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# TVAAS Rankings and Teachers' Perceptions of Data-Driven Professional Learning in Northeast Tennessee Title I and Non-Title I Elementary Schools

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TVAAS Rankings and Teachers' Perceptions of Data-Driven Professional Learning in Northeast  
Tennessee Title I and Non-Title I Elementary Schools

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A dissertation

Presented to

the faculty of the Educational Leadership and Policy Analysis Department

East Tennessee State University

In partial fulfillment

of the requirements for the degree

Doctor of Education in Educational Leadership

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by

Amy Smith Doran

May 2015

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Dr. Virginia Foley, Chair

Dr. Cecil Blankenship

Dr. Eric Glover

Dr. James Lampley

Keywords: Professional Learning, Leadership, Data, Title I, TVAAS

## ABSTRACT

TVAAS Rankings and Teachers' Perceptions of Data-Driven Professional Learning in Northeast Tennessee Title I and Non-Title I Elementary Schools

by

Amy Smith Doran

The focus of this study was a comparison between the perceptions of school-based licensed educators in Title I and non-Title I schools in Northeast Tennessee as measured by the TELL Tennessee Survey and each school's overall composite TVAAS score. The factor variables were professional development, instructional practices and support, teacher leadership, and school leadership. This dissertation was a quantitative study of teachers' perceptions of data-driven professional learning and TVAAS composite scores. A one-way analysis of variance (ANOVA) was conducted to evaluate the difference between teachers' perceptions of data-driven professional development and student TVAAS data. An independent samples t-test was used to evaluate the difference between teachers' perceptions and poverty levels, as determined by Title I status. The dependent variable was the response to the TELL Tennessee survey questions by Northeast Tennessee school-based licensed educators. Research indicated no significant difference in Northeast Tennessee teachers' perceptions of professional learning as measured by the TELL Tennessee survey in the dimensions of professional development, instructional practices and support, and teacher leadership as related to TVAAS composite scores. The research found a significant difference in teachers' perceptions in the dimension of school leadership as related to TVAAS composite scores. There were no significant differences in

teachers' perceptions as measured by the TELL Tennessee survey in the dimensions of professional development, instructional practices and support, teacher leadership, and school leadership between Title I and non-Title I schools.

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## DEDICATION

It is with great appreciation that I dedicate this work to my family and friends. It is only because of your love, support, and encouragement that I was able to accomplish my goal.

To my wonderful sons Joe and Drew, I have truly enjoyed being a student with you! I never imagined that all three of us would be in college at the same time, and I thank you for supporting my dream. I love you both and hope I have been an example of determination and perseverance. You can do anything as long as you believe. I am extremely proud of you and the outstanding men you have become and am looking forward to supporting you in your future endeavors.

To my mother Jane, I am so blessed to be your daughter. Your vision and strength kept me going when I did not think I could do it. Thank you for listening, praying, and especially for loving me. Throughout this process you have been my cheerleader and best friend! I would not have been able to accomplish this without your support.

To my father Joe, although you are not here to see me graduate, I know you would be proud. You instilled in me the idea that I could be, or do, anything that I put my mind to. I am fortunate to have inherited your ability to overcome obstacles and rise above life's challenges.

To my many wonderful friends, thank you for supporting me. You are the reason life has remained balanced. Thank you for encouraging me to work hard while reminding me to enjoy fun times.

## ACKNOWLEDGEMENTS

I would like to acknowledge the time and commitment of my committee members: Dr. Virginia Foley, Dr. Eric Glover, Dr. James Lampley, and Dr. Cecil Blankenship. Your feedback and support have been invaluable throughout the process.

Dr. Foley, I am especially grateful that you agreed to be the chair of my committee. You have been an outstanding mentor and supporter. You knew exactly when to encourage and when to give me a push. Your patience and sincerity are greatly appreciated. Throughout my ELPA journey I have learned a great deal from you and always enjoyed reading your comments on assignments. They inspired and motivated me! Thank you for standing by me and helping me reach my goal.

Dr. Glover, thank you for reminding me to stay true to my beliefs as an educator. In this time of accountability it is easy to get lost, but each time I talk with you I am reminded why I became a teacher. Perhaps this degree will allow me to be in a position to truly make a difference.

Dr. Lampley, thank you for being patient with me as I attempted my first meaningful use of statistics. I have definitely stretched myself beyond my literacy roots. I appreciate your support and guidance.

To my ELPA cohort, it has been a great journey! I wish each of you success in your careers and hope our paths cross again.

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## CHAPTER 1

### INTRODUCTION

The demands encountered in the current era of high stakes accountability in education require school leaders to support their faculties in examining and understanding the use of data to improve student achievement as measured by standardized tests. Teachers and administrators are held accountable for understanding the strengths and challenges of the school population as well as the implications of the school improvement plan. Educators must be able to look carefully at students' test scores and be able to assess both quantitative and qualitative data. Educators must also be able to disaggregate these data to find gaps in student achievement as well as the root causes of the gaps. Bernhardt (2013) discussed her passion about the impact data analyses make on building strong schools, teachers, administrators, and districts. She contended that data not only tell us where we have been but also where we are right now and where we are going. According to Bernhardt data inform us of the sensible ways to get there.

Tennessee's Race to the Top (RTTT) application was a catalyst in reinforcing the need to put actionable data in the hands of educators to support their daily decision-making. The application articulated a compelling state-wide vision for education in Tennessee known as First to the Top (FTTT) that was responsible for setting ambitious goals expected to dramatically change the trajectory of the state's education system in terms of student achievement growth. Tennessee sought to be the fastest improving state by 2015 as measured by NAEP and ACT assessments. As significant changes have been implemented in the education system data have afforded opportunities for educators to see a rise in student achievement outcomes. The Teaching, Empowering, Leading, and Learning (TELL) Survey administered through the RTTT

grant found that educators were also growing more positive over time about their work. The survey was designed to measure the perceptions of educators in nine areas: Community Engagement and Support, Teacher Leadership, School Leadership, Managing Student Conduct, Use of Time, Professional Development, Facilities and Resources, Instructional Practices and Support, and New Teacher Support. Tennessee educators responded more positively in 2013 than they did in 2011 to questions across all constructs of the survey. Approximately 85% of the educators surveyed indicated that they were recognized as educational experts and were trusted to make sound professional decisions.

According to Elliott (2010) the professional development of educators has been redesigned in recent years to be more closely related to student learning. Professional learning opportunities have been targeted to strengthen educators' skills in specific areas of need based on student data. Data-driven professional development has been linked to an increase in student achievement, and many school districts have worked to connect professional development more closely with student achievement goals. Elliott suggested that data-driven job-embedded professional development supports teacher learning and improved practice. He described data-driven professional development as sensible and straight-forward.

### *Purpose of the Study*

The purpose of this study was to examine the relationships between teachers' perceptions of data-driven professional development, student TVAAS data, and poverty levels as determined by high and low percentages of students who qualify for free and reduced priced meals. For this study distinguishing between schools with high and low percentages of students qualifying for

free and reduced priced meals was determined by whether or not the schools were Title I or non-Title I schools.

The purpose of the study was to focus on the overall student growth from TCAP and the results from four dimensions of the TELL survey. This researcher examined teachers' perceptions in the areas of Professional Development, Instructional Practices and Support, Teacher Leadership, and School Leadership. These perceptual data were compared to the schools' achievement data as measured by TVAAS. Another comparison was made between perceptions of educators from Title I schools and non-Title I schools.

This quantitative research study provided an increased understanding into how Northeast Tennessee K-5 educators perceive data-driven professional development. Information regarding current perceptions of data-driven professional development will form a context for future planning of professional learning opportunities.

### *Research Questions*

This study was guided by the following research questions. These research questions were analyzed to provide a conceptual understanding of the perceptions of Northeast Tennessee K-5 educators on the use of data to plan for professional development opportunities.

#### Research Question 1

Is there a significant difference in teachers' perceptions of professional development as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3, and 4 or 5 on their overall TVAAS score in 2013?

## Research Question 2

Is there a significant difference in teachers' perceptions of instructional practices and support as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3 , and 4 or 5 on their overall TVAAS score in 2013?

## Research Question 3

Is there a significant difference in teachers' perceptions of teacher leadership as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3 , and 4 or 5 on their overall TVAAS score in 2013?

## Research Question 4

Is there a significant difference in teachers' perceptions of school leadership as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3 , and 4 or 5 on their overall TVAAS score in 2013?

## Research Question 5

Is there a significant difference in teachers' perceptions of professional development as measured by the TELL Tennessee Survey in elementary schools between Northeast Tennessee Title I and non-Title I schools?



#### Research Question 6

Is there a significant difference in teachers' perceptions of instructional practices and support as measured by the TELL Tennessee Survey in elementary schools between Northeast Tennessee Title I and non-Title I schools?

#### Research Question 7

Is there a significant difference in teachers' perceptions of teacher leadership as measured by the TELL Tennessee Survey in elementary schools between Northeast Tennessee Title I and non-Title I schools?

#### Research Question 8

Is there a significant difference in teachers' perceptions of school leadership as measured by the TELL Tennessee Survey between elementary schools between Northeast Tennessee Title I and non-Title I schools?

### *Significance of the Study*

This study of the perceptions of educators in Northeast Tennessee about data-driven professional development can provide essential understandings for school and district leaders. By understanding classroom teachers' perceptions of using data to plan for professional learning opportunities, administrators can better support their faculties in acquiring skills and knowledge in targeted areas related to student learning. This study could be beneficial to leaders at both the school and district level who are charged with the responsibility of planning professional learning activities with an emphasis on the desired outcome of student performance and growth.

Further studies could be completed on the comparison of data between the current research and research using future data.

This quantitative research study provided an increased understanding into how Northeast Tennessee K-5 educators perceive data-driven professional learning. Information regarding current perceptions of data-driven professional development can form a context for future planning of professional learning opportunities.

### *Definition of Terms*

This section serves as a reference for terms used in this dissertation that may need more clarification. Selected vocabulary is defined in order to guide the reader in understanding these key terms, as they are critical for complete comprehension of the report and its implications.

*Data:* Factual information (as measurements or statistics) used as a basis for reasoning, discussion, or calculation as found in student achievement data, program data, and demographic data. Perceptual data are collections of datum that derive meaning from how they are organized.

*Data Conferencing:* A communication session among two or more participants sharing data to measure student performance, identify areas of intervention, and appropriately set targets to ensure desired outcomes.

*Instructional Practices and Support:* Data and supports available to teachers to improve instruction and student learning.

*Professional Development:* Availability and quality of learning opportunities for educators to enhance teaching (TELL, 2013).

*Professional Development:* A comprehensive, sustained, and intensive approach to improving teachers' and principals' effectiveness in raising student achievement (Learning Forward, 2008).

*Professional Learning Communities:* Educators who are committed to working collaboratively in an ongoing process of collective inquiry and action research to achieve better results for the students they serve (DuFour, DuFour, Eaker, & Many, 2006, p. 217).

*Rules for Effectiveness Level Determination:* Numerical levels one, two, three, four, and five that describe school effectiveness as measured by TCAP growth data (TVAAS, 2013).

- Level 5, Most Effective: This is achieved by schools whose students are making substantially more progress than the Standard for Academic Growth –The school’s index is 2 or greater (TVAAS 2013).
- Level 4, Above Average Effectiveness: This is achieved by schools whose students are making more progress than the Standard for Academic Growth – The school’s index is equal to or greater than 1 but less than 2 (TVAAS, 2013).
- Level 3, Average Effectiveness: This is achieved by schools whose students are making the same amount of progress as the Standard for Academic Growth – The school’s index is equal to or greater than -1 but less than 1 (TVAAS, 2013).
- Level 2, Approaching Average Effectiveness: This is achieved by schools whose students are making less progress than the Standard for Academic Growth – The school’s index is equal to or greater than -2 but less than -1 (TVAAS, 2013).
- Level 1, Least Effective: This is achieved by schools whose students are making substantially less progress than the Standard for Academic Growth –The school’s index is less than -2 (TVAAS, 2013).

*School Leadership:* The ability of school leadership to create trusting, supportive environments and address teacher concerns (TELL, 2013).

*Teacher Leadership:* Teacher involvement in decisions that impact classroom and school practices (TELL, 2013).

*Teachers' Perceptions:* The way teachers think about or understand specific constructs (TELL, 2013).

*The Teaching, Empowering, Leading, and Learning Survey (TELL):* A survey designed to provide school-based licensed educators with data, tools, and direct support to assist with school improvement. Surveyed areas included Community Engagement and Support, Teacher Leadership, School Leadership, Managing Student Conduct, Use of Time, Professional Development, Facilities and Resources, Instructional Practices and Support, and New Teacher Support. The most recent TELL survey was taken online in 2013 by school-based licensed educators. The survey used a Likert type scale to rank individual educators' responses. (Tennessee Department of Education 2013a).

*Tennessee Value-Added Assessment System (TVAAS):* This system is used by public and charter schools in Tennessee school districts in order to measure the impact schools and teachers have on the academic progress of their students. TVAAS measures student growth, not whether the student is proficient on the state assessment (TVAAS, 2013).

### *Delimitations*

This study was delimited to Northeast Tennessee elementary school-based licensed educators, kindergarten through fifth grade. All participating schools received the link to the TELL survey at the same time and were given the same directions for completion by a specific deadline. All teachers were asked to participate in the survey regardless of their years of

experience or level of education. The assumption is that all teachers had access to the survey and could choose to participate or not.

Standardized tests may incorrectly identify students' strengths and weaknesses when students are assessed during times of sickness, transiency, and other stressors that may occur within the testing window. Students' strengths may not be adequately represented due to test insensitivity especially as related to higher order thinking and learning skills.

A final delimitation is the identification of the percentage of students who qualify for free and reduced priced meals as these numbers are dependent upon a school's current enrollment. Parents of all eligible students may not submit applications, which could also alter percentages.

### *Limitations*

By using survey results from Northeast Tennessee educational professionals only, the results may be specific to this geographical region and may not be generalizable beyond the specified sampled population. This may have been a result of a restriction of the sample size.

Schools that participated in the TELL survey in Northeast Tennessee had various rates of participation. Due to a voluntary completion, the return rate was impacted and was less predictable. A minimum of 50% participation by school was required for data analysis. Some schools had 100% participation rates while others did not. The range of participation for schools in this study was 50% to 100%.

### *Overview of the Study*

The research for this study is organized and presented in five chapters. Chapter 1 contains an introduction, a statement of the problem, eight research questions, and the

significance of the study. Delimitations, limitations, and definitions of key terms are also included in Chapter 1. Chapter 2 contains a review of the literature focused on the research of using data to plan for professional learning opportunities especially as they pertain to increasing student performance in the elementary school setting. Headings within the literature review include collaboration, school improvement and professional learning communities, data conferencing, types of data, student achievement v. student learning, differentiated professional learning, instructional practices and support, and leadership. Chapter 3 provides an explanation of the methodology and data collection process used for this study. Chapter 4 includes an analysis of data with findings. Chapter 5 provides a summary with recommendations for further research.

## CHAPTER 2

### LITERATURE REVIEW

This review of literature was focused on the research about using data to plan for professional learning opportunities especially as these pertain to increasing student performance in the elementary school setting. According to Perkins and Engelhard (2011) data conferencing has become increasingly important in elementary schools as a means to impact student performance. Information shared during these conferences may result in planning for professional development based on student needs as well as the instructional needs of teachers. With the current environment of high stakes accountability in education, Perkins and Engelhard discussed a framework for understanding how data have come to be used. They helped make connections between data processes used within organizational and political contexts and how these processes affected school cultures. Contemporary data uses three strands of strong school cultures including academic focus, productive professional relationships, and shared beliefs and values (Saphier, King, & D'Auria, 2006). Fullan (2001) concluded that cultures should be collaborative that by definition naturally leads to close relationships. He supported his conclusions by contending that collaborative cultures are powerful if focused but may end up being powerfully wrong if the focus is not on the right things. Glover (2013) questioned whether we give our students the responsibility for their futures rather than expecting them to be accountable for our present. Educational leaders must grow in their thinking and Glover suggested a redefining of the concept of more by moving toward quality and away from quantity.

## *Collaboration*

According to Dufour, Dufour, and Eaker (2002) collaboration is a systematic process. Educators must work together interdependently to analyze and impact professional practice, which will lead to overall improvement in our individual and collective results. Collaboration is a form of professional learning, especially when planning for differentiation and intervention. Teachers are better able to meet the needs of all students and fulfill their legal responsibilities when they collaborate on planning and teaching (Thousand, Villa, & Nevin, 2006). Schools that structured ongoing professional exchanges among educators, as well as a culture of shared responsibility for both student and adult learning, were far more likely to have a positive impact on the satisfaction, retention, and self-efficacy of new teachers (Kardos & Johnson, 2007). Darling-Hammond, Wei, and Andree (2010) found that only a limited number of educators have opportunities for individualized training to help them meet the needs of diverse learners. Doubet (2012) described how teachers and a leadership team engaged in collaboration to focus on formative assessment. Teachers learned to gather formative assessment data systematically from their students. They then used those data to differentiate instruction to meet the needs of diverse learners.

With the emphasis on accountability and academic progress for all students, professional collaboration has become a critical aspect of planning for interventions that meet the learning needs of diverse learners (Carter, Prater, Jackson, & Marchant, 2009). Hodges, Rose, and Hicks (2012) studied the nature of a shared planning experience for pairs of special and general education teachers and concluded that professional learning needs to be ongoing and cooperative to be effective. Results indicated that teachers who shared common philosophies about educating students with disabilities completed the process together. The teachers who did not



express similar philosophies regarding educating special needs students completed the process separately. This is an example of the law of requisite variety established by John Ashby in 1958 (Morrison, 2002) which explains that the flexibility, change, and capability of internal systems must be as powerful as those in the external environment. Morrison concluded that in keeping with the law of requisite variety school-based collaborative research is required in order to make internal changes in an educational setting.

Educators may indicate a willingness to grow by trusting the collaborative process. This includes both teachers and administrators. Only when educators come to see themselves as incomplete – as having both strengths and weaknesses – will they be able to make up for their missing skills by relying on others (Ancona, Malone, Orlikowski, & Senge, 2007). Ancona et al. suggested that it would be impossible for any one person to stay on top of everything and even the most talented leaders require the leadership and input of others. The National Staff Development Council (2006) explained how imperative it was that the focus of professional learning should be one of improving the quality of collaborative work. High-performing, high-poverty schools build cultures of deep teacher collaboration with an emphasis on student learning. Structures and systems are set up to ensure that teachers work together rather than in isolation, and the main point of their collaboration is to improve instruction and ensure learning for all students (Chenoweth, 2009). The National Education Association (2003) crafted a description of high-performing schools. It described them as schools that promote collaborative problem solving and support professional communities among all staff. Teachers and staff collaborate to remove barriers to student learning and communicate regularly with each other about effective teaching and learning strategies. They have regularly scheduled time to learn from one another.

Dweck (2008) researched the difference between fixed and growth mindsets. She stated that students who believe that basic qualities can be cultivated through effort most likely have a growth mindset. Students who simply show up for class on a day-to-day basis probably have a fixed mindset. Fixed mindsets may limit potential, while growth mindsets enable success. Teachers have the power within the elementary classroom to change the mindsets of young learners, and in doing so they will influence the students' self-awareness, self-esteem, creativity, and the ability to face challenges and setbacks. It may mean the difference between excellence and mediocrity.

Collaborative inquiry is a design for professional learning that is embedded in fostering teacher leadership. Donohoo (2013) recognized it as the role of teachers in on-going school improvement and supported the idea of teacher leadership. She suggested that by engaging in collaborative inquiry teachers become producers of knowledge rather than merely consumers of research. She maintained the power of collaborative inquiry by describing how it builds capacity for teachers to learn while providing a structure for them to become authentic leaders and decision makers. According to Donohoo one of the main purposes of fostering teacher leadership is to sustain school improvement. When this occurs, teachers are able to believe that their fundamental purpose is to evaluate the effect of teaching and leadership practices on student outcomes. When teachers become leaders they begin to see themselves as agents of change and begin to recognize that their actions may ultimately cause success and/or failure. Donohoo wrote that high trust and positive working relationships are required to nurture teacher leadership and are conditions necessary in fostering the leadership. She concluded that teacher leadership begins with the school leader. Fullan (2003) noted that leading schools requires principals with

the courage and capacity to build new cultures based on trusting relationships and a culture of disciplined inquiry and action.

### *School Improvement and Professional Learning Communities*

Teacher collaboration in strong professional learning communities improves the quality and equity of student learning. It promotes discussions that are grounded in evidence and analysis rather than opinion and fosters collective responsibility for student success (McLaughlin & Talbert, 2006). The National Commission on Teaching and America's Future (2003) reported that every child should have a quality teacher, and the key to ensuring this was to find a way for schools to organize the work of qualified teachers in a way that would allow them to collaborate with colleagues in the development of strong learning communities, thus sustaining them while they become more accomplished teachers. Carroll (2009) noted that quality teaching is not an individual accomplishment. Instead, quality teaching is the result of a collaborative culture that empowers teachers to team up to improve student learning, going beyond what any one of them could achieve alone. Vescio, Ross, and Adams (2008) found that Professional Learning Communities (PLCs) were most likely a result of a paradigm shift with regard to the professional development of teachers. Schools began to shift the organization and structure of their professional development efforts toward integrating teacher learning into communities of practice. Vescio et al. documented the goal as meeting the educational needs of their students by collaboratively examining their day-to-day practice. Schlechty (2005) discussed how collaboration and the ability to engage in collaborative action are becoming increasingly important to the survival of the public schools. He suggested that the prospect of truly improving schools would not be likely without the ability to collaborate with others. This idea

was also addressed by Fulton, Yoon, and Lee (2005) as they implored the necessity of ending the practice of solo teaching in isolated classrooms.

Some researchers have found that both teacher collaboration and data use are integral ingredients in the school improvement process (Datnow, Park, & Kennedy-Lewis, 2013). However, for collaboration to be an effective component of the process it is imperative that team members share a common vision with a desire to continue to evolve that vision. Louis and Wahlstrom (2011) found that the major factor associated with higher levels of professional community in a school was the amount of shared leadership by the principal. Teachers in schools whose principals consistently sought out the best ideas from teachers and parents and in which there was shared responsibility for carrying out new plans were able to stimulate the highest levels of student achievement. Creating opportunities for others to have influence increased the principal's personal ability to create a strong culture of change. Fulton and Britton (2011) provided an expert panel who ranked shared vision as the most important factor in school improvement, a conclusion affirmed by most researchers. The panel concluded that shared vision emerges from a collaboratively defined understanding of what constitutes worthwhile student learning with all members of the professional learning community working together on problems around that common vision.

Research has uncovered the complexities of teacher collaboration regarding data and professional development (Schwanenberger, 2013; Smith, 2010). Schwanenberger (2013) found that in general teachers reported that the process impacted student learning positively though based on achievement results that varied between grade levels. The study exposed the need in the district to provide protected time to work in data teams to enhance professional learning. In many school districts administrators and teachers work to increase student learning and the

effectiveness of professional learning communities by incorporating data conferences into regular PLC collaborative sessions (Smith 2010).

Dufour, Dufour, Eaker, and Many (2010) defined professional learning communities (PLCs) as an ongoing process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve. PLCs operate under the assumption that the key to improved learning for students is continuous, job-embedded learning for educators. In a professional learning community (PLC) members use collective inquiry to create meeting agendas and establish norms as well as expectations. Bryk, Sebring, Allensworth, Luppescu, and Easton (2010) maintained that students are the focus of the learning-centered group, which is evidenced by student learning, and that PLCs focus on the response that will be used in order to meet the needs of students. They suggested that PLC meetings provide teachers with meaningful opportunities to share best practices for instruction. These opportunities support both new and veteran teachers and offer settings for teacher leaders to practice and become confident in leading their peers. *Best Practice* is a term that is used to describe what works in a specific situation or environment. When data support the success of a practice, the practice is referred to as a research-based practice or scientifically based practice. In order to be good consumers of information educators must keep in mind that results may differ across educational environments and practices that work for someone within a certain set of variables may or may not work for another person within a different set of variables (Whitehurst, 2004). Whitehurst, as assistant secretary for Educational Research and Improvement at the U.S. Department of Education, discussed evidence-based education as the integration of professional wisdom with the best available empirical evidence in making decisions about how to deliver instruction. He contended that educators and family members could call on professional wisdom

to adapt to specific circumstances or environments in an area in which research evidence may be incomplete or absent. However, education will not be able to resolve approaches that are competitive or generate cumulative knowledge without at least some empirical evidence. Little (2006) described professional communities as those that are characterized by shared values and purpose.

Systems successful in improving student learning are characterized by articulated norms and values (Garmston, 2007). Team-created norms help guide the work of PLCs especially when faced with tough situations related to school improvement. According to Katzenbach and Smith (1993) teams often see improvement in their ability to grapple with the critical questions when they clarify the norms that will guide their work. They considered the norms to be collective commitments that represent the assurances made to all team members, promises that underpin two other critical aspects of teams – commitment and trust. Katzenbach and Smith further discussed the importance of team products, explaining that without discrete team work products produced through the joint, real contribution of team members, the potential for teams to dramatically improve performance goes untapped. Norms can help clarify expectations, promote open dialogue, and serve as a powerful tool for holding members accountable (Lencioni, 2005). It is vital that teams understand the purpose behind the establishment of the norms because inattention to establishing a commitment to specific team norms is one of the major reasons teams fail (Blanchard, 2007). Goleman (2005) cited two key points to the significance of team norms. First, the norms of a group help determine whether it functions as a high-performing team or becomes simply a loose collection of people working together. Second, positive norms will stick only if the group puts them into practice over and over again. Norms may be considered positive if they create a respectful environment even when the issues are

tough. Being explicit about norms raises the level of effectiveness, maximizes emotional intelligence, produces a positive experience for group members, and helps to quickly socialize newcomers into the group. Teams that are built on foundations that include norms are more likely to stay true to their mission. Kegan and Lahey (2001) found that referring to the norms may help the members of a group *re-member*, to once again take out membership in what the group values and stands for; and to *remember*, to bring the group back into one cooperating whole. Explicit team norms help to increase the emotional intelligence of the group by cultivating trust, a sense of group identity, and belief in group efficacy (Druskat & Wolff, 2001). In 2004 Goleman, Boyatzis, and McKee revealed that when self-management norms are explicit and practiced over time, team effectiveness improves dramatically, as does the experience of team members themselves. They agreed that being on the team becomes rewarding in itself – and the resulting positive emotions provide energy and motivation for accomplishing the team’s goals. Goleman et al. discovered that one thing was clear: Having clear norms gives teams a huge advantage. One key to effective teams is to involve all members in establishing norms and then holding everyone accountable to what they have agreed on (Lencioni, 2005). As supported by the research of Patterson, Grenny, Maxfield, and McMillian (2007), social psychologists learned that if commitments are made and then shared with others, individuals are far more likely to follow through than if the commitments were simply made to themselves.

A component of effective professional learning teams is that they have explicit values and trust. According to Blanchard (2007) values help provide guidelines on how to proceed as purposes are pursued and the future is envisioned. He contended that values need to be clearly described and behaviors identified that will demonstrate that the value is being lived. Lee, Zhang, and Yin (2011) investigated the relationships between professional learning communities,

faculty trust in colleagues, teachers' collective efficacy, and their commitment to students. Multilevel analyses were conducted to investigate how school-level variables, including faculty trust in colleagues and collective teacher efficacy, affect teachers' commitment to students. The findings indicated that two PLC factors including faculty trust in colleagues and collective teacher efficacy could significantly and positively account for the school-level variances of teachers' commitment to students. Louis (2007) cautioned that leaders should not proceed before first considering the trust issue. She specified the importance of laying the groundwork for trust so that time spent in a professional learning community is time well-spent.

In past years educators have increased their knowledge about professional learning communities and how to make them work specifically in their schools, but the core PLC idea remains unchanged. McLaughlin (1995) explained that by building the capacity of all school personnel to function as a learning community, substantive and sustained school improvement may occur. He reported this to be the most promising school improvement strategy and supported professional learning communities as the pathway to change in the classroom. Two decades later DuFour and Mattos (2013) agreed that creating a collaborative culture and a PLC with a collective responsibility was the most powerful strategy to improve teaching and learning.

### *Data Conferencing*

Professional learning has become more closely linked to student achievement goals within many school districts. Elliott (2010) suggested that data-driven, job-embedded professional development supports teacher learning and improved practice. He maintained that data-driven professional learning is sensible and straight-forward. Gold (2005) described how three district administrators used data-driven methods and technologies to plan professional



development programs, improve instruction, and increase student achievement. Datnow et al. (2013) examined the affordances and constraints that exist in data-driven decision making in the context of established teacher collaboration time. The research found that teachers are crucial components of the data conference process. The teachers must be fully present in the conference and equipped with the data knowledge of where their students currently are as well as the next steps to ensure progress, including their own instructional needs. Teachers may rely on both quantitative and qualitative data to tell the complete story of their students' progressions of learning. Goal setting is one of the simplest and most effective organizational interventions that can be used to increase employee performance (O'Hara & Maglieri, 2006). The pair agreed that schools with teachers and students who learn use clear student achievement goals to focus and shape teacher learning, but educators should evaluate the data to make sure they represent what the students need to know. According to Datnow (2008) the combination of teacher collaboration and data use has been understudied, and new research on this topic could prove to be an important contribution. The TELL (Teaching, Empowering, Leading, and Learning) survey collected data on school leadership, including a section on teacher needs for professional development (Tennessee Department of Education, 2013a). Survey results indicated that providing support for teachers led to improvements in instructional practices.

### *Types of Data*

Teachers and administrators use various types of data to meet student needs and plan for instruction and support. Brown and Maday (2008) facilitated a discussion of four data types at the No Child Left Behind (NCLB) conference in Chicago, Illinois. The four types of data discussed were student achievement data, demographic data, perception data, and program data.

The presenters demonstrated the relationship between the four kinds of data by describing a framework for data collection. Brown and Maday discussed how demographic data are embedded within program data, and how these data work together to relate directly to achievement and perception data. They also explained how achievement and perception data often overlap and relate back to program and demographic data.

### *Student Achievement Data*

According to Brown and Maday (2008) student achievement data describe what should be impacted – the baseline. These data are found in annual, standardized testing, periodic assessments and demonstrations, and ongoing classroom progress monitoring. Guskey (2003) reported that formative assessment data were more important in guiding teachers to improve their instruction and help students learn by developing useful assessments, providing corrective instruction, and giving students second chances to demonstrate success. He noted that the assessments best suited to guide improvements in student learning were the quizzes, tests, writing assignments, and other assessments that teachers administered on a regular basis in their classrooms. Guskey further commented that because of the direct relation to classroom instructional goals, teachers were more likely to trust the results from these assessments. He found that results were immediate and easy to analyze at the individual student level. In later research Guskey (2008) again challenged the authenticity of baseline data but also expanded his ideas regarding the use of formative data. He suggested that formative assessments alone were not enough to improve student learning or teacher quality. He contended that educators need to look beyond the assessments to discover the rest of the story. What counts the most is what happens after the assessments. Guskey provided an analogy to this idea by describing how

regular blood pressure checks do little to improve health if nothing is done with the gained information. He found that many of today's educators and students tend to overlook the vital aspect of using formative assessment information. Not analyzing the information may cause them to miss the rest of the story, which could result in failure to benefit from the most valuable attribute of the formative assessment process.

Halverson et al. (2009) created a practice guide to help K-12 teachers and administrators use student achievement data to make instructional decisions to inform instruction and raise student achievement. The panel recommended that the responsibility for effective data use belonged with district leaders, school administrators, and classroom teachers. The focus of the guide was on how schools could make use of common assessment data to improve teaching and learning. The panel included five recommendations they considered to be priorities for implementation:

1. Make data part of an ongoing cycle of instructional improvement.
2. Teach students to examine their own data and set learning goals.
3. Establish a clear vision for schoolwide data use.
4. Provide supports that foster a data-driven culture within the school.
5. Develop and maintain a district-wide data system.

Hoy, Tarter, and Hoy (2006) examined academic optimism, a new construct, and used it to explain student achievement while controlling for socioeconomic status and previous achievement. As predicted, academic optimism made a significant contribution to student achievement after controlling for demographic variables and previous achievement. The findings support the critical nature of the construct. Academic optimism emerged from quantitative studies that identified three related school characteristics that had strong associations with

academic achievement. Student academic achievement has been linked to collective teacher efficacy, academic emphasis, and trust. In each instance the association was so strong that it overcame the effects of socioeconomic status (McGuigan & Hoy, 2006).

### *Demographic Data*

Demographic data include but are not limited to gender, ethnicity, socioeconomic status, and special needs. Brown and Maday (2008) specified the purposeful use of this type of data as that of clarifying student needs.

The face of the nation and family structures are changing. The Center for Public Education (2012), an initiative of the National School Boards Association, created a guide outlining how demographic trends have important implications for school leaders, parents, policymakers, and the community at large. The guide shared insight as to how changing demographics could potentially alter both school practices and policies. Demographic trends differ for different population groups, and the major responsibility to address these disparities falls upon public schools. The Center for Public Education's guide explained that changing demographics may present numerous challenges for schools including the need for highly qualified bilingual teachers and teachers of English language learners, the need for high-quality preschool programs especially for young children whose first language isn't English, the need to address gaps in such areas as dropout rates, test scores, high school completion rates, and college entrance rates, the need for outreach to Hispanic and immigrant parents and older citizens, the need to address issues of equity in resources among schools. Key trends were cited in the 2012 publication. First, as a nation we are growing older. The median age in the United States in 2010 was 37.2 years of age. In 2000 the median age was 35.3 years. Another trend found was that we

are growing more diverse. Trends in immigration and birth rates indicate that soon there will be no majority racial or ethnic group in the United States. No single group will account for more than 50% of the total population. Finally, and perhaps most importantly, the study discovered that we are growing older and more diverse at the same time. Our youngest populations are the most diverse; 47% of children younger than 5 belong to a racial or ethnic minority group. The study highlighted important trends regarding school populations. These trends indicate that the population that schools educate is increasingly made up of children of color and Hispanic origin and that the population that schools depend on for financial support is increasingly older, non-Hispanic, and white and does not have school-age children. Minorities have historically been underrepresented in professions such as science, engineering, and medicine, and the achievement gaps between student groups will have more serious economic implications. With the non-Hispanic white population shrinking and the increasing number of minorities that make up the entry-level workforce, the nation could face serious shortages in many critical professions.

According to Bernhardt (2013) demographic data can change when leadership changes because the philosophies of the new leader may differ from those of the previous leader and may include discipline, attendance, special education assignments, and dropout and graduation rates. She explained how the changes depict philosophies of how adults treat students and other adults and how students treat adults and other students. Bernhardt stated that educators should study the demographic data to make sure they are displaying the philosophies they want the school to demonstrate. She contended that through shared visioning and intentional programming a strong staff can outlast a change in leadership.

### *Perception Data*

Brown and Maday (2008) defined perception data as the opinions and ideas of stakeholders. They contended that perception data could support hypotheses about programs and student needs. Various stakeholders in the school and community can provide valuable perception data. These data are important in that they provide enlightenment to school leaders regarding the ideas and opinions of the school community. Parent and community member opinions have a profound influence on students (Guthrie & Schuermann, 2011). For this reason it is essential that school leaders are aware of the perceptions that exist in the community at large. Perception data can be gathered in a variety of ways including surveys, polls, analyses of local newspaper editorials, and unsolicited letters to the school.

### *Program Data*

As outlined by Brown and Maday (2008) program data surrounds demographic data. The examples included in their findings were curriculum and instruction, school climate, codes of conduct, teacher recruitment, retention, professional development, and auxiliary programs such as after-school, extra-curricular, and tutoring. Stakeholders including parents, curriculum specialists, and community members may serve on district teams to work with program data. At the school level teachers may be the core team that examines learning targets, students' progress, and instructional interventions (Halverson et al., 2009). By participating with these teams, teachers can learn more about the content they teach and can consider interventions that may result in improved students' progress.

### *Student Achievement v. Student Learning*

Sutton (2014) found that content teachers possessed an important quality of love and passion for teaching young people. However, regardless of their knowledge and love for the job, many teachers struggled due to the day-to-day routine of teaching subject content. They often found themselves caught up in curriculum and assessments forgetting that their students were human with lives outside of the school day. Sutton discussed the importance of developing student-teacher relationships by successfully achieving effective communication.

Douglas (2013) studied accountability systems that measure student learning rather than student achievement and found them to have a more accurate potential to evaluate school quality. A finding of the research was that value-added estimates produced by standardized assessments that exhibited either positive or negative correlations between achievement and achievement gains could contradict patterns of actual school effectiveness. The National Board for Professional Teaching Standards (2013) convened a student learning, student achievement task force to study how it could continue playing a role in advances in practice-based research and education data systems. By continuing in this role NBPTS was presented with the opportunity to define the meaning of accomplished teaching while identifying accomplished educators. The task force outlined new methods to evaluate how teachers impact student learning and was comprised of experts in school reform and assessment. The task force recommended a distinction between student learning and student achievement. Although the terms are used interchangeably, they represent completely different ideas especially pertaining to teaching. The group defined student achievement as the status of subject-matter knowledge, understanding, and skills at one point in time. Student learning, however, is the growth in knowledge of subject matter, understanding, and skills over time. NBPTS argued that student learning is most

relevant when assessing accomplished teaching. One reason for the recommended distinction is that standardized tests are most commonly used as a measure of student achievement. While these assessments may measure the extent to which standards are mastered, they are not a true measure of learning as change over time. According to the task force to know whether student learning has occurred tracking the growth in what students know and can do is required. The only way to gauge the extent and nature of student learning is by comparing student mastery at successive points in time. Student learning is also reflected in many other outcome measures including attendance, participation, motivation, and engagement.

### *Differentiated Professional Learning*

Professional development for educators has evolved over time into what has become more commonly known as professional learning. Bowgren and Sever (2010) wrote that current definitions of professional development are sounding less like in-service training and more like the actual process of learning. Guskey (2000) described professional development as an intentional, ongoing, and systematic process. The National Staff Development Council (2009) proposed that student learning needs should define educators' learning needs and that professional development should foster collective responsibility for improved student performance.

The key to successful learning for educators is differentiating instruction for teacher learners. Differentiating professional development guarantees that teachers can and will engage in job-embedded learning as part of their daily work habits and differentiation makes it possible for teachers to work interdependently on collaborative teams that focus on student learning, rather than teaching (DuFour, DuFour, & Eaker, 2008). Bowgren and Sever (2010) outlined how



differentiating professional development affects four areas of a school culture to include the way that time is used within the workday, the structure of the workday with staff members, the variety of professional development models that are available, and the support offered to teachers by administrators and colleagues. When districts understand how these four components interact they can produce a system of learning for everyone. Bowgren and Sever also reported that the key to success in collaborative, professional, job-embedded learning is in an approach that focuses on targeting the learning, varying formats for the learning, coaching for the learning, sharing the learning, and celebrating the learning.

Wormeli (2007) described differentiation as a professional and responsive mindset and suggested beginning with a questioning process. The intent was to help teachers think about differentiation for their students, but Wormeli believed that professional developers could also reflect on similar questions as they planned for teacher learning by asking the following: Are we ready to teach using whatever methods necessary for teachers to learn? Do we have the courage to do what works, not what is the easiest? Can we adapt our instructional methods to match the strengths and needs of every teacher learner? Do we possess a variety of instructional practices, or do we rely on one or two tried-and-true methods? Do we arrange the setting to encourage learning or to be functional for us as learners? Do we keep up to date on the latest research on learning? Do we persistently reflect and debrief on our professional development experiences to explore ways to improve? Do we invite teacher feedback on the ability to learn in the learning environment provided? Principals who want teachers to be learners fully realize the importance of encouraging risk-taking. They must provide a safety net for when things do not work as planned. Otherwise, the action research could result in a set-back (Blasé & Blasé, 2001).

Faulk (2004) cautioned that the relationship between student achievement and professional development is complex and difficult to assess. She argued that the evaluation of any professional learning model is influenced by the contextual and procedural aspects of the process. However, at the Learning Forward Annual Conference Guskey (2013) examined how leaders can make sure that new forms of job-embedded, school-based professional learning make a difference in teachers' practices and students' performances. He maintained that accountability in professional development means that educators must be able to show that their professional learning experiences lead to better instructional practices and improved student learning outcomes for all students.

### *Instructional Practices and Support*

Research has suggested specific reasons as to why a commitment to learning for all is so important. Carnevale, Smith, and Strohl (2010) cited statistics as to why we must prepare students for their future, not our past. In 1970, only 28% of jobs required postsecondary education, but by 2015, 67% of jobs will require postsecondary education. In the same period the percent of middle class Americans with college degrees increased from 26% to 69%. They also argued that those who have not learned how to learn will have less of a chance for success. In the 20<sup>th</sup> century illiterates were those who could not read. In the 21<sup>st</sup> century illiterates will be those who have not learned how to learn or have not continued their learning beyond the K-12 system. Learning provides access to the American dream as the land of opportunity and social mobility. Greenstone, Looney, Patashnik, and Yu (2013) stated that education is the most powerful tool for helping students of poverty rise. In the 20<sup>th</sup> century the American educational system served the nation well. This may not be true for the 21<sup>st</sup> century. The United States is

falling behind the rest of the world as noted by The Broad Foundation (2013). The U.S. dropped from first in the world in percentage of high school graduates to 22<sup>nd</sup> out of 27 advanced economies. According to the Organization for Economic Cooperation and Development (2011), the U.S. dropped from first in the world in the percentage of 25-34 year old workers with college degrees to second in 1995, and to 14<sup>th</sup> in 2012. For the first time in American history there was a higher percentage of 55-65 year olds with college degrees than 25-35 year olds (The College Board, 2008). However, this may be attributed to the current emphasis on both college and career. Conley (2010) advocated for a more foundational set of skills and knowledge that could be taught to all students and would more broadly span school and work. He argued that students should develop knowledge and a core set of skills that could be easily transferred across a range of workforce settings and postsecondary educational institutes. These soft skills, as referred to by Conley, include attributes such as the ability to follow directions, solve problems, analyze information, set personal goals, learn continuously, take responsibility for one's actions, demonstrate leadership, take initiative, and work both independently and as a team member. Conley referred to these attributes as habits of mind, reasoned that they are more important than content knowledge in determining success in college and beyond. In order to compete globally our students must be afforded opportunities to develop innovative capacity and a creative spirit. These attributes are quickly becoming requirements for success. These students must also be able to acquire perspective on their place within an organization and in society. To these soft skills Conley added capabilities and academic competencies. These include the ability to listen well, communicate in writing, read technical documents, develop understandings of scientific concepts, use mathematical understandings to interpret data, and speak a second language while learning about the culture associated with the language. He included additional competencies

such as the ability to comprehend social systems and historical frameworks for the purpose of providing perspective on today's society. He argued that students should engage in artistic pursuits by developing specific skills, appreciation, and aesthetic sensitivities. Conley discussed the challenge faced by educators as they try to unify these two concepts. He contended that in order to address this challenge, teachers and students should think in terms of postsecondary readiness rather than college admission and place a focus on career readiness rather than work preparedness. As builders of the future we have an obligation to cultivate tech savvy learners. According to McKinsey and Company (2011) technology plays an important role in the future success of today's students. The findings were that by 2018 the United States alone could face a shortage of 140,000 to 190,000 people with deep analytical skills as well as 1.5 million managers and analysts with the know-how to use the analysis of big data to make effective decisions. McKinsey and Company suggested that as facilitators of the future school leaders must be responsible for ensuring that students are prepared for employment in a technological world.

If teachers and administrators are going to commit to preparing all students for success, they must be aware of the serious implications for those who fail. According to Sparks (2013) potential dropouts can be predicted as early as first grade and identified with accuracy by third grade. These predictions were evidenced by findings from the ACT (2012) that stated that 34% of students who enter college drop out within the first year. Breslow (2012) reported that students who fail school at any level are three times more likely to be unemployed. These students are more likely to live in poverty with an annual salary of \$20,241 or less. He noted that high school dropouts are 63 times more likely to be incarcerated, and that on average each dropout costs taxpayers \$292,000 over his or her lifetime. Tavernise (2012) discussed that the

duration of life was also shortened. He found that female dropouts will live an average of 10.5 fewer years than females who graduate from high school. Male dropouts will live an average of 13 fewer years than males who graduate from high school. And the gap for both sexes is widening.

Both teachers and administrators have traditionally struggled with how to maximize instruction for effective student learning. Ainsworth (2003) suggested that some curriculum outcomes should be categorized as power standards. In an effort to highlight those standards that matter most Ainsworth created criteria for identifying essential common outcomes. In order to separate the essential from the peripheral criteria for endurance, leverage, and readiness should be applied to each standard. Endurance is the expectation that students will retain the skills or knowledge long after the test is completed, while leverage is concerned with whether the skill or knowledge is applicable to many academic disciplines. The readiness criteria is set to determine if the skill or knowledge is preparing students for success in the next grade or course. It asks whether the standard provides readiness for the next level of learning.

Learning regardless of the level should be innovative according to Robinson (2011). Imagination, creativity, and innovation are attributes of successful problem solvers. Creative problem solving requires thinking that is unique and often unconventional. He contended that the human mind is profoundly and uniquely creative. Pink (2006) wrote about a shift that is underway globally. He summed it up by explaining that we are moving from a linear and logical society with computer-like capabilities, to a society built on inventive and empathetic big-picture capabilities. In other words, society is moving from the Information Age to the Conceptual Age. Pink contended that the future belongs to a very different kind of person with a very different kind of mind – creators and empathizers, pattern recognizers, and meaning makers. These big-

picture thinkers will reach society's richest rewards and share its greatest joy. Educators owe it to students to help them survive and thrive in a changing world.

Effective instructional practices are evidenced by collaborative teacher teams that establish a guaranteed and viable curriculum to ensure all students have access to the same knowledge and skills regardless of the teacher to whom they are assigned. Marzano (2003) maintained the existence of three levels of curricula at work in schools including intended, implemented, and attained. The intended level is what we want them to learn, while the implemented level is what actually gets taught. Marzano concluded that the attained curricula level, what students actually learn, would be impacted in the most powerful way if educators make certain the implemented curriculum is guaranteed and viable. Effective intervention must be integrated within the context of a guaranteed curriculum, informative assessments, and a process of continuous improvement (IRA Commission on RTI, 2009). In other words, to implement systematic interventions successfully, a school must not only provide its staff with a new set of 'tools' to help students learn but must also help educators develop a new way of thinking about their roles and responsibilities (Buffum, Mattos, & Weber, 2012). Traditional special education has taught us that staying compliant does not necessarily lead to improved student learning. Buffum, Mattos, and Weber (2010) contended that in fact, the opposite is more often the case.

Specific protocol is essential for ensuring instructional support for teams in the collaborative process. Ermeling, Gallimore, Goldenberg, and Saunders (2009) indicated that it is critical to define and publish a protocol that articulates specific inquiry functions: jointly and recursively identifying appropriate and measurable goals for student learning; finding or developing appropriate means to assess student progress toward those goals; bringing to the table

the expertise of colleagues and others who can assist in accomplishing these goals; planning preparing and delivering lessons; using evidence from the classroom to evaluate instruction; and, finally, reflecting on the process to determine next steps.

### *Leadership*

Louis, Leithwood, Wahlstrom, and Anderson (2010) defined leadership as working with others to establish a shared sense of purpose, goals, and direction and then persuading people to move in that direction. They maintained that leadership is both that simple and that complex. Crum (2013) described leadership as a balance of natural ability and learned behavior encouraged by a person's drive. She outlined the importance of having teachers and leaders who possess the ability to recognize and use their strengths within the organization to influence school reform. According to Block (2003) leadership should be considered to be the act of effective questioning, leading to problem solving. He suggested that effective leaders should be thought of as social architects, responsible for creating social spaces that may enhance or inhibit the effectiveness of an organization. A social space is one that is conducive to solving even the most difficult of organizational problems. Block created a list of critical leadership skills including convening critical discussions, questioning, and using strategies for participation in the design of solutions. Sergiovanni (2007) was concerned that some aspects were favored, excluding others by focusing on leadership theory. He declared that principals should be passionate about their work, clear about what they seek to accomplish, and aggressive about the realization of those goals and purposes. Without substance and purpose there is no leadership. When a principal emphasizes management without leadership, he or she creates a culture of compliance without commitment. Sergiovanni reported that there are three areas of leadership.

He stated that technical, human, and educational leadership are important but do not guarantee excellence. Symbolic and cultural forces are also necessary. The technical leader is concerned with school planning, coordinating, organizing, and scheduling. This leader is considered to be the management engineer. The human leader focuses on human relations by providing support, encouragement, and opportunities for growth. This leader is skilled at building and maintaining morale and is a participatory decision maker. The educational leader should be a clinical practitioner who is able to diagnose educational problems. This type of leader should counsel teachers, provide evaluation, provide supervision, and provide staff development. Sergiovanni also stressed the importance of symbolic and cultural leadership. Symbolic leaders are able to find meaning in the daily life of school by providing the school community with significance, vision, and purpose. Symbolic leaders understand how to attach the purpose to the routines of the school. Symbolic leaders know how to inspire people to rise above the daily routine and see dramatic possibilities. They know how to inspire people to go above and beyond by using vision as the substance of their communication. Motivation and commitment increase when there is a commitment to the organization's purpose. In his discussion of cultural leadership Sergiovanni defined the cultural leader as one who brings all stakeholders together in the work of the school. Cultural leaders are responsible for being able to clearly articulate the mission and purposes of the school. These leaders should create symbols that signify the organization's beliefs and reward those who positively reflect this culture.

According to Kouzes and Posner (2010) when teachers recognize that their leader is a caring individual, they are more apt to demonstrate something to celebrate. It becomes a positive focus on performance and behavior that is linked to goals. Morale may be improved as it moves teachers toward higher performance levels and an increase in productivity. They also maintained



that the most pernicious myth about leadership is that it is reserved for only a few of us. An idea was expressed by them that titles may be granted, but only behavior is capable of winning respect for a leader. They described leadership as broadly distributed in the population and accessible to anyone who has passion and purpose to change things as they are. In their earlier work Kouzes and Posner (2003) reported after studying thousands of cases they had yet to find a single instance in which one leader or individual contributor, regardless of talent, accounted for most of the success, and certainly not 100% of it. The pair stated that leadership is a team performance, not a solo act, and that winning strategies are based on the “we not I” philosophy. Collaboration is a social imperative and without it people can’t get extraordinary things done in organizations. Blanchard (2007) found that it is not possible to bring about change in an organization with a single leader. Change requires a strong and broad-based change leadership team that is aligned and speaks with one voice to the larger organization. The tasks are too complex and information is too widely distributed for leaders to solve problems on their own. They must be willing and able to share power to permit and encourage leadership to flourish throughout the organization. Many more people in the organization will have to be leaders and the leadership function must be more widely shared (Schein, 2004). A key to leading for change is to understand how policies and relationships operate within the immediate situation in the school. According to Riley (2009) this is the leadership pulse and may begin with shared leadership. McLaughlin and Talbert (2001) found that shared leadership is a fundamental and dynamic principle of learning communities. Leaders spread responsibility and ownership for community values.

Highly successful districts and schools may connect data and professional development within the construct of leadership teams. According to Mourshed, Chijioke, and Barber (2010)

the need for a coherent leadership team is a key step in improving any school system irrespective of the system's performance level, culture, or geography. Lencioni (2012) affirmed that building a cohesive leadership team is the first discipline in creating a healthy organization. An organization simply cannot be healthy if the people who are chartered with running it are not behaving cohesively. The author contributed that when districts applied teamwork to the meeting rooms of school leadership, better morale and higher productivity were promoted. When district leaders acted more interdependently in the central office they were more likely to work as a team. They coordinated their efforts to support schools across all units based on shared understanding of district goals and priorities. They contributed to a collective sense of efficacy by emphasizing teamwork and professional community (Louis et al., 2010). Fullan (2011) found that in successful districts the superintendent established a guiding coalition at the central level – a focused team that mirrored and reinforced the new direction. Sergiovanni (2007) described how schools could be both culturally tight and structurally loose. For example, they may be tightly united around cultural themes and loosely united around management themes. In this situation students and teachers are more influenced by norms, values, patterns of beliefs, socially-constructed realities, and the socialization process. They are less influenced by bureaucratic rules, leadership deals, and management protocols. In districts where simultaneous loose and tight school cultures exist, clear parameters and priorities are established that enable individuals to work within established boundaries in a creative and autonomous way. This directed empowerment was referred to as defined autonomy by Marzano and Waters (2009) and described how district leaders were given freedom to act and lead within clearly articulated boundaries. They specified that the most effective superintendents focus their efforts on collaborative goal setting for the district. Marzano and Waters explained that the goals in at least

two areas, student learning, and classroom instruction, were nonnegotiable and that these leaders set specific targets for the district and individual schools. They are also responsible for generating school board support for the goals. In order to ensure the goals remain the primary focus, they protect schools from other initiatives that detract attention and/or resources from accomplishing the goals. Effective leaders continually monitor progress toward the goals and allocate resources to support them. Collins and Porras (2002) suggested that the key task for any leader is to create alignment with the vision of the school's future. Once this is accomplished the commitment of the organization remains strong, regardless of the twists and turns in the journey. They questioned whether the professional learning community concept was based on teacher empowerment or strong administrative leadership. Collins and Porras argued the tyranny of "or" versus the genius of "and". They agreed that the tyranny of "or" is the rational view that cannot easily accept paradox and cannot live with the two seemingly contradictory forces at the same time. The idea behind the genius of "and" is to embrace both extremes at the same time. Visionary leaders did not just seek balance but were determined to be distinctly both at the same time. A truly balanced PLC demonstrates an understanding that teaching is more than just classroom instruction by including a focus on the talents and interests of the students.

No single individual can develop the improvement process or be solely responsible for it. Elmore (2005) discussed how accountability must be a reciprocal process. For every expectation leaders have for performance they have an equal responsibility to provide the capacity to meet that expectation. According to Bradley (2013) it is imperative that administrators design useful and engaging professional learning opportunities for their staff. Administrators must reach a level of mastery when researching, designing, and implementing professional learning activities.

Administrators should also be diligent in participating in professional learning along with their teachers.

Glover (2013) discussed the lead-teach-learn triad to outline the pitfalls of accountability systems in schools. It described the primary feature of human interaction in a rapidly changing environment that provided the adaptability necessary for individual and group success. According to Glover schools have managed to improve in spite of their negative influences. He introduced the concept of developmental empowerment to demonstrate how school participants must view themselves as perpetually changing learners. Using open inquiry Glover encouraged educators to challenge the standardization and accountability practices that are evidenced by education in today's classrooms. If fostering a culture of continuous improvement and excellence within the school is the goal, leaders should establish a sense of vision with a strong academic mission and challenging organizational goals and expectations (Hallinger, Heck, & Murphy, 2013). Successful change requires a collective effort and a guiding coalition at the top. Resolute leadership means building a guiding coalition, the core group who meet frequently around purpose, progress, and corrective action (Fullan, 2011). In 2001 Collins found that the first step in moving an organization from good to great was to create a guiding coalition. Kotter (2012) confirmed that building a team to serve as the guiding coalition is always an essential part of the early stages of leading change. Coalitions may vary between organizations, but the most successful have involved all stakeholders including students.

Strong purpose and clear vision are essential components of effective leadership. Shared vision and shared covenants make up the leadership dimension of purposing. This is a key practice in helping schools become communities of collective responsibility (Sergiovanni, 2007). When people gather together to commit themselves to ideas, their relationships change – they

have made promises to each other and are likely to feel morally obliged to keep their promises (Sergiovanni, 2007). Grenny, Patterson, Maxfield, McMillan, and Switzler (2008) suggested that influencers increase the capacity of others by asking them to work in teams with interdependent relationships. According to Schlechty (2009) leaders within an effective school system build a shared sense of purpose and a shared vision of what schools and the school system would look like if that shared purpose was acted on and develop a bias toward action relevant to the vision. Blanchard (2007) described the importance of building trust, collaboration, interdependence, motivation, and mutual responsibility for success through vision. The responsibility should be shared by all stakeholders. A school's shared vision helps people make smart choices because they make decisions with the end result in mind. Vision allows them to act proactively, moving toward what they want. Vision empowers and excites and is instrumental in ensuring change. As described by Kotter (2012) vision serves three important purposes in the change process. First, by clarifying general direction for change it simplifies hundreds of more detailed decisions. People can figure out for themselves what to do without constantly checking with bosses. Second, it motivates people to take action in the right direction. Third, it helps coordinate the actions of different people in an efficient way. Kotter clarified that ensuring alignment with the vision can help eliminate hours of torturous discussion. McLaughlin and Talbert (2006) discussed the importance of school and district leadership in terms of building a shared vision and common language about practice at both levels. These administrative tasks are essential to teachers' learning.

A challenge for most educational leaders is to turn aspirations into actions. Those actions have the potential to build leadership capacity from within. Fullan (2003) referred to this as having a moral compass and monitoring what matters. Shared visions should be reflected in

daily behaviors, and results must be delivered. Leaders engage employees' hearts (emotions), minds (cognitions), and feet (actions) (Ulrich, 1996). Tichy (1997) explained this challenge by explaining that when building a results-oriented culture, leaders must find a balance between the attainable goals teams feel they can achieve in the short term and stretch goals. Stretch goals are those that are so ambitious they could not possibly be achieved unless practices within the organization change significantly. Blanchard (2007) reported research regarding goal setting as the single most powerful motivational tool in a leader's toolkit. He supported the research by discussing how goal setting operates in ways that provide purpose, challenge, and meaning. He maintained that goals are the guideposts along the road that make a compelling vision come alive. Well-formed goals have the ability to energize people. Specific, clear, challenging goals typically lead to greater effort and achievement than do goals that are too easy or vague. Kotter and Cohen (2002) concluded that in successful change efforts, empowered people create short-term wins – victories that nourish faith in the change efforts, empowered people create short-term wins – victories that nourish faith in the change effort, emotionally reward the hard workers, keep the critics at bay, and build momentum. Wins must be sufficient, visible, timely, unambiguous, and meaningful to others. Otherwise, change efforts inevitably run into serious problems. Elmore and City (2007) found that visible measures of progress are critical for motivating and encouraging educators to persist in the challenging work of improvement. Even the most dedicated and optimistic among us will stop if there is no sign that what we are doing is making a difference or will possibly make a difference in the future. It must be important to all involved stakeholders, especially the learners. As suggested by Patterson et al. (2007) it is important to reward small improvements in behavior along the way. Leaders should not wait

until people achieve phenomenal results. Simply put, “Win small. Win early. Win often” (Hamel 2002, p. 202).

Wolford (2011) conducted a study to explore how the leadership practices of principals helped to sustain professional learning communities within their schools. The research supported the idea that dialogue must occur in schools to increase and support student achievement. Staff members must engage in dialogue that leads to continued inquiry by demonstrating a respect for diverse ideas. According to Moller and Pankake (2006) it is important for principals to realize how much they can actually accomplish. Priorities must be set and schools leaders must realize that in the midst of their daily responsibilities, contributing to at least one area along with teachers is a necessity. This will allow for a deepening understanding of the daily work endured by teachers and will allow the leader to support teams more effectively while communicating the school’s values and priorities. Moller and Pankake noted that teachers perceive that their efforts are appreciated when the principal is present. It also signals that the leader perceives the work to be important. According to Reeves (2006) the main challenge for a leader is to acknowledge imperfection. Great leaders use their strengths to create diverse teams that exhibit equally important strengths for the professional learning organization.

### *Chapter Summary*

Data use has become important in all aspects of school improvement, and many districts are pushing schools to be more data-driven (Mendels & Mitgang, 2013). Teachers need to be provided with opportunities to attend professional development trainings within the context in which they work (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009). MacFarlane (2012) found that poorly planned professional development for teachers can be the

cause of negative outcomes in the classroom. Teachers must receive professional development that provides them with knowledge of core content, then instructional techniques to create and deliver lessons that will meet the needs of diverse students (Darling-Hammond et al., 2009).

Lickona and Davidson (2005) provided an analogy of great schools by comparing them to boats pulling in the same direction. Great schools row as one. They visited a number of schools and concluded that the best schools were tightly aligned communities marked by a palpable sense of “we”. This may best be exemplified by systems that engage educators in four critical corollary questions as outlined by DuFour et al. (2010, p.119).

1. What is it we want our students to learn?
2. How will we know if each student has learned it?
3. How will we respond when some students don't learn it?
4. How can we extend and enrich the learning for students who have demonstrated proficiency?

These four guiding questions are typically used by collaborative teams in schools where leaders demonstrate a commitment to learning for all. However, PLCs that are truly invested in success for all students will acknowledge the diverse strengths of all learners.

After educators analyze various types of data, including students' interests and talents, a next step is to provide key insights from each domain to create a more holistic view (Guthrie & Schuemann, 2011). Collecting and analyzing multiple types of data is a time-intensive undertaking. Guthrie and Schuemann suggested that these are wasted tasks if the data are not used to form a plan linking insights to programmatic and pedagogical changes. These changes may include how professional learning is perceived among stakeholders. Zepeda (2011) reported that successful professional development is built on the foundation of a reflective,



learning community. When schools work toward becoming learning communities, all stakeholders are valued. When collaboration is the norm, reflection occurs naturally and is fostered through collegial conversations. Zepeda also found when learning communities value individual learning needs, identified gaps between the required capabilities to undertake a specific task and the actual capabilities to perform the task, change no longer needs to be a threat to any stakeholder's worth.

CHAPTER 3  
RESEARCH METHODOLOGY  
INTRODUCTION

This study was an examination of the relationships of teacher perceptions of data-driven professional learning, student TVAAS data, and Title I status as determined by the percentage of economically disadvantaged students from the state report card. Information regarding educator perceptions was collected from data provided by the 2013 TELL survey results. The Statistical Package for IBM-SPSS was used to calculate results of the relationship between teacher perceptions of data-driven professional development, overall TVAAS scores, and Title I and non-Title I status schools.

This quantitative research study provided an increased understanding into how Northeast Tennessee K-5 educators perceive data-driven professional learning. Information regarding current perceptions of data-driven professional learning will form a context for future planning of professional learning opportunities. A quasi-experimental design was used in this study because public data already existed and it was unnecessary to collect additional data. The design was quasi-experimental because there was no random assignment of participants to groups.

*Research Questions and Corresponding Null Hypotheses*

The study was guided by the following eight research questions and corresponding null hypotheses:

### Research Question 1

Is there a significant difference in teachers' perceptions of professional development as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3, and 4 or 5 on their overall TVAAS score in 2013?

H<sub>0</sub>1: There is no significant difference in teachers' perceptions of professional development as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3, and 4 or 5 on their overall TVAAS score in 2013.

### Research Question 2

Is there a significant difference in teachers' perceptions of instructional practices and support as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3, and 4 or 5 on their overall TVAAS score in 2013?

H<sub>0</sub>2: There is no significant difference in teachers' perceptions of instructional practices and support as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3, and 4 or 5 on their overall TVAAS score in 2013.

### Research Question 3

Is there a significant difference in teachers' perceptions of teacher leadership as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3, and 4 or 5 on their overall TVAAS score in 2013?

H<sub>0</sub>3: There is no significant difference in teachers' perceptions of teacher leadership as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3, and 4 or 5 on their overall TVAAS score in 2013.

#### Research Question 4

Is there a significant difference in teachers' perceptions of school leadership as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3, and 4 or 5 on their overall TVAAS score in 2013?

H<sub>0</sub>4: There is no significant difference in teachers' perceptions of school leadership as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3, and 4 or 5 on their overall TVAAS score in 2013.

#### Research Question 5

Is there a significant difference in teachers' perceptions of professional development as measured by the TELL Tennessee Survey in elementary schools between Northeast Tennessee Title I and non-Title I schools?

H<sub>0</sub>5: There is no significant difference in teachers' perceptions of professional development as measured by the TELL Tennessee Survey in elementary schools between Northeast Tennessee Title I and non-Title I schools.

#### Research Question 6

Is there a significant difference in teachers' perceptions of instructional practices and support as measured by the TELL Tennessee Survey in elementary schools between Northeast Tennessee Title I and non-Title I schools?

H<sub>0</sub>6: There is no significant difference in teachers' perceptions of instructional practices and support as measured by the TELL Tennessee Survey between elementary schools in Northeast Tennessee Title I and non-Title I schools.

#### Research Question 7

Is there a significant difference in teachers' perceptions of teacher leadership as measured by the TELL Tennessee Survey in elementary schools between Northeast Tennessee Title I and non-Title I schools?

H<sub>0</sub>7: There is no significant difference in teachers' perceptions of teacher leadership as measured by the TELL Tennessee Survey in elementary schools between Northeast Tennessee Title I and non-Title I schools.

#### Research Question 8

Is there a significant difference in teachers' perceptions of school leadership as measured by the TELL Tennessee Survey between elementary schools between Northeast Tennessee Title I and non-Title I schools?

H<sub>0</sub>8: There is no significant difference in teachers' perceptions of school leadership as measured by the TELL Tennessee Survey in elementary schools between Northeast Tennessee Title I and non-Title I schools.

### *Instrumentation*

The data for this study were collected from the TELL Tennessee Survey of school-based licensed educators conducted in 2013 by the Tennessee Department of Education. The survey provided educators with data, tools, and direct support to facilitate school improvement. Portions of the survey used for this study consisted of questions regarding professional development, instructional practices and support, teacher leadership, and school leadership. A Likert-type scale was used to measure responses to the questions for the categories of strongly disagree, disagree, agree, and strongly agree. The questions were answered anonymously and survey participants were not identified.

The Teaching, Empowering, Leading, and Learning (TELL) survey was administered by the New Teacher Center (NTC), through its Teaching Conditions Initiative. The NTC provides a unique and valuable service to educators in schools, districts, and states across the United States. This initiative consists of two parts: 1) administering an anonymous, online survey about teaching conditions in one year and 2) working with the client in the year to use results from the survey in school improvement plans and policies.

The TELL Survey has been externally validated and nationally recognized. This section describes the methods used by the external analyst to verify that the structure and items included in the survey result in useful and meaningful information. The MET Project supported through the Bill and Melinda Gates Foundation (Swanlund, 2011) was responsible for part of this work. The Swanlund analyses used data from 286,835 educators from 11 states across the U.S. The external survey review examined both validity and reliability. These analyses identified patterns in the data that provided a clear structure for the survey as well as confidence for interpreting the

results. The external validity testing conducted for the TELL Survey assessed the structure of the response scale and the alignment between survey items.

Reliability testing ensured that the survey instrument produced the same results across repeated measures within the same population or with a similar population. The survey was generalizable and expected to reproduce similar results across settings. The Swanlund (2011) study concluded that the survey was capable of producing consistent results across participant groups.

In addition to the external analyses, NTC conducted internal analyses of validity and reliability to verify the stability of the instrument across survey populations. Statistical tests of validity included conducting factor analyses and reliability tests included generating internal consistency estimates. The internal reliability testing for TELL Tennessee confirmed that the survey was generalizable and would produce similar results with similar populations.

The survey used the school as the unit of analyses and consisted of a core set of questions that assess teaching conditions at the school, district, and state level. According to the state's education leaders, the purpose of the survey is to ensure that every Tennessee educator has the supportive environment necessary to help students achieve at the highest levels. Irvin (2013) suggested that although it is important for effective school leaders to be aware of how they are perceived by their teachers, the measure of that perception is not nearly as important as the questions it poses and the resulting conversations.

### *Sample*

The sample used in this research consisted of school-based licensed elementary educators from First Tennessee districts in Northeast Tennessee. Public data were collected from the

following school districts: Bristol City Schools, Carter County Schools, Cocke County Schools, Elizabethton City Schools, Greeneville City Schools, Greene County Schools, Hamblen County Schools, Hancock County Schools, Hawkins County Schools, Johnson County Schools, Johnson City Schools, Kingsport City Schools, Rogersville City Schools, Sullivan County Schools, and Washington County Schools. The sample included teachers from 107 elementary schools representing Title I and non-Title I status.

### *Data Collection*

A request was submitted to the Institutional Review Board (IRB) for approval to collect data for this study. The IRB determined that the proposed research and data collection did not meet the FDA or the DHHS definition of research involving human subjects. For this reason this research is not research with human subjects and does not need IRB approval. The data for the study were collected from the Tennessee Department of Education's TELL Tennessee website, the Tennessee Department of Education's TVAAS website, and the Tennessee Department of Education's report card for each school district. Survey data from TELL Tennessee were compiled and averaged to find the mean percentage in the four categories from which data were collected. The mean percentages for each school in each of the four categories that responded with strongly agree or agree were multiplied by 3.5. The mean percentages for each school in each of the four categories that responded with a strongly disagree or disagree were multiplied by 1.5. The sum of those scores was used to produce a number value for each of the 107 sample schools. Those number values were used in an Analysis of Variance (ANOVA) with the public TVAAS data as well as the Title I and non-Title I status from the Tennessee Department of Education report card for each district. Although local districts may use Title I funds for schools



with lower free and reduced meal percentages, the federal guideline of 75% economically disadvantaged students was used to determine Title I status for this study.

### *Data Analysis*

An Analysis of Variance (ANOVA) was the statistical test procedure used to determine if there was a significant difference in teacher perceptions of data-driven professional development as measured by the TELL Tennessee Survey among schools sampled using their overall TVAAS score in 2013. The purposeful sample for this study was school-based licensed elementary school teachers in Northeast Tennessee who responded to the TELL Tennessee Survey in 2013. Teachers from Title I and non-Title I schools were included in the sample. Each research question was addressed using an ANOVA. Four specific indicators from the TELL survey represented the dependent variables. TVAAS data and Title I status for schools as determined by federal criteria were the independent variables. Independent samples t-tests were conducted to determine if there was a significant difference in teachers' perceptions between Title I and non-Title I schools. All data were analyzed at the .05 level of significance. The Statistical Package for the IBM-SPSS was used for data analysis.

### *Chapter Summary*

The components of Chapter 3 include the research design, research questions, null hypotheses, instrumentation, sample of participants, procedure used for data collection, and data analysis. SPSS was used to calculate the relationship between teacher perceptions of data-driven professional development, overall TVAAS scores, and Title I status. The sample was made up of elementary educators from the First Tennessee districts of Northeast Tennessee. The study

included eight research questions with eight null hypotheses. Chapter 4 outlines summaries of data analysis.

CHAPTER 4  
ANALYSIS OF DATA  
INTRODUCTION

Chapters 1 and 3 introduced research questions and hypotheses that are addressed in Chapter 4. Data from 107 purposefully selected elementary schools in the First Tennessee region of East Tennessee were used for the analysis. Research questions 1 through 4 were analyzed using a one-way analysis of variance test (ANOVA) to determine elementary teachers' perceptions on data-driven professional learning as measured by the TELL Tennessee survey and the overall TVAAS composite score for each elementary school in the selected population. The dimensions of the survey used for this study were professional development, instructional practices and support, teacher leadership, and school leadership. The TVAAS scores were grouped into three categories to signify the level of effectiveness with 1 or 2 representing below average effectiveness, 3 representing average effectiveness, and 4 or 5 representing above average effectiveness, with 5 being the most effective. Scores of 1 and 2 were combined into one group because they were both below average and considered least effective. Scores of 4 and 5 were combined because they were both above average and considered most effective. The remaining research questions, 5 through 8, were analyzed using an independent samples t-test and the Title I status of each school as defined by federal guidelines. The schools represented in the study included 41 Title I schools and 66 non-Title I schools.

All educators involved in this study are school-based licensed teachers in elementary schools in East Tennessee. The list of districts included were recognized as those receiving support from the First Tennessee Center of Regional Excellence and include the following:

Bristol City, Carter County, Cocke County, Elizabethton City, Greene County, Greeneville City, Hamblen County, Hancock County, Hawkins County, Johnson City, Johnson County, Kingsport City, Newport City, Rogersville City, Sullivan County, and Washington County. The above named districts are also known as the First Tennessee district by the Tennessee Department of Education. The study included both Title I and non-Title I schools. Schools that did not have 50% participation on the TELL survey were excluded from the study. Information regarding survey participation rates and economically disadvantaged percentages for specific schools may be found in Appendix A.

### *Analysis of Data*

#### *Research Question 1*

Is there a significant difference in teachers' perceptions of professional development as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3, and 4 or 5 on their overall TVAAS score in 2013?

H<sub>0</sub>1: There is no significant difference in teachers' perceptions of professional development as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3, and 4 or 5 on their overall TVAAS score in 2013.

A one-way analysis of variance was conducted to evaluate the difference between professional learning as measured by the TELL Tennessee survey and TVAAS composite scores. The factor variable, TVAAS composite scores, included three levels of effectiveness: 1 or 2 representing below average effectiveness, 3 representing average effectiveness, and 4 or 5

representing above average effectiveness, with 5 being most effective. The dependent variable was the mean scores of the professional development section of the TELL Tennessee survey questions by participating Tennessee school-based licensed teachers. The ANOVA was not significant,  $F(2, 104) = .804, p = .450$ . Therefore,  $H_0$  was retained. The results indicate that the teachers' perceptions of professional development were not significantly different based on effectiveness level. The results indicate that there is not a significant difference in the TELL survey among the three categories of schools. The means and standard deviations of professional learning for the three distinctive groups are represented in Table 1.

Table 1

*Means and Standard Deviations of Professional Learning in the Dimension of Professional Development*

TVAAS Scores	<i>N</i>	<i>M</i>	<i>SD</i>
1 or 2	27	320.11	16.91
3	17	313.71	20.68
4 or 5	63	319.11	16.57

*Research Question 2*

Is there a significant difference in teachers' perceptions of instructional practices and support as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3, and 4 or 5 on their overall TVAAS score in 2013?

H<sub>0</sub>2: There is no significant difference in teachers' perceptions of instructional practices and support as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3, and 4 or 5 on their overall TVAAS score in 2013.

A one-way analysis of variance was conducted to evaluate the difference between professional learning as measured by the TELL Tennessee survey and TVAAS composite scores. The factor variable, TVAAS composite scores, included three levels of effectiveness: 1 or 2 representing below average effectiveness, 3 representing average effectiveness, and 4 or 5 representing above average effectiveness, with 5 being most effective. The dependent variable was the mean scores of the instructional practices and support section of the TELL Tennessee survey questions by participating Tennessee school-based licensed teachers. The ANOVA was not significant,  $F(2, 104) = .297, p = .744$ . Therefore, H<sub>0</sub>2 was retained. The results indicate that the teachers' perceptions of instructional practices and support were not significantly different based on effectiveness level. The results indicate that there is not a significant difference in the TELL survey among the three categories of schools. The means and standard deviations of professional learning for the three distinctive groups are represented in Table 2.

Table 2

*Means and Standard Deviations of Professional Learning in the Dimension of Instructional Practices and Support*

TVAAS Scores	<i>N</i>	<i>M</i>	<i>SD</i>
1 or 2	27	325.48	10.80
3	17	322.76	14.76
4 or 5	63	325.13	12.15

*Research Question 3*

Is there a significant difference in teachers’ perceptions of teacher leadership as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3 , and 4 or 5 on their overall TVAAS score in 2013?

H<sub>0</sub>3: There is no significant difference in teachers’ perceptions of teacher leadership as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3, and 4 or 5 on their overall TVAAS score in 2013.

A one-way analysis of variance was conducted to evaluate the difference between professional learning as measured by the TELL Tennessee survey and TVAAS composite scores. The factor variable, three levels of TVAAS composite scores, included effectiveness: 1 or 2 representing below average effectiveness, 3 representing average effectiveness, and 4 or 5 representing above average effectiveness, with 5 being most effective. The dependent variable was the mean scores of the teacher leadership section of the TELL Tennessee survey questions

by participating Tennessee school-based licensed teachers. The ANOVA was not significant,  $F(2, 104) = 1.197, p = .306$ . Therefore,  $H_03$  was retained. The results indicate that the teachers' perceptions of teacher leadership were not significantly different based on effectiveness level. The results indicate that there is not a significant difference in the TELL survey among the three categories of schools. The means and standard deviations of professional learning for the three distinctive groups are represented in Table 3.

Table 3

*Means and Standard Deviations of Professional Learning in the Dimension of Teacher Leadership*

TVAAS Scores	<i>N</i>	<i>M</i>	<i>SD</i>
1 or 2	26	333.73	21.06
3	17	324.18	22.76
4 or 5	64	329.17	18.71

*Research Question 4*

Is there a significant difference in teachers' perceptions of school leadership as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3, and 4 or 5 on their overall TVAAS score in 2013?



H<sub>04</sub>: There is no significant difference in teachers' perceptions of school leadership as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3, and 4 or 5 on their overall TVAAS score in 2013.

A one-way analysis of variance was conducted to evaluate the difference between professional learning as measured by the TELL Tennessee survey and TVAAS composite scores. The factor variable, TVAAS composite scores, included three levels of effectiveness: 1 or 2 representing below average effectiveness, 3 representing average effectiveness, and 4 or 5 representing above average effectiveness, with 5 being most effective. The dependent variable was the mean scores of the school leadership section of the TELL Tennessee survey questions by participating Tennessee school-based licensed teachers. The ANOVA was significant,  $F(2, 104) = 3.978, p = .022$ . Therefore, H<sub>04</sub> was rejected.

Because the overall F test was significant, post hoc multiple comparisons were conducted to evaluate pairwise difference among the means of the three groups. A Tukey procedure was selected for the multiple comparisons because equal variances were assumed. There was a significant difference in the means between the group with a TVAAS composite score of 1 or 2 and the group with a TVAAS composite score of 3 ( $p = .023$ ) and between the group with a TVAAS composite score of 4 or 5 and the group with a TVAAS composite score of 3 ( $p = .039$ ). However, there was not a significant difference between the group with a TVAAS composite score of 1 or 2 and the group with a TVAAS composite score of 4 or 5 ( $p = .782$ ). It appears that there are similar perceptions of teachers in schools with effectiveness levels of 1 or 2 and 4 or 5. The 95% confidence intervals for the pairwise differences, as well as, the means and standard deviations for the three TVAAS composite score groups, are reported in Table 4.

Table 4

*Means and Standard Deviations of Professional Learning in the Dimension of School Leadership with 95% Confidence Intervals of Pairwise Differences*

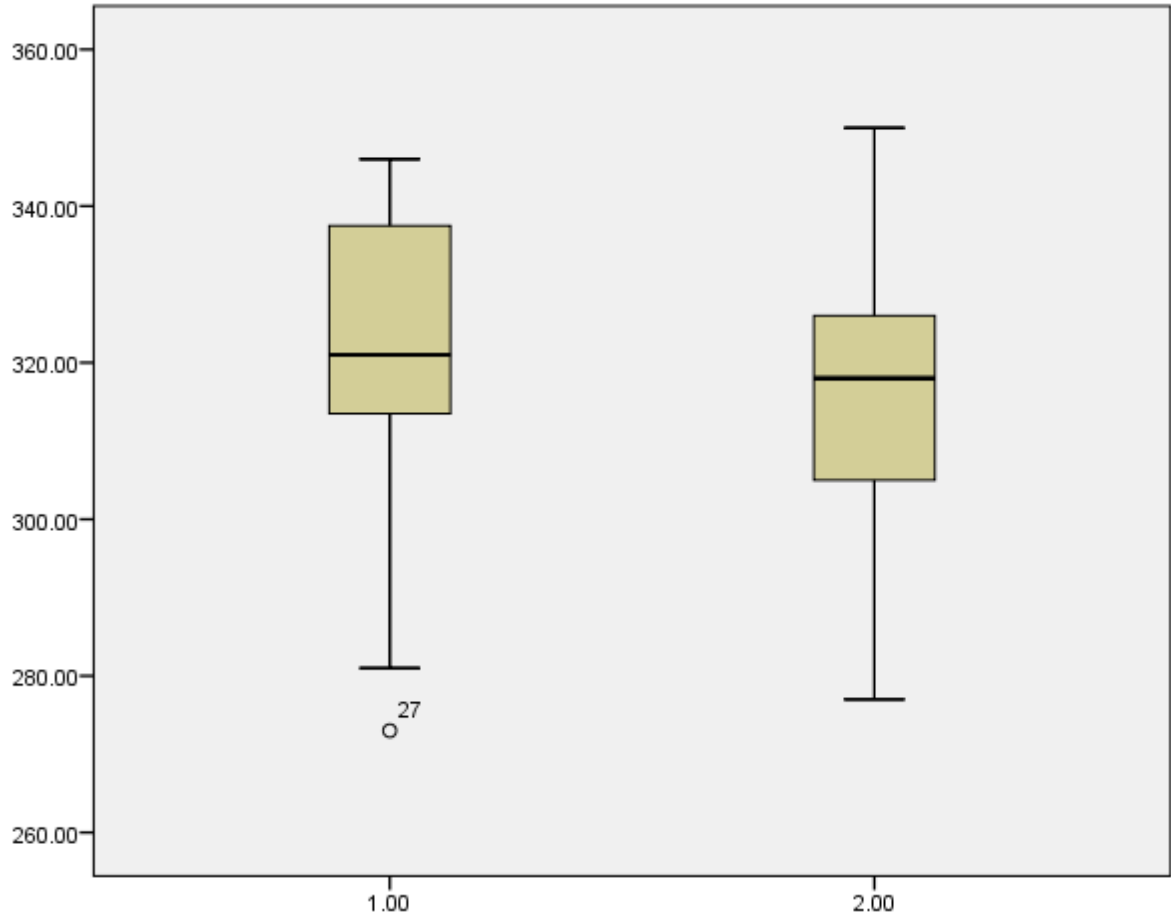
TVAAS Scores	<i>N</i>	<i>M</i>	<i>SD</i>	<i>1 or 2</i>	<i>3</i>
1 or 2	27	335.37	12.36		
3	17	322.65	20.79	-23.98 to -1.47	
4 or 5	63	333.02	14.71	-10.71 to 6.01	.44 to 20.30

*Research Question 5*

Is there a significant difference in teachers’ perceptions of professional development as measured by the TELL Tennessee Survey in elementary schools between Northeast Tennessee Title I and non-Title I schools?

H<sub>05</sub>: There is no significant difference in teachers’ perceptions of professional development as measured by the TELL Tennessee Survey in elementary schools between Northeast Tennessee Title I and non-Title I schools.

An independent-samples t-test was conducted to evaluate whether teachers’ perceptions of professional development differed significantly between Title I and non-Title I schools. The test was not significant,  $t(105) = 1.60, p = .113$ . Therefore, H<sub>05</sub> was retained. The 95% confidence interval for the difference in mean was -1.30 to 12.09. Cohen’s *d* was calculated to be .31 which indicated a medium effect size. Figure 1 shows the distributions for the two groups. Teachers in Title I schools and teachers in non-Title I schools had similar scores on this dimension of the TELL survey.



*Figure 1.* Distribution of Scores for Title I (1.00) and Non-Title I (2.00) Groups for Teachers' Perceptions of Professional Development

*Research Question 6*

Is there a significant difference in teachers' perceptions of instructional practices and support as measured by the TELL Tennessee Survey in elementary schools between Northeast Tennessee Title I and non-Title I schools?

H<sub>0</sub>6: There is no significant difference in teachers' perceptions of instructional practices and support as measured by the TELL Tennessee Survey between elementary schools in Northeast Tennessee Title I and non-Title I schools.

An independent-samples t-test was conducted to evaluate whether teachers' perceptions of instructional practices and support differed significantly between Title I and non-Title I schools. The test was not significant,  $t(105) = .837, p = .405$ . Therefore,  $H_06$  was retained. The 95% confidence interval for the difference in mean was -2.73 to 6.72. Cohen's d was calculated to be .16 which indicated a small effect size. Figure 2 shows the distributions for the two groups. Title I and non-Title I schools displayed similar scores on the instructional practices and support dimension of the TELL survey.

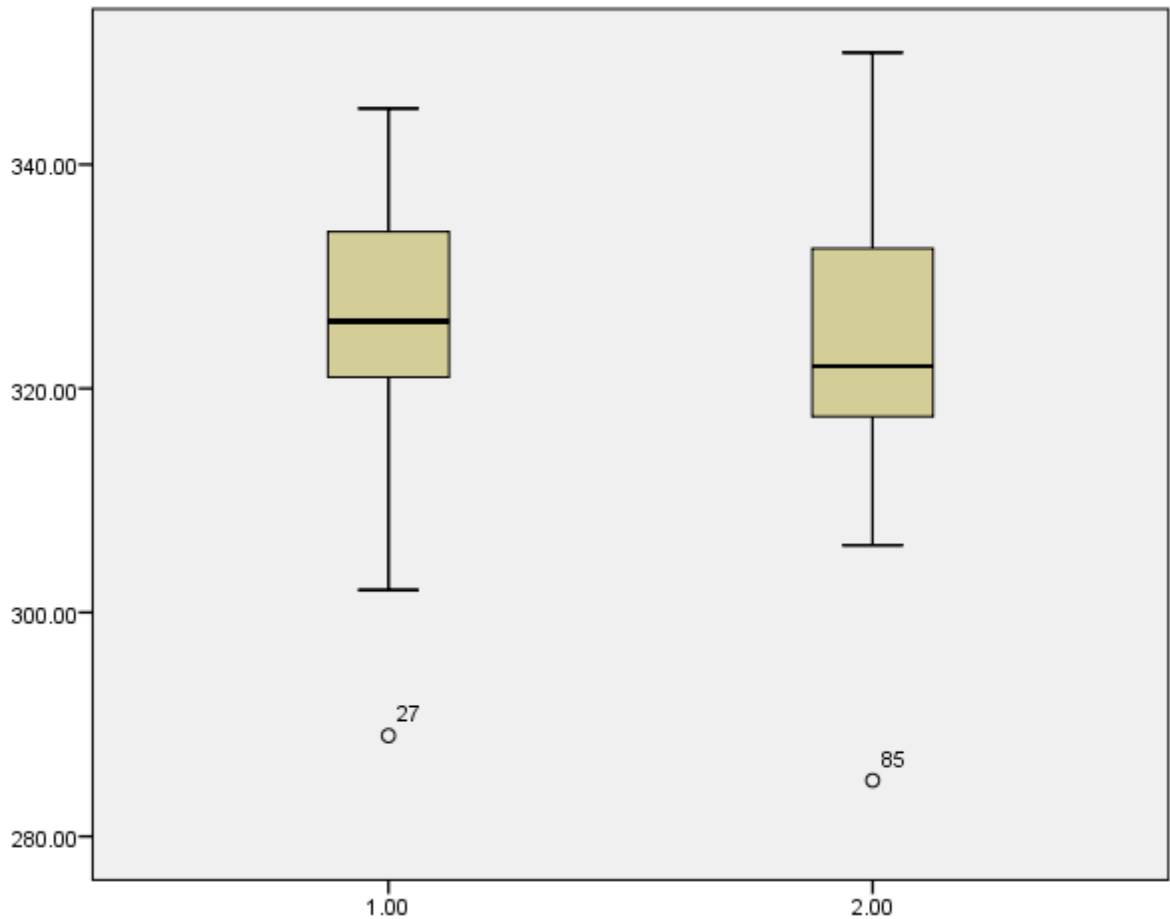


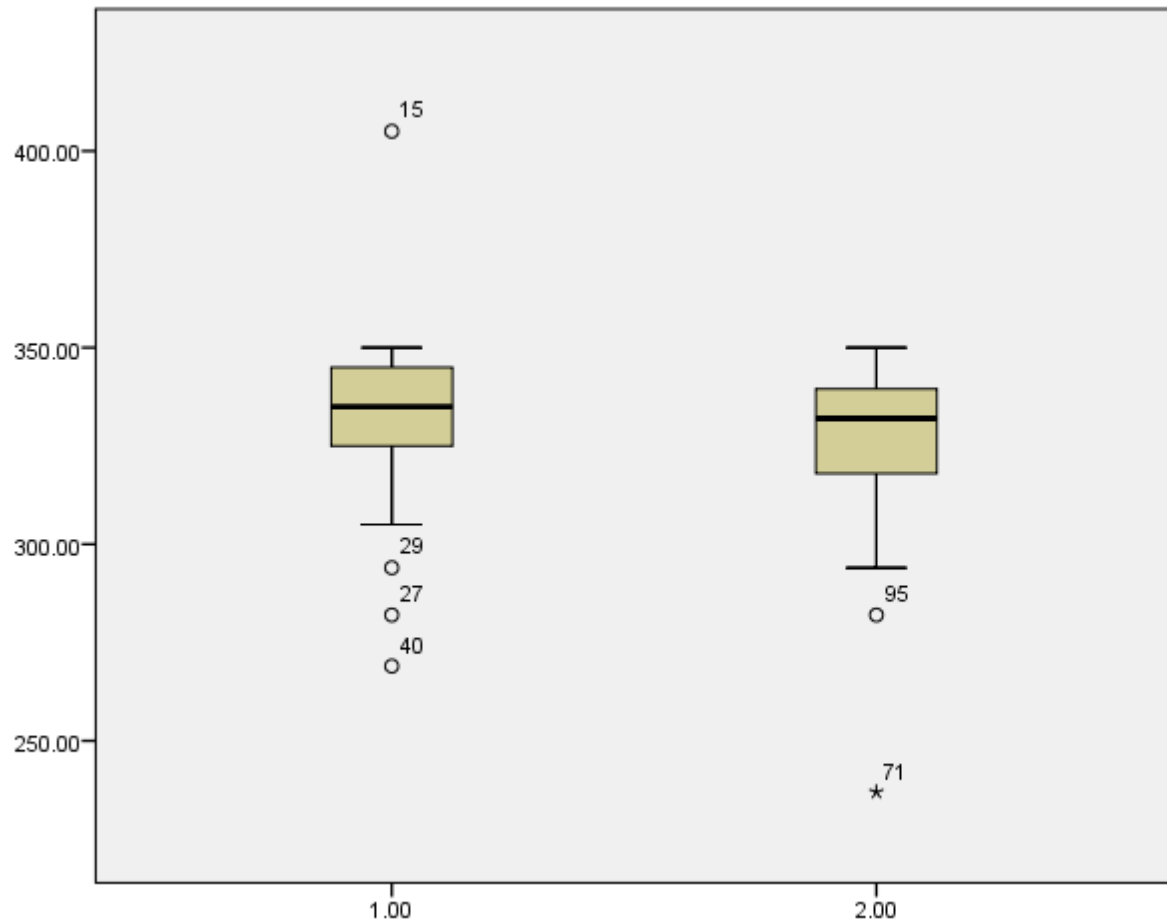
Figure 2. Distribution of Scores for Title I (1.00) and Non-Title I (2.00) Groups for Teachers' Perceptions of Instructional Practices and Support

### *Research Question 7*

Is there a significant difference in teachers' perceptions of teacher leadership as measured by the TELL Tennessee Survey in elementary schools between Northeast Tennessee Title I and non-Title I schools?

H<sub>07</sub>: There is no significant difference in teachers' perceptions of teacher leadership as measured by the TELL Tennessee Survey in elementary schools between Northeast Tennessee Title I and non-Title I schools.

An independent-samples t-test was conducted to evaluate whether teachers' perceptions of teacher leadership differed significantly between Title I and non-Title I schools. The test was not significant,  $t(105) = 1.33, p = .187$ . Therefore, H<sub>07</sub> was retained. The 95% confidence interval for the difference in mean was -2.57 to 12.96. Cohen's d was calculated to be .25 which indicated a small effect size. Figure 3 shows the distributions for the two groups. Title I and non-Title I schools displayed similar scores on the teacher leadership dimension of the TELL survey.



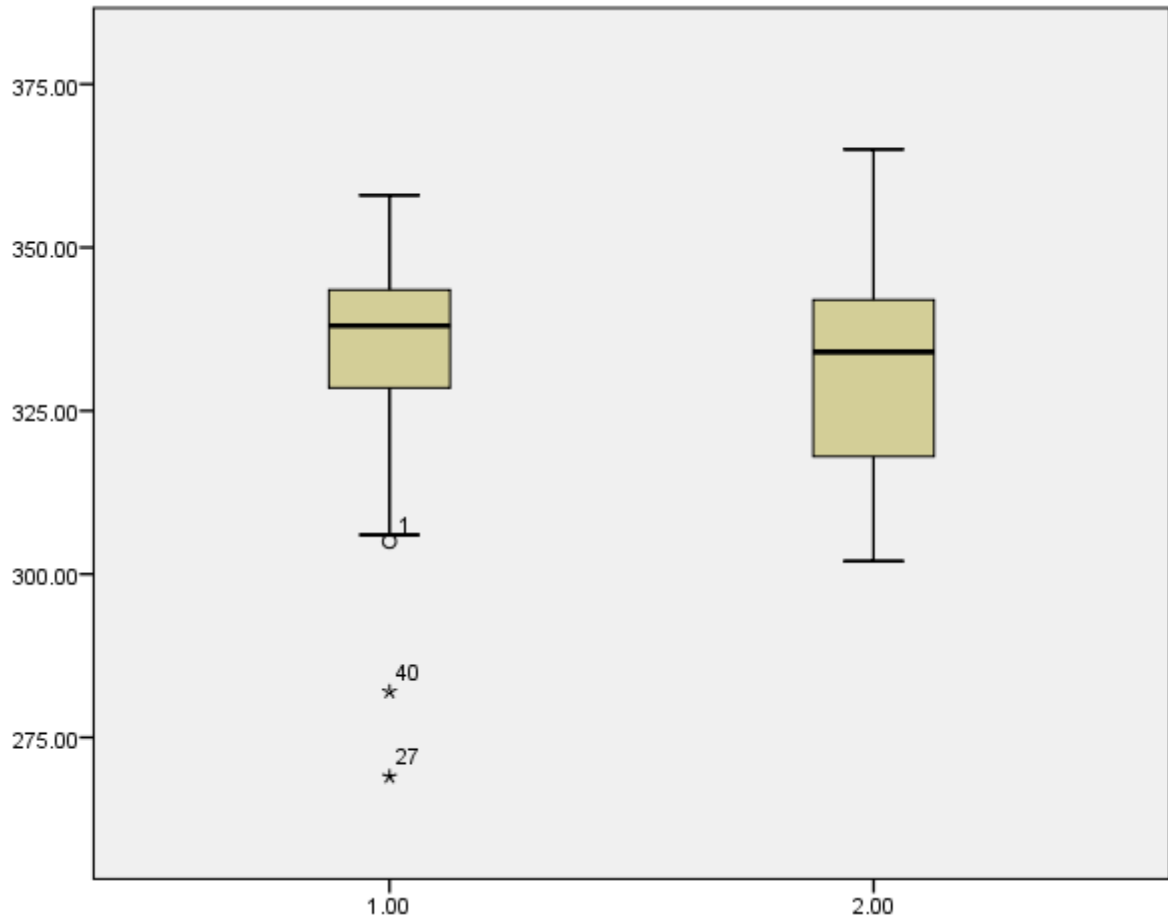
*Figure 3.* Distribution of Scores for Title I (1.00) and Non-Title I (2.00) Groups for Teachers' Perceptions of Teacher Leadership

*Research Question 8*

Is there a significant difference in teachers' perceptions of school leadership as measured by the TELL Tennessee Survey between elementary schools between Northeast Tennessee Title I and non-Title I schools?

H<sub>0</sub>8: There is no significant difference in teachers' perceptions of school leadership as measured by the TELL Tennessee Survey in elementary schools between Northeast Tennessee Title I and non-Title I schools.

An independent-samples t-test was conducted to evaluate whether teachers' perceptions of school leadership differed significantly between Title I and non-Title I schools. The test was not significant,  $t(105) = .544, p = .588$ . Therefore, H<sub>0</sub>8 was retained. The 95% confidence interval for the difference in mean was -4.46 to 7.82. Cohen's *d* was calculated to be .10 which indicated a small effect size. Figure 4 shows the distributions for the two groups.



*Figure 4.* Distribution of Scores for Title I (1.00) and Non-Title I (2.00) Groups for Teachers' Perceptions of School Leadership

### *Chapter Summary*

Summary Data from the TELL Tennessee survey were presented with accompanying analyses in this chapter. Data were collected from licensed school-based educators from 107 elementary schools. Teachers' perceptions of data-driven professional learning for each elementary school were analyzed by eight research questions that represented four dimensions measured by the TELL Tennessee Survey from 2013. The dimensions studies were professional



development, instructional practices and support, teacher leadership, and school leadership. The eight research questions were accompanied by corresponding null hypotheses.

Chapter 5 presents an analysis of the results of the study highlighted in this chapter. It provides a summary of the study and presents the specific findings associated with each research question. Additionally, the final chapter presents conclusions that may be drawn from the study and includes recommendations for practice and further study.

CHAPTER 5  
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS FOR PRACTICE AND  
FURTHER RESEARCH

*Introduction*

This chapter includes the summary of findings and conclusions realized during this study of teachers' perceptions of data-driven professional learning. Results were summarized to report how teachers' perceptions varied among Northeast Tennessee schools whose TVAAS composite scores were a 1 or 2, 3, and 4 or 5, as well as between Title I and non-Title I schools. For this study TVAAS composite scores were grouped into three levels of effectiveness: 1 or 2 representing below average effectiveness, 3 representing average effectiveness, and 4 or 5 representing above average effectiveness, with 5 being most effective. Recommendations for further research have been included in this chapter along with recommendations for use by individuals and groups interested in information regarding using data to plan for professional learning. Recommendations can also be made for those seeking information regarding professional learning as it relates to TVAAS data. Professional learning has been linked to student growth so it could be beneficial for school leaders to better understand how teachers perceive professional learning opportunities. The purpose of this study was to examine relationships among schools that received a 1 or 2, 3, and 4 or 5 on their overall TVAAS data score in 2013 and to compare their scores to teacher perceptions of professional learning as measured by the TELL Tennessee Survey. The study was comprised of school-based licensed elementary educators in Northeast Tennessee. The purposeful sample of schools included schools from the First Tennessee districts in Northeast Tennessee.

### *Summary*

There were 107 elementary schools in this study. Each elementary school was analyzed by eight research questions that represented four categories measured by the TELL Tennessee Survey from 2013. Each research question was analyzed for each of the purposefully chosen schools and corresponded with one null hypothesis to each question. A one-way analysis of variance was conducted to evaluate the relationships among professional learning as measured by the TELL Tennessee survey and TVAAS composite scores. The purpose of this study was to determine whether a significant relationship existed among TELL survey data and TVAAS student growth data as measured by TCAP and whether professional learning has a relationship with student growth data. The Statistical Package for the Social Sciences (SPSS) was used to calculate results of the relationship between teachers' perceptions of data-driven professional learning and overall TVAAS scores.

A quantitative framework was used to determine significant differences between students' growth scores and teachers' perceptions of data-driven professional learning within four dimensions including professional development, instructional practices and support, teacher leadership, and school leadership. A quasi-experimental design was used in this study because public data already existed and collecting additional data were unnecessary.

### *Findings*

This research study was focused on eight research questions. The eight questions and findings are discussed below.

### *Research Question 1*

Is there a significant difference in teachers' perceptions of professional development as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3, and 4 or 5 on their overall TVAAS score in 2013?

The ANOVA results for research question 1 showed no significant difference in teachers' perceptions of professional development as measured by the TELL Tennessee Survey elementary schools that received a 1 or 2, 3, and 4 or 5 on their overall TVAAS score in 2013. Therefore,  $H_01$  was retained.

### *Research Question 2*

Is there a significant difference in teachers' perceptions of instructional practices and support as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3, and 4 or 5 on their overall TVAAS score in 2013?

The ANOVA results for research question 2 showed no significant difference in teachers' perceptions of instructional practices and support as measured by the TELL Tennessee Survey in schools that received a 1 or 2, 3, and 4 or 5 on their overall TVAAS score in 2013. Therefore,  $H_02$  was retained.

### *Research Question 3*

Is there a significant difference in teachers' perceptions of teacher leadership as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3, and 4 or 5 on their overall TVAAS score in 2013?

The ANOVA results for research question 3 showed no significant difference in teachers' perceptions of teacher leadership as measured by the TELL Tennessee Survey in schools that received a 1 or 2, 3, and 4 or 5 on overall TVAAS score in 2013. Therefore,  $H_03$  was retained.

#### *Research Question 4*

Is there a significant difference in teachers' perceptions of school leadership as measured by the TELL Tennessee Survey in elementary schools in Northeast Tennessee that received composite scores of 1 or 2, 3, and 4 or 5 on their overall TVAAS score in 2013?

The ANOVA results for research question 4 showed a significant difference in teachers' perceptions of school leadership as measured by the TELL Tennessee Survey in schools that received a 1 or 2, 3, and 4 or 5 on their overall TVAAS score in 2013. Therefore,  $H_04$  was rejected. The perception of school leadership was higher in schools with scores of 1 or 2 and 4 or 5 than in schools with an average score of 3.

#### *Research Question 5*

Is there a significant difference in teachers' perceptions of professional development as measured by the TELL Tennessee Survey in elementary schools between Northeast Tennessee Title I and non-Title I schools?

The independent-samples t-test results for research question 5 showed no significant difference in teachers' perceptions of professional development as measured by the TELL Tennessee Survey in elementary schools between Northeast Tennessee Title I and non-Title I schools. Therefore,  $H_05$  was retained.

### *Research Question 6*

Is there a significant difference in teachers' perceptions of instructional practices and support as measured by the TELL Tennessee Survey in elementary schools between Northeast Tennessee Title I and non-Title I schools?

The independent-samples t-test results for research question 6 showed no significant difference in teachers' perceptions of instructional practices and support as measured by the TELL Tennessee Survey in elementary schools between Northeast Tennessee Title I and non-Title I schools. Therefore,  $H_06$  was retained.

### *Research Question 7*

Is there a significant difference in teachers' perceptions of teacher leadership as measured by the TELL Tennessee Survey in elementary schools between Northeast Tennessee Title I and non-Title I schools?

The independent-samples t-test results for research question 7 showed no significant difference in teachers' perceptions of teacher leadership as measured by the TELL Tennessee Survey in elementary schools between Northeast Tennessee Title I and non-Title I schools. Therefore,  $H_07$  was retained.

### *Research Question 8*

Is there a significant difference in teachers' perceptions of school leadership as measured by the TELL Tennessee Survey in elementary schools between Northeast Tennessee Title I and non-Title I schools?

The independent-samples t-test results for research question 8 showed no significant difference in teachers' perceptions of school leadership as measured by the TELL Tennessee Survey in elementary schools between Northeast Tennessee Title I and non-Title I schools. Therefore,  $H_08$  was retained.

### *Conclusions*

Based on data analyzed during this study, it is possible to identify teachers' perceptions regarding data-driven professional learning between schools with TVAAS scores of 1 or 2, 3, and 4 or 5, and also between Title I and non-Title I schools. The following conclusions were found from this research.

Teachers' perceptions were not significantly different in schools with TVAAS scores of 1 or 2, 3, and 4 or 5 in the dimensions of professional development, instructional practices and support, and teacher leadership. This suggests that the school's TVAAS effectiveness level does not affect how teachers perceive planning for professional learning. However, teachers' perceptions were significantly different between schools with TVAAS scores of 1 or 2 with 3, and 4 or 5 with 3 in the dimension of school leadership. This finding suggests that the school's TVAAS effectiveness level does affect how teachers perceive planning for professional learning in regard to school leadership. This is supported by the findings of Sergiovanni (2007). The moral craft of a school leader is the bringing together of the head, heart, and hand in terms of actions and decisions, theories of practice, and beliefs, values, and vision. Sergiovanni discussed commitment as a key aspect of the heart of leadership and a possible factor in determining how resources are spent. Before a school leader can gain respect from followers, he or she must demonstrate a commitment to the followers and to the work they do each day. According to

Sergiovanni this is one of the great secrets of leadership. His research may provide insight into the findings as they pertain to the dimension of school leadership and how teachers perceive data-driven professional learning. He emphasized how mandates without leadership may create a culture of compliance without commitment. Wormeli (2007) suggested that it is important for teachers to have a say in their own professional learning. If teachers are to learn new ways of thinking, they need to be engaged in the development rather than merely complying with mandates. This is supported by Buffum et al (2012) who stated that the school leader makes a difference by empowering teachers to become questioners and challengers of mandates. Louis et al (2010) suggested that inquiry functions may be used to challenge compliance. Glover (2013) encouraged educators to challenge the standardization and accountability practices that are evidenced by education in today's classrooms. This idea was also supported by Block (2003) who said that learning should be the act of effective questioning, leading to problem-solving.

Teachers' perceptions were not significantly different in Title I schools and non-Title I schools regarding data-driven professional learning in the dimensions of professional development, instructional practices and support, teacher leadership, and school leadership. This suggests that Title I status does not affect how teachers perceive using data to plan for professional learning, and that teachers in schools with high poverty rates are typically as satisfied with their professional learning opportunities as are teachers in schools with lower poverty rates. This is similar to the results found by Whitaker, Whitaker, and Lumpa (2009) who found no difference in perceptions of teachers in Title I and non-Title I schools. They contended that teachers who demonstrate excitement about their school build a strong culture of learning and that leadership in any type of school is one of the most important aspects for ensuring learning for teachers and students.



### *Recommendations for Practice*

The difference between teachers' perceptions of data-driven professional learning and the TELL Tennessee Survey dimensions used in this study was predominantly not significant. The only exception was in the dimension of school leadership and TVAAS scores which did confirm significance. Teachers' perceptions of school leadership in planning for professional learning were different between schools with TVAAS scores of 1 or 2 with 3, and 4 or 5 with 3. The following recommendations for practice support the findings and are available to school and district leaders who are using data to plan professional learning opportunities for teachers.

- School leaders should lead with purpose in order to demonstrate a commitment to the learning organization. This is supported by the work of Sergiovanni (2007). However, it is not possible to bring about change with a single leader. It requires a strong, broad-based leadership team that is aligned and speaks with one voice (Blanchard, 2007).
- While professional learning should be differentiated according to needs of teachers and schools, it should not be differentiated merely based on TVAAS scores or Title I status. This is supported by the research of Bowgren and Sever (2010).
- When planning for professional learning school leaders should share the data being used with teachers and work with teachers to design and implement professional learning. As found by Bradley (2013) principals should become master designers of professional learning as well as involved participants of the learning. However, principals are not the only designers. They should engage teachers in jointly designing – doing with rather than for. This is supported by

Wormeli (2007) in his research on the importance of involving teachers in the development of their professional learning.

- School leaders should consider all types of data in planning for professional learning as supported by Elliott (2010). The various types of data include student achievement data, demographic data, program data, and perception data as outlined by Brown and Maday (2008).
- Professional learning communities should be comprised of teams that represent the shared vision for the school. This is supported by the research of Kardos and Johnson (2007), Fulton and Britton (2011), and Datnow et al. (2013).
- When school leaders lay groundwork to cultivate trust within a professional learning community, time in the PLC will be well-spent. This recommendation is supported by the research of Louis (2007). Schlechty (2009) maintained that it is the learning taking place within effective schools that builds a sense of shared purpose and shared vision.
- School leaders should plan for professional learning opportunities that meet the needs of teachers and encourage dialogue, as reinforced by the work of Wolford (2011).

In planning for professional learning opportunities, school leaders can find value in focusing on collective capacity. Professional learning flourishes in cultures of sharing, trust, and support (Fullan, 2011). According to Blasé and Blasé (2001) trust is lessened when principals are unable or unwilling to listen to their faculty. This leaves teachers feeling frustrated and isolated. Principals are more likely to earn trust from their teachers when they encourage open communication and seek to make themselves available to all stakeholders. Blasé and Blasé also

encouraged school leaders to support risk taking and innovation. They agreed that this demonstrates trust and respect for teachers as professionals and learners capable of trying new things and learning from mistakes. Kotter (2012) maintained that effective leaders understand that transformation is a process not an event.

### *Recommendations for Further Research*

Further research should be conducted on the relationship between school leadership and teachers' perceptions on the use of data to plan for professional learning and the teachers' perceptions of how principals engage them in developing data sources and applications. It would also benefit district leaders to analyze the types of data being used by school leaders to plan for professional learning opportunities and the depth of understandings of the teachers regarding various types of data. Collins (2005) explained that school leaders must not rely on luck, hope, or chance for students to learn. He contended that the primary responsibility of school leaders is to create conditions conducive to maximum levels of learning for all students. He suggested that in order to be a great school, administrators should align all of the organization's practices and procedures to result in a desired outcome of learning.

The research gathered in this study has presented new questions for further research beyond the eight original research questions.

- Are teachers and administrators able to articulate the difference between student achievement and student learning?
- Do school leaders realize the importance of planning for professional learning opportunities that will provide teachers with the tools and understandings to foster student learning rather than higher test scores only?

- What are the benefits of creating collaborative groups that rely on variation rather than sameness?
- Do teachers and administrators understand how to effectively use data to plan for student learning, teacher learning, and administrator learning?

The above recommendations will provide information to Northeast Tennessee educators as they use data to plan for professional learning. The subsequent questions may provide school leaders and teachers with opportunities for dialogue and reflection.

## REFERENCES

- ACT (2012). *2012 Retention/completion summary tables*. Iowa City, IA: Author. Retrieved September 6, 2014, from <http://act.org>
- Ainsworth, L. (2003). *Power standards: Identifying the standards that matter the most*. Englewood, CO: Lead + Learn Press.
- Ancona, D., Malone, T., Orlikowski, W., & Senge, P. (2007). In praise of the incomplete leader. *Harvard Business Review*, 85(2).
- Bernhardt, V. (2013). *Data analysis for continuous school improvement*. New York, NY: Routledge.
- Blanchard, K. (2007). *Leading at a higher level: Blanchard on leadership and creating high performing organizations*. Upper Saddle River, NJ: Prentice Hall.
- Blasé, J., & Blasé, J.R. (2001). *Empowering teachers: What successful principals do* (2<sup>nd</sup> ed.). Thousand Oaks, CA: Corwin.
- Block, P. (2003). *The answer to how is yes: Acting on what matters*. San Francisco, CA: Berrett-Koehler.
- Bowgren, L. & Sever, K. (2010). *Differentiated professional development in a professional learning community*. Bloomington, IN: Solution Tree Press.
- Bradley, E. H. (2013). Teaching experiences and perceived challenges for school administrators regarding job stress, respect, student achievement, assessment & evaluation, and professional development. *Electronic Theses and Dissertations*. Paper 2307. <http://dc.etsu.edu/etd/2307>
- Breslow, J.M. (2012). By the numbers: Dropping out of high school. *Frontline: Dropout Nation*. Retrieved October 24, 2014, from <http://www.kpbs.org/news/2012/sep/24/frontline-dropout-nation/>

- Broad Foundation, The (2013). Our public education system is in deep distress. Retrieved October 24, 2014, from [http://broadeducation.org/about/crisis\\_stats.html](http://broadeducation.org/about/crisis_stats.html).
- Brown, C., & Maday, T. (2008, Feb.). *Four data types for needs assessment*. Session presented at the No Child Left Behind conference. Chicago, IL Retrieved September 20, 2014, from <http://www.slideserve.com/ailsa/four-data-types-for-needs-assessment>
- Bryk, A., Sebring, P., Allensworth, E., Lppescu, S., & Easton, J. (2010). *Organizing schools for improvement: Lessons from Chicago*. Chicago, IL: The University of Chicago Press.
- Buffum, A., Mattos, M., & Weber, C. (2010, Oct.). The why behind RTI. *Educational Leadership* 68(2), 10-16.
- Buffum, A., Mattos, M., & Weber, C. (2012). *Simplifying response to intervention: The four essential guiding principles*. Bloomington, IN: Solution Tree Press.
- Carnevale, A.P., Smith, N., & Strohl, J. (2010). Help wanted: Projections of jobs and education requirements through 2018. Washington, DC: Georgetown University Center on Education and the Workforce, 9-16.
- Carroll, T. (2009, Oct.). The next generation of learning teams. *Kappan* 91(2), 8-13.
- Carter, N., Prater, M.A., Jackson, A., & Marchant, M. (2009). *Educators' perceptions of collaborative planning processes for students with disabilities*. Retrieved October 4, 2014, from ERIC database. (EJ845958)
- Center for Public Education, The. (2012, May). *The United States of education: The changing demographics of the United States and their schools*. Alexandria, VA: National School Boards Association.
- Chenoweth, K. (2009, Sept.). It can be done, it's being done, and here's how. *Kappan* 91(1).
- City, E.A., & Elmore, R.F. (2007). The road to school improvement. *Harvard Education Letter*,23(3), 1-3.

- Cohen, D. & Kotter, J. (2002). *The heart of change*. Boston, MA: Harvard Business Review Press.
- College Board, The (2008). *Coming to our senses: Education and the American future*. Retrieved November 10, 2014, from <https://professionals.collegeboard.com>
- Collins, J. (2001). *Good to great: why some companies make the leap and others don't*. New York, NY: HarpersCollin.
- Collins, J. (2005). *Good to great and the social sectors: A monograph to accompany Good to Great*. New York, NY: Harper Collins.
- Collins, J. & Porras, J. (2002). *Built to last: Successful habits of visionary companies*. New York: HarperCollins.
- Conley, D.T. (2010). *College and career ready: Helping all students succeed beyond high school*. San Francisco, CA: Jossey-Bass.
- Crum, K.R., (2013). School culture and leadership: Teacher perceptions of Title I and non-Title I schools. *Electronic Theses and Dissertations*. Paper 1153. <http://dc.etsu.edu/etd/1153>
- Darling-Hammond, L., Wei, R., & Andree, A. (2010). How high-achieving countries develop great teachers. *Stanford Center for Opportunity Policy in Education*. Retrieved October 4, 2014, from <https://edpolicy.stanford.edu/publications/pubs/291>
- Darling-Hammond, L., Wei, R., Andree, A. Richardson, N., & Orphanos, S. (2009). Professional learning in the learning profession: A status report on teacher development in the United States and abroad. *National Staff Development Council*. Retrieved September 26, 2014, from: <http://www.nsdc.org>.
- Datnow, A. (2008). The co-construction of educational reform: The intersection of federal, state, and local contexts. In M. Shinn & H. Yoshikawa (Eds.), *Towards positive youth development: Transforming school and community programs* (pp. 271-290). New York: Oxford University Press.

- Datnow, A., Park, V., & Kennedy-Lewis, B. (2013). *Affordances and constraints in the context of teacher collaboration for the purpose of data use*. Retrieved from ERIC database. (EJ1006319)
- Donohoo, J. (2013). *Collaborative inquiry for educators: A facilitator's guide to school improvement*. Thousand Oaks, CA: Corwin.
- Doubet, K.J., (2012). *Formative assessment jump-starts a middle grades differentiation initiative*. Retrieved from ERIC database. (EJ977790)
- Douglas, D. R. (2013). Associations between student achievement and student leaning: Implications for value-added school accountability models. *Educational Policy*. (27)1, 92-120.
- Druskat, V., & Wolff, S. (2001). *Building the emotional intelligence of groups*. Boston, MA: Harvard Business Review.
- DuFour, R., DuFour, R., & Eaker, R. (2002). *Getting started: Reculturing schools to become professional learning communities*. Bloomington, IN: Solution Tree Press.
- DuFour, R., DuFour, R., & Eaker, R. (2008). *Revisiting professional learning communities at work: New insights for improving schools*. Bloomington, IN: Solution Tree Press.
- DuFour, R., DuFour, R., Eaker, R., & Many, T. (2006). *Learning by doing: A handbook for professional learning communities at work*. Bloomington, IN: Solution Tree Press.
- DuFour, R., DuFour, R., Eaker, R., & Many, T. (2010). *Learning by doing: A handbook for professional learning communities at work* (2<sup>nd</sup> ed.). Bloomington, IN: Solution Tree Press.
- DuFour, R. & Mattos, M. (2013). How do principals really improve schools? *Educational Leadership*, 70(7), 34-40.
- Dweck, C.S. (2008). *Mindset: The new psychology of success*. New York, NY: Ballentine Books.



Elliott, S.L., (2010). *Data-driven job-embedded professional development: A cautionary tale*. Retrieved December 3, 2014, from ERIC database. (ED518939)

Elmore, R. F., (2005) *School reform from the inside out: Policy, practice, and performance*. Boston, MA: Harvard Education Publishing Group.

Faulk, J. (2004). Investigation into the relationship between a job-embedded model of professional development and reading achievement of elementary school students. *Electronic Theses and Dissertations*. Paper 944. <http://dc.etsu.edu/etd/944>

Fullan, M. (2001). *Leading in a culture of change*. San Francisco, CA: Jossey-Bass.

Fullan, M. (2003). *The moral imperative of school leadership*. Thousand Oaks, CA: Corwin.

Fullan, M. (2011). *The moral imperative realized*. Thousand Oaks, CA: Corwin.

Fulton, K., & Britton, T. (2011, June). *STEM teachers in professional learning communities: From good teachers to great teaching*. Washington, DC: National Council on Teaching and America's Future.

Fulton, K., Yoon, I, & Lee, C. (2005). *Induction into learning communities*. Washington DC: National Commission on Teaching and America's Future.

Gallimore, R, Ermeling, B.A., Saunders, W.M., & Goldenberg, C. (2009). Moving the learning of teaching closer to practice: Teacher education implications of school-based inquiry teams. *Elementary School Journal* (special issue).

Garmston, R., (2007). Right way to begin depends on where you are right now. *National Staff Development Council Newsletter*, 28(1), 69-70.

Glover, E. (2013). *The myth of accountability*. Lanham, MD: Rowman & Littlefield Education.

Gold, S. (2005). *Driven by data: How three districts are successfully using data, rather than gut feelings, to align staff development with school needs*. Retrieved October 4, 2014, from ERIC database. (EJ776127)

- Goleman, D. (2005). *Emotional intelligence: Why it can matter more than IQ*. New York: Bantam Books.
- Goleman, D., Boyatzis, R., & McKee, A. (2004). *Primal leadership: Learning to lead with Emotional intelligence*. Boston, MA: Harvard Business Review Press.
- Greenstone, M., Looney, A., Patashnik, J., & Yu, M. (2013). Thirteen economic facts about social mobility and the role of education. Hamilton Project Policy Memo Washington, DC: The Brookings Institute.
- Grenny, Patterson, Maxfield, McMillan, & Switzler (2008) *Influencer: The new science of leading change*. New York, NY: McGraw-Hill, p. 183.
- Guskey, T. R. (2000). *Evaluating professional development*. Thousand Oaks, CA: Corwin Press.
- Guskey, T.R. (2003, Feb.). How classroom assessments improve learning. *Educational Leadership*, 60(5), 6-11.
- Guskey, T.R. (2008, Jan.) The rest of the story. *Educational Leadership*, 65(4), 28-35.
- Guskey, T.R. (2013, December). *Evaluating professional development*. Session presented at the Learning Forward Annual Conference. Dallas, TX.
- Guthrie, J.W., & Schuermann, P. (2011). *Leading schools to success: Constructing and sustaining high-performing learning cultures*. Thousand Oaks, CA: Sage.
- Halverson, R., Hamilton, L., Jackson, S.S., Mandinach, E., Supovitz, J.A., & Wayman, J.C. (2009). *Using student achievement data to support instructional decision making: IES practice guide*. National Center for Educational Evaluation and Regional Assistance. Retrieved October 5, 2014, from ERIC database. (ED506645)
- Hallinger, P., Heck, R., & Murphy, J. (2013). Leading via teacher evaluation: The case of the missing clothes. *Educational Researcher*, 42(6), 349-354.

- Hamel, G. (2002). *Leading the revolution: How to thrive in turbulent times by making innovation a way of life*. Boston, MA: Harvard Business School Press.
- Hodges, T.E., Rose, T.D., & Hicks, A.D. (2012). *Interviews as RTI tools*. Retrieved September 25, 2014, from ERIC database. (EJ1001738)
- Hoy, W., Tarter, J., & Hoy, A.W. (2006, Sept.). Academic optimism of schools: A force for student achievement. *American Educational Research Journal*, 43(3), 425-446.
- IRA Commission on RTI. (2009, Feb.). *Response to intervention: Guiding principles for educators from International Reading Association*. Retrieved October 5, 2014, from [www.reading.org/Libraries/Resources/RTI\\_brochure\\_web.pdf](http://www.reading.org/Libraries/Resources/RTI_brochure_web.pdf).
- Irvin, J.L. (2013). School TVAAS rank and teacher perception of elementary school culture in East Tennessee. *Electronic Theses and Dissertations*. Paper 2294. <http://dc.etsu.edu/etd/2294>
- Kardos, S., & Johnson, S.M., (2007). On their own and presumed expert: New teachers' experience with their colleagues. *Teachers College Record*.
- Katzenbach, J., & Smith, D. (1993). *The wisdom of teams: Creating the high-performance Organization*. Boston, MA: Harvard Business School Press.
- Kegan, R., & Lahey, L. (2001, November). The real reason people won't change. *Harvard Business Review, The Magazine*, 79(10), 85-91.
- Kotter, J. P. (2012). *Leading change*. Cambridge, MA: Harvard Business Review.
- Kouzes, J.M., & Posner, B.Z. (2003). *The leadership challenge*. San Francisco, CA: Jossey-Bass.
- Kouzes, J.M., & Posner, B.Z. (2010). *The truth about leadership: The no-fads, heart-of-the-matter facts you need to know*. San Francisco, CA: Jossey-Bass.

Learning Forward (2008, July). *Learning forward definition of professional development: The second dimension*. Retrieved August 15, 2014, from <http://learningforward.org>

Lee, J.C., Zhang, Z., & Yin, H. (2011, July). A multi-level analysis of the impact of a professional learning community, faculty trust in colleagues and collective efficacy on teacher commitment to students. *Teaching and Teacher Education*, 27(5) 820-830.

Lencioni, P. (2005). *Overcoming the five dysfunctions of a team: A field guide for leaders, managers, and facilitators*. San Francisco, CA: Jossey-Bass.

Lencioni, P. (2012). *The advantage: Why organizational health trumps everything else in business*. San Francisco, CA: Jossey-Bass.

Lickona, T., & Davidson, M. (2005). *Smart and good high schools: Developing excellence and ethics for school, work, and beyond*. Cortland, N.Y.: Center for the 4<sup>th</sup> and 5<sup>th</sup> Rs (Respect and Responsibility)/Washington, DC: Character Education Partnership.

Little, J.W., (2006). *Professional community and professional development in the learning-centered school*. Washington DC: National Education Association.

Louis, K. S. (2007). Trust and improvement in schools. *Journal of Educational Change*, 8(1), 1-24.

Louis, K., Leithwood, K., Wahlstrom, K., & Anderson, S. (2010). *Learning from leadership: Investigating the links to improved student achievement*. University of Minnesota: Center for Applied Research and Educational Improvement.

Louis, K., & Wahlstrom, K. (2011). Principals as cultural leaders. *Phi Delta Kappan*, 92(5), 52-56.

MacFarlane, B. (2012). Differentiating teacher professional development with design. *Understanding Our Gifted*. (24)2, 9-14.

Marzano, R. (2003). *What works in schools: Translating research into action*. Alexandria, VA: Association for Supervision and Curriculum Development.

- Marzano, R., & Waters, T. (2009). *District leadership that works: Striking the right balance*. Bloomington, IN: Solution Tree Press.
- McKinsey & Co. (2011). *Big data: The next frontier for innovation, competition, and productivity*. Washington, D.C.: McKinsey Global Institute.
- McGuigan, L., & Hoy, W. (2006). Principal leadership: creating a culture of academic optimism to improve achievement for all students. *Leadership and Policy in Schools* 5(3), 203-229.
- McLaughlin, M. (1995, December). *Creating professional learning communities*. Keynote address presented at the annual conference of the National Staff Development Council, Chicago, IL.
- McLaughlin, M.W., & Talbert, J.E. (2001). *Professional communities and the work of high School teaching*. Chicago, IL: University of Chicago Press.
- McLaughlin, M.W., & Talbert, J.E. (2006). *Building school based teacher learning communities. Professional strategies to improve student achievement*. New York, NY: Teachers College Press.
- Mendels, P., & Mitgang, L. D. (2013). Creating strong principals. *Educational Leadership*, 70(7).
- Moller, G., & Pankake, A. (2006). *Lead with me: A principal's guide to teacher leadership*. Larchmont, NY: Eye on Education.
- Morrison, K. (2002). Complexity theory and education. *APERA Conference*. Hong Kong.
- Mourshed, M., Chijioke, C., & Barber, M. (2010). How the world's most improved school systems keep getting better, *a McKinsey & Company report*. Retrieved October 5, 2014, from <http://www.mckinsey.com>
- National Board for Professional Teaching Standards (2013). Student achieving, student learning: How do teachers measure up? *Student Learning, Student Achievement Task Force*. Arlington, VA.

National Commission on Teaching and America's Future (2003). Washington, DC.

National Education Association (2003). Washington, DC.

National Staff Development Council (2006). New York, NY.

National Staff Development Council (2009). New York, NY.

O'Hora, D., & Maglieri, K.A. (2006). Goal statements and goal-directed behavior: A relational frame account of goal setting in organizations. *Journal of Organizational Behavior Management*, 26(1/2).

Organization for Economic Cooperation and Development. (2011). *Education at a glance 2011: Fifty years of change in education: OECD Indicators*. Retrieved December 3, 2014, from <http://www.oecd.org/dataoecd/37/45/48642586.pdf>.

Patterson, K., Grenny, J., Maxfield, D., & McMillan, R. (2007). *Influencer: The power to change anything*. New York: McGraw-Hill.

Perkins, A., & Engelhard, G. (2011) *Talking back to data: comments on a framework for data use*. Retrieved October 4, 2014, from ERIC database. (EJ953128)

Pink, D. (2006) *A whole new mind*. New York, NY: Riverhead Press.

Reeves, D. (2006). *The learning leader: How to focus school improvement for better results*. Alexandria, VA: Association for Supervision and Curriculum Development.

Riley, K.A. (2009). Taking your leadership pulse. *Educational Leadership*. ASCD. 67(2).

Robinson, K. (2011) *Out of our minds: Learning to be creative*. United Kingdom: Capstone.

Saphier, J., King, M., D'Auria, J. (2006). 3 strands form strong school leadership. *National Staff Development Council*, 27(2), 51-57.

- Schein, E. (2004). *Organizational culture and leadership*. San Francisco, CA: Jossey-Bass.
- Schlechty, P. (2005). *Creating great schools: Six critical systems at the heart of educational innovation*. San Francisco, CA: Jossey-Bass.
- Schlechty, P. (2009). *Leading for learning*. San Francisco, CA: Jossey Bass.
- Schwanenberger, M., & Ahearn, C. (2013). *Teacher perceptions of the impact of the data team process on core instructional practices*. Retrieved October 5, 2014, from ERIC database. (EJ1016262)
- Sergiovanni, T.J. (2005). The virtues of leadership. *The Educational Forum*. 69, 112-123.
- Sergiovanni, T. J. (2007). *Rethinking leadership*. Thousand Oaks, CA: Corwin Press.
- Smith, K. (2010). *The Relationship between professional learning communities and student achievement*. Retrieved September 19, 2014, from ERIC database. (ED517434)
- Sparks, S.D. (2013, July). Dropout indicators found for first graders. *Education Week*, 32(37), p.10.
- Sutton, C.T. (2014). Teacher Attitudes and Practices that Support Student Learning. *Electronic Theses and Dissertations*. Paper 2358. <http://dc.etsu.edu/etd/2358>
- Swanlund, A. (2011). Identifying working conditions that enhance teacher effectiveness: The psychometric evaluation of the Teacher Working Conditions Survey. Chicago. IL: American Institutes for Research.
- Tavernise, S. (2012, February). Education gap grows between rich and poor, studies say. *The New York Times*. Retrieved September 20, 2014, from <http://www.nytimes.com>
- Tennessee Department of Education, (2013a). Retrieved July 8, 2014, from [www.telltennessee.org](http://www.telltennessee.org)

- Thousand, J.S., Villa, R.A., & Nevin, A.I. (2006). *Theory Into practice*. Retrieved October 5, 2014, from ERIC database. (EJ739604)
- Tichy, N.M.(1997). *The leadership engine: How winning companies build leaders at every level*. New York, NY: Harper Collins.
- TVAAS (2013). Retrieved July 25, 2014, from <http://www.tn.gov/education/data/TVAAS.shtml>
- Ulrich, D. (1996). Credibility x capability. In F. Hesselbein, M. Goldsmith, &R. Beckhard (Eds.), *The leader of the future* (pp.209-222). San Francisco, CA: Jossey-Bass.
- Vescio, V., Ross, D., & Adams, A. (2008, Jan.). A review of research on the impact of professional learning communities on teaching practices and student learning. *Teaching and Teacher Education*, 24(1), 80-91.
- Whitaker, T., Whitaker, B., & Lumpa, D. (2009). *Motivating & inspiring teachers: The educational leader's guide for building staff morale* (2nd ed.). Larchmont, NY: Eye on Education.
- Whitehurst, G.J. (2004). Making education evidence-based: Premises, principles, pragmatics, and politics. Washington DC: *Institute of Education Sciences. U.S. Department of Education*.
- Wolford, D.W. (2011). Effective Leadership Practices in the Sustainability of Professional Learning Communities in Two Elementary Schools. *Electronic Theses and Dissertations*. Paper 1359. <http://dc.etsu.edu/etd/1359>
- Wormeli, R. (2007). *Differentiation: From planning to practice, grades 6-12*. Portland, ME: Stenhouse.
- Zepeda, S. (2011). *Professional development: What works*. New York, NY: Routledge.



APPENDICES

APPENDIX A

DEMOGRAPHIC DATA

*Demographic Data for First Tennessee District Schools in Northeast Tennessee*

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District	School	TELL Survey Participation Percentage	Economically Disadvantaged Percentage
Bristol City	Anderson	78.1	80.9
Bristol City	Avoca	87.9	44.7
Bristol City	Fairmont	62.5	81.6
Bristol City	Haynesfield	96.9	40.2
Bristol City	Holston View	79.3	41.3
Carter County	Central	75.0	80.7
Carter County	Cloudland	93.8	74.9
Carter County	Hampton	80.8	74.6
Carter County	Happy Valley	73.3	70.9
Carter County	Hunter	100.0	73.4
Carter County	Keensburg	77.4	84.9
Carter County	Little Milligan	76.9	88.2
Carter County	Unaka	100.0	75.7
Cocke County	Bridgeport	85.2	73.5

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Cocke County	Centerview	56.3	75.7
Cocke County	Cosby	100.0	80.3
Cocke County	Del Rio	100.0	85.4
Cocke County	Edgemont	100.0	85.8
Cocke County	Grassy Fork	100.0	82.1
Cocke County	Northwest	100.0	91.0
Cocke County	Parrottsville	73.2	73.6
Cocke County	Smoky Mountain	89.5	91.1
Elizabethton City	East Side	100.0	65.1
Elizabethton City	Harold McCormick	97.0	68.3
Elizabethton City	West Side	100.0	47.8
Greene County	Baileyton	84.4	67.8
Greene County	Camp Creek	100.0	80.1
Greene County	Chuckey	81.8	82.3
Greene County	Dubusk	90.3	61.8
Greene County	Doak	83.7	66.5
Greene County	Glenwood	78.3	76.6
Greene County	McDonald	59.4	73.2
Greene County	Mosheim	88.2	78.4
Greene County	Nolachuckey	70.0	53.9
Greene County	Ottway	81.5	76.5
Greene County	West Pines	100.0	69.1
Greeneville	C. Hal Henard	61.3	59.0

Greeneville	Eastview	100.0	36.8
Greeneville	Highland	82.4	94.0
Greeneville	Tusculum View	100.0	50.1
Hamblen County	Alpha	100.0	46.3
Hamblen County	Fairview Marguerite	100.0	89.5
Hamblen County	Hillcrest	97.5	88.6
Hamblen County	John Hay	100.0	71.9
Hamblen County	Lincoln Heights	100.0	95.7
Hamblen County	Manley	93.4	50.3
Hamblen County	Russellville	100.0	53.7
Hamblen County	Union Heights	87.0	60.9
Hamblen County	West	100.0	87.5
Hamblen County	Whitesburg	100.0	66.5
Hamblen County	Witt	100.0	82.0
Hancock County	Hancock	94.7	81.1
Hawkins County	Bulls Gap	100.0	74.5
Hawkins County	Carters Valley	93.1	73.4
Hawkins County	Church Hill	100.0	57.3
Hawkins County	Clinch	100.0	92.3
Hawkins County	Hawkins	100.0	81.6
Hawkins County	Keplar	100.0	91.0
Hawkins County	McPheeters Bend	100.0	78.7
Hawkins County	Mooresburg	100.0	86.4

Hawkins County	Mt. Carmel	92.6	51.8
Hawkins County	St. Clair	100.0	76.4
Hawkins County	Surgoinsville	100.0	68.5
Johnson City	Cherokee	87.1	60.1
Johnson City	Fairmont	100.0	59.4
Johnson City	Lake Ridge	72.2	22.0
Johnson City	Mountain View	100.0	93.3
Johnson City	North Side	66.7	85.4
Johnson City	South Side	100.0	60.4
Johnson City	Towne Acres	96.2	20.1
Johnson City	Woodland	59.5	57.0
Johnson County	Doe	71.4	78.1
Johnson County	Laurel	85.7	73.0
Johnson County	Roan Creek	94.3	80.1
Johnson County	Shady Valley	100.0	49.0
Kingsport City	Adams	100.0	26.7
Kingsport City	Jackson	100.0	78.3
Kingsport City	Jefferson	96.8	42.3
Kingsport City	Johnson	100.0	48.5
Kingsport City	Kennedy	100.0	78.6
Kingsport City	Lincoln	100.0	73.2
Kingsport City	Roosevelt	93.1	89.6
Kingsport City	Washington	80.7	35.7

Newport City	Newport Grammar	100.0	60.1
Rogersville City	Rogersville	85.7	44.8
Sullivan County	Blountville	67.7	68.4
Sullivan County	Bluff City	81.1	77.0
Sullivan County	Central Heights	55.0	71.3
Sullivan County	Emmett	100.0	79.7
Sullivan County	Holston	75.0	55.9
Sullivan County	Indian Springs	51.6	31.1
Sullivan County	Ketron	75.4	81.0
Sullivan County	Mary Hughes	71.1	54.5
Sullivan County	Miller Perry	88.6	36.7
Sullivan County	Rock Springs	100.0	60.0
Sullivan County	Sullivan Gardens	85.7	65.2
Sullivan County	Weaver	70.8	64.7
Washington County	Boones Creek	76.7	60.4
Washington County	Fall Branch	67.9	50.0
Washington County	Grandview	77.8	56.6
Washington County	Gray	83.3	39.3
Washington County	Jonesborough	75.6	56.1
Washington County	Lamar	95.7	63.1
Washington County	Ridgeview	81.3	27.3
Washington County	South Central	60.7	66.7
Washington County	Sulphur Springs	100.0	51.0

Washington County

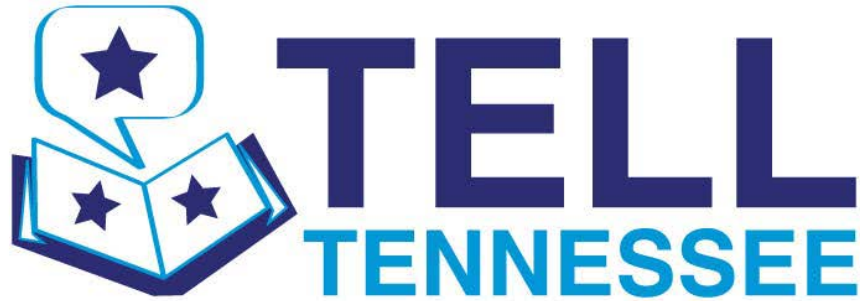
West View

68.3

69.6

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APPENDIX B  
TELL TENNESSEE 2013 SURVEY



Research has demonstrated that positive teaching and learning conditions are important influences on student success and teacher retention. Tennessee policymakers and education stakeholders want to gather information about these conditions from those who know them best - teachers and administrators from across the state. This survey will provide you, your school, your district, and the state with information you can use to guide school improvement conversations and planning. Your perceptions matter, so TELL us about your school.

Please know that your participation is voluntary and your anonymity is guaranteed. No one will be able to view individual responses to the questions. Reports on the results will NOT include data that could identify individuals. The responses of administrators will NOT be reported separately at the school or district level. You are being asked optional demographic information ONLY to learn whether educators with differing experiences and backgrounds look at teaching and learning conditions differently across all of Tennessee.

**Access Code**

You have been assigned an anonymous access code to ensure that we can identify the school in which you work and that the survey is taken only once by each respondent. The code can only be used to identify a school, and NOT an individual. If it makes you more comfortable, feel free to trade codes with a colleague within your same school. The survey cannot be saved, and once you submit your responses, you will not be able to use your code again to access them. Do not begin the survey unless you have at least 20 minutes of uninterrupted time. Your participation in the survey is completely voluntary. After completing the first item, you may skip over any other question you do not wish to answer. If you have questions, problems, or need any assistance, please email us at [helpdesk@telltennessee.org](mailto:helpdesk@telltennessee.org).

## **Introduction**



**Please indicate your position:**

- Teacher (e.g., endorsed librarians, instructional coaches, department heads, vocational ed, literacy specialists)
- Principal
- Assistant Principal
- Other Education Professional (e.g., school counselors, school psychologists, social workers)

**Please know that your anonymity is guaranteed.**

No one in your school, the district or state will be able to view individual surveys, and reports on the results will not include data that could identify individuals. You are being asked demographic information to learn whether educators from different backgrounds and different characteristics look at working conditions differently.

**How many total years have you been employed as an educator?**

- First Year
- 2 - 3 Years
- 4 - 6 Years
- 7 - 10 Years
- 11 - 20 Years
- 20+ Years

**How many total years have you been employed in the school in which you are currently working?**

- First Year
- 2 - 3 Years
- 4 - 6 Years
- 7 - 10 Years
- 11 - 20 Years
- 20+ Years

**Time**

**Please rate how strongly you agree or disagree with the following statements about the use of time in your school.**

- a. Class sizes are reasonable such that **teachers\*** have the time available to meet the needs of all students.
- b. Teachers have time available to collaborate with colleagues.

- c. Teachers are allowed to focus on educating students with minimal interruptions.
- d. The **non-instructional time\*\*** provided for teachers in my school is sufficient.
- e. Efforts are made to minimize the amount of **routine administrative paperwork\*\*\*** teachers are required to do.
- f. Teachers have sufficient instructional time to meet the needs of all students.
- g. Teachers are protected from duties that interfere with their essential role of educating students.

\*Teachers means a majority of teachers in your school.

\*\*Non-instructional time includes any time during the day without the responsibility for student contact, including collaboration planning, meetings/conferences with students and families, etc.

\*\*\*Routine administrative paperwork means both electronic and paper forms and documentation that must be completed to comply with school, district, state, and federal policies

**In an AVERAGE WEEK, how much time do you devote to the following activities during the school day (i.e., time for which you are under contract to be at the school)?**

- a. Individual planning time
- b. **Collaborative planning time\***
- c. **Supervisory duties\*\***
- d. Required committee and/or staff meetings
- e. Completing required administrative **paperwork\*\*\***
- f. Communicating with parents/guardians and/or the community
- g. Addressing student discipline issues
- h. **Professional development\*\*\*\***
- i. Preparation for required federal, state and local assessments
- j. Delivery of assessments
- k. Utilizing results of assessments

\*Collaborative time includes time spent working with other teachers within or across grade and subject areas as part of a Professional Learning Community to plan and assess instructional strategies.

\*\*Supervisory duties include hall monitoring, recess, bus and cafeteria coverage, etc.

\*\*\*Paperwork means both electronic and paper forms and documentation that must be completed to comply with federal, state and local policies.

\*\*\*\*Professional development includes all opportunities, formal and informal, where adults learn from one another including graduate courses, in service, workshops, conferences, professional learning communities and other meetings focused on improving teaching and learning.

**In an AVERAGE WEEK of teaching, how many hours do you spend on school-related activities outside of the regular school day (before or after school, and/or on weekends)?**

- None
- Less than or equal to 1 hour
- More than 1 hour but less than or equal to 3 hours
- More than 3 hour but less than or equal to 5 hours
- More than 5 hour but less than or equal to 10 hours

More than 10 hours

## Facilities and Resources

Please rate how strongly you agree or disagree with the following statements about your school facilities and resources.

- a. **Teachers\*** have sufficient access to appropriate **instructional materials\*\***.
- b. Teachers have sufficient access to instructional technology, including computers, printers, software and internet access.
- c. Teachers have sufficient access to reliable communications technology including phones, faxes and email.
- d. Teachers have sufficient access to office equipment and supplies such as copy machines, paper, pens, etc.
- e. Teachers have sufficient access to a broad range of **professional support personnel\*\*\***.
- f. The school environment is clean and well maintained.
- g. Teachers have adequate space to work productively.
- h. The physical environment of classrooms in this school supports teaching and learning.
- i. The reliability and speed of Internet connections in this school are sufficient to support instructional practices.

\*Teachers means a majority of teachers in your school.

\*\*Instructional materials include items such as textbooks, curriculum materials, content references, etc.

\*\*\*Professional personnel includes positions such as school counselors, nurses, school psychologists and social workers, library media specialists, etc.

## Community Support and Involvement

Please rate how strongly you agree or disagree with the following statements about community support and involvement in your school.

- a. Parents/guardians are influential decision makers in this school.
- b. This school maintains clear, two-way communication with parents/guardians and the community.
- c. This school does a good job of encouraging parent/guardian involvement.
- d. **Teachers\*** provide parents/guardians with useful information about student learning.

- e. Parents/guardians know what is going on in this school.
- f. Parents/guardians support teachers, contributing to their success with students.
- g. Community members support teachers, contributing to their success with students. □
- h. The community we serve is supportive of this school.

\*Teachers means a majority of teachers in your school.

## Managing Student Conduct

**Please rate how strongly you agree or disagree with the following statements about managing student conduct in your school.**

- a. Students at this school understand expectations for their conduct.
- b. Students at this school follow rules of conduct.
- c. Policies and procedures about student conduct are clearly understood by the faculty.
- d. School administrators consistently enforce rules for student conduct.
- e. School administrators support **teachers\*\*** efforts to maintain discipline in the classroom.
- f. Teachers consistently enforce rules for student conduct.
- g. The faculty work in a school environment that is safe.

\*Teachers means a majority of teachers in your school.

## Teacher Leadership

**Please rate how strongly you agree or disagree with the following statements about teacher leadership in your school.**

- a. **Teachers\*** are recognized as educational experts.
- b. Teachers are trusted to make sound professional decisions about instruction.
- c. Teachers are relied upon to make decisions about educational issues.
- d. Teachers are encouraged to participate in school leadership roles.
- e. The faculty has an effective process for making group decisions to solve problems.
- f. In this school we take steps to solve problems.
- g. Teachers are effective leaders in this school.

\*Teachers means a majority of teachers in your school.

**Please indicate the role **teachers\*** have at your school in each of the following areas.**

- a. Selecting instructional materials and resources
- b. Devising teaching techniques
- c. Setting grading and student assessment practices
- d. Determining the content of in-service professional development programs
- e. Establishing student discipline procedures
- f. Providing input on how the school budget will be spent
- g. The selection of teachers new to this school
- h. School improvement planning

\*Teachers means a majority of teachers in your school.

**Please rate how strongly you agree or disagree with the following statements about decision making in your district.**

- a. **Principals\*** are actively involved in district decision making about educational issues.
- b. Principals are trusted to make sound professional decisions about instruction in this district.
- c. In this district we take steps to solve problems.
- d. The district has an effective process for making group decisions and solving problems.
- e. The district involves principals in decisions that directly impact the operations of my school.

\*Principals means a majority of the principals in your district.

**Teachers\* have an appropriate level of decision making in this school.**

- Strongly disagree
- Disagree
- Agree
- Strongly agree
- Don't know

\*Teachers means a majority of teachers in your school.

## School Leadership

**Please rate how strongly you agree or disagree with the following statements about school leadership in your school.**

- a. The faculty and leadership have a shared vision.
- b. There is an atmosphere of trust and mutual respect.
- c. **Teachers\*** feel comfortable raising issues and concerns that are important to them.
- d. The **school leadership\*\*** consistently supports teachers.
- e. Teachers are held to high professional standards for delivering instruction.
- f. The school leadership facilitates using data to improve student learning.
- g. Teacher performance is assessed objectively.
- h. Teachers receive feedback that can help them improve teaching.
- i. The procedures for teacher evaluation are consistent.
- j. The school improvement team provides effective leadership at this school.
- k. The faculty are recognized for accomplishments.

\*Teachers means a majority of teachers in your school.

\*\*School leadership is an individual, group of individuals or team within the school that focuses on managing a complex operation. This may include scheduling; ensuring a safe school environment; reporting on students' academic, social and behavioral performance; using resources to provide the textbooks and instructional materials necessary for teaching and learning; overseeing the care and maintenance of the physical plant; or developing and implementing the school budget.

**Please rate how strongly you agree or disagree with the following statements about school leadership in your school.**

- a. The faculty and leadership have a shared vision.
- b. There is an atmosphere of trust and mutual respect.
- c. **Teachers\*** feel comfortable raising issues and concerns that are important to them.
- d. The **school leadership\*\*** consistently supports teachers.
- e. Teachers are held to high professional standards for delivering instruction.
- f. The school leadership facilitates using data to improve student learning.
- g. Teacher performance is assessed objectively.
- h. Teachers receive feedback that can help them improve teaching.
- i. The procedures for teacher evaluation are consistent.
- j. The school improvement team provides effective leadership at this school.
- k. The faculty are recognized for accomplishments.

\*Teachers means a majority of teachers in your school.

\*\*School leadership is an individual, group of individuals or team within the school that focuses on managing a complex operation. This may include scheduling; ensuring a safe school

environment; reporting on students' academic, social and behavioral performance; using resources to provide the textbooks and instructional materials necessary for teaching and learning; overseeing the care and maintenance of the physical plant; or developing and implementing the school budget.

## Professional Development

**Please rate how strongly you agree or disagree with the following statements about professional development in your school.**

- a. Sufficient resources are available for **professional development\*** in my school.
- b. An appropriate amount of time is provided for professional development.
- c. Professional development offerings are data driven.
- d. Professional learning opportunities are aligned with the school's improvement plan.
- e. Professional development is differentiated to meet the needs of individual **teachers.\*\***
- f. Professional development deepens teachers content knowledge.
- g. Professional development provides teachers with strategies to involve families and other community members as active partners in their children's education.
- h. Teachers are encouraged to reflect on their own practice.

**In which of the following areas (if any) do you need professional development to teach your students more effectively?**

- a. Your content area
- b. Common Core Standards
- c. Student assessment
- d. Differentiating instruction
- e. Special education (students with disabilities)
- f. Special education (gifted and talented)
- g. English Language Learners (ELL)
- h. Closing the Achievement Gap
- i. Methods of teaching
- j. Reading strategies
- k. Integrating technology into instruction
- l. Classroom management techniques

**In the past 2 years, have you had 10 clock hours or more of professional development in any of the following areas?**

- a. Your content area
- b. Common Core Standards
- c. Student assessment
- d. Differentiating instruction
- e. English Language Learners (ELL)
- f. Special education (students with disabilities)
- g. Special education (gifted and talented)
- h. Closing the Achievement Gap
- i. Methods of teaching
- j. Reading strategies
- k. Integrating technology into instruction
- l. Classroom management techniques

Estimate the number of total days in which you participated in professional development during the 2011-12 school year:

- 0-1 (approximately 0-8 hours)
- 2-4 (approximately 16-32 hours)
- 5-7 (approximately 40-56 hours)
- 8-10 (approximately 64-80 hours)
- 11-13 (approximately 88 – 104 hours)
- 14 days or more (105 hours or more)

## Instructional Practices and Support

Please rate how strongly you agree or disagree with the following statements about instructional practices and support in your school.

- a. **State assessment\*** data are available in time to impact instructional practices.
- b. **Local assessment\*\*** data are available in time to impact instructional practices.
- c. **Teachers\*\*\*** in this school use assessment data to inform their instruction.
- d. The curriculum taught in this school is aligned with Common Core Standards.
- e. Teachers work in **professional learning communities\*\*\*\*** to develop and align instructional practices.
- f. Provided supports (i.e. instructional coaching, professional learning communities, etc.) translate to improvements in instructional practices by teachers.
- g. Teachers are encouraged to try new things to improve instruction.
- h. Teachers at my school are assigned classes that maximize their likelihood of success with



students.

i. Teachers have autonomy to make decisions about instructional delivery (i.e. pacing, materials and pedagogy).

\*State assessments include end of course and end of grade tests.

\*\*Local assessments are standardized instruments offered across schools within the district and can include any norm or criterion referenced tests, diagnostics, or local benchmarks.

\*\*\*Teachers means a majority of teachers in your school.

\*\*\*\*Professional learning communities include formalized groupings of teachers within or across grade and subject areas that meet regularly to plan and assess instructional strategies for student success.

## Overall

**Which of the following best describes your immediate professional plans?** (Select one.)

- Continue teaching at my current school
- Continue teaching in this district, but leave this school
- Continue teaching in this state, but leave this district
- Continue working in education, but pursue an **administrative position\***
- Continue working in education, but pursue a **non-administrative position\*\***
- Leave education entirely

\*Administrative positions include principal or assistant principal.

\*\*Non-administrative positions include, but are not limited to, guidance counselor, curriculum specialist, instructional coach.

**Which aspect of your teaching conditions most affects your willingness to keep teaching at your school?** (Select one.)

- Time during the work day
- Facilities and resources
- Community support and involvement
- Managing student conduct
- Teacher leadership
- School leadership
- Professional development
- Instructional practices and support

**Which aspect of your teaching conditions is MOST important to you in promoting student learning?** (Select one.)

- Time during the work day
- Facilities and resources
- Community support and involvement
- Managing student conduct
- Teacher leadership
- School leadership
- Professional development
- Instructional practices and support

**Overall, my school is a good place to work and learn.**

- Strongly disagree
- Disagree
- Agree
- Strongly agree
- Don't know

**At this school, we utilize the results from the 2011 TELL Tennessee Survey as a tool for school improvement.**

- Strongly disagree
- Disagree
- Agree
- Strongly agree
- Don't know

## **New Teacher Support**

**As a beginning teacher, I have received the following kinds of supports.**

- a. Formally assigned mentor
- b. Seminars specifically designed for new teachers
- c. Reduced workload
- d. Common planning time with other teachers
- e. Release time to observe other teachers
- f. Formal time to meet with mentor during school hours
- g. Orientation for new teachers
- h. Access to professional learning communities where I could discuss concerns with other teacher(s)
- i. Regular communication with principals, other administrator or department chair
- j. Other
- k. I received no additional support as a new teacher.

**On average, how often did you engage in each of the following activities with your mentor?**

- a. Developing lesson plans
- b. Being observed teaching by my mentor

- c. Observing my mentor's teaching
- d. Analyzing student work
- e. Reviewing results of students' assessments
- f. Addressing student or classroom behavioral issues
- g. Reflecting on the effectiveness of my teaching together
- h. Aligning my lesson planning with the state curriculum and local curriculum
- i. Other

**How much did the support you received from your mentor influence your practice in the following areas?**

- a. Instructional strategies
- b. Subject matter I teach
- c. Classroom management strategies
- d. Using data to identify student needs
- e. Differentiating instruction based upon individual student needs and characteristics
- f. Creating a supportive, equitable classroom where differences are valued
- g. Enlisting the help of family members, parents and/or guardians
- h. Working collaboratively with other teachers at my school
- i. Connecting with key resource professionals (e.g., coaches, counselors, etc.)
- j. Complying with policies and procedures
- k. Completing administrative paperwork
- l. Providing emotional support
- m. Other

**Please indicate whether each of the following were true for you and your mentor.**

- a. My mentor and I were in the same building.
- b. My mentor and I taught in the same content area.

c. My mentor and I taught the same grade level.

**Overall, the additional support I received as a new teacher improved my instructional practice.**

- Strongly disagree
- Disagree
- Agree
- Strongly agree
- Don't know

APPENDIX C  
IRB DETERMINATION



East Tennessee State University  
Office for the Protection of Human Research Subjects ☐☐Box 70565 ☐☐Johnson City,  
Tennessee 37614-1707 Phone: (423) 439-6053 Fax: (423) 439-6060

September 26, 2014  
Amy Smith Doran  
[doranas@goldmail.etsu.edu](mailto:doranas@goldmail.etsu.edu)

Dear Amy,

Thank you for recently submitting information regarding your proposed project "TVAAS Rankings and Teacher Perceptions of Data-Driven Professional Learning in Northeast Tennessee Title I and Non- Title I Elementary Schools."

I have reviewed the information, which includes a completed Form 129.

The determination is that this proposed activity as described meets neither the FDA nor the DHHS definition of research involving human subjects. Therefore, it does not fall under the purview of the ETSU IRB.

IRB review and approval by East Tennessee State University is not required. This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these activities are human subject research in which the organization is engaged, please submit a new request to the IRB for a determination.

Thank you for your commitment to excellence.

Sincerely,  
Stacey Williams, Ph.D.  
Chair, ETSU IRB



*Accredited Since December 2005*

## VITA

AMY SMITH DORAN

- Education: Ed. D. Educational Leadership, East Tennessee State University, Johnson City, Tennessee 2015  
M.Ed. K-12 Education, Tusculum College, Greeneville, Tennessee 1999  
B.S. Elementary Education, Appalachian State University, Boone, North Carolina 1983  
Sullivan Central High School, Blountville, Tennessee 1979
- Professional Experience: Associate Principal, George Washington Elementary, Kingsport, Tennessee 2013-2015  
Teacher, Thomas Jefferson Elementary, Kingsport, Tennessee 2011-2013  
District-Wide Literacy Coach, Kingsport, Tennessee 2009-2011  
Literacy Coach, John F. Kennedy Elementary, Kingsport, Tennessee 2007-2009  
Teacher Leader, John F. Kennedy Elementary, Kingsport, Tennessee 2004-2007  
Teacher, John F. Kennedy Elementary, Kingsport, Tennessee 1997-2007  
Interventionist, Tennessee Early Intervention System, East Tennessee State University, Johnson City, Tennessee 1996-1997  
Director, Colonial Heights Presbyterian Day School, Kingsport, Tennessee 1992-1997  
Teacher, Abraham Lincoln Elementary, Kingsport, Tennessee 1986-1991  
Teacher, Plantersville Elementary, Georgetown, South Carolina 1984-1986
- Honors: Teacher of the Year, Kingsport City Schools, Kingsport Tennessee 2006  
Distinguished Reading Teacher Award, Georgetown County Schools, Georgetown, South Carolina 1985