<td>21. We design improvement strategies based on clearly stated outcomes for teacher and student learning.</td>
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<td>22. My school structures time for teachers to work together to enhance student learning.</td>
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<td>23. At our school, we adjust instruction and assessment to meet the needs of diverse learners.</td>
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<td>24. We use research-based instructional strategies.</td>
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<tr>
<td>25. Teachers at our school determine the effectiveness of our professional development by using data on student improvement.</td>
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<td>26. Our professional development promotes deep understanding of a topic.</td>
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<td>27. Our school’s teaching and learning goals depend on staff’s ability to work well together.</td>
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<td>0</td>
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<td>28. We observe each other’s classroom instruction as one way to improve our teaching.</td>
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<tr>
<td>29. At our school, evaluations of professional development outcomes are used to plan for professional development choices.</td>
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<td>0</td>
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<td>30. Communicating our school mission and goals to families and community members is a priority.</td>
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<td></td>
<td>Never</td>
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<td>31. Beginning teachers have opportunities to work with more experienced teachers at our school.</td>
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<td>32. Teachers show respect for all of the student sub-populations in our school (e.g. poor, minority).</td>
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<td>33. We receive feedback from our colleagues about classroom practices.</td>
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<td>34. In our school, we find creative ways to expand human and material resources.</td>
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<td>35. When considering school improvement programs, we ask whether the program has resulted in student achievement gains.</td>
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<tr>
<td>36. Teachers at our school expect high academic achievement for all of our students.</td>
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<tr>
<td>37. Teacher professional development is part of our school improvement plan.</td>
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<td>38. Teachers use student data to plan professional development programs.</td>
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<tr>
<td>39. School leaders work with community members to help students achieve academic goals.</td>
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<tr>
<td>40. The school improvement programs we adopt have been effective with student populations similar to ours.</td>
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<td>1</td>
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<td>41. At my school, teachers learn through a variety of methods (e.g., hands-on activities, discussion, dialogue, writing, demonstrations, group problem solving).</td>
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<tr>
<td>42. Our school leaders encourage sharing responsibility to achieve school goals.</td>
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<td>43. We are focused on creating positive relationships between teachers and students.</td>
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<td>44. Our principal fosters a school culture that is focused on instructional improvement.</td>
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<td>45. Teachers use student data when discussing instruction and curriculum.</td>
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<td>46. Our principal models how to build relationships with students and families.</td>
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<td>47. I would use the word empowering to describe my principal.</td>
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<td>Statement</td>
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<td>Seldom</td>
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<td>48. School goals determine how resources are allocated.</td>
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<td>49. Teachers analyze classroom data with each other to improve student</td>
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<td>learning, experiences.</td>
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<td>50. We use students’ classroom performance to assess the success of</td>
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<td>teachers’ professional development</td>
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<td>51. Teachers’ prior knowledge and experience are taken into consideration</td>
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<td>when designing staff development at our school.</td>
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<td>52. At our school, teachers can choose the types of professional</td>
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<td>development they receive (e.g., study group, action research,</td>
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<td>observations).</td>
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<td>53. Our school’s professional development helps me learn about effective</td>
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<td>student assessment techniques.</td>
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<td>54. Teachers work with families to help them support students’</td>
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<td>learning at home.</td>
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<td>55. Teachers examine student work with each other.</td>
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<td>56. When we adopt school improvement initiatives we stay with them long</td>
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<td>enough to see if changes in instructional practice and student</td>
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<td>performance occur.</td>
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<td>57. Our principal models effective collaboration.</td>
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<td>58. Teachers receive training on curriculum and instruction for</td>
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<tr>
<td>students at different levels of learning.</td>
<td></td>
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</tr>
<tr>
<td>59. Our administrators engage teachers in conversations about</td>
<td></td>
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<td></td>
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<tr>
<td>instruction and student learning.</td>
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<td></td>
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</tr>
</tbody>
</table>

If you are interested in participating in a face-to-face interview please provide your name, alternate email address and preparation time.
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Thank-you for participating in the survey!
APPENDIX 5

Principal Standards Assessment Inventory Survey

(adapted from Standards Assessment Inventory survey (SAI) NSDC, 2010)

Thank you for taking the time to complete this survey. **Completion Instructions:** Please mark the responses that most accurately reflect your experiences at your school (0=Never, 1=Seldom, 2=Sometimes, 3=Frequently, and 4=Always).

**The purpose** of the Standards Assessment Inventory (SAI) is to help schools and districts assess how well their professional learning practices align with the Learning Forward Standards for Staff Development.

The following questions relate to the Learning Forward’s 12 standards organized into three categories: (a) context, (b) process, and (c) content.

Part I: Demographic Information

1. How many years have you been an administrator?
   - 0-5 years
   - 6-10 years
   - 11-15 years
   - 16-20 years
   - 21-25 years
   - 26-30 years
   - 31 or more years

1. How long have you been at your current school?
   - 0-5 years
   - 6-10 years
   - 11-15 years
   - 16-20 years
   - 21-25 years
   - 26-30 years
   - 31 or more years

2. What is your age?
   - 20 - 30
   - 31 - 40
   - 41 - 50
   - 51 - 60
   - 61 or older
Please **BUBBLE** the responses that most accurately reflect your experiences at your school.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Seldom</th>
<th>Sometimes</th>
<th>Frequently</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I believe teacher learning is essential for achieving our school goals.</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☒</td>
<td>☑</td>
</tr>
<tr>
<td>2. Fellow teachers, trainers, facilitators, and/or consultants are available to help teachers implement new instructional practices at our school.</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☒</td>
<td>☑</td>
</tr>
<tr>
<td>3. We design evaluations of our professional development activities prior to the professional development program or set of activities.</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☒</td>
<td>☑</td>
</tr>
<tr>
<td>4. Our school uses educational research to select programs.</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☒</td>
<td>☑</td>
</tr>
<tr>
<td>5. Teachers have opportunities to practice new skills gained during staff development.</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☒</td>
<td>☑</td>
</tr>
<tr>
<td>6. Our faculty learns about effective ways to work together.</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☒</td>
<td>☑</td>
</tr>
<tr>
<td>7. Teachers are provided opportunities to gain deep understanding of the subjects they teach.</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☒</td>
<td>☑</td>
</tr>
<tr>
<td>8. Teachers are provided opportunities to learn how to involve families in their children's education.</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☒</td>
<td>☑</td>
</tr>
<tr>
<td>9. The teachers in my school meet as a whole staff to discuss ways to improve teaching and learning.</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☒</td>
<td>☑</td>
</tr>
<tr>
<td>10. Principal decisions on school wide issues and practices are influenced by faculty input.</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☒</td>
<td>☑</td>
</tr>
<tr>
<td>11. Teachers at our school learn how to use data to assess student learning needs.</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☒</td>
<td>☑</td>
</tr>
<tr>
<td>12. We use several sources to evaluate the effectiveness of our professional development on student learning (e.g., classroom observations, teacher surveys, conversations with principals or coaches).</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☒</td>
<td>☑</td>
</tr>
<tr>
<td>13. We make decisions about professional development based on research that shows evidence of improved student performance.</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☒</td>
<td>☑</td>
</tr>
<tr>
<td>14. At our school, teacher learning is supported through a combination of strategies (e.g. workshops, peer coaching, study group, joint planning of lessons, and examination of student work).</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☒</td>
<td>☑</td>
</tr>
<tr>
<td>15. We receive support implementing new skills until they become a natural part of the instruction.</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☒</td>
<td>☑</td>
</tr>
<tr>
<td>Statement</td>
<td>Never</td>
<td>Seldom</td>
<td>Sometimes</td>
<td>Frequently</td>
<td>Always</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>-------</td>
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</tr>
<tr>
<td>16. The professional development that teachers participate in models instructional strategies that they can use in their classroom.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17. I am committed to providing teachers with opportunities to improve instruction (e.g., observations, feedback, collaborating with colleagues).</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>18. Substitutes are available to cover classes when teachers observe each others’ classes or engage in other professional development opportunities.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>19. Teachers set aside time to discuss what they learned from professional development experiences.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>20. When deciding which school improvement efforts to adopt, we look at evidence of effectiveness of programs in other schools.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>21. We design improvement strategies based on clearly stated outcomes for teacher and student learning.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>22. My school structures time for teachers to work together to enhance student learning.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>23. At our school, we adjust instruction and assessment to meet the needs of diverse learners.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>24. We use research-based instructional strategies.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>25. Teachers at our school determine the effectiveness of our professional development by using data on student improvement.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>26. Our professional development promotes deep understanding of a topic.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>27. Our school’s teaching and learning goals depend on staff’s ability to work well together.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>28. Teachers observe each other’s classroom instruction as one way to improve our teaching.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>29. At our school, evaluations of professional development outcomes are used to plan for professional development choices.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>30. Communicating our school mission and goals to families and community members is a priority.</td>
<td>0</td>
<td>1</td>
<td>2</td>
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<td>4</td>
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<tr>
<td></td>
<td></td>
<td>Never</td>
<td>Seldom</td>
<td>Sometimes</td>
<td>Frequently</td>
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<tr>
<td>32. Teachers show respect for all of the student sub-populations in our school (e.g. poor, minority).</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>33. Teachers receive feedback from our colleagues about classroom practices.</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>34. In our school, we find creative ways to expand human and material resources.</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>35. When considering school improvement programs, we ask whether the program has resulted in student achievement gains.</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>36. Teachers at our school expect high academic achievement for all of our students.</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>37. Teacher professional development is part of our school improvement plan.</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>38. Teachers use student data to plan professional development programs.</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>39. School leaders work with community members to help students achieve academic goals.</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>40. The school improvement programs we adopt have been effective with student populations similar to ours.</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>41. At my school, teachers learn through a variety of methods (e.g., hands-on activities, discussion, dialogue, writing, demonstrations, practice with feedback, group problem solving).</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>42. Our school leaders encourage sharing responsibility to achieve school goals.</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>43. We are focused on creating positive relationships between teachers and students.</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>44. Teachers use student data when discussing instruction and curriculum.</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>45. School goals determine how resources are allocated.</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>46. Teachers analyze classroom data with each other to improve student learning experiences.</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>47. We use students’ classroom performance to assess the success of teachers’ professional development.</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Never</td>
<td>Seldom</td>
<td>Sometimes</td>
<td>Frequently</td>
<td>Always</td>
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</tr>
<tr>
<td>48. Teachers’ prior knowledge and experience are taken into consideration when designing staff development at our school.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>49. At our school, teachers can choose the types of professional development they receive (e.g., study group, action research, observations).</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>50. Teachers work with families to help them support students’ learning at home.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>51. Teachers examine student work with each other.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>52. When we adopt school improvement initiatives we stay with them long enough to see if changes in instructional practice and student performance occur.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>53. Teachers receive training on curriculum and instruction for students at different levels of learning.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>54. Our administrators engage teachers in conversations about instruction and student learning.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Please provide a date and time you would like to conduct your face-to-face interview.

________________________________________________________________________  
________________________________________________________________________  
________________________________________________________________________

Thank-you for participating in the survey!
Teacher Interview Protocol

Date: ______________

Interviewee: _______________________

My name is Sharon Cogan and I am a graduate student pursuing a doctoral degree at the University of Nevada at Las Vegas. I am here to conduct an interview related to teacher professional development and the standards of Learning Forward. Before we begin would you please read and sign the Informed Consent form which will allow me to conduct and tape record our session.

You recently participated in the Standards Assessment Inventory survey which is designed to determine how teacher professional development activities at your school align with Learning Forward’s guidelines for effective professional development.

Please be assured that the comments from this interview will not be shared with anyone other than my dissertation chair, Dr. James Crawford. When the report of this study is written, no names will be used when discussing the contents of the interviews. Do you have any questions before we begin?

Please tell me about the professional development activities at your school.

1. What was the last professional development activity in which you participated?
   How was this related to the school improvement goals? Has there been follow-up since the topic was introduced?

2. Please prioritize two areas you believe need to be addressed to improve professional development at your school.

3. Do you have input into the type of professional development activities offered at your school? Do the teachers at your school offer recommendations regarding professional development topics?
4. Does your school operate as a Professional Learning Community? Yes or No – If you answered yes what are the roles of the key players at your school?

5. From your perspective, are teachers given adequate amounts of time to collaborate and implement strategies that are introduced?

6. How does your school incorporate the Learning Forward Standards in professional development activities?

7. What role does your administrator(s) play in providing support for professional development activities?

8. Comments:
Principal Interview Protocol

Date: ______________

Interviewee: _______________________

My name is Sharon Cogan and I am a graduate student pursuing a doctoral degree at the University of Nevada at Las Vegas. I am here to conduct an interview related to teacher professional development and the standards of Learning Forward. Before we begin would you please read and sign the Informed Consent form which will allow me to conduct and tape record our session.

According to Learning Forward’s Standards for Professional Learning, professional learning that increases educator effectiveness and results for all students requires skillful leaders who develop capacity, advocate, and create support systems for professional learning (Learning Forward, 2011).

You recently participated in the Standards Assessment Inventory survey which is designed to determine how teacher professional development activities at your school align with Learning Forward’s guidelines for effective professional development.

Please be assured that the comments from this interview will not be shared with anyone other than my dissertation chair, Dr. James Crawford. When the report of this study is written, no names will be used when discussing the contents of the interviews. Do you have any questions before we begin?

Please tell me about the professional development activities at your school.

1. How are your school’s professional learning needs identified?

2. What role do you as the administrator play in providing support for professional development activities?

3. Does your school operate as a Professional Learning Community? What are the roles of the key players at your school?

4. How does your school incorporate the Learning Forward Standards in professional development activities?

5. Comments:
## Crosswalk With Previous Standards

**2011 Standards for Professional Learning**

**LEARNING COMMUNITIES:** Professional learning that increases educator effectiveness and results for all students occurs within learning communities committed to continuous improvement, collective responsibility, and goal alignment.

**LEADERSHIP:** Professional learning that increases educator effectiveness and results for all students requires skillful leaders who develop capacity, advocate, and create support systems for professional learning.

**RESOURCES:** Professional learning that increases educator effectiveness and results for all students requires prioritizing, monitoring, and coordinating resources for educator learning.

**DATA-DRIVEN:** Professional learning that increases educator effectiveness and results for all students uses a variety of sources and types of student, educator, and system data to plan, assess, and evaluate professional learning.

**2001 Standards for Staff Development**

**LEARNING COMMUNITIES:** Staff development that improves the learning of all students organizes adults into learning communities whose goals are aligned with those of the school and district.

**COLLABORATION:** Staff development that improves the learning of all students provides educators with the knowledge and skills to collaborate.

**LEADERSHIP:** Staff development that improves the learning of all students requires skillful school and district leaders who guide continuous instructional improvement.

**RESOURCES:** Staff development that improves the learning of all students requires resources to support adult learning and collaboration.

**DATA-DRIVEN:** Staff development that improves the learning of all students uses disaggregated student data to determine adult learning priorities, monitor progress, and help sustain continuous improvement.

**EVALUATION:** Staff development that improves the learning of all students uses multiple sources of information to guide improvement and demonstrate its impact.
2011 Standards for Professional Learning

LEARNING DESIGNS: Professional learning that increases educator effectiveness and results for all students integrates theories, research, and models of human learning to achieve its intended outcomes.

IMPLEMENTATION: Professional learning that increases educator effectiveness and results for all students applies research on change and sustains support for implementation of professional learning for long-term change.

OUTCOMES: Professional learning that increases educator effectiveness and results for all students aligns its outcomes with educator performance and student curriculum standards.

2001 Standards for Staff Development

DESIGN: Staff development that improves the learning of all students uses learning strategies appropriate to the intended goal.

RESEARCH-BASED: Staff development that improves the learning of all students prepares educators to apply research to decision making.

LEARNING: Staff development that improves the learning of all students applies knowledge about human learning and change.

EQUITY: Staff development that improves the learning of all students prepares educators to understand and appreciate all students, create safe, orderly, and supportive learning environments, and hold high expectations for their academic achievement.

QUALITY TEACHING: Staff development that improves the learning of all students deepens educators’ content knowledge, provides them with research-based instructional strategies to assist students in meeting rigorous academic standards, and prepares them to use various types of classroom assessments appropriately.

FAMILY INVOLVEMENT: Staff development that improves the learning of all students provides educators with knowledge and skills to involve families and other stakeholders appropriately.
APPENDIX 9

Rotated Component Matrix \(^a\) for SAI Exploratory Factor Analysis (n= 98 schools)

<table>
<thead>
<tr>
<th>Components</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher learning is Essential (Leader)</td>
<td>-.014</td>
<td>.211</td>
<td>.683</td>
</tr>
<tr>
<td>Personnel support For new practices (Resource)</td>
<td>.038</td>
<td>.553</td>
<td>.091</td>
</tr>
<tr>
<td>PD evals developed prior (Evaluation)</td>
<td>-.010</td>
<td>.461</td>
<td>-.116</td>
</tr>
<tr>
<td>Ed research drives Programs (Research)</td>
<td>.317</td>
<td>.439</td>
<td>.476</td>
</tr>
<tr>
<td>Practice new skills (Learning)</td>
<td>.170</td>
<td>.477</td>
<td>.450</td>
</tr>
<tr>
<td>Learn effect teamwork (Collaboration)</td>
<td>.086</td>
<td>.474</td>
<td>.523</td>
</tr>
<tr>
<td>Deep subject knowledge (Quality)</td>
<td>.099</td>
<td>.647</td>
<td>.372</td>
</tr>
<tr>
<td>Learn to involve family (Family)</td>
<td>.126</td>
<td>.719</td>
<td>.250</td>
</tr>
<tr>
<td>Whole staff meet about Teaching &amp; learning (PLC)</td>
<td>.223</td>
<td>.550</td>
<td>.426</td>
</tr>
<tr>
<td>Faculty input influences Principal (Leader)</td>
<td>.155</td>
<td>.537</td>
<td>.650</td>
</tr>
<tr>
<td>Learn to use technology (Resource)</td>
<td>.456</td>
<td>.244</td>
<td>.411</td>
</tr>
<tr>
<td>Assess learning needs (Data)</td>
<td>.163</td>
<td>.591</td>
<td>.530</td>
</tr>
<tr>
<td>Several sources evaluate PD (Evaluation)</td>
<td>.453</td>
<td>.465</td>
<td>.319</td>
</tr>
<tr>
<td>PD is research driven (Research)</td>
<td>.318</td>
<td>.677</td>
<td>.074</td>
</tr>
<tr>
<td>Teacher learning uses Strategy combos (Design)</td>
<td>.428</td>
<td>.665</td>
<td>.327</td>
</tr>
</tbody>
</table>
Rotated Component Matrix \(^a\) for SAI Exploratory Factor Analysis (\(n=98\) schools) cont.

<table>
<thead>
<tr>
<th>Components</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>New skills support (Learning)</td>
<td>.465</td>
<td>.493</td>
<td>.205</td>
</tr>
<tr>
<td>PD models instructional Strategies (Quality)</td>
<td>.294</td>
<td>.317</td>
<td>.721</td>
</tr>
<tr>
<td>Principal commits to Instructional support (Leader)</td>
<td>.168</td>
<td>.597</td>
<td>.199</td>
</tr>
<tr>
<td>Subs available for PD (Resource)</td>
<td>.500</td>
<td>.320</td>
<td>.309</td>
</tr>
<tr>
<td>Set aside time to discuss PD (Evaluation)</td>
<td>.356</td>
<td>.425</td>
<td>.484</td>
</tr>
<tr>
<td>Program selection based on School evidence (Research)</td>
<td>.369</td>
<td>.464</td>
<td>.439</td>
</tr>
<tr>
<td>Clear outcomes drive SIP (Design)</td>
<td>.407</td>
<td>.440</td>
<td>.058</td>
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<tr>
<td>Structured work time (Collaboration)</td>
<td>.483</td>
<td>.167</td>
<td>.394</td>
</tr>
<tr>
<td>Adjust instruction for diverse learning (Equity)</td>
<td>.387</td>
<td>.122</td>
<td>.599</td>
</tr>
<tr>
<td>Use research-based strategies (Quality)</td>
<td>.484</td>
<td>.322</td>
<td>.302</td>
</tr>
<tr>
<td>PD effectiveness based On student data (Data)</td>
<td>.547</td>
<td>.451</td>
<td>.268</td>
</tr>
<tr>
<td>PD promotes deep Understanding (Learning)</td>
<td>.480</td>
<td>.191</td>
<td>.033</td>
</tr>
<tr>
<td>PD goals driven by ability at Teamwork (Collaboration)</td>
<td>.507</td>
<td>.556</td>
<td>.119</td>
</tr>
<tr>
<td>Observe other classrooms (PLC)</td>
<td>.572</td>
<td>.485</td>
<td>.198</td>
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<tr>
<td>Evaluate PD outcomes (Evaluation)</td>
<td>.483</td>
<td>.334</td>
<td>.411</td>
</tr>
<tr>
<td>Communicating goals is a priority (Family)</td>
<td>.478</td>
<td>.352</td>
<td>.257</td>
</tr>
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</table>
Rotated Component Matrix a for SAI Exploratory Factor Analysis (n=98 schools) cont.

<table>
<thead>
<tr>
<th>Components</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<tbody>
<tr>
<td>New teachers can work with experienced (PLC)</td>
<td>.338</td>
<td>.109</td>
<td>.424</td>
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<tr>
<td>Respect shown to all populations (Equity)</td>
<td>.664</td>
<td>.288</td>
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<tr>
<td>Colleagues provide feedback (PLC)</td>
<td>.659</td>
<td>.238</td>
<td>.371</td>
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<tr>
<td>Are creative in use of resources (Resource)</td>
<td>.440</td>
<td>.311</td>
<td>.528</td>
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<tr>
<td>Program based on student Achievement (Research)</td>
<td>.400</td>
<td>.214</td>
<td>.576</td>
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<tr>
<td>Expect high achievement for all students (Equity)</td>
<td>.520</td>
<td>.026</td>
<td>.277</td>
</tr>
<tr>
<td>PD is part of school plan (Design)</td>
<td>.676</td>
<td>.143</td>
<td>.371</td>
</tr>
<tr>
<td>Student data guides PD (Data)</td>
<td>.537</td>
<td>.497</td>
<td>.140</td>
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<tr>
<td>School works with community (Family)</td>
<td>.596</td>
<td>.235</td>
<td>.374</td>
</tr>
<tr>
<td>Program results reflects Our student population (Research)</td>
<td>.461</td>
<td>.418</td>
<td>.257</td>
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<tr>
<td>Teachers given variety of methods to learn (Learning)</td>
<td>.526</td>
<td>.188</td>
<td>.429</td>
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<tr>
<td>Leaders encourage sharing responsibility (Collaboration)</td>
<td>.552</td>
<td>.203</td>
<td>.408</td>
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<tr>
<td>Focused on positive Student-teacher relationships (Equity)</td>
<td>.342</td>
<td>.062</td>
<td>.825</td>
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<tr>
<td>Principal fosters culture (Leader)</td>
<td>.579</td>
<td>.130</td>
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<tr>
<td>Teachers use student Data to discuss (Data)</td>
<td>.431</td>
<td>.076</td>
<td>.392</td>
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<tr>
<td>Principal models relationship building (Family)</td>
<td>.270</td>
<td>.131</td>
<td>.825</td>
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</tbody>
</table>

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<table>
<thead>
<tr>
<th>Description</th>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe principal as Empowering (Leader)</td>
<td></td>
<td>.319</td>
<td>.016</td>
<td>.640</td>
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<tr>
<td>School goals determine Resource allocation (Resource)</td>
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<td>.692</td>
<td>-.068</td>
<td>.261</td>
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<tr>
<td>Analyze classroom data (Data)</td>
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<td>.720</td>
<td>.210</td>
<td>.180</td>
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<tr>
<td>Student scores assess teacher PD (Evaluation)</td>
<td></td>
<td>.589</td>
<td>.489</td>
<td>.229</td>
</tr>
<tr>
<td>Prior knowledge drives PD (Design)</td>
<td></td>
<td>.598</td>
<td>.395</td>
<td>.206</td>
</tr>
<tr>
<td>Teachers can choose PD Type (Learning)</td>
<td></td>
<td>.762</td>
<td>.144</td>
<td>.181</td>
</tr>
<tr>
<td>PD on effective student assessment (Quality)</td>
<td></td>
<td>.618</td>
<td>.226</td>
<td>.289</td>
</tr>
<tr>
<td>Share student work (PLC)</td>
<td></td>
<td>.702</td>
<td>.176</td>
<td>.006</td>
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<tr>
<td>Stick with new initiatives (Design)</td>
<td></td>
<td>.721</td>
<td>.022</td>
<td>.214</td>
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<tr>
<td>Stay with Initiatives (PLC)</td>
<td></td>
<td>.387</td>
<td>.237</td>
<td>.703</td>
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<tr>
<td>Principal models effective Collaboration (Collaboration)</td>
<td></td>
<td>.569</td>
<td>.259</td>
<td>.416</td>
</tr>
<tr>
<td>Teacher PD on differentiating Instruction (Equity)</td>
<td></td>
<td>.599</td>
<td>.186</td>
<td>.568</td>
</tr>
</tbody>
</table>
IRB Certificate

Social/Behavioral IRB – Exempt Review
Deemed Exempt

DATE: February 24, 2012

TO: Dr. James Crawford, Educational Leadership

FROM: Office of Research Integrity – Human Subjects

RE: Notification of IRB Action

Protocol Title: Moving Forward On Common Ground: A Qualitative Exploration of National Standards & School District Implementation
Protocol # 1202-4040M

This memorandum is notification that the project referenced above has been reviewed as indicated in Federal regulatory statutes 45CFR46 and deemed exempt under 45 CFR 46.101(b)2.

PLEASE NOTE:
Upon Approval, the research team is responsible for conducting the research as stated in the exempt application reviewed by the ORI – HS and/or the IRB which shall include using the most recently submitted Informed Consent/Assent Forms (Information Sheet) and recruitment materials. The official versions of these forms are indicated by footer which contains the date exempted.

Any changes to the application may cause this project to require a different level of IRB review. Should any changes need to be made, please submit a Modification Form. When the above-referenced project has been completed, please submit a Continuing Review/Progress Completion report to notify ORI – HS of its closure.

If you have questions or require any assistance, please contact the Office of Research Integrity - Human Subjects at IRB@unlv.edu or call 895-2794.
APPENDIX 11

Informed Consent-Survey (Principal/Teacher)

INFORMED CONSENT-SURVEY (PRINCIPAL/TEACHER)
Department of Educational Leadership

TITLE OF STUDY: Moving Forward on Common Ground: A Qualitative Exploration of National Standards and School District Implementation
INVESTIGATOR(S): Dr. James Crawford (Sharon Cogan)
CONTACT PHONE NUMBER: 702-895-4949 (702-779-5540)

Purpose of the Study
The purpose of this study is to examine the professional development practices of teachers at three elementary schools in a large urban area in the southwest region of the United States and how they attempt to meet the guidelines as outlined by Learning Forward’s Standards.

Participants
You are being asked to participate in the study because you fit the following criteria:
Participants will consist of individuals that meet the following criteria. Male & female - age 22+ years of age, principal and certified kindergarten through 5th grade classroom teachers and specialists.

Procedures
If you volunteer to participate in this study, you will be asked to do the following: participate in a Standards Assessment Inventory (SAI) survey (regarding teacher perceptions of professional development based on Learning Forward’s Standards consisting of 80 questions. The survey should take approximately 15-20 minutes to complete.

Benefits of Participation
There are no direct benefits to you as a participant in this study. However, the researcher will use the data to determine how the professional development practices from district schools attempt to meet the guidelines as outlined by Learning Forward’s Standards.

Risks of Participation
There are no physical, financial, or emotional risks known in this study. However, there is a slight risk of fatigue to the participant(s) due to the number of survey questions (60). The risk to subjects can be minimized by participants choosing not to answer various survey questions.

Deemed exempt by the OHSIS and/or the UNLV IRB Protocol 1202-4040M
Exempt Date: 03-34-12

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APPENDIX 12

Informed Consent-Interview (Principal/Teacher)

UNLV
UNIVERSITY OF NEVADA, LAS VEGAS

INFORMED CONSENT - INTERVIEW (PRINCIPAL/TEACHER)
Department of Educational Leadership

TITLE OF STUDY: Moving Forward on Common Grounds: A Qualitative Exploration of National Standards and School District Implementation

INVESTIGATOR(S): Dr. James Crawford (Sharen K. Cogan)

CONTACT PHONE NUMBER: (702)-895-4949 (702)-795-5840

Purpose of the Study
The purpose of this study is to examine the professional development practices of teachers at three elementary schools in a large urban area in the southwest region of the United States and how they attempt to meet the guidelines as outlined by the Learning Forward’s Standards.

Participants
You are being asked to participate in the study because you fit the following criteria: Participants will consist of individuals that meet the following criteria. Male & female - age 22 and above, principal and certified kindergarten through 5th grade classroom teachers and specialists.

Procedures
If you volunteer to participate in this study, you will be asked to do the following: Participate in an interview on professional development practices.

Benefits of Participation
There are no direct benefits to you as a participant in this study. However, the researcher will use the data to determine how the professional development practices from district schools attempt to meet the guidelines as outlined by Learning Forward’s Standards.

Risks of Participation
There are no physical, financial, or emotional risks known in this study. The risk to subjects can be minimized by participants choosing not to answer various interview questions.

Cost/Compensation
There is no financial cost to you to participate in this study. Upon completion of the teacher interviews one person will be randomly selected and compensated with a $25.00 American Express gift card.

Deemed exempt by the OHRP and/or the UNLV IRB Protocol 1202-4049M
Exempt Dates: 02-24-12

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Second Grade Teacher, Lewis E. Rowe Elementary School, 2003 - 2005

Professional Affiliation
Phi Delta Kappa (PDK), 2005-2012

Dissertation Title: Moving Forward on Common Ground: A Mixed Methods Exploration of National Standards and District Implementation

Dissertation Examination Committee:
Chairperson, James Crawford, Ph.D.
Committee Member, Brett D. Campbell, Ph.D.
Committee Member, Gene E. Hall, Ph.D.
Committee Member, Sonya Horsford, Ed.D.
Graduate Faculty Representative, Committee Member, Linda Quinn, Ph.D.