AN EXAMINATION OF TEACHERS' PERCEPTIONS OF THE DIFFICULTY IN TEACHING THE TEXAS ESSESSENTIAL KNOWLEDGES AND SKILLS AND THE STATE OF TEXAS ASSESSMENTS OF ACADEMIC READINESS TEST RESULTS: IMPLICATIONS FOR INSTRUCTIONAL LEADERSHIP AND TEACHER PREPARATION PROGRAMS

A Doctoral Thesis Presented to the
Faculty of the College of Education
University of Houston

In Partial Fulfillment
of the requirements for the Degree

Doctor of Education
in Professional Leadership
by

Christina Gomez

December 2014

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Dedication

For Felipe, Veronica and Andrew, Austin, Sebastian, Madelyn and to my Nathan Anthony Wilkinson: Always remember, “If your dreams don’t scare you, they are not big enough” ~ Ellen Johnson Sirleaf.

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An Abstract
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Abstract

Gomez, Christina. "A*n Examination of Teachers' Perceptions of the Difficulty in Teaching the Texas Essential Knowledge and Skills and the State of Texas Assessments of Academic Readiness Test Results: Implications for Instructional Leadership and Teacher Preparation Programs."* Unpublished Doctor of Education Doctoral Thesis, University of Houston, December, 2014.

This study focused on teacher effectiveness. This research investigation attempted to determine if a teacher's perceived ability to teach the Texas Essential Knowledge and Skills (TEKS) affected student achievement as measured on the State of Texas Assessments of Academic Readiness (STAAR) for third and fourth grade reading and math. By examining teachers' perceptions regarding their perceived preparedness to teach the TEKS and achievement of their students as measured on STAAR, school leaders can design a script for academic interventions. Significant numbers of economically disadvantaged students have low academic achievement in reading and math performance as measured by state assessments, such as the STAAR. Research participants in this study were limited to one elementary school located in a large urban school district in Southeast Texas. Descriptive statistics were used to analyze archival data of the 2012-2013 third and fourth grade STAAR math and reading results by investigating whether teacher perceptions affected student achievement. A quantitative method was utilized to see if patterns existed between teacher perceptions of their perceived preparedness to teach the TEKS with the achievement of their students on STAAR. A qualitative method was used to document the responses to interview questions that third and fourth grade teachers reported regarding their perceptions of the TEKS and its affect on their students' achievement. By gaining a better understanding of teacher perceptions, school leaders may support student learning by first supporting

teacher learning. In addition to supporting teacher and student growth through data-driven professional development activities, this research may also have implications for measuring the effectiveness of school leaders, teacher education programs, and mentor programs. In this study, the professional development, ongoing teacher support and the many other continuous interventions affected the overall results of the study, and therefore this study was inconclusive and the researcher is unable to determine if teacher perceptions of the Student Expectations impact student achievement.

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Chapter I

Introduction

A study comparing the perceptions of teachers, students, and parents indicates that both parents and students believe that assessment scores are reflective characteristics of a good teacher. However, it did not indicate test scores as a qualitative measure of characteristics of a good teacher (Liu & Meng, 2009). In the same study, the researchers indicate that "one possible reason that teachers do not like people to use students' test scores to judge how good they are (the teacher), is that this would put pressure on them (the teacher)" (Liu & Meng, 2009, p. 326). Although assessment scores are representative of teacher excellence, research indicates that even though parents are aware of the importance of test scores and its link to teacher quality, schools should provide parents with a better understanding of teacher quality as it relates to the No Child Left Behind (NCLB) Act (Porter & Polikoff, 2007). The Elementary and Secondary Education Act of 1965, as amended, Title V, Part B, Subpart 3; 20 U.S.C. 7225-7225g requires that local school districts offer parents alternative educational options, such as vouchers and schools of choice. Of the many extended educational opportunities offered to parents is the right to have their child assigned a highly qualified teacher, which means that parents have the right to seek a school of choice. Parents will make numerous decisions in the best interest of their child yet, "the education of one's child is the most important decision parents will make affecting their child's future and success in life" (Grusendorf, 2013, p. 1). Traditionally, parents have been very accepting of the services that schools have provided to their children, and although school choice is part of the NCLB Act, evidence has shown that parents are not actively seeking out schools of

choice for their children (Porter & Polikoff, 2007). A 2009 study reports that "more educated parents report higher levels of school dissatisfaction[,] [which] might be due to higher expectations about school quality" (Gibbons, Stephen & Olmo, Silva, 2009, p. 23). With a better understanding of the NCLB Act, parents could not only make better informed educational decisions for their children, but quality decisions that would impact their child's achievement level.

The No Child Left Behind Act of 2001 includes built-in provisions to assist school districts "in closing the achievement gap with accountability, flexibility, and choice, so that no child is left behind" (Act, 2002, p. 1). Even though lawmakers say that they have put tools in place to help schools meet the various components of the NCLB Act, with the implementation of State of Texas Assessments of Academic Readiness (STAAR) in Texas, school leaders have not had enough transition time to understand them (the components of the NCLB Act as related to STAAR and the accountability requirements) or to meet them. In spite of the flexibility and support provided to state and district leaders in meeting the requirements of the NCLB Act, school districts are struggling to meet the accountability expectations as determined by the federal requirements. Each state agency has the leeway to implement the individual requirements of the NLCB Act, and because they also have the freedom to set their own proficiency standards, this has led to a variation across the states in defining state proficiency standards. With the implementation of a new state assessment in Texas, district leaders and teachers are struggling not only to understand the State of Texas Assessments of Academic Readiness (STAAR), but they are also struggling to determine its impact on the district and campus accountability ratings. Although the transition to

the new assessment has brought about a new set of challenges for educators, it should be noted that early data suggest that the NCLB Act has had a positive impact on student achievement (Porter & Polikoff, 2007). In an effort to better understand the ambiguities of the new state assessment, this study focused on teacher effectiveness. The intent of the study was to determine if a teacher's perceived ability to teach the Texas Essential Knowledge and Skills (TEKS) affected student achievement as measured on the State of Texas Assessments of Academic Readiness (STAAR) for third and fourth grade reading and math.

No Child Left Behind (NCLB)

Although every state is working within the same framework to achieve a common goal as determined by the No Child Left Behind (NCLB) Act, there is very little similarity between the levels of quality that each state has set to determine accountability. Therefore, it is difficult to compare academic achievement standards across the states. The degree to which states have implemented each component of the NCLB Act varies. A recent publication, *The Accountability Illusion* (2009), uses a variety of contrasting terms when referring to the varying degree of standards as it relates to the implementation process of the NCLB Act: "night and day, random, experimentation, singing different tunes, vary widely, opaque, demoralizing, vastly different, keep their cut scores low," among many other descriptors (Thomas B. Fordham Institute, 2009, pp. 7–9). Cronin, Dahlin, Xiang, and McCahon (2009) go on to say, "The man in the street surely believes that it's a uniform accountability system[,] [y]et it's not" (p. 9). While every state is operating under the common framework of the NCLB Act, it is evident that there is not a

shared consensus in the degree of implementation as it relates to the accountability system across the states.

Adequate Yearly Progress (AYP)

The differences among the states in implementing the No Child Left Behind Act (NCLB) requirements and measuring adequate yearly progress (AYP) leads to additional questions: What is a good school, what constitutes effective teachers, and which state(s) are doing a better job of following the intended proposal of the NCLB Act (Cronin et al., 2009; Thomas B. Fordham Institute, 2009)? In data provided by *The Accountability Illusion*, the Fordham Institute (2009) show how if one were to move schools across state lines, this would most likely create a change in their individual AYP status. In some cases, high-performing schools in one state may fail to meet AYP in other states. The freedom built in to the NCLB Act leads to inconsistencies in achieving its intended goal of meeting AYP by 2014.

Even though Adequate Yearly Progress (AYP) is measured differently across the states, there is a common framework that each state uses to establish their perspective proficiency targets. Each state measures its own AYP through the data analysis of student achievement on its state-developed assessment program. Local education agencies are responsible for bringing focus groups together to work on the revision and implementing their state curriculum standards. Then, the local education agencies work with test developers who are charged with creating the state test.

The freedom built into the NCLB Act offers advantages and disadvantages at both the state and local levels. While this convenience is most beneficial at the state level, states need to find a way to filter down the benefit to the local educational agencies.

Each state is responsible for designing its own assessment, developing its pass/fail criteria and setting minimum group counts. Because of this flexibility, there are multiple factors involved in fulfilling the AYP requirements. Determining minimum size requirements is an additional benefit provided through the NCLB Act. The NCLB Act allows states the full responsibility of analyzing the size of student subgroups and determining the minimum student size requirements needed in order for a particular subgroup to be counted as part of the accountability system. Although this is a state advantage, research indicates that this is a disadvantage for campuses with large enrollment and large subgroups of at-risk student populations, such as second language learners (Thomas B. Fordham Institute, 2009). Larger campuses are at a higher risk of missing AYP and are therefore not meeting the accountability requirements.

STAAR and the History of State Assessments

With each new state initiative, educators have seen an increase in student expectations, rigor, and the overall proficiency requirements. In 1979, Texas mandated its first statewide testing program. Since its inception over three decades ago, districts have seen many legislative mandates. Texas educators were introduced to the Texas Assessment of Basic Skills (TABS) in 1980. In 1986, Texas moved to the Texas Assessment of Academic Skills (TAAS). In 2003, Texas implemented Texas Assessment of Knowledge and Skills (TAKS), and most recently in 2011, Texas educators began a new assessment program, the State of Texas Assessments of Academic Readiness (STAAR). Terminology associated with each implementation has also evolved over the years. Educators have seen terms such as “minimum skills,” “basic skills,” and “academic skills” and now the new expression utilized is “an increased level of rigor”.

Over the years, educators have also seen changes in the administration procedures, the testing designs, and equally important, changes with the state proficiency standards. However, as stated by the Texas Education Agency (TEA) Academic Excellence Indicator System (AEIS) report, even schools that have traditionally performed well on state assessments have seen a significant decrease in scores with the implementation of each new assessment program (TEA, 2008).

A recent study documents "that only 28% of Texas school districts and 44% of Texas campuses met adequate yearly progress (AYP) during the 2011-2012 academic year" (Johnson, William, Johnson, & Johnson, 2012, p. 6). By 2014, Texas must have 100% of their students meeting grade-level proficiency. The 2011 AYP data indicate that many schools will be struggling to meet the NCLB Act requirements and will be faced with the consequences that are built in to the NCLB Act. With this new assessment, districts across Texas will be "confronted with a steadily rising bar for achievement, [and] schools lagging behind will lose students, independence, and even the possibility of existing" (Moore, 2010, p. 16). A 2012 study, confirms that local school districts have been assessing students for many years with no significant growth in student proficiency levels as measured through state assessment programs, nor has a significant impact on graduation rates been accounted for. However, William Johnson et al., (2012) specify that state assessments do assist in recognizing effective teachers and school leaders, as well as recognizing best practices (p. 3).

The new standardized assessment, STAAR, brings many challenges to Texas school leaders, teachers, students, and parents. Texas educators are apprehensive because there are so many unknowns regarding the new assessment. Among the many unknowns

with this new assessment, educators have yet to see a released test. Assessment results are tied to graduation requirements and proficiency standards were released two years after initial implementation. Although the TEA has provided an overview of STAAR expectations, the initial STAAR results have proven not to be equal to those of TAKS in previous years. With the implementation of the Phase-In standards, the state has built in time for school districts to improve, but what can school districts do now to purposely, effectively, and efficiently prepare students for this more rigorous exam? With the completion of two years of STAAR administration, Texas educators are now able to focus on the disaggregation and analysis of student results and may begin to make data comparisons.

Teacher Effectiveness

In order to support student learning, educational leaders should work together, "to develop, reward, and retain great teachers, therefore, school systems first must know how to identify them" (T. Kane, McCaffrey, Miller, & Staiger, 2013, p. 2). To effectively support self-evaluation leaders should first provide staff with precise explanations of their responsibility. Without a strong understanding of the task and the assessment criteria, staff may have a misunderstanding of their actual performance level (Stajkovic & Luthans, 1998). Teacher evaluation models are a topic of much debate, teacher participants in an Indiana research project argue that "there is a possibility that the evaluator is biased" (Jackson, Langheinrich, & Loth, 2012, p. 8). There are 21 states that require student performance as a measure of teacher effectiveness although each state has established various degrees of measuring teacher effectiveness. Delaware, Florida, Indiana, and Rhode Island do not allow their staff to be rated Highly Effective or

Effective if student achievement does not meet preset criteria (Mead, 2012). Findings from a 2010 report indicate that 21 states have state laws or regulations mandating teacher effectiveness as demonstrated through teacher evaluation policies (Mead, 2012). Each of the 21 states was evaluated based on 13 criteria. Of the 13 criteria, two key questions appear to be unique: 1) Does the law protect students from being assigned to ineffective teachers for two or more consecutive years, and 2) Are parents and the public provided clear information about educator effectiveness? Findings show that only one state, Indiana, prohibits placing students with an ineffective teacher for two consecutive years. Although Florida, Michigan, and Indiana all require schools to notify parents if their child is assigned to an ineffective teacher, four states—Arkansas, Florida, Indiana, and New York—each provide parents and the public with clear data about teacher effectiveness. Nine states prohibit disclosing teacher effectiveness reports to parents or the public: Arizona, Connecticut, Illinois, Louisiana, Maryland, Minnesota, New Jersey, Ohio and Tennessee (Mead, 2012). Texas does not have state regulations supporting teacher effectiveness.

Another question begs consideration: Is evidence of student learning a factor in teacher effectiveness? All 21 states indicated in the report do require student performance as a measure of teacher effectiveness although each state has various degrees of measuring teacher effectiveness. Many schools are examining methods that would link student achievement to teacher effectiveness and performance-based pay (Jackson et al., 2012). This same study states that "historically, merit pay has not been successful" (Jackson et al., 2012, p. 6). While there is much debate on how to identify an effective teacher, ultimately the "goal is to increase student achievement" (Jackson et al.,

2012, p. 20). One strategy supporting student achievement is teacher training. School leaders may support student learning by first supporting teacher learning, (Smith, 2008), argues that "professional development in high-poverty and low achieving schools is an imperative strategy for increasing teacher competency, which is linked to increased student outcomes" (p. 29). Adequate proficiency, determination, and self-efficacy alone may not yield high student performance. Students should also have highly qualified teachers, appropriate incentives, and the necessary tools combined with self-efficacy to achieve success (Pajares, 1996).

Teacher Perception

Perceptions are unique to the learner. Although one can infer the beliefs and knowledge of the learner, no one can identify experiences and feelings that are individualized to the learner (Tanhan & Kayri, 2012). In a study by Ambrose (2004), research indicates that a teacher's self-perception and a teacher's knowledge of the content can be seen as one. Although beliefs are hard to change, the study demonstrates that as a group of pre-service teachers participated in structured professional development activities, their self-perceptions also changed (Ambrose, 2004). In the same study, one participant commented "knowing math is easy, but knowing how to teach it is hard" (Ambrose, 2004, p. 114). Ambrose (2004), goes on to state that many teacher programs rely on self-reflection as a means of fostering change. Then, they (teacher trainers) are disappointed when the change has not occurred (Ambrose, 2004). The focus may be on fostering the change in the knowledge, which may then transform a change in their belief. School leaders understand the need for professional development and are eagerly seeking a variety of ways to support their own learning, in order to support student learning,

Moore (2010), states that "to positively impact student learning, professional development must directly impact the knowledge and practices of school leaders and teachers" (p. 6). Similarly, Moore (2010) believes that if instruction and professional development are aligned, student achievement will increase. Other researchers agree and have documented the same findings; both teacher perception and teacher content awareness should be addressed in order to initiate change in teacher and student success (Gomez Zwiep & Benken, 2012). A study comparing teacher and student efficacy, as well as student ability indicates that "teachers' perceptions of the students' self-efficacy was significantly correlated with students' abilities" (Corkett, Hatt, & Benevides, 2011, p. 65). At the completion of a teaching practicum, prospective teachers stated that "their beliefs about becoming a teacher were obviously different from their initial opinion" (Tarman, 2012, p. 1969). One participant was quoted as saying "my experiences turned all my ideas upside down and allowed me to see a new form of education," while another participant stated, "I had some of my prejudices altered" (Tarman, 2012, p. 1969). Interestingly, one's physical appearance may also affect ones success as an educator, "Physical education pre-service teachers who don't fit the image or model of a physical educator, may experience a lack of success, or not gain full in-group status within the physical education pre-service teacher cohort, and may drop out" (Spittle, Petering, Kremer, & Spittle, 2012, pp. 22–24). This area requires further research to determine if a prospective educator's view of themselves influences their choices in terms of entering the profession. A recent study on teachers' perceptions of merit pay indicates that teachers do not support merit pay and do not believe that it positively impacts student achievement. Findings support that teachers who care about their students' achievement

will do all possible to ensure their academic success; therefore, discouraging merit pay, which could potentially have negative consequences (Jackson et al., 2012).

Statement of the Problem

During the 2011- 2012 school year, school districts in Texas were introduced to a new testing program, the State of Texas Assessments of Academic Readiness (STAAR) assessment, which replaced Texas Assessment of Knowledge and Skills (TAKS) assessment. Although the requirements of the NCLB Act have not changed, Texas school leaders are now faced with the implementation of a new testing program, STAAR. With the implementation of the STAAR assessments, districts are not only working to understand the new test, which has proven to be more rigorous than TAKS, but they are also working to understand a new set of implementation rules while at the same time continuing to focus on meeting the goal of the NCLB Act, which requires 100% of students in grades three - eight and ten to meet grade-level proficiency by 2014. This study addresses the gap in the knowledge in understanding why students have low academic achievement in reading and math performance as measured by state assessments, such as the State of Texas Assessments of Academic Readiness. By gaining a better understanding of teachers' perceptions regarding their perceived belief in teaching and understanding the state curriculum, such as the TEKS and analyzing its effect on student achievement as measured on STAAR, school leaders can design a script for academic interventions.

Purpose of the Study

The purpose of the study was to determine if a teacher's perceived ability to teach and understand the Texas Essential Knowledge and Skills (TEKS) affected student

achievement as measured on the State of Texas Assessments of Academic Readiness (STAAR) for third and fourth grade reading and math. By examining teachers' perceptions regarding their perceived preparedness to teach the TEKS and achievement of their students as measured on STAAR, school leaders can design a script for academic interventions. Principals and teachers should be demanding that district leaders provide them with differentiated professional development support, based on their individual needs, Brockman (2012) argues that:

> Only when districts can move away from a 'one size fits all' approach to professional learning to a comprehensive plan based on the needs of each individual, campus, and the district as a whole will stronger alignments between principal perceptions of importance and the professional learning they actually receive from their school districts be seen. (p. 239)

When classroom instruction and teacher training are aligned, student achievement will be positively affected (Moore, 2010). In addition, further research may be completed to determine if there is a relationship between professional development programs that offer side-by-side training on content knowledge and strategy development and its link to measuring teacher effectiveness based on student achievement. Professional development programs that focus on strategy development, rather than supporting development of both content and strategy implementation do not fully support academic achievement. In addition to supporting teacher and student growth through data-driven professional development activities, this research may also have implications for measuring the effectiveness of school leaders, teacher education programs, and mentor programs.

Significance of the Study

By examining teachers' perceptions regarding their perceived preparedness to teach the TEKS and achievement of their students as measured on STAAR, school leaders can design a script for academic interventions. Both teachers and school leaders commonly discuss and view data-driven decisions and professional development as one in order to positively impact student achievement (Brockman, 2012).

Professional development activities would need to be viewed as differentiated activities, and targeted professional development activities would need to be offered to the staff based on their individualized areas of perceived strengths and weaknesses as related to student achievement and not offered as a whole to entire grade-level teams. After teacher teams have focused on individual data and identified significant areas of concern, they can work on developing individualized goals for identified areas of concern. One finding that supports this research study indicates that the professional development activities of a campus should be aligned with the vision and mission of the campus in order to positively impact teacher growth and student achievement (Moore, 2010). In order to meet the accountability requirements of the NCLB Act, district leaders should foster and nurture a climate that stimulates school improvement (Smith, 2008).

Furthermore, it is important to understand that teachers are not the only staff members needing support. Principals and parents need the opportunity to learn from professional development opportunities as well. Principals should advocate for individualized support and professional development opportunities; just as the needs of classroom teachers are unique, so are the needs of the principal (Brockman, 2012). Continuous professional development that is designed to meet the unique needs of the

individual learners is fundamental in both teacher and principal improvement (Moore, 2010). In addition to supporting teacher and student growth through data-driven professional development activities, this research may also have implications for measuring the effectiveness of school leaders, teacher education programs, and mentor programs. The future impact of this study may also prove to increase student academic achievement by increasing teacher and principal effectiveness through differentiated staff development opportunities. School leaders can design a script for academic interventions to support both teacher and student learning, by differentiating the interventions based on the individualized needs of the learner, Evans (2010), argues that "the focus must be on the teachers' needs instead of a generic program for all teachers" (p. 17). Most school districts provide a one-size-fits-all staff development program for all staff members. If no differences exist between teachers self-perceived ability to teach assessed curriculum standards on STAAR with actual student results, then further research may be completed to determine the effect that professional development activities have on student achievement.

Research Questions

Research Question One: Do patterns exist between teachers' self-ranking of their perceived difficulty in teaching the Texas Essential Knowledge and Skills in third and fourth grade reading and their students' achievement on the third and fourth grade State of Texas Assessments of Academic Readiness (STAAR) Reading?

Research Question Two: Do patterns exist between teachers' self-ranking of their perceived difficulty in teaching the TEKS in third and fourth grade math and their students' achievement on the third and fourth grade STAAR Math?

Research Question Three: What are teachers' perceptions regarding their preparedness to teach the Texas Essential Knowledge and Skills?

Methodology

A mixed-method research design was used to analyze the data collected. The purpose of the study was to determine if a teacher's perceived ability to teach and understand the Texas Essential Knowledge and Skills (TEKS) affected student achievement as measured on the State of Texas Assessments of Academic Readiness (STAAR) for third and fourth grade reading and math. Descriptive statistics were used to analyze archival data of the 2012-2013 third and fourth grade STAAR math and reading results by investigating whether teacher perceptions affect student achievement. A quantitative method was utilized to see if patterns existed between teacher perceptions of their perceived preparedness to teach the TEKS with the achievement of their students on STAAR. A qualitative method was used to document the responses to interview questions that third and fourth grade teachers reported regarding their perceptions of the TEKS and its affect on their students' achievement. By examining teachers' perceptions of their perceived preparedness to teach the TEKS and the achievement of their students as measured on STAAR, school leaders can design a script for academic interventions.

A Teacher Perception chart was completed by the third and fourth grade teacher participants, for both reading and math. Participants ranked each TEK individually from hardest to easiest to teach. See Table 1 for an example of a Teacher Perception Chart.

Table 1

Teacher Perception Chart Third Grade Reading Reporting Category One

gory	2012-2013 Readiness & Supporting Standards	Rank the following from 1 - 3

	(hardest to easiest)
SE 3.4A Identify the meaning of common prefixes (e.g., in-, dis) and suffixes (e.g., -full, -less) and know how they change meaning of roots.	
SE 3.4B Use context to determine the relevant meaning of unfamiliar words or distinguish among multiple meaning words and homographs.	
SE 3.4C Identify and use antonyms, synonyms, homographs, and homophones.	

To gain additional insight of teachers perceptions, a TEK survey was completed by third and fourth grade teacher participants (see Table 2), further measuring their perceptions of the TEKS and their preparedness to teach the TEKS. Participants answered each question with a Likert-type scale: 1 designating strongly disagree to 5 designating strongly agree.

Table 2

Texas Essential Knowledge and Skills Survey

Question Number	Each question is to be answered based on the following criteria: 1 designating strongly disagree to 5 designating strongly agree.
1.	I am adequately prepared to teach the Texas Essential Knowledge and Skills assessed on the State of Texas Assessments of Academic Readiness in order to positively impact student achievement.
2.	My teacher preparation program trained me to adequately teach the Texas Essential Knowledge and Skills assessed on the State of Texas Assessments of Academic Readiness.
3.	I have received the professional development training from my campus or district to adequately teach the Texas Essential Knowledge and skills assessed on the State of Texas Assessments of Academic Readiness.
4.	I believe that my knowledge and competency of the Texas Essential Knowledge and Skills adequately allows me to teach my students.
5.	I believe that my teaching abilities adequately allow me to teach the Texas Essential Knowledge and Skills.
6.	I believe that all the Texas Essential Knowledge and Skills are equally difficult to teach.
7.	I believe that some of the Texas Essential Knowledge and Skills are easier to teach than others.
8.	I have the resources needed to adequately teach the Texas Essential Knowledge and Skills.

Participants were asked two opened-ended questions that support staff responses provided by the Teacher Perception Chart and TEKS Survey.

Table 3

Texas Essential Knowledge and Skills Interviews

1.	What is it about the TEK (standard) that makes it difficult to teach?
2.	What additional support do you need from the principal as the instructional leader?

Assumptions, Limitations, and Delimitations

1. The data collected for the proposed research questions was limited to a Title I elementary school, located in a large urban school district in Southeast Texas. Therefore, this research cannot be generalized to a larger population.

2. Archival data from the 2012-2013 State of Texas Assessments of Academic Readiness (STAAR) for both reading and math was part of this research study. For future studies, it is recommended to have a larger sample of campuses participating.

3. The academic achievement data represents 398 third and fourth grade students, 95% of the student population sample is Hispanic, and the students represent 8-12 year olds. For future studies, it is recommended that the research focus on a larger student population, and in addition it is recommended that the student ethnicity equally represent all student groups.

4. The 2012-2013 STAAR Reading assessment consisted of 40 questions for third grade, and 44 questions for fourth grade and therefore, not all Texas Essential Knowledge and Skills (TEKS) for reading and math were assessed on the STAAR. In addition, some

of the TEKS were assessed with a small sample of questions while others were assessed more than once.

5. The 2012-2013 STAAR Math assessment consisted of 46 questions for third grade and 48 questions for fourth grade and therefore, not all TEKS for reading and math were assessed on the STAAR. In addition, some of the TEKS were measured with a small sample of questions while others were assessed more than once.

6. Eighteen classroom teachers participated in the ranking of the TEKS during the 2012-2013 academic school year. Their responses were documented by completing a Teacher Perception Chart for both reading and math at their assigned grade level. Due to teacher turn over and changes in teaching assignments, thirteen of the original eighteen teachers participated in a TEKS survey during the 2013-2014 academic school year.

7. The study assumes that the Teacher Perception Charts for both reading and math were completed individually and honestly by each third and fourth grade teacher at the participating campus.

8. The final assumption is that the TEKS Survey was completed individually and honestly based on individual perceptions.

Definition of Terms

Accountability System. In 1993, Texas began its public school accountability system. The system was designed to improve student achievement in the core content areas and to close performance gaps between student groups (TEA, 2010).

Accountability Requirements. In order to maintain accreditation, school districts and schools must meet state achievement goals to satisfy accountability requirements (ACCv14).

Assessed Curriculum. The Texas Essential Knowledge and Skills (TEKS) that are eligible to be assessed (i.e., can be tested in a multiple choice, griddable, or open-ended response manner) (lead4ward, 2011).

Efficacy. The belief in having the skills, tools, resources to accomplish intended results (lead4ward, 2011).

Ineligible standard. TEKS for a grade level/course that cannot be assessed in a traditional format (lead4ward, 2011).

Minimum Size. The minimum size of 25 for student groups is applied to Indices 2, 3, and 4. For Indices 1 and 3, small campuses that have fewer than 10 tests trigger small numbers analysis. Small numbers analysis is also used in Index 4 for the All Students Results Evaluated (TEA, 2013).

Proficiency Standards. The proficiency standards are the required performance standards that students must attain to achieve satisfactory or advanced performance on STAAR (TEA, 2013).

Process Standard. These standards are noted in the TEKS as underlying processes and mathematical tools, scientific investigation and reasoning skills, and social studies skills (lead4ward, 2011).

Readiness Standard. Readiness Standards have the following characteristics: They are essential for success in the current grade or course and are important for preparedness for the next grade or course. They also support College and Career Readiness and necessitate in-depth instruction. In addition, they address broad and deep ideas (lead4ward, 2011).

Reporting Category. Standards bundled around a common concept, topic, or context (lead4ward, 2011).

Supporting Standard. Supporting Standards corroborate a current Readiness Standard, and serve as a foundation for a Readiness Standard in another grade level (lead4ward, 2011).

Standard. TEKS and Corresponding Student Expectations (lead4ward, 2011).

Chapter II

Review of Literature

Chapter II is designed to provide a review of the literature regarding student achievement as it relates to teacher and principal effectiveness, as well as the implications for school leaders. This chapter is divided into the following sections: No Child Left Behind (NCLB), Adequate Yearly Progress (AYP), State of Texas of Academic Readiness and High-Stakes Testing, Teacher Effectiveness and Teacher Evaluations, Self-Efficacy, Academic Optimism, School Climate, Teacher Preparation Programs, Professional Development, and Mentoring Programs.

No Child Left Behind (NCLB)

President Obama (2014), led the nation with the Reauthorization of the Elementary and Secondary Education Act with the following statement: "Every child in America deserves a world class education" (Normore & Brooks, 2012, p. 5). The Reauthorization of the Elementary and Secondary Education Act continues the 2014 focus that no child will be left behind. With the continuation of the 2014 expectations, school leaders are provided a new charge: the United States will lead the world in college completion. The success of our children depends on the quality and effectiveness of school leaders. School leaders, should develop highly qualified teachers to meet the needs of our students (Normore & Brooks, 2012).

President Obama takes the charge in amending the expectations previously set in the Elementary and Secondary Education Act. His new blueprint for the reauthorization centers around four key areas: (1) on the improvement of teacher and principal effectiveness; (2) to provide parents with the clear information regarding teacher

effectiveness; (3) to align state assessments with the College and Career Readiness Standards; and (4) to provide low performing schools with the tools needed to provide students with targeted and purposeful interventions (Normore & Brooks, 2012). States, school districts, and parents now have a shared responsibility to ensure academic excellence. Although states utilize a common framework, each state has an unprecedented amount of flexibility in the decision-making and implementation process (Normore & Brooks, 2012).

Initiatives centered on teacher and principal effectiveness begin with establishing criteria to determine and measure effectiveness. The most obvious measure of effectiveness is student achievement (Normore & Brooks, 2012). Recent research indicates that there are three fundamental areas of focus in determining teacher effectiveness: academic gains, classroom observations and student surveys. Combined, these three data sources offer prescriptive feedback to teachers on classroom instruction and their effectiveness (T. Kane et al., 2013). On a local level, the Aldine Independent School District—located in Houston, Texas—is transitioning to a new teacher evaluation program, INVEST. The new evaluation system is an outcome-based model that supports teacher effectiveness and student growth. The system follows the philosophy of the Blueprint for Reform. It is a system that is directly aligned with supporting and rewarding teacher effectiveness while promoting student success through a student-growth model (Aldine Independent School District, 2012).

Currently, 21 states have laws regulating student performance as a measure of teacher effectiveness (Mead, 2012). Research supports that students who are consecutively assigned to effective teachers will have considerable increases in their

academic-achievement levels (Normore & Brooks, 2012). Most schools do have ineffective teachers. At present, only one state, Indiana, prohibits placing students with an ineffective teacher for two consecutive years (Mead, 2012). Smith's (2008) research indicates, "that students assigned to ineffective teachers continued to show effects of those teachers in subsequent years" (p. 36). Recommendations are in place that require states to implement local initiatives to support the recruitment and development of effective teachers (Normore & Brooks, 2012). Aldine ISD is following the Charlotte Danielson Framework and is working with a group of national consultants both to promote and support the goal of the Reauthorization of the Elementary and Secondary Education Act.

As part of the NCLB Act (2001), each state is required to notify parents of teacher effectiveness. It is evident that states need to do a better job of providing clear information to parents. A 2012 survey by the Northwest Evaluation Association (NWEA) found that "many parents say they need information on how to interpret and use assessment results" (p. 3). Mead's (2012) study, in conjunction with Bellwether Education Partners, measures this principle through two criteria. First, states receive credit for informing parents of teacher effectiveness. Secondly, additional credit is provided if the information is clearly understood by the public. With the flexibility offered by the NCLB Act, states vary in terms of their level of execution. As part of the NCLB Act, Sec. 1119 (i) Texas principals should annually make available to parents a verification notice of highly qualified status requirements, thus reassuring parents that all professional and para professional staff meets requirements that make them eligible as highly qualified. Coward (2008) asserted that "[i]t does not necessarily follow that

certified teachers necessarily always believe in their abilities to be a good or even competent teacher" (p. 194). Nonetheless, Texas has no state laws or regulations requiring local educational agencies to provide teacher or principal performance ratings to the public. Being highly qualified does not measure a teacher's effectiveness to improve student achievement. Currently, four states offer composite data on teacher effectiveness to the public and current research indicates that as of June 2012, New York is serving as an exemplary model for the other states (Mead, 2012).

Adequate Yearly Progress (AYP)

Across the nation, schools are focused on strengthening its' educational programs. States are encouraged to improve the rigor and quality of their state assessments, and to ensure that they are aligned with College and Career Ready Standards (CCR). Each state is responsible for developing its own state test, setting its individual proficiency targets in the areas of reading and mathematics, assessing students annually, and most importantly leaving no child left behind. As the deadline for reaching the goals set forth by the NCLB Act nears, states have a new sense of urgency to ensure that all students meet their annual measurable objectives (AMOs). States have created AMOs, which indicate the overall percentage of students that are required to reach the proficiency target on the state-developed assessments in order to qualify as meeting adequate yearly progress (Center on Education, 2011).

The academic proficiency targets and the level of rigor embedded in the state assessments vary by state, and therefore one should use caution when comparing adequate yearly progress (AYP) results across state lines and even within the same state (Usher, 2011). It is also important to understand that even as AYP data are collected and

trends are recorded across the nation, this does not provide adequate information to compare the quality of the educational programs that each state offers. The differences in meeting AYP requirements may not be a result of the differences in the quality of the educational services that students are receiving, but rather a difference in the rigor, the content, and the proficiency targets that are part of each individual state assessment and the accountability policies.

When state-adopted assessments are revised, a shift in AYP data is noted. As states introduce new assessments, many states phase-in standards of difficulty, incrementally raising the proficiency standard over an extended period of years, which in turn has an effect on meeting the accountability requirements (Center on Education, 2011). Data indicate that schools are not able to show continued improvement as the level of difficulty increases and are therefore failing to meet AYP.

If there is a decrease in the number of students failing to meet the proficiency standard as compared to the previous year, even though the intended target is not met, safe-harbor provisions allowed for in the NCLB Act show schools meeting the accountability requirements (Center on Education, 2011). AYP data do not indicate when a school receives AYP credit due to the safe-harbor provisions. It is apparent that without the protection of the safe-harbor, fewer schools would be meeting state AMOs. As with all areas of the NCLB Act, states have been provided the flexibility to design their safe-harbor criteria, which accounts for differences among the states.

In order to meet the requirements set forth by the NCLB Act, some states have chosen to lower their proficiency scores. In an effort to move towards an alignment with College and Career-Readiness Standards, other states have chosen to increase the basic

score that is required to meet proficiency. Both of these examples have affected AYP results. Other states build in provisions that allow retest results to be included for students who were reassessed if they did not initially meet minimum criteria. Additional factors that greatly influence the percentage of local educational agencies failing to meet the AYP criteria may include the size of the student population and the student demographic population.

Along with accountability for student growth, comes consequences for schools not meeting the adequate yearly progress requirements. Cheng (2012) suggests that "These effects- good, bad, intended or unintended- inherently impact teachers and their practice as they seek to comply with the educational policies" (p. 2). State education agencies are focusing on increasing performance levels of local education agencies by providing a balance of flexibility and accountability requirements. State accountability policies and the state curriculum guide local education agencies in creating a framework for providing quality instruction and ensuring that the intended goal of the No Child Left Behind Act is met. The degree to which each state determines adequate yearly progress will continue to be a concern and a topic of much debate. To guarantee that schools are focusing on providing quality instruction, safeguards are put into place that require schools to make adequate yearly progress or be faced with interventions that are built into the NCLB Act.

Local schools and school districts receiving Title 1 funds that fail to make adequately yearly progress for two or more consecutive years are faced with sanctions under the provisions of the NCLB Act (Center on Education, 2011; Usher, 2011). As with the other areas of the NCLB Act, state agencies have the flexibility to establish the

criteria that will identify how local education agencies and individual schools will receive interventions and the extent to which corrective measures will be implemented.

State of Texas Assessments of Academic Readiness (STAAR) and High Stakes Testing

Brockman (2012) recognizes that "As accountability systems have changed, so have the student assessments" (p. 46). The State of Texas Assessments of Academic Readiness (STAAR) is the new state assessment in Texas. The new assessment program replaced the Texas Assessment of Knowledge and Skills (TAKS) program during the 2011-2012 academic school year (Texas Education Agency, 2012). The STAAR program assesses students in grades three - eight as well as end of course in high school. The reading and mathematics assessments are available for grades three - eight. Writing is assessed in grades four and seven. Students in grades five and eight take a science assessment while students in grade eight are also required to take a social studies test. Students in high school are also required to pass a STAAR end of course assessment to meet graduation requirements (Texas Education Agency, 2011). There are several formats of the STAAR assessments available. Depending on the program in which students enroll, they may take STAAR, STAAR Spanish, STAAR L (a linguistically accommodated version), STAAR M (STAAR Modified version), or STAAR A (STAAR Accommodated version). These options are available based on program-specific requirements (lead4ward, 2012; TEA, 2011).

The STAAR Math program has five Reporting Categories:

One. Numbers, operations, and quantitative reasoning

Two. Patterns, Relationships, and Algebraic Reasoning

Three. Geometry and Spatial Reasoning

Four. Measurement

Five. Probability Statistics.

Although kindergarten through the second grade programs do not have a STAAR assessment, students in these grade levels have TEKS, Readiness Standards, and Supporting Standards that are aligned with each Reporting Category. Students in non-tested grades also follow a state curriculum that is aligned with each of these Reporting Categories, as well as with the Readiness, Supporting, and Process Standards (TEA, 2013). Each Reporting Category varies in the number of possible questions per grade level. Questions within each Reporting Category vary between Readiness Standards and Supporting Standards (lead4ward, 2012; TEA, 2008). STAAR Reading has the following Reporting Categories:

One. Understanding & Analysis Across Genres

Two. Understanding & Analysis of Literary Texts

Three. Understanding & Analysis of Informational Text.

As with STAAR Math, each category varies in the number of possible questions per grade level. The types of questions within each Reporting Category vary between Readiness Standards and Supporting Standards.

Students who are administered STAAR, STAAR Spanish, STAAR Modified, or STAAR L will receive the following performance measures Level I, II, or III. A Level I performance measure is considered unsatisfactory, Level II is satisfactory, and Level III is advanced. The STAAR performance standards will follow a four-year phase-in period. The phase-in period allows local education agencies time to transition from TAKS to

STAAR, to make the necessary curriculum changes to provide staff with professional development, close instructional gaps, gain a better understanding of STAAR and increase teacher effectiveness (Texas Education Agency, 2013).

Dills (2004) suggest that "Testing is considered high stakes if serious consequences ensure based on tests' results" (p. 1). How will the net result affect students, teachers, school leaders, campuses, and school districts? Results from a Northwest Evaluation Association (2012) survey indicate "that parents, teachers, and district administrators say that assessments induce a considerable amount of stress, which affects both students and educators negatively" (p. 3). The overall significance of the testing outcome determines if the assessment can be classified as a high-stakes assessment. Hutchinson (2005) provides the testimony of a veteran nurse's explanation of high-stakes testing:

> High-stakes to me is when children can't be children. High-stakes to me is when teachers aren't teaching. You know, everyone acts like robots in the classroom-input, output, input, output. The only difference is that these are people that have the capacity to become stressed. It makes me sick thinking about what the classroom is like now that Texas Assessment of Knowledge and Skills (TAKS) is here to stay. (p. 93)

Upon the completion of a teaching practicum, one participant was left with negative perceptions of the school district where she completed her field experiences; she stated that "the teachers complain of the low achievement test scores, but fail to realize that they are the actual reason for this problem[;] these teachers are simply unmotivated and uncaring about the futures of these students" (Tarman, 2012, p. 1971).

Almus's (2010) research was conducted to explore the beliefs of campus-level administrators regarding high-stakes testing. Campus administrators, specifically campus principals are accountable for student success as determined by test scores, particularly state assessments. Almus (2010) argued that principals should delicately balance the ongoing day-to-day activities of leading a campus while focusing on the requirements of the individual state accountability systems. He goes on to say that "the increasing demand for a quality and equal education, in combination with the decline in administrators' authority, increased the expectations for accountability" (Almus, 2010, p. 10). His study focused on the responses of principals and assistant principals' perceptions regarding high-stakes testing. Both groups had positive and negative responses with the principal group yielding slightly higher positive responses. Several principals stated that because of testing, "there is a renewed focus on a coherent curriculum" (Almus, 2010, p. 39). Almus (2010) furthered explained, that testing "makes them look at everything closer" and he emphasized that testing "has made them more aware of professional development for teachers" (p. 39). Almus (2010) contended that "principals' perceptions of accountability and high–stakes testing make a huge difference" (p. 21). One frustrated principal told his staff, "There is no escape from the state test. Quit fighting it; make the necessary adjustments. Remember you are here for the kids" (Hutchison, 2005, p. 98). Brockman (2012) argues that "[c]ampus leaders must work with teachers to achieve improved outcomes for students" (p. 49). Sims (2005) findings suggest that "working collaboratively with others is absolutely essential in solving problems and enhancing the teaching and learning environment" (p. 85). Professional development is frequently provided for the classroom teachers, yet those

who are leading the schools and facing the immediate challenges, should also be provided relevant professional development activities. A veteran principal of 29 years was quoted as saying, "We always think of training at the front end of the job. There's very little training […] [at] the other end of the principalship" (Public Agenda, 2007, p. 6). Moore (2010) acknowledges that "A principal of any school building has the insurmountable task of leading staff members to enhance student achievement while managing day-to-day tasks" (p. 46). A study by Sims (2005) also suggest that "In a time of high-stakes testing and accountability, school leaders must assess and then reassess their leadership practices in order to be effective" (p. 85).

Dills (2004) research found that successful results on high stakes testing do not indicate housing values will also increase. Dills (2004) reasoned that "if parents value the gains made as indicated through high stakes testing, then the total value of housing should also increase in those districts with large test gains" (p. 10). Dills (2004) research contends that "total housing values responded very little, if at all, to the large increases in the TAAS pass rate in Texas" (p. 20). Dills (2004) states that "Homebuyers do not value these pass rate gains, suggesting that they do not reflect actual increase in school quality" (p. 25). Dills (2004) leaves us to consider whether or not it is "possible that parents simply do not value what the TAAS (state assessments) measures" (p. 21). Assuming that this information is accurate, "why do parents not value the increase in rates on the TAAS" (Dills, 2004, p. 24). In a related study, Gibbons, Stephen, Olmo, and Silva (2009) reported that "school happiness is not significantly related to local house prices" (pp. 21-22).

As documented in research findings by Hutchison (2005) there is little consensus on recess policies across the nation. Campus-level administrators may argue that recess activities should be eliminated due in part to safety concerns and lack of supervision while others state their case for modifying recess policies in order to provide the additional time needed to meet the demands of high-stakes testing. In a 2005 study, it is suggested that recess is a best practice that should be maintained, "Although seldom mentioned in the literature, teachers also benefit from recess breaks. Many believe that students pay better attention to lessons and disruptive behavior decreases after the recess break" (Hutchison, p. 36). Both teachers and students have found benefits of recess, "The teachers emphasized that they enjoyed recess duty because they too could socialize, relax for 20 minutes, enjoy the sunshine, and simply unwind. After recess, they felt recharged" (Hutchison, 2005, p. 127). Cowan (2008) argues, that a campus climate should promote happy, healthy and motivated teachers, which will positively support student learning, "Students can easily feel unmotivated if their teachers are not necessarily competent teachers; if they do not present academic information in interesting, creative, challenging and lively ways, depending on the subject matter" (p. 201). As proposed by Busch (2003), "school principals need to pay attention to the specific characteristics of culture and climate that affect student achievement" (p. 71). This is supported by Smith's (2008) study, which found that "a significant correlation does exist between school climate and student achievement in both English and mathematics for all schools and high-poverty schools" (p. 126). A principal from an exemplary campus believed that "when kids have recess daily for 15 minutes and physical education classes for 40 minutes, kids are able to listen and learn better in the

classroom" (Hutchison, 2005, p. 56). A lead teacher at this exemplary campus shared her recess perceptions as follows:

> [Our] students are very successful with the TAKS test. Even with recess, we are exemplary. Recess provides students with a 'release' time. Brains need a break, too! Did you know that when there is movement, like at recess, there is more oxygen flowing to the brain? (Hutchison, 2005, p. 57)

Hutchison (2005) concluded that although recess was frowned upon by the campus administrator, a third grade teacher reported that she allowed for movement in classroom in lieu of recess: "[W]hen students became overwhelmed with TAKS preparation, she recognized the need for movement within the classroom to give children a break from the rigors of test preparation" (p. 103).

Teacher Effectiveness and Teacher Evaluations

Since 2010, there has been a movement in legal policies devoted toward teacher effectiveness continue to grow. In August 2012, Bellwether Education partners analyzed current legal policies governing teacher effectiveness (Mead, 2012). State policy and regulations governing teacher effectiveness were assessed based on criteria as determined by the Bellwether Education partners. Careful attention was provided in not assessing the effectiveness of the legal policies, but rather assessing the requirements built into individual legal policies across the nation. It is important to understand that states and local school districts are entering an area of unfamiliarity as related to teacher effectiveness and the new teacher evaluation models. Local school districts should delicately find the balance in the implementation of new teacher evaluation programs,

while learning from the process and allowing the evaluation models to progressively develop.

Data from research completed from the Houston Independent School District, indicate that "rewards and sanctions linked to student performance on one test may yield quite different results when applied to a different test of very similar content" (Corcoran, Jennings, & Beveridge, 2011, p. A–5). Corcoran et al. (2011) argued that more research is needed when providing merit pay for teachers based on student outcomes on high-stakes assessments. In a study conducted at Indiana University South Bend, "an overwhelming number of participants strongly disagreed with the concept of merit pay, arguing that teachers work to the best of their ability while seeking to sharpen the craft of teaching" (Jackson et al., 2012, p. ii). Florida's State School Board Association (FSBA) has adopted its own version of the national resolution on high-stakes testing (William Johnson et al., 2012). The board argues that the practice of using student performance on standardized tests as the primary basis for evaluating teacher, administrator, school, and district performance should be eliminated. In a related study it is argued that the teacher evaluation system may have a negative impact on teacher health and morale, "Studies also showed that the pressure from the teacher evaluation system, in which students' test scores play a very important role, is the main source of teacher stress in China" (Liu & Meng, 2009, p. 318).

Furthermore, Liu & Meng (2009) provided open-ended questions to teachers, parents, and students asking them to describe their ideal teacher. In this study, the term ideal teacher is used interchangeably with an effective teacher. Their responses were grouped into four categories: teacher ethics, professional skills, professional

development, and students' test scores (Liu & Meng, 2009). Student responses indicate three common categories: teacher ethics, professional skills, and good test scores (Liu & Meng, 2009). Parent responses indicated two common categories for identifying teacher effectiveness: teacher ethics and students' academic achievement (Liu & Meng, 2009). Teachers' responses were grouped into three categories: teacher ethics, professional skills, and professional development (Liu & Meng, 2009). Teachers did not associate student achievement on test scores with teachers' effectiveness. Upon the completion of their student teaching field experience, a group of prospective teachers "redefined their perceptions of what a good teacher is [and] [a]lmost every prospective teacher felt that a good teacher should be confident in subject knowledge and have control of the classroom" (Tarman, 2012, p. 1971).

Kane (2013) argues that "To develop, reward, and retain great teachers, school systems first must know how to identify them" (p. 2). The Bill and Melinda Gates foundation, funded the Measures of Effective Teaching (MET) project. In an effort to assess teacher effectiveness, the MET project focused on three key areas of classroom instruction, "student surveys, classroom observations, and a teacher's track record of student achievement gains on state test" (T. Kane et al., 2013, p. 2). The results of the initial study were validated in a second study, which provided for a random assignment of students to teachers. The final study compared the initial data from the 2009-2010 study to the 2010-2011 data to determine actual differences. The findings did show that those teachers identified as most effective, as determined by the three criteria, did produce students with greater student achievement growth than their colleagues at the same school.

Although the focus of the MET project centers around three basic assumptions, measuring teacher effectiveness is anything but simple. Parents understand that the effectiveness of their child's teacher is important to the success of their child, and even students seem to know effective teaching when they experience it. However, educators are struggling to measure, identify, and most importantly improve teacher effectiveness. Even teachers "differ in their perceptions of what constitutes effective teaching" (Ashton, 1986, p. 16). Liu and Meng's (2009) recent study asserts that not only is there "no universal agreement about good teachers, but [also] there are different terms for good teachers" (p. 315). Moore (2010) suggest, "that there is no longer any doubt in the field of education that quality instruction has the greatest potential to impact student achievement" (p. 16). Therefore, it is the charge of campus leaders to provide teachers with the diagnostic feedback that is needed to help them develop and mature as master teachers. Campus leaders should also tap into the expertise of their staff and create opportunities for them to develop professional learning communities where best practices can be shared. Kane and Cantrell (2012) state that "The goal of the MET project is to improve the quality of information about teaching effectiveness, to help build fair and reliable systems for teacher observations and feedback" (p. 3).

"A focus on teacher learning, both of content and ability to teach the content" may be of key importance because as self-knowledge increases so does self-perception (Gomez Zwiep & Benken, 2012, p. 303). Gomez et al.'s (2012) research findings suggest that:

> [W]hen embedded within an effective professional development context, content can be a critical vehicle through which change can be made in teachers'

> understandings and perceptions of mathematics and science" (p. 300). Furthermore, the participants demonstrated significant shifts in their confidence and attitudes about teaching mathematics or science" as their professional development knowledge increased. (Gomez Zwiep & Benken, 2012, p. 318)

By providing teachers with professional development activities this "may lead to the development of more effective strategies necessary for successful performance" (Stajkovic & Luthans, 1998, p. 254). Furthermore, one should not "underestimate the importance of subject-manner knowledge in teaching" (Ambrose, 2004, p. 91). Moore (2010) recognizes that in order to promote student learning, campus leaders should first support teacher learning, "If students are to be successful in schools their teachers must be engaged in continual learning in order to improve and enhance their teaching abilities and their understanding of the children they serve" (p. 21). Ambrose (2004) argued that "beliefs can be hard to change" (p. 93). Ambrose (2004) proposed a program that "attempts to initiate belief change at the beginning of prospective teachers' mathematical preparation" (p. 92). Ambrose's (2004) study is supported by Bandura (1977) who also argued that "lasting changes in self-efficacy and behavior can best be achieved by participant methods using powerful induction procedures initially to develop capabilities" (p. 202). This is important for teacher programs and district mentor programs to recognize and therefore act upon. Professional development opportunities can provide teachers "with the experiences or reflections that help them to connect beliefs to one another and, thus, to develop more elaborated attitudes" (Ambrose, 2004, p. 95). Bandura (1993) cautions school leaders not to overlook efficacy when working with students, "People who perform poorly may do so because they lack the skills or they have

the skills but lack the sense of efficacy to use them well" (p. 119). Tarman (2012) argued, that "teachers' beliefs have a powerful impact on their willingness to adopt new teaching strategies" (p. 1965). This argument supports the belief that there is a relationship between teachers' beliefs and professional development opportunities. Personal improvement through "professional development is a critical component of an educator's job description" (Jackson et al., 2012, p. 17). Professional development can be implemented in many ways. One example is through the use of vicarious experiences. Peer observations support both teacher and student learning, "Models not only provide information about how to enact specific classroom strategies, they also increase the observers' confidence for generating the same behaviors" (Yuan & Lee, 2012, p. 109). When learning through vicarious experiences, it is important to recognize that the efficacy expectations gained through modeling are fragile and more susceptible to change (Bandura, 1977).

Self-Efficacy

To fully support student learning, teachers should be taught to recognize and support the individual intrinsic needs of each of their students, "The way students think, feel, and behave in academic situations is largely influenced by beliefs in their own abilities" (Corkett et al., 2011, p. 67). A child's self-belief about his or her own strengths and talents impacts the personal choices to which he or she will commit. The discipline that he demonstrates in completing the task is also linked to his self-belief and in his ability to be successful. His level of commitment in completing the activity is associated with his self-belief in his ability to fulfill the task. His self-belief, personal choice, determination, and perseverance all affect probable success in completing the goals, but

"expectations alone will not produce desired performance if the component capabilities are lacking" (Bandura, 1977, p. 194). Schnuck (2003) found that at the start of a new activity, students demonstrate a sense of self-belief and a personal goal for completing the task. Both self-belief and personal goals are maintained through self-evaluations. There are several factors, that when combined support teacher and student learning, research on academic learning is summarized, showing the importance of how modeling, goal setting and self-evaluation affect self-efficacy, motivation, and learning (Schunk, 2003). Celebrating and acknowledging that students are making improvements, and helping them to monitor and to recognize their own progress, allows students to realize that they do have the needed skills to succeed, which reinforces continued learning and improves self-belief. Campus-level administrators should recognize that teacher satisfaction and efficacy is also tied to teacher appreciation. Campus-level administrators should make an effort to recognize the accomplishments of their staff. In a 1986 study:

> One teacher stated that their failures are advertised and their accomplishments go largely ignored. She confided: I think this year I suffered from what they call teacher burn out. There is very, very little recognition here. Even a dog needs to be patted on the head, but we don't get that here. It makes you question whether it's worth it. (Ashton, 1986, p. 39)

Confident learners--those with high self-belief--are more likely to demonstrate the stamina, the commitment and the determination to complete a task. Schunk (2003) argues that "In general, successes raise efficacy and failures lower it" (p. 160). Bandura (1977) expanded on this idea by adding, "particularly if the mishaps occur early in the course of events" (p. 195). As important as self-belief is to success, achievement is not

possible without the basic knowledge and skills needed to complete a task. Cowan (2008) cautions that "Teachers' own efficacy and/or apathy about teaching, about the subject matter or about students can also adversely affect students' motivation" (p. 97). "Self-efficacy beliefs are correlated with other self-beliefs, motivation constructs, and academic choices, changes and achievement" and research supports, that "teachers who lack a secure sense of instructional efficacy show weak commitment to teaching and spend less time on academic matters" (Bandura, 1993, p. 134; Pajares, 1996, p. 552). Cowan (2008) argues that "We can assume that self-directed students would have a high sense of self-efficacy" (p. 178). This research may provide parents with the support and the understanding they need to create a home environment that will nourish and guide their children to mature into young healthy adults. One relatively easy activity that parents can do is to help their child in "choosing a regular time and place to work on academic activities, because this increases the chances that they will get it done" (Cowan, 2008, p. 179). Bandura (1989) emphasizes that "People who have high assurance in their capabilities approach difficult tasks as challenges to be mastered rather than as threats to be avoided. They maintain challenging goals and maintain strong commitment to them" (p. 731). These people are the movers and shakers: "[T]hey make things happen" (Bandura, 1989, p. 731). Self-efficacy is often seen by those who "heighten their efforts in the face of failures or setbacks" (Bandura, 1989, p. 731). Bandura (1989) suggest that "People who doubt their capabilities shy away from difficult tasks. They have low aspirations and weak commitment to the goals that they choose to pursue" (p. 731). Perceived self-efficacy can be influential in determining outcomes, as described in the following example; "In pressure packed (wrestling) matches, in which contestants are

more evenly matched, perceived self-efficacy was the sole determinant of the overtime performance, and prior competitive performance had no predictive value" (Bandura & Locke, 2003, p. 90). There is a key "relationship between self-efficacy and work related performance and that is task complexity" (Stajkovic & Luthans, 1998, p. 241). There are many variables that affect the personal success of those with high self-efficacy, one example is that "The relative contribution of the complexity of the task to be performed must also be considered" (Stajkovic & Luthans, 1998, p. 241). Otherwise, "gross miscalculation of one's efficacy can get one into trouble" (Bandura, 1989, p. 732). The writers contend that "the relationship between self-efficacy and performance is moderated by the level of task complexity; the higher the task complexity, the weaker the relationship between self-efficacy and performance" (Stajkovic & Luthans, 1998, p. 242). Bandura proposes that "when people err in their self-appraisal, they tend to overestimate their capabilities" (Bandura, 1989, p. 732). This situation can lead to negative repercussions: "[F]or example, people who seriously misjudge their swimming capabilities in tackling heavy surf may not survive for more prudent encores" (Bandura, 1989, p. 732). The researchers also propose that "another categorical variable that may moderate the relationship is the type of setting in which the study is conducted" (Stajkovic & Luthans, 1998, p. 242). Bandura's research suggests that:

> People who are plagued by self-doubts anticipate the futility of efforts to modify their life situation. They produce little change even in environments that provide many potential opportunities. But those who have a firm belief in their efficacy, through ingenuity and perseverance, figure out ways of exercising some control,

> even in environments containing limited opportunities and many constraints. (Bandura, 1993, p. 125)

Stajkovic and Luthans (1998) agree "that perceptions of higher self-efficacy may lead to the development of more effective strategies necessary for successful performance on the complex task" (p. 254). Overall, research suggests that even though, "individuals may have the necessary knowledge and skills that does not mean that they will be able to use these to reach their goals[:] They need to have a belief that they can perform the necessary behaviors" (Eaton, 1991, p. 5). As reported by Parajes (1996), "this is not to say that efficacy and outcome judgments are always consistent [:] high self-efficacy and negative outcome expectations are similarly possible" (p. 558).

Academic Optimism

Researchers found a positive correlation between school-wide academic optimism and an increase in student reading achievement. The implications of this research indicate "the importance of recognizing the powerful effects of a school culture of optimism" (Bevel & Mitchell, 2012, p. 782). Highly effective schools have a culture of trust that extends beyond the classroom doors. School leaders and parents are key players in creating a culture of trust. A culture of trust creates teamwork between all members and is imperative to building campus-wide efficacy. Collective efficacy is a powerful component to improving academic success. Campuses that are able to create a healthy environment encompassing all three components are likely to increase student achievement. This research is also supported by in a similar study, which states "these three collective properties of schools come together in a unified fashion to create a positive academic environment" (Beard, Hoy, & Woolfolk Hoy, 2010, p. 1137).

Academic optimism is not only seen at the campus level, but it is critical component of a successful teacher: "[A]t the individual teacher level academic optimism represents the general confidence the teacher has that conditions exist for students to thrive" (Beard et al., 2010, p. 1138). Although teachers may have a strong sense of academic optimism, "if students do not share that sentiment, students may not be as likely to develop a positive relationship with the teacher, put in necessary academic effort, or trust that the teacher is supporting their progress" (Little, 2011, p. 2). Little (2011) argues that "the disparity must be addressed though school improvement planning, professional development, and teacher hiring practices" (p. 4).

Little (2011) advocates that "Teachers with high academic optimism believe that they possess the skills, abilities, and capacity to affect student performance and success" (Little, 2011, p. 129). There should be a mutual trust and belief between the teacher and learner, in order to support and "To maximize student success in a learning environment, teachers must believe in their own capacity to teach and students must have confidence in the abilities of their teachers" (Little, 2011, p. 8). Woolfolk Hoy (2012) describes "collective efficacy, trust, and academic emphasis as the only school predictors of achievement" (p. 93). Mishoe (2012) argued that "you cannot have two components for academic optimism; you must have all three together" (p. 6).

School Climate

There are many variables that positively impact student achievement, Montoya (1986) argues that "[w]hile neither researchers nor educators have been able to identify one specific factor as the single most important factor in learner achievement, one of the factors found to be common concerning learner achievement is the learning environment

(i.e. school climate)" (p. 1). Smith (2008) pointed out that "principals of high achieving schools applied rules consistently and maintained a safe and orderly environment for learning that supported a positive school climate" (p. 35). Hampton (2011) also advocates that "effective schools create a school climate that is safe, orderly and conducive to learning" (p. 7). One can conclude that "it is critical that principals constantly reflect and evaluate the climate of the school, perceptions of teachers and how it potentially impacts student achievement" (Hampton, 2011, p. 10). By "knowing the perceived climate of a school[,] [this] can assist the school leadership in identifying the strengths of the school and areas in which the school organization may need to grow and develop" (Hampton, 2011, p. 13). Similarly, Sims (2005) contends that "school climate plays an intricate role in understanding the interactions among school principals, teachers, students, and parents" (p. 29). Sims (2005) maintains that there is a direct relationship between the campus climate and how the campus leadership team is perceived, "Most importantly, school leaders in today's public schools must be cognizant of how their leadership behaviors ultimately effect school climate and student achievement" (p. 24).

Moore (2010) concluded that "one then could say professional development that focuses on improving teachers' content and knowledge while emphasizing best practices for delivering the content may lead to higher levels of student achievement if students are engaged in an equitable learning environment" (p. 28). Moore (2010) also suggest that "districts must consider the climate and culture currently impacting teacher engagement in professional development when considering models of implementation and programming needs" (p. 34). Moore (2010) states that "one may conclude that in order

to improve student achievement, principals should motivate and engage teachers in professional growth opportunities while providing a supportive environment and effective guidance to remain focused on the goals set forth" (p. 47).

School leaders recognize that school districts and universities need to work together to promote a healthy school climate, Hampton (2011) acknowledges that "By understanding the relationship of school climate on student achievement, principal preparation programs can focus on organizational school climate and student achievement as part of the curriculum, assessment, and leadership component of the educational leadership preparation program" (p. 13). Montoya (1986) also maintains that "the training of teachers and administrators as a means of developing the most favorable climate for their students must be an emphasis for school districts and universities as well" (p. 3).

In a study that measured principals' leadership practices and school climate from a teacher's perspective, research showed that "although there was not a statistically significant relationship between principals' leadership practices and student achievement, there was an overall statistically significant relationship between principals' leadership practices and school climate" (Sims, 2005, p. 85). In a similar study, "no significant relationships were found between district climate and student achievement; however, relationships were found between school climate and student achievement and the constructs of school climate and student achievement" (Smith, 2008, p. xii). Montoya's (1986) data revealed that rural students' achievement scores in reading and math were positively correlated to perceptions of cohesiveness.

Uline & Tschannen-Moran (2008) conducted a study using teacher perceptions, which reported that the quality of the physical environment has a significant impact on student achievement. It is suggested that "In schools that were well maintained, that were swept and mopped more frequently, and where graffiti was removed more expediently, achievement scores were higher" (Uline & Tschannen-Moran, 2008, p. 57). Therefore, Uline et al. (2008) concluded that it is worthwhile to invest in the upkeep of inadequate facilities. The hypothesis indicates that "high-quality facilities support learning and poor-quality facilities are detrimental to student achievement" (p. 66). In a related study, Hampton (2011) maintains that "By considering the value and significance in assessing the climate of schools, leaders can make critical changes to improve the atmosphere and foundation of the school" (p. 13).

Teacher Preparation Programs

The level of accountability has changed, "In the United States and many other countries, a significant paradigm shift has taken place in higher education. This shift entails a stronger focus on what students are learning and not just on course objectives" (Henrichsen & Tanner, 2011, p. 394).

Outcomes should first be identified and then communicated. Outcomes need to meet specific criteria or clarity, learning focus, disciplinary focus, and measurability. Then regular and systematic assessment should produce evidence demonstrating that students who complete the program have achieved the stated outcomes. Measures used to assess the achievement of outcomes can be direct or indirect, but they should be useful for making program design and curriculum improvement decisions. Finally, the results

of these assessment activities should lead to demonstrable improvements in teaching and learning (Henrichsen & Tanner, 2011, pp. 394–395).

Henrichensen & Tanner (2011) contend that "Creating quality learning outcomes and measuring their achievement is by no means a simple process-especially at the programmatic level" (p. 400). Sandoval-Lucero et al. (2011) summarize one teacher as saying "that they believed they were well prepared until they experienced the reality of teaching in an actual classroom" (p. 345). Sandoval-Lucero et-al. (2011) goes on to say that "that their responses may seem to contradict the answers provided to an earlier question about how well their program prepared them" (p. 345). Teacher preparation programs should "clearly and concisely explain what students will be able to do after completing a degree program that they could not do before they started it" (Henrichsen & Tanner, 2011, p. 402). Teacher preparation programs, "must not only consider the knowledge and abilities that students gain in each course, but also determine what students gain from the program as a whole" (Henrichsen & Tanner, 2011, p. 418). One case study asked three groups of beginning teachers to reflect on the strengths and weaknesses associated with their teacher preparation program. "Three main themes emerged from their responses: classroom management, the relationship of theory and practice, and dealing with diversity in the classroom" (Sandoval-Lucero et al., 2011, p. 340). Teachers who participated in a traditional university preparation program, "often associated their success or their problems with classroom management with the sort of coaching they received in their student teaching or internships" (Sandoval-Lucero et al., 2011, p. 340). One teacher states "the class in which I did my residency was very chaotic, and my clinical teacher had no real classroom management skills. I was shocked

when I stepped foot into my own classroom. I would have liked to see what a classroom looks like when an effective management program is in place and working" (Sandoval-Lucero et al., 2011, p. 341).

Teacher preparation programs have a new emphasis, "Now, in addition to the focus on what we teach in our courses and how we teach it, we have a new focus- what students learn and how they learn it" (Henrichsen & Tanner, 2011, p. 416). Teacher preparation programs stress that "Student achievement must be a guiding principle" (Henrichsen & Tanner, 2011, p. 416). A common overwhelming concern from three different teacher preparation programs "included the challenges of meeting the needs of students from diverse back-grounds and those with academic and affective challenges" (Sandoval-Lucero et al., 2011, p. 344). One teacher stated:

> The role of second language learners has been hard for me. I deliberately did not apply for an ELA position here because I really didn't know enough…then it was about the sixth day of school and they tell me, "Oh, by the way you're ELA-E" I can recognize when there is a language issue, but I feel overwhelmed with it. Especially when it's 12 out of 20 kids. I just kind of keep teaching like they're not ELL's, and I bet that's wrong, and I would get in trouble. They could have let me know this was supposed to be an ELA room. They kind of sprung it on me. (Sandoval-Lucero et al., 2011, p. 344)

Several teachers voiced similar concerns about "working with students from a wide range of backgrounds and skills" (Sandoval-Lucero et al., 2011, p. 341). Another teacher commented:

> I cannot stop, because I have a timeline to follow and a deadline to meet. I'm reaching a dead end with certain students. I have half the students that just don't pay attention, that's getting me. I don't have an answer to that. I don't know how to deal with it. That's my biggest problem. (Sandoval-Lucero et al., 2011, p. 341)

With an increase in accountability in public schools, there is also a demand for, "an increased level of transparency and accountability in higher education that is not likely to diminish in the future" (Henrichsen & Tanner, 2011, p. 418). With increases in state and district accountability systems, comes "significant changes in the governing paradigms in higher education" (Henrichsen & Tanner, 2011, p. 399).

Sandoval-Lucero et al. (2011) "suggest that building principals, especially those with highly mobile teaching faculties and student bodies, ought to focus upon creating healthy learning communities within their schools where beginning teachers receive quality mentoring and other forms of professional development. Such environments can help to ensure that all beginning teachers, regardless of the way that they are prepared, receive the support they need to offer continually better instruction to students in the initial years of their careers and to gradually become more effective teachers" (p. 349).

Documenting student growth is not a new concept, "As long as formal education has existed, teachers have attempted to measure what students learn" (Henrichsen & Tanner, 2011, p. 395). Baum and King (2006) suggest that:

> [T]o do this successfully requires a great deal of intention on the part of the teacher. It takes significant thought and planning to balance the opportunities afforded by the wide variety of situations occurring on a daily basis with the

> individual needs of each child, as well as the group. Teachers need to have the ability to make prudent decisions based on reflection, responsibility, ethics, creativity, and caring. (p. 217)

Gupta (2010) argues that:

> The ability to successfully instruct students in any setting requires more than training; it requires that teachers feel empowered to apply new skills and competencies. The concept of efficacy has been used here to describe both a belief that an action will lead to an outcome, and that one has the ability to perform an action that will lead to expected outcomes. Thus, if a teacher believes that addressing students' linguistic needs in schools can positively enhance achievement and that s/he has the ability to teach the student successfully, the teacher feels self-efficacy. (p. 163)

Upon completion of teacher preparation programs, "teachers should also be able to conduct needs analyses, create lesson plans and accompanying teaching materials and employ a healthy range of teaching strategies" (Henrichsen & Tanner, 2011, p. 411). One teacher describes how her initial beliefs related to teaching have changed: "[W]hile I knew it would be a lot of work, I didn't know it would be this much work. Endless hours thinking about lesson plans, about kids, about everything. It is much more complicated than I imagined" (Sandoval-Lucero et al., 2011, p. 345).

Shuls and Ritter (2013) conclude that "The current policy debate about teacher preparation tends to pit two ideas against each other: Traditional, college-bound preparation vs. alternative routes" (p. 29). Another group of researchers suggest that regardless of the type of program pre-service in which teachers are enrolled, "it is

important to teach pre-service teachers how to acknowledge what they think about themselves and to engage in evaluative thinking in regards to their role as a teacher" (Baum & King, 2006, p. 219). A master teacher is, "developed over time through practice, observation, and induction into the profession" (Shuls & Ritter, 2013, p. 29). Shuls & Ritter (2013) added that "through my first year, I struggled with how to conduct small group lessons, circle time, and a host of other activities germane to the early childhood classroom. I wasn't lacking content knowledge or education theory; I was lacking practical classroom experience" (p.30). The traditional and the non-traditional teacher programs both offer a great service, therefore it is best to "ask which type of training is best for teachers in a particular subject area or for a certain age student" (Shuls & Ritter, 2013, p. 30). Baum and King (2006) argue that the best provision universities can provide to students is consistency: consistent time, consistent support, consistent interest, and consistency in building teacher-student relationships. Not only do professors need to build a rapport with their students, they need believe them, "Students need to have a sense that their professors are committed to their growth and development, not only as teachers, but as human beings" (Baum & King, 2006, p. 218). Adult learners need, "an environment in which they have a sense of safety and support in their efforts of self-discovery" (Baum & King, 2006, p. 218).

Professional Development

Evans (2010) emphasizes that "[u]nderstanding teachers' perceptions, attitudes, and beliefs will add to the body of knowledge in the field of school-based professional development, and will allow for revisions to the professional development activities so that they will have the desired effect of improving student achievement" (p. 6). Wheeler

(2004) contends that "The fundamental notion behind the professional development structure is for the intervention to facilitate professional growth and foster an academic environment which will enhance the learning opportunity for all children" (p. 1). Ambrose (2004) indicates that a teacher's self-perception and a teacher's knowledge of the content can be seen as one. Although beliefs are hard to change, the study demonstrates that as pre-service teachers participated in structured professional development activities, their self-perceptions also changed (Ambrose, 2004). Brockman (2012) argues that "reflection is necessary to guarantee that participants gain the benefits the professional development process is intended to convey" (p. 19). Evans (2010) advocates that required professional development activities may not support teacher learning. Evans (2010) cautioned that "professional development activities may not result in increased academic achievement if teachers don't perceive the activities or workshops as opportunities for enhancing their teaching strategies" (p. 8). The 2010 research argues, that professional development opportunities should be provided to support the individual needs of adult learner, "The focus must be on the teachers' needs instead of a generic program for all teachers" (Evans, 2010, p. 17). "Professional development for teachers is cited as a key element" of the No Child Left Behind Act (Wheeler, 2004, p. 6). Evans (2010) suggests, that "Professional development is the bridge between where teachers are now and where they need to be in order to increase academic achievement among teachers" (Evans, p. 16). Sims (2005) contents, that "Principals who consistently demonstrate exemplary leadership practices by providing ongoing instructional support and collaborating with others will influence the instructional and organization program" (p. 79).

As the instructional leaders of their campus, "Principals indicated they would appreciate an increased role in district professional staff development planning" (Brockman, 2012, p. 223). Principals and teachers should have input in professional development trainings that they attend. Staff development needs are unique to the campus and to the learner, therefore "Principals in different circumstances have different perceptions regarding what is actually provided by the district" (Brockman, 2012, p. 223). In order to be active participants and equally important to apply the learned skills in their classrooms, adult learners need to see the relevance of the training: "like all learning situations, motivation is a key factor in the effectiveness of professional development for teachers" (Evans, 2010, p. 11).

Most often professional development is provided for the classroom teachers, yet those who are leading the schools and facing the immediate challenges, should also be provided relevant professional development activities. A veteran principal of 29 years was quoted as saying, "We always think of training at the front end of the job. There's very little training […] [at] the other end of the principalship" (Public Agenda, 2007, p. 6). The needs of the principal have evolved over the years, previously "[t]he school principal of the 1960s and 1970s was primarily focused on management issues and running a tight ship" (Brockman, 2012, p. 2). Brockman (2012) also recognizes that "Campus principals find themselves in more demanding positions each year as the complexities of student and community demographics increase" (p. 10). Brockman (2012) reported that:

> The unique nature of the principal position, which is constantly expanding in complexity and demand, mandates the need for quality professional development

> with principal input on the options and topics that best suit their needs. Principals must advocate for their own professional development needs based on their prior experiences and campus concerns. (p. 53)

Principals and teachers perceptions of their professional development activities impact the intended outcome of the teacher training (Evans, 2010). A 2010 study concluded that "the level of faculty input into the professional development activities was a key component to the success of the programs" (Evans, 2010, p. 108). Brockman (2012) argues that "Collaboration is a crucial aspect of any staff development experience" (p. 14). Just as teachers need buy-in when choosing their professional development training, "it is also evident that principals must be allowed to use their judgment when selecting their own professional staff development" (Brockman, 2012, p. 222). Moore (2010) contends that "[t]he professional development programs in higher achieving schools included greater collaboration between administrators and teachers on decisions about professional development, a focus on students and classroom practices, more processes used, and more direction and support given by leadership" (p. 27). "As an effective intervention strategy, professional development has been a popular theme of many of debates" and equally important, "professional development for teachers is cited as a key element" of the No Child Left Behind Act (Wheeler, 2004, p. 6). "Finding the balance necessitated between the needs of the individual, the needs of a specific campus, and district needs is a professional development challenge" (Brockman, 2012, p. 228) faced by districts and administrators. Appropriate, "[s]taff development training can be essential in changing the manner in which a school operates" (Hampton, 2011, p. 13). Professional development is "the bridge between where teachers are now and where they

need to be in order to increase academic achievement among teachers" (Evans, 2010, p. 16).

Mentoring Programs

Teacher mentors and mentoring programs have a huge responsibility for training and supporting new teachers. The first years of teaching are critical years: "[D]esigning a successful mentor program takes intentional planning, some consultants who make their living by training contend that it is better for a school to have no mentoring program at all than have a bad mentoring program" (McCann, Johannessen, & Ricca, 2005, p. 2). One can argue that most teachers are excited about their first year teaching, yet one study found that "by early October, the honeymoon period with student's ends, and daily management of duties becomes more stressful" (McCann et al., 2005, p. 3). Challenges will occur at all stages of an educators' career, but a well-designed mentor program can assist by providing intentional interventions and guidance along the way. Findings support that:

> Inevitably, the new teacher will encounter some difficulties: an unruly class, an angry parent, a tough evaluation, a curriculum conundrum, and so on. For example, one teacher reported, I knew what I was supposed to be doing. I thought I knew how to do it, but the students' behavior was so poor. I had a really hard time dealing with it, because I had no experience. It was a shocker. When I went into the room every day, there was an overall sense that "I am not in control of this class" feeling like that can be particularly frightening. (McCann et al., 2005, p. 4)

"One first year teacher noted that instead of being a support mechanism, 'the mentoring program at his school' was another three hours a month of wasted time" (McCann et al., 2005, p. 2). The only thing worse than having no mentoring program is having a poor mentoring program. One teacher reported:

> That the mentoring program is such a sham. It is the most ridiculous thing I've ever participated in, it would actually drive people out of teaching. There are meetings on Friday nights from 5 to 8, and we don't get paid for it. For example, they read to us out of the discipline code. My mentor did not want to be a mentor. She hates me; I hate her. I wanted to be with another teacher with whom I have more in common and who is a good teacher. (McCann et al., 2005, p. 2)

Larkin (2013) maintains that "Mentoring a student teacher can be challenging and rewarding" (p. 43). One report argues that schools should become instrumental in supporting their new teachers by "finding strategic ways to reduce the frustrations and increase the rewards of teaching" [and] the most positive approach for school leaders is to attempt to improve as many conditions as possible" (McCann et al., 2005, pp. 1–5). The experience of master teachers serving as mentors could prove to be one of the best resources to a new staff member. For example, they could "help new teachers anticipate difficult times and recognize that feeling some fatigue and frustration is normal" (McCann et al., 2005, p. 3). Honest, caring, and constructive feedback can prove to be more beneficial than providing no feedback. Similarly, it is equally important to understand that "little learning will take place if they hear that everything is fine" (Larkin, 2013, p. 39).

If mentor programs intend to support student achievement, then "the induction process should also provide new teachers with detailed curriculum guides and abundant instructional materials. Many teachers in the study said that they lacked such support" (McCann et al., 2005, p. 3). Dedicated mentors should be willing to meet regularly with the mentees to "help them discover the underlying principles that drive the curriculum. With this knowledge, the new teachers become empowered to make decisions, to adjust existing materials, and activities to fit their particular teaching situations, and to unleash their creative energies" (McCann et al., 2005, p. 3). Gaining and understanding a working knowledge of the curriculum involves more than just teacher collaboration. New teacher programs should also include "another critical element for the induction program and that is to provide a meaningful staff development program that supports the new teacher's professional growth and conveys the idea that the school's staff takes the craft of teaching seriously" (McCann et al., 2005, p. 3). Teacher preparation programs should note that "student teachers often fail to realize that the curriculum does not teach itself. Simply having established learning goals and activities doesn't mean a lesson will unfold" (Larkin, 2013, p. 39). Furthermore, teacher preparation programs and campus mentors need to realize that "student teachers often think about teaching in terms of transmitting content to students rather than thinking about teaching as a way to help students build coherent structures of knowledge for themselves" (Larkin, 2013, p. 41). Mc Cann et al. (2005) argue that:

> Although some teaching veterans may continue to embrace the pioneer adage that if difficult conditions don't kill you, they will make you stronger, this kind of survival-of-the-fittest rationale for giving new teachers the most difficult

> assignments has no place in a climate of teacher shortages- nor in any school culture that can provide more compassionate ways to induct new teachers in to the profession. In contrast to a one-shot orientation session, an effective induction process provides a support throughout the year. (p. 3)
>
> There are a variety of best practices that:
>
> Meaningful mentor and teacher programs should include such as the following: (1) careful selection and training of mentors, including training in communication and peer coaching techniques; (2) attention to the expressed concerns of beginning teachers; (3) special consideration for the inevitable exhaustion and decline that teachers experience after the first 9- 10 weeks of school; (4) a program of regularly scheduled contacts between the new teacher and the mentor; and (5) assistance in acclimating the new teacher to the school community. (McCann et al., 2005, p. 2)

As campus-level administrators and teacher preparation programs design their mentor programs, they should keep in mind the individual needs of the community and student population, as well as the expectations of the state curriculum standards.

Chapter III

Methodology

Research Design

A mixed method research design was used to analyze the data collected. The purpose of the study was to determine if a teacher's perceived ability to teach and understand the Texas Essential Knowledge and Skills (TEKS) affected student achievement as measured on the State of Texas Assessments of Academic Readiness (STAAR) for third and fourth grade reading and math. The intent of the study was to determine if a teacher's perceived ability to teach the Texas Essential Knowledge and Skills (TEKS) affected student achievement as measured on the State of Texas Assessments of Academic Readiness (STAAR) for third and fourth grade reading and math. School district leaders could use this data to make informed decisions about academic interventions for students by providing differentiated professional development activities for teachers.

Descriptive statistics were used to analyze archival data of the 2012-2013 third and fourth grade STAAR math and reading results by investigating whether teacher perceptions affect student achievement. A quantitative method was utilized to see if patterns existed between teacher perceptions of their perceived preparedness to teach the TEKS with the achievement of their students on STAAR. A qualitative method was used to document the responses to interview questions that third and fourth grade teachers reported regarding their perceptions of the TEKS and its affect on their students' achievement. By examining teachers' perceptions and their perceived preparedness to

teach the TEKS with student achievement as measured on STAAR, school leaders can design a script for academic interventions.

Research Questions

Research Question One: Do patterns exist between teachers' self-ranking of their perceived difficulty in teaching the Texas Essential Knowledge and Skills in third and fourth grade reading and their students' achievement on the third and fourth grade State of Texas Assessments of Academic Readiness (STAAR) Reading?

Research Question Two: Do patterns exist between teachers' self-ranking of their perceived difficulty in teaching the TEKS in third and fourth grade math and their students' achievement on the third and fourth grade STAAR Math?

Research Question Three: What are teachers' perceptions regarding their preparedness to teach the Texas Essential Knowledge and Skills?

Setting: 2012-2013 Campus Profile

All data collected for the proposed research questions are limited to a Title 1 elementary school, located in a large urban school district in Southeast Texas. The district and campus Texas Academic Performance Report (TAPR), was used to describe the district, vertical schools' and the research campus population. The district student enrollment is 65,415 and the campus enrollment is 1,038.

The research campus is one of the largest elementary schools in the district, with a student population of over 1000 students.

Table 4

Enrollment by Grade Level 2012-2013 Campus TAPR Data

Grade Level	Count	Campus	District
Kindergarten	217	20.9%	8.5%
First Grade	231	22.3%	8.7%
Second Grade	192	18.5%	7.9%
Third Grade	209	20.1%	8.0%
Fourth Grade	189	18.2%	7.4%
Total students	1,038		

There are seven elementary schools in the vertical feeder pattern. The research campus has the highest campus student enrollment. In addition, the research campus has the highest student enrollment in third and fourth grade for the vertical population.

Table 5

Elementary Vertical Enrollment Comparison

Enrollment	Campus	C-1	C-2	C-3	C-4	C-5	C-6
Kindergarten	217	180	238	178	192	163	155
First Grade	231	193	234	163	194	167	157
Second Grade	192	158	212	174	167	186	161
Third grade	209	153	172	149	201	150	163
Fourth Grade	189	141	174	156	168	160	159
Total Student	1,038	825	1030	820	922	826	795

The district enrollment by program is 29.8% LEP, 4.3% Gifted and Talented, and 6.9% Special Education population. The campus enrollment by program is 70.6 % LEP, 1.5% Gifted and Talented, and 5.3% Special Education population. The research campus has a large population of English Language Learners (ELL), which is higher than the district average.

Table 6

Student Enrollment by Program 2012-2013 Campus TAPR Data

Program	Count	Campus	District
Bilingual/ESL Education	733	70.6%	29.8%
Gifted and Talented Education	16	1.5%	4.3%
Special Education	55	5.3%	6.9%

The research campus has the second highest ELL student population among the seven elementary vertical schools.

Table 7

Enrollment by Program Vertical Comparison

Program	Campus	C-1	C-2	C-3	C-4	C-5	C-6
Bilingual & ESL	733	505	810	424	481	609	543
Gifted & Talented	10	1	1	8	20	6	4
Special Education	55	38	49	37	40	71	51

The district student ethnic distribution is 25.6% African American, 70.1% Hispanic, 2.0% White and 1.3% Asian. The campus student ethnic distribution is 1.0% African American, 95.8% Hispanic, 1.9% White and 1.3% Asian. The research campus has a large group of predominately Hispanic students, which is higher than the district average.

Table 8

Campus Student Ethnic Distribution 2012-2013 Campus TAPR Data

Ethnicity	Count	Campus	District
African American	10	1.0%	25.6%
Hispanic	994	95.8%	70.1%
White	20	1.9%	2.0%
American Indian	1	0.1%	0.1%
Asian	13	1.3%	1.3%
Pacific Islander	0	0.0%	0.1%
Two or more races	0	0.0%	0.7%

The research campus has the largest Hispanic population and the smallest African American population among the vertical schools.

Table 9

Student Ethnic Distribution Vertical Comparison

Ethnicity	Campus	C-1	C-2	C-3	C-4	C-5	C-6
African American	10	178	29	179	215	19	54
Hispanic	994	627	979	615	681	783	724
White	20	14	16	6	12	19	14
American Indian	1	1	0	1	3	0	1
Asian	13	3	5	18	8	2	1
Pacific Islander	0	0	0	0	0	0	0
Two or more races	0	2	1	1	3	3	1+

The district is 84.8% economically disadvantaged, and the campus is 91.9% economically disadvantaged. The district At Risk population is 62.1%, and the campus is at 80.3%. The district has a 22.7% mobility rate while the campus has an 11.6% mobility rate. The research campus consists of a large population of Economically Disadvantaged, ELL, and At Risk students. In addition, each of these subgroups at the research campus has a higher student population than the district average.

Table 10

Additional Factors to Consider 2012-2013 Campus TAPR Data

Student Groups	Count	Campus	District
Economically Disadvantaged	954	91.9%	84.8%
Non Educationally Disadvantaged	84	8.1%	15.2%
English Language Learners (ELL)	746	71.9%	31.6%
Students with disciplinary placements	1	0.1%	2.1%
At Risk	834	80.3%	62.1%
Mobility 2011-2012	104	11.6%	22.7%

The research campus has the second highest population of Economically Disadvantaged, ELL and At Risk student populations within the vertical group.

Table 11

Additional Factors to Consider Vertical Data

Student Groups	Campus	C-1	C-2	C-3	C-4	C-5	C-6
Economically Disadvantaged	954	752	985	705	800	771	730
Non Educationally Disadvantaged	84	73	45	115	122	55	65
English Language Learners	746	514	822	451	471	619	554
Students with disciplinary placements	1	0	0	1	0	0	2
At Risk	834	630	890	598	656	680	641
Mobility 2011-2012	104	252	231	115	217	143	148

The district has a 5.9% retention rate for third grade students and a 1.7% for fourth grade students. The campus has a 4.3% retention rate for third grade students and a 1.0% retention rate for fourth grade students. Student retention data at the research campus are below the district average for all grade levels.

Table 12

Student Retention by Grade Level 2012-2013 Data

Retentions	Campus	District
Kindergarten	0.5%	2.4%
First Grade	4.5%	8.8%
Second Grade	2.9%	6.1%
Third Grade	4.3%	5.9%
Fourth Grade	1.0%	1.7%

The district third grade class size average is 20.5% and 20.9% for fourth grade. The campus third grade class size average is 20.6% and 23.4% for fourth grade. The research campus class size average is slightly higher than the district average at all grade levels.

Table 13

Class Size Information by Grade Level 2012-2013 Campus TAPR Data

Class Size	Campus	District
Kindergarten	21.8	20.9
First Grade	23.1	21.1
Second Grade	21.4	20.5
Third Grade	20.6	20.5
Fourth Grade	23.4	20.9

Compared to the vertical cohort, the class size at the research campus is representative of the group.

Table 14

Class Size Information by Vertical Schools Campus TAPR Data

Class Size	Campus	C-1	C-2	C-3	C-4	C-5	C-6
Kindergarten	21.8	25.6	21.4	21.8	20.3	19.1	18.9
First Grade	23.1	23.7	21.1	20.2	18.9	19.3	21.3
Second Grade	21.4	22.8	23.0	21.7	19.2	18.2	22.6
Third grade	20.6	18.8	18.8	20.9	22.0	20.0	19.9
Fourth Grade	23.4	23.4	21.4	22.2	21.2	18.5	22.1

The research campus has 78 employees that directly impact student instruction. There are a total of 65.2 professional staff members with 52.7 staff members who have a homeroom class. The campus is supported by 12.8 educational aides. The campus administrative team consists of three staff members.

Table 15

Staff Information 2012-2013 Campus TAPR Data

Staff Information	Count	Campus	District
Total Staff	78	100%	100%
Professional Staff	65.2	83.5%	61.9%
Teachers	52.7	67.5%	48.0%
Professional Support	9.6	12.2%	10.1%
Campus Administration	3	3.8%	2.9%
Educational Aides	12.8	16.5%	7.7%

The district staff ethnicity is 36.5% African American, 25.0% Hispanic, 22.9% White, 0.3% American Indian, and 2.4% Asian. The campus staff ethnicity is 19% African American, 56.3% Hispanic, 20.9% White, 1.9% American Indian and 1.9% Asian. The research campus has a high population of ELL, and therefore the staff needed to support ESL and Bilingual instruction is much higher than the district average.

Table 16

Teachers by Ethnicity 2012-2013 Campus TAPR Data

Ethnicity	Count	Campus	District
African American	10.0	19.0%	36.5%
Hispanic	29.7	56.3%	25.0%
White	11.0	20.9%	33.9%
American Indian	1.0	1.9%	0.3%
Asian	1.0	1.9%	2.4%
Pacific Islander	0	0.0%	0.0%
Two or More Races	0	0.0%	1.8%

The largest percent of the teachers at the research campus have 11-20 years of teaching experience. Beginning teachers represent 9.2% of the district staff, 32.8% of the district staff have 1-5 years of experience, 22.8% represent district staff with 6-10 years' experience, 21.9% of the district staff have 11 – 20 years of experience and 13.3% of the district staff have over 20 years of experience. Beginning teachers represent 9.5% of the campus staff, 22.1% of the campus staff have 1-5 years of experience, 26.6% represent campus staff with 6-10 years' experience, 32.3% of the campus staff have 11 – 20 years of experience and 9.5% of the campus staff have over 20 years of experience.

Table 17

Teachers by Years of Experience 2012-2013 Campus TAPR Data

Years of Experience	Count	Percent	District
Beginning Teachers	5.0	9.5%	9.2%
1-5 Years of Experience	11.7	22.1%	32.8%
6-10 Years of Experience	14.0	26.6%	22.8%
11-20 Years of Experience	17.0	32.3%	21.9%
Over 20 Years of Experience	5.0	9.5%	13.3%

Instruments

Two Teacher Perception Charts were completed by third and fourth grade teachers for both reading and math. Teachers ranked the Student Expectations (.i.e., Texas Essential Knowledge and Skills) from hardest to easiest to teach. The Teacher Perception Charts are from the free tools on the lead4ward website. Teachers completed a TEKS survey, indicating their perceived preparedness to teach the TEKS in third and fourth grade reading and math. Third and fourth grade reading and math student performance results for the 2012-2013 State of Texas Assessments of Academic Readiness (STAAR) were compared with teacher perception data and the TEKS survey data to investigate whether teacher perceptions affect student achievement.

All third grade students were administered the State of Texas Assessments of Academic Readiness for reading and math. The third grade STAAR Reading test has three reporting categories: Understanding Genres; Understanding and Analysis of Literary Texts; and Understanding and Analysis of Information Texts. Reporting

Category One had 3 questions, Reporting Category Two had 12 questions, and Reporting Category Three had 8 questions. Each Reporting Category has Readiness and Supporting Standards. There were 12 assessed Readiness Standards and 11 assessed Supporting Standards. The Readiness Standards are essential for success in the current grade while the Supporting Standards serve as a foundation for a Readiness Standard in another grade level. Third grade reading STAAR assessment has a total of 40 assessed items.

The third grade STAAR Math test has five reporting categories: Reporting Category One Numbers, Operations, and Quantitative Reasoning; Reporting Category Two Patterns, Relationships, and Algebraic Reasoning; Reporting Category Three Geometry and Spatial Reasoning; Reporting Category Four Measurement; and Reporting Category Five Probability and Statistics. Reporting Category One had 11 questions, Reporting Category Two had 5 questions, Reporting Category Three had 4 questions, Reporting Category Four had 5 questions and Reporting Category Five had 3 questions. Each Reporting Category has Readiness and Supporting Standards. There were 9 assessed Readiness Standards and 19 assessed Supporting Standards. The Readiness Standards are essential for success in the current grade while the Supporting Standards serve as a foundation for a Readiness Standard in another grade level. The third grade STAAR Math assessment has a total of 46 assessed items.

Each fourth grade student was administered the STAAR Reading and Math assessments. The fourth grade STAAR Reading test has three reporting categories: Understanding Genres, Understanding and Analysis of Literary Texts, and Understanding and Analysis of Information Texts. Reporting Category One had 5 questions, Reporting Category Two had 13 questions, and Reporting Category Three had 9 questions. Each

Reporting Category has Readiness and Supporting Standards. There were 13 assessed Readiness Standards and 14 assessed Supporting Standards. The Readiness Standards are essential for success in the current grade while the Supporting Standards serve as a foundation for a Readiness Standard in another grade level. The fourth grade reading STAAR assessment has a total of 44 assessed items.

The fourth grade STAAR Math test has five reporting categories: Reporting Category One Numbers, Operations, and Quantitative Reasoning; Reporting Category Two Patterns, Relationships, and Algebraic Reasoning; Reporting Category Three Geometry and Spatial Reasoning; Reporting Category Four Measurement; and Reporting Category Five Probability and Statistics. Reporting Category One had 15 questions, Reporting Category Two had 3 questions, Reporting Category Three had 6 questions, Reporting Category Four had 7 questions and Reporting Category Five had 7 questions. Each Reporting Category has Readiness and Supporting Standards. There were 10 assessed Readiness Standards and 23 assessed Supporting Standards. The Readiness Standards are essential for success in the current grade while the Supporting Standards serve as a foundation for a Readiness Standard in another grade level. The fourth grade STAAR Math assessment has a total of 48 assessed items.

Table 18

STAAR Reading Total Number of Questions Assessed

		Reading	Third Grade	Fourth Grade
Total STAAR Assessed Reading Questions		Reporting Category One	3 Questions	5 Questions
		Reporting Category Two	12 Questions	13 Questions
		Reporting Category Three	8 Questions	9 Questions
		Readiness Standards	12 Questions	13 Questions
		Supporting Standards	11 Questions	14 Questions
		Total Questions	40 Questions	44 Questions

Table 19

STAAR Math Total Number of Questions Assessed

	Math	Third Grade	Fourth Grade
Total STAAR Assessed Math Questions	Reporting Category One	11 Questions	15 Questions
	Reporting Category Two	5 Questions	3 Questions
	Reporting Category Three	4 Questions	6 Questions
	Reporting Category Four	5 Questions	7 Questions
	Reporting Category Five	3 Questions	7 Questions
	Readiness Standards	9 Questions	10 Questions
	Supporting Standards	19 Questions	23 Questions
	Total Questions	46 Questions	48 Questions

Subjects and Participants

All data collected for the proposed research study are limited to a Title 1 elementary school located in a large urban school district in Southeast Texas. All third and fourth grade teachers and students at this individual campus participated in the research study. The campus Public Education Information Management System (PEIMS), along with the campus Texas Academic Performance Report (TAPR), was used to describe the campus population. The campus enrollment is 1,038. A total of 18 classroom teachers participated in this study, 10 third grade classrooms and 8 fourth grade classrooms. There are 207 third grade students and 191 fourth grade students,

amounting to a total of 398 students participating. Teachers completed a TEKS survey indicating their perceived preparedness to teach the TEKS in third and fourth grade reading and math. Third and fourth grade reading and math student performance results for the 2012-2013 State of Texas Assessments of Academic Readiness (STAAR) were examined with teacher perception data and the TEKS survey data to investigate whether teacher perception data affected student achievement.

Table 20

Campus PEIMS Data

Student Data (As of June 6, 2013)	Third Grade Campus Student Data	Fourth Grade Campus Student Data
Enrollment by Grade Level	207	191
Classrooms by Grade Level	10	8
Ethnicity: Hispanic	198	184
Ethnicity: White	3	3
Ethnicity: African American	2	2
Ethnicity: Other	4	2
Sex: Female	109	93
Sex: Male	98	98
General Education/ESL Classes by Grade Level	4	4
Bilingual Education Classes by Grade Level	6	4
Age 8	39	0
Age 9	147	31
Age 10	21	133
Age 11	0	26
Age 12	0	1

Procedures

Student achievement results from the 2012-2013 State of Texas Assessments of Academic Readiness for the 398 student participants were used as the basis for this study,

along with data collected from the two perception instruments. The 18 classroom teachers completed two perception instruments. The perception data were compared to student STAAR assessment results. Third and fourth grade reading and math student performance results for the 2012-2013 STAAR were compared with teacher perception data and the TEKS survey data to investigate whether teacher perceptions affected student achievement.

In the fall of 2012, all third and fourth grade teachers were asked to complete a Teacher Perception Chart in the area of reading and math. The Teacher Perception Charts are from the free tools on the lead4ward website. See Table 21 for a sample of a Teacher Perception Chart.

Table 21

Teacher Perception Chart Third Grade Reading Reporting Category One

	2012-2013 Readiness & Supporting Standards	Rank the following from 1 - 3 (hardest to easiest)
Reading Reporting Category One	SE 3.4A Identify the meaning of common prefixes (e.g., in-, dis) and suffixes (e.g., -full, -less) and know how they change meaning of roots. SE 3.4B Use context to determine the relevant meaning of unfamiliar words or distinguish among multiple meaning words and homographs. SE 3.4C Identify and use antonyms, synonyms, homographs, and homophones.	

As part of this campus initiative, this self-reflective ranking of the Readiness and Supporting Standards from hardest to easiest to teach based on their perceived

preparedness to teach the TEKS, were completed individually by each third and fourth grade teacher, at a Title 1 campus located in Southeast Texas during the 2012-2013 academic year. The rankings were completed by reporting categories for reading and math. Third grade teachers ranked a total of 24 Readiness and Supporting Standards for reading and a total of 28 Readiness and Supporting Standards for math. Fourth grade teachers ranked a total of 28 Readiness and Supporting Standards for reading and a total of 33 Readiness and Supporting Standards for math. The Texas state assessment, STAAR consists, of Reporting Categories; each Reporting Category measures several Readiness and/or Supporting Standards. Each third and fourth grade teacher rated each Readiness or Supporting Standards based on their self-perceived ability to teach the particular standard for the subjects of reading and math. Table 21 is one example of a Teacher Perception Data Chart.

The TEKS consists of Reporting Categories. Each Reporting Category measures several Readiness and/or Supporting Standards. A Reporting Category is an overall skill or objective area. The number of Reporting Categories varies by subject and grade level (lead4ward, 2011). Readiness Standards are essential for success in the current grade Supporting Standards serve as a foundation for a Readiness Standard in another grade level

In the fall of 2013, teachers completed a TEKS survey, indicating their perceived preparedness to teach the TEKS in third and fourth grade reading and math. The following TEK survey was completed by all third and fourth grade staff members at a Title 1 campus, measuring their perceptions of the TEKS and their perceived preparedness to teach them. See Table 22 for TEKS survey.

Table 22

Texas Essential Knowledge and Skills Survey

Question Number	Each question is to be answered based on the following criteria: 1 designating strongly disagree to 5 designating strongly agree.
1.	I am adequately prepared to teach the Texas Essential Knowledge and Skills assessed on the State of Texas Assessments of Academic Readiness in order to positively impact student achievement.
2.	My teacher preparation program trained me to adequately teach the Texas Essential Knowledge and Skills assessed on the State of Texas Assessments of Academic Readiness.
3.	I have received the professional development training from my campus or district to adequately teach the Texas Essential Knowledge and skills assessed on the State of Texas Assessments of Academic Readiness
4.	I believe that my knowledge and competency of the Texas Essential Knowledge and Skills adequately allows me teach my students.
5.	I believe that my teaching abilities adequately allow me to teach the Texas Essential Knowledge and Skills.
6.	I believe that all the Texas Essential knowledge and Skills are equally difficult to teach.
7.	I believe that some of the Texas Essential Knowledge and Skills are easier to teach than others.
8.	I have the resources needed to adequately teach the Texas Essential Knowledge and Skills.
	In addition, each participant was asked two open-ended questions:
9.	What is it about the TEK (standard) that makes it difficult to teach?
10.	What additional support do you need from the principal as the instructional leader?

Permission was requested from the research district to access third and fourth grade reading and math archival data for the 2012-2013 STAAR. The archival data were extracted from Eduphoria, the district data base system. Third and fourth grade math and reading student achievement were compared with teacher perception data and the TEKS survey data to investigate whether teacher perceptions affect student achievement.

Permission was requested from the University of Houston IRB committee for the researcher to participate in this study. Descriptive statistics were used to analyze archival data of the 2012-2013 third and fourth grade STAAR math and reading results by investigating whether teacher perceptions affect student achievement. A quantitative method was utilized to see if patterns existed between teacher perceptions of their perceived preparedness to teach the TEKS with the achievement of their students on STAAR. A qualitative method was used to document the responses to interview questions that third and fourth grade teachers reported regarding their perceptions of the TEKS and its affect on their students' achievement. By examining teachers' perceptions regarding their perceived preparedness to teach the TEKS and achievement of their students as measured on STAAR, school leaders can design a script for academic interventions. In addition to supporting teacher and student growth through data-driven professional development activities, this research may also have implications for measuring the effectiveness of school leaders, teacher education programs, and mentor programs. The future impact of this study may prove to increase teacher and principal effectiveness through differentiated professional development opportunities and therefore positively influence student achievement.

Assumptions, Limitations, and Delimitations

1. The data collected for the proposed research questions is limited to a Title I elementary school, located in a large urban school district in Southeast Texas. Therefore, this research cannot be generalized to a larger population.

2. Archival data from the 2012-2013 State of Texas Assessments of Academic Readiness (STAAR) for both reading and math was part of this research study. For future studies, it is recommended to have a larger sample of campuses participating.

3. The academic achievement data represents 398 third and fourth grade students, 95% of the student population sample is Hispanic, and the students represent 8-12 year olds. For future studies, it is recommended that the research focus on a larger student population. In addition, it is recommended that the student ethnicity equally represent all student groups.

4. The 2012-2013 STAAR Reading assessment consisted of 40 questions for third grade, and 44 questions for fourth grade. Therefore, not all Texas Essential Knowledge and Skills (TEKS) for reading and math were assessed on the STAAR. In addition, some of the TEKS were measured with a small sample of questions while others were assessed more than once.

5. The 2012-2013 STAAR Math assessment consisted of 46 questions for third grade, and 48 questions for fourth grade. Therefore, not all TEKS for reading and math were assessed on the STAAR. In addition, some of the TEKS were measured with a small sample of questions while others were assessed more than once.

6. Eighteen classroom teachers participated in the ranking of the TEKS during the 2012-2013 academic school year. Their responses were documented by completing a

Teacher Perception Chart for both reading and math at their assigned grade level. Due to teacher turn over and changes in teaching assignments, thirteen of the original eighteen teachers participated in a TEKS survey during the 2013-2014 academic school year.

7. The study assumes that the Teacher Perception Charts for both reading and math were completed individually and honestly by each third and fourth grade teacher at the participating campus.

8. The final assumption is that the TEKS Survey was completed individually and honestly based on individual perceptions.

Chapter IV

Results

Introduction

This research investigation attempted to determine if a teacher's perceived ability to teach the Texas Essential Knowledge and Skills (TEKS) affected student achievement as measured on the STAAR for third and fourth grade Reading and Math. To answer the research questions, descriptive statistics were used to analyze archival data of the 2012-2013 third and fourth grade STAAR math and reading results by investigating whether teacher perceptions affect student achievement. The archival data are from a Title 1 school located in a large urban school district in Southeast Texas. A quantitative method was utilized to see if patterns existed between teacher perceptions of their perceived preparedness to teach the TEKS with the achievement of their students on STAAR. A qualitative method was used to document the responses to interview questions that third and fourth grade teachers reported regarding their perceptions of the TEKS and its effect on their students' achievement. The results are presented sequentially in the following section.

Research Questions

Research Question One: Do patterns exist between teachers' self-ranking of their perceived difficulty in teaching the Texas Essential Knowledge and Skills in third and fourth grade reading and their students' achievement on the third and fourth grade State of Texas Assessments of Academic Readiness (STAAR) Reading?

Research Question Two: Do patterns exist between teachers' self-ranking of their perceived difficulty in teaching the TEKS in third and fourth grade math and their students' achievement on the third and fourth grade STAAR Math?

Research Question Three: What are teachers' perceptions regarding their preparedness to teach the Texas Essential Knowledge and Skills?

Results of the Third Grade Reading Data

Participating third grade students were administered the 2012-2013 Texas state assessment, STAAR Reading. The third grade STAAR Reading test has three reporting categories: Reporting Category One, Understanding and Analysis Across Genres; Reporting Category Two, Understanding and Analysis of Literary Texts; and Reporting Category Three, Understanding and Analysis of Information Texts.

Third Grade Reading Data Reporting Category One

Third Grade Reading Reporting Category One is Understanding and Analysis Across Genres. Students were expected to demonstrate an ability to understand and analyze a variety of written texts across reading genres. There are three taught Student Expectations (SE) in Reporting Category One: 3.4A, 3.4B and 3.4C.

- SE 3.4A Identify the meaning of common prefixes (e.g., in-, dis) and suffixes (e.g., -full, -less) and know how they change meaning of roots.
- SE 3.4B Use context to determine the relevant meaning of unfamiliar words or distinguish among multiple meaning words and homographs.
- SE 3.4C Identify and use antonyms, synonyms, homographs, and homophones.

The teacher perception rankings indicate that Student Expectation (SE) 3.4C was the most challenging to teach. Student Expectation (SE) 3.4C required students to learn how to identify and use antonyms, synonyms, homographs, and homophones. The results indicate that 54% of the students demonstrated mastery for SE 3.4C.

Table 23

Third Grade Reading Reporting Category One: Teacher Perception Average

	Readiness & Supporting Standards	Rank the following from 1 – 3 (hardest to easiest to teach)
Reading Reporting Category One	SE 3.4C Identify and use antonyms, synonyms, homographs, and homophones.	1.7
	SE 3.4B Use context to determine the relevant meaning of unfamiliar words or distinguish among multiple meaning words and homographs.	1.9
	SE 3.4A Identify the meaning of common prefixes (e.g., in-, dis) and suffixes (e.g., -full, -less) and know how they change meaning of roots.	2.4

Third Grade Reading Reporting Category One is Understanding and Analysis Across Genres. There are two assessed Student Expectations (SE) in Reporting Category One. Teacher perceptions indicate that SE 3.4C was the most difficult SE to teach. Student achievement data indicate 54% of the students mastered SE 3.4C. Student achievement data indicate that 60% of the students mastered SE 3.4B. For Reporting Category One the teacher perception data demonstrate that SE 3.4C was the most difficult

to teach and the student achievement data for SE 3.4C was also the lowest achievement score in this Reporting Category.

Table 24

Third Grade Reading Reporting Category One: Teacher Perception and Student Achievement Data

Third Grade Reading Reporting Category One: Understanding and Analysis Across Genres		
Student Expectation (i.e., TEKS)	Average Teacher Perception Ranking	Student Achievement Percent Mastery STAAR Results
SE 3.4C	1.7	54%
SE 3.4B	1.9	60%

Third Grade Reading Data Reporting Category Two

Third Grade Reading Reporting Category Two is Understanding and Analysis of Literary Texts. Students are expected to demonstrate an ability to understand and analyze literary texts. There are twelve taught Student Expectations (SE) in Reporting Category Two: 3.2B, 3.5A, 3.6A, 3.8A, 3.8B, 3.9A, 3.10A, 3.16, Fig. 19D (nonfiction), Fig. 19D (fiction), Fig. 19E (fiction) and Fig. 19E (nonfiction).

- SE 3.2B Ask relevant questions, seek clarification, and locate facts and details about stories and other texts and support answers with evidence from text.
- SE 3.5A Paraphrase the themes and supporting details of fables, legends, myths, or stories.

- SE 3.6A Describe the characteristics of various forms of poetry and how they create imagery (e.g., narrative poetry, lyrical poetry, humorous poetry, free verse).
- SE 3.8A Sequence and summarize the plot's main events and explain their influence on future events.
- SE 3.8B Describe the interaction of characters including their relationships and the changes they undergo.
- SE 3.9A Understand, make inferences, and draw conclusions about the varied structural patterns and features of literary nonfiction and respond by providing evidence from text to support their understanding.
- SE 3.10A Identify language that creates a graphic visual experience and appeals to the senses.
- SE 3.16 Use comprehension skills to analyze how word, images, graphics, and sounds work together in various forms to impact meaning.
- Fig. 19D Make inferences about texts and use textual evidence to support understanding (fiction).
- Fig. 19D Make inferences about texts and use textual evidence to support understanding (literary nonfiction, poetry).
- Fig. 19E Summarize information in text, maintaining meaning and logical order (fiction).
- Fig. 19E Summarize information in text, maintaining meaning and logical order (literary nonfiction, poetry).

The teacher perception rankings indicate that Student Expectation (SE) 3.6A was the most challenging SE to teach. Student Expectation (SE) 3.6A required students to describe the characteristics of various forms of poetry and how they create imagery (e.g., narrative poetry, lyrical poetry, humorous poetry, free verse). The results indicate that for SE 3.6A, 36% of the students demonstrated mastery.

Table 25

Third Grade Reading Reporting Category Two: Teacher Perception Average

	Readiness & Supporting Standards	Rank the following from 1 – 12 (hardest to easiest to teach)
Reading Reporting Category Two	SE 3.6A Describe the characteristics of various forms of poetry and how they create imagery (e.g., narrative poetry, lyrical poetry, humorous poetry, free verse).	3.5
	Fig. 19D Make inferences about texts and use textual evidence to support understanding (literary nonfiction, poetry).	5.2
	Fig. 19E Summarize information in text, maintaining meaning and logical order (literary nonfiction, poetry).	5.5
	SE 3.9A Understand, make inferences, and draw conclusions about the varied structural patterns and features of literary nonfiction and respond by providing evidence from text to support their understanding.	6
	Fig. 19D Make inferences about texts and use textual evidence to support understanding (fiction).	6.3
	Fig. 19E Summarize information in text, maintaining meaning and logical order (fiction).	6.4

SE 3.16 Use comprehension skills to analyze how word, images, graphics, and sounds work together in various forms to impact meaning.	6.5
SE 3.5A Paraphrase the themes and supporting details of fables, legends, myths, or stories.	6.7
SE 3.2B Ask relevant questions, seek clarification, and locate facts and details about stories and other texts and support answers with evidence from text.	7.5
SE 3.8B Describe the interaction of characters including their relationships and the changes they undergo.	7.8
SE 3.10A Identify language that creates a graphic visual experience and appeals to the senses.	7.8
SE 3.8A Sequence and summarize the plot's main events and explain their influence on future events.	8.8

Third Grade Reading Reporting Category Two is Understanding and Analysis of Literary Texts. There are nine assessed SE in Reporting Category Two. Teacher perceptions indicate that SE 3.6A was the most challenging to teach. Student achievement data indicate that 36 % of the students mastered SE 3.6A. Student achievement data indicate that 85% of the students mastered SE 3.2B; 34% of the students mastered SE 3.8A; 54% of the students mastered SE 3.8B; 48% of the students mastered SE 3.8D, 53% of the students mastered SE 3.9D; 54% of the students mastered SE 3.8E; 45% of the students mastered SE 3.9E; and 59% of the students mastered SE 3.16. For Reporting Category Two teacher perception data demonstrate that SE 3.6A was

the most difficult to teach and the student achievement data for this SE was at 36% which was the second lowest achievement score in this Reporting Category.

Table 26

Third Grade Reading Reporting Category Two: Teacher Perception and Student Achievement Data

Third Grade Reading Reporting Category Two: Understanding and Analysis of Literary Texts		
Student Expectation (i.e., TEKS)	Average Teacher Perception Ranking	Student Achievement Percent Mastery STAAR Results
SE 3.6A	3.5	36%
3.9 Fig. 19D	5.2	53%
3.9 Fig. 19E	5.5	45%
3.8 Fig. 19D	6.3	48%
3.8 Fig. 19E	6.4	54%
SE 3.16	6.5	59%
SE 3.2B	7.5	85%
SE 3.8B	7.8	54%
SE 3.8A	8.8	34%

Third Grade Reading Data Reporting Category Three

Grade Reading Reporting Category Three is Understanding and Analysis of Information Texts. Students were expected to demonstrate an ability to understand and analyze informational texts. There are nine taught Student Expectations (SE) in Reporting Category Three: 3.12, 3.13A, 3.13B, 3.13C, 3.13D, 3.15B, 3.16, Fig. 19D, and Fig. 19E.

- SE 3.12 Analyze, make inferences, and draw conclusions about the author's purpose in cultural, historical, and contemporary contexts and provide evidence from the text to support their understanding.
- SE 3.12A Is ineligible for assessment – so when 3.12 is assessed it will be linked to Fig. 19D for expository texts.
- SE 3.13A Identify the details or facts that support the main idea.
- SE 3.13B Draw conclusions from the facts presented in text and support those assertions with textual evidence.
- SE 3.13C Identify explicit cause and effect relationships among ideas in text.
- SE 3.13D Use text features (e.g., bold print, captions, key words, italics) to locate information and make and verify predictions about contents of text.
- SE 3.15B Locate and use specific information in graphic features of text.
- SE 3.16 Use comprehension skills to analyze how word, images, graphics, and sounds work together in various forms to impact meaning.
- Fig. 19D Make inferences about text and use textual evidence to support understanding.
- Fig. 19E Summarize information in text, maintaining meaning and logical order.

The teacher perception rankings indicate that SE 3.12 and 3.13B were the most challenging to teach. Student Expectation (SE) 3.12 required students to analyze, make inferences, and draw conclusions about the author's purpose in cultural, historical, and contemporary contexts and provide evidence from the text to support their understanding. Student Expectation (SE) 3.13B required students to draw conclusions from the facts presented in text and support those assertions with textual evidence. The results indicate that 85% of the students mastered SE 3.12, and 61% of the students mastered SE 3.13B.

Table 27

Third Grade Reading Reporting Category Three: Teacher Perception Average

	Readiness & Supporting Standards	Rank the following from 1 – 9 (hardest to easiest to teach)
Reading Reporting Category Three	SE 3.12 Analyze, make inferences, and draw conclusions about the author's purpose in cultural, historical, and contemporary contexts and provide evidence from the text to support their understanding [3.12.A is ineligible for assessment – so when 3.12 is assessed it will be linked to Fig. 19D for expository texts].	2.8
	SE 3.13B Draw conclusions from the facts presented in text and support those assertions with textual evidence.	2.8
	Fig. 19E Summarize information in text, maintaining meaning and logical order,	3.5
	SE 3.16 Use comprehension skills to analyze how word, images, graphics, and sounds work together in various forms to impact meaning.	3.7
	Fig. 19D Make inferences about text and use textual evidence to support understanding,	3.8
	SE 3.13A Identify the details or facts that support the main idea.	4.9
	SE 3.13C Identify explicit cause and effect relationships among ideas in text.	5.1
	SE 3.15B Locate and use specific information in graphic features of text.	6.7
	SE 3.13D Use text features (e.g., bold print, captions, key words, italics) to locate information and make and verify predictions about contents of text.	7.2

Third Grade Reading Reporting Category Three is Understanding and Analysis of Information Texts. There are five assessed SE in Reporting Category Three. Teacher perception rankings indicate that SE 3.12 and SE 3.13B were the most challenging to teach. The results indicate that 85% of the students mastered SE 3.12. While 61% of the students mastered SE 3.13B. Student achievement data indicate that 66% of the students mastered SE 3.13A, 64% mastered SE 3.13C, and 73% of the students mastered SE 3.13D. For Reporting Category Three teacher perception data demonstrate that SE 3.13B was the most difficult to teach and the student achievement data for this SE was at 61% which was also the lowest achievement score in this Reporting Category.

Table 28

Third Grade Reading Reporting Category Three: Teacher Perception and Student Achievement Data

Third Grade Reading Reporting Category Three: Understanding and Analysis of Information Texts		
Student Expectation (i.e., TEKS)	Average Teacher Perception Ranking	Student Achievement Percent Mastery STAAR Results
SE 3.13B	2.8	61%
SE 3.12	2.8	85%
SE 3.13A	4.9	66%
SE 3.13C	5.1	64%
SE 3.13D	7.2	73%

Results of Fourth Grade Reading Data

Participating fourth grade students were administered the 2012-2013 Texas state assessment, STAAR Reading. The fourth grade STAAR Reading test has three reporting categories: Reporting Category One, Understanding and Analysis Across Genres; Reporting Category Two, Understanding and Analysis of Literary Text; and Reporting Category Three, Understanding and Analysis of Information Texts.

Fourth Grade Reading Data Reporting Category One

Fourth Grade Reading Reporting Category One is Understanding and Analysis Across Genres. Students are expected to demonstrate an ability to understand and analyze a variety of written texts across reading genres. There are five taught Student Expectations (SE) in Reporting Category One: 4.2A, 4.2B, 4.2E, Fig. 19F, and 4.7A.

- SE 4.2A Determine the meaning of grade-level academic English words derived from Latin, Greek, or other linguistic roots and affixes.
- SE 4.2B Use the context of the sentence to determine the meaning of unfamiliar words or multiple meaning words.
- SE 4.2E Use a dictionary or glossary to determine the meanings, syllabication, and pronunciation of unknown words.
- Fig. 19F Make connections (e.g., thematic links, author analysis) between literary and information texts with similar ideas and provide textual evidence.
- SE 4.7A Identify similarities and differences between the events and character's experiences in a fictional work and the actual events and experiences described in an author's biography or autobiography.

The teacher perception rankings indicate that SE 4.2A was the most challenging to teach. Student Expectation (SE) 4.2A required students to determine the meaning of grade-level academic English words derived from Latin, Greek, or other linguistic roots and affixes. The results indicate that 59% of the students mastered SE 4.2A.

Table 29

Fourth Grade Reading Reporting Category One: Teacher Perception Average

	Readiness & Supporting Standards	Rank the following from 1-5 (hardest to easiest to teach)
Reading Reporting Category One	SE 4.2A Determine the meaning of grade-level academic English words derived from Latin, Greek, or other linguistic roots and affixes.	2.1
	Fig. 19F Make connections (e.g., thematic links, author analysis) between literary and information texts with similar ideas and provide textual evidence.	2.3
	SE 4.7A Identify similarities and differences between the events and character's experiences in a fictional work and the actual events and experiences described in an author's biography or autobiography.	2.5
	SE 4.2B Use the context of the sentence to determine the meaning of unfamiliar words or multiple meaning words.	3.4
	SE 4.2E Use a dictionary or glossary to determine the meanings, syllabication, and pronunciation of unknown words.	4.6

Fourth Grade Reading Reporting Category One is Understanding and Analysis Across Genres. There are four assessed Student Expectations (SE) in Reporting Category One. Teacher perceptions indicate that SE 4.2A was the most difficult SE to teach. Student achievement data indicate that 59% of the students mastered SE 4.2A. Student achievement data indicate that 59% of the students mastered SE 4.2B; 78% mastered SE 4.2E; and 63% mastered Figure 19F. For Reporting Category One teacher perception data demonstrate that SE 4.2A was the most difficult to teach and the student achievement data for this SE was at 59% which was also the lowest achievement score in this Reporting Category.

Table 30

Fourth Grade Reading Reporting Category One: Teacher Perception and Student Achievement Data

Fourth Grade Reading Reporting Category One: Understanding and Analysis Across Genres		
Student Expectation (i.e., TEKS)	Average Teacher Perception Ranking	Student Achievement Percent Mastery STAAR Results
SE 4.2A	2.1	59%
Fig. 19F	2.3	63%
SE 4.2E	2.6	78%
SE 4.2B	3.4	59%

Fourth Grade Reading Data Reporting Category Two

Fourth Grade Reading Reporting Category Two is Understanding and Analysis of Literary Texts. Students are expected to demonstrate an ability to understand and analyze literary texts. There are thirteen taught Student Expectations (SE) in Reporting Category Two: 4.6A, 4.6B, Fig. 19D (Fiction), Fig. 19E (Fiction), 4.3A, 4.3B, 4.4A, 4.5A, 4.6C, 4.8A, 4.14, Fig. 19D (Non Fiction), and Fig. 19E (Non Fiction).

- SE 4.6A Sequence and summarize the plot's main events and explain their influence on future events.
- SE 4.6B Describe the interaction of characters including their relationships and the changes they undergo.
- Fig. 19D Make inferences about text and use textual evidence to support understanding (Fiction).
- Fig. 19E Summarize information in text, maintaining meaning and logical order (Fiction).
- SE 4.3A Summarize and explain the lesson of message of a work of fiction as its theme.
- SE 4.3B Compare and contrast the adventure or exploits of characters (e.g., the trickster) in traditional and classical literature.
- SE 4.4A Explain how the structural elements of poetry (e.g., rhyme, meter, stanzas, line breaks) relate to form (e.g., lyrical poetry, free verse).
- SE 4.5A Describe the structural elements particular to dramatic literature.
- SE 4.6C Identify whether the narrator or speaker of a story is first or third person.
- SE 4.8A Identify the author's use of similes and metaphors to produce imagery.

- SE 4.14 Use comprehension skills to analyze how words, images, graphics, and sounds work together in various forms to impact meaning.

The teacher perception rankings indicate that Student Expectation (SE) 4.8A was the most challenging to teach. Student expectation (SE) 4.8A required students to identify the author's use of similes and metaphors to produce imagery. The results indicate that 53% of the students mastered SE 4.8A.

Table 31

Fourth Grade Reading Reporting Category Two: Teacher Perception Average

	Readiness & Supporting Standards	Rank the following from 1-13 (hardest to easiest to teach)
Reading Reporting Category Two	SE 4.8A Identify the author's use of similes and metaphors to produce imagery.	3.6
	SE 4.3B Compare and contrast the adventure or exploits of characters (e.g., the trickster) in traditional and classical literature.	5
	SE 4.5A Describe the structural elements particular to dramatic literature.	6.5
	Fig. 19D Make inferences about text and use textual evidence to support understanding (Fiction).	6.8
	SE 4.6B Describe the interaction of characters including their relationships and the changes they undergo.	7.8
	SE 4.4A Explain how the structural elements of poetry (e.g., rhyme, meter, stanzas, line breaks) relate to form (e.g., lyrical poetry, free verse).	8
	SE 4.6C Identify whether the narrator or speaker of a story is first or third person.	8

SE 4.6A Sequence and summarize the plot's main events and explain their influence on future events.	8.1
Fig. 19E Summarize information in text, maintaining meaning and logical order (Fiction).	8.1
SE 4.3A Summarize and explain the lesson of message of a work of fiction as its theme.	8.3
SE 4.14 Use comprehension skills to analyze how words, images, graphics, and sounds work together in various forms to impact meaning.	9.1

Fourth Grade Reading Reporting Category Two is Understanding and Analysis of Literary Texts. There are seven assessed Student Expectations (SE) in Reporting Category Two. Teacher perceptions indicate that SE 4.8A was the most challenging to teach. Student achievement data indicate that 53 % of students mastered SE 4.8A. Student achievement data indicate that 56% of the students mastered SE 4.6A; 59% mastered SE 4.6B; 40% of the students mastered Figure 19E; 53% of the students mastered SE 4.3A; 48% of the students mastered SE 4.4A; and 48% of the students mastered SE 4.5A. For Reporting Category Two teacher perception data demonstrate that SE 4.8A was the most difficult to teach and the student achievement data for this SE was at 53% which was the second lowest achievement score in this Reporting Category.

Table 32

Fourth Grade Reading Reporting Category Two: Teacher Perception and Student Achievement Data

Fourth Grade Reading Reporting Category Two: Understanding and Analysis of Literary Texts		
Student Expectation (i.e., TEKS)	Average Teacher Perception Ranking	Student Achievement Percent Mastery STAAR Results
SE 4.8A	3.6	53%
SE 4.5A	6.5	48%
SE 4.6B	7.8	59%
SE 4.4A	8	48%
SE Fig. 19E	8.1	40%
SE 4.6A	8.1	56%
SE 4.3A	8.3	53%

Fourth Grade Reading Data Reporting Category Three

Fourth Grade Reading Reporting Category Three is Understanding and Analysis of Information Texts. Students are expected to demonstrate an ability to understand and analyze informational texts. There are ten taught Student Expectations (SE) in Reporting Category Three: 4.10, 4.11A, 4.11C, 4.11D, Fig. 19D, Fig. 19E, 4.11B, 4.13A, 4.13B, and 4.14.

- SE 4.10 Analyze, make inferences, and draw conclusions about the author's purpose in cultural, historical, and contemporary contexts and provide evidence

from the text to support their understanding [4.10.A is ineligible for assessment – so when 4.10 is assessed, it will be linked to Fig. 19D for expository texts].

- SE 4.11A Summarize the main idea and supporting details in text in ways that maintain meaning.
- SE 4.11C Describe explicit and implicit relationships among ideas in texts organized by cause-and-effect, sequence, or comparison.
- SE 4.11D Use multiple text features (e.g., guide words, topic and concluding sentences) to gain an overview of the contents of text and to locate information.
- Fig. 19D Make inferences about text and use textual evidence to support understanding.
- Fig. 19E Summarize information in text, maintaining meaning and logical order.
- SE 4.11B Distinguish fact from opinion in a text and explain how to verify what is a fact.
- SE 4.13A Determine the sequence of activities needed to carry out a procedure (e.g., following a recipe).
- SE 4.13B Explain factual information presented graphically (e.g., charts, diagrams, graphs, illustrations).
- SE 4.14 Use comprehension skills to analyze how words, images, graphics, and sounds work together in various forms to impact meaning.

The teacher perception rankings indicate that SE 4.11D was the most challenging to teach. Student expectation (SE) 4.11D required students to use multiple text features (e.g., guide words, topic and concluding sentences) to gain an overview of the contents of

text and to locate information. The results indicate that 70% of the students mastered SE 4.11D.

Table 33

Fourth Grade Reading Reporting Category Three: Teacher Perception Average

	2012-2013 Readiness & Supporting Standards	Rank the following from 1 – 10 (hardest to easiest to teach)
Reading Reporting Category Three	4.11D Use multiple text features (e.g., guide words, topic and concluding sentences) to gain an overview of the contents of text and to locate information.	4.1
	4.11C Describe explicit and implicit relationships among ideas in texts organized by cause-and-effect, sequence, or comparison.	4.5
	4.14 Use comprehension skills to analyze how words, images, graphics, and sounds work together in various forms to impact meaning.	5.13
	4.10 Analyze, make inferences, and draw conclusions about the author's purpose in cultural, historical, and contemporary contexts and provide evidence from the text to support their understanding [4.10A is ineligible for assessment – so when 4.10 is assessed, it will be linked to Fig. 19D for expository texts].	5.3
	4.11A Summarize the main idea and supporting details in text in ways that maintain meaning.	5.5
	Fig. 19D Make inferences about text and use textual evidence to support understanding.	5.5

4.13B Explain factual information presented graphically (e.g., charts, diagrams, graphs, illustrations).	5.63
4.11B Distinguish fact from opinion in a text and explain how to verify what is a fact.	5.63
4.13A Determine the sequence of activities needed to carry out a procedure (e.g., following a recipe).	6.5
Fig. 19E Summarize information in text, maintaining meaning and logical order.	7.1

Fourth Grade Reading Reporting Category Three is Understanding and Analysis of Information Texts. There are eight assessed Student Expectations (SE) in Reporting Category Three. Teacher perception rankings indicate that Student Expectation (SE) 4.11D was the most challenging to teach. Student achievement data indicate that 66% of the students mastered SE 4.10; 58% mastered SE 4.11A; 56% of the students mastered SE 4.11C; 71% of the students mastered SE 4.11B; 55% of the students mastered SE 4.13B; 58% of the students mastered Fig. 19D; and 55% mastered Fig. 19E. For Reporting Category Three teacher perception data demonstrate that SE 4.11D was the most difficult to teach and the student achievement data for this SE was at 70% which was the second highest achievement score in this Reporting Category.

Table 34

Fourth Grade Reading Reporting Category Three: Teacher Perception and Student Achievement Data

Fourth Grade Reading Reporting Category Three: Understanding and Analysis of Informational Texts		
Student Expectation (i.e., TEKS)	Average Teacher Perception Ranking	Student Achievement Percent Mastery STAAR Results
SE 4.11D	4.1	70%
SE 4.11C	4.5	56%
SE 4.10	5.3	66%
SE 4.11A	5.5	58%
Fig. 19D	5.5	58%
SE 4.13B	5.6	55%
SE 4.11B	5.6	71%
Fig. 19E	7.1	55%

Results of Third Grade Math Data

Participating third grade students were administered the 2012-2013 Texas state assessment, STAAR Math. The third grade STAAR Math test has five reporting categories: Reporting Category One Numbers, Operations, and Quantitative Reasoning; Reporting Category Two Patterns, Relationships, and Algebraic Reasoning; Reporting Category Three Geometry and Spatial Reasoning; Reporting Category Four Measurement; and Reporting Category Five Probability and Statistics.

Third Grade Math Data Reporting Category One

Third Grade Math Reporting Category One is Numbers, Operations, and Quantitative Reasoning. Students are expected to have an understanding of numbers, operations, and quantitative reasoning. There are eleven taught Student Expectations (SE) in Reporting Category One: 3.2C, 3.3B, 3.4B, 3.4C, 3.1A, 3.1B, 3.1C, 3.3A, 3.4A, 3.5A, and 3.5B.

- SE 3.2C Use fraction names and symbols to describe fractional parts of whole objects or sets of objects.
- SE 3.3B Select addition or subtraction and use the operation to solve problems involving whole numbers through 999.
- SE 3.4B Solve and record multiplication problems (up to two digits times' one digit).
- SE 3.4C Use models to solve division problems and use number sentences to record the solutions.
- SE 3.1A Use place value to read, write (in symbols and words), and describe the value of whole numbers through 999,999.
- SE 3.1B Use place value to compare and order whole numbers through 9,999.
- SE 3.1C Determine the value of a collection of coins and bills.
- SE 3.3A Model addition and subtraction using pictures, words, and numbers.
- SE 3.4A Learn and apply multiplication facts through 12 by 12 using concrete models and objects.
- SE 3.5A Round whole numbers to the nearest ten or hundred to approximate reasonable results in problem situations.

- SE 3.5B Use strategies including rounding and compatible numbers to estimate solutions to addition and subtraction problems.

The teacher perception rankings indicate that Student Expectation (SE) 3.2C was the most challenging to teach. Student expectation (SE) 3.2C required students to use fraction names and symbols to describe fractional parts of whole objects or sets of objects. The results indicate that 66% of the students mastered SE 3.2C.

Table 35

Third Grade Math Reporting Category One: Teacher Perception Average

	Readiness & Supporting Standards	Rank the following from 1 – 11 (hardest to easiest to teach)
Math Reporting Category One	SE 3.2C Use fraction names and symbols to describe fractional parts of whole objects or sets of objects.	3.5
	SE 3.4C Use models to solve division problems and use number sentences to record the solutions.	4.3
	SE 3.3B Select addition or subtraction and use the operation to solve problems involving whole numbers through 999.	5.3
	SE 3.1B Use place value to compare and order whole numbers through 9,999.	5.7
	SE 3.5B Use strategies including rounding and compatible numbers to estimate solutions to addition and subtraction problems.	5.7
	SE 3.3A Model addition and subtraction using pictures, words, and numbers.	6.1
	SE 3.1C Determine the value of a collection of coins and bills.	6.4

SE 3.4B Solve and record multiplication problems (up to two digits times' one digit).	6.7
SE 3.1A Use place value to read, write (in symbols and words), and describe the value of whole numbers through 999,999.	6.9
SE 3.5A Round whole numbers to the nearest ten or hundred to approximate reasonable results in problem situations.	7.3
SE 3.4A Learn and apply multiplication facts through 12 by 12 using concrete models and objects.	8.1

Third Grade Math Reporting Category One is Numbers, Operations & Quantitative Reasoning. There are eight assessed Student Expectations (SE) in Reporting Category One. Teacher perceptions indicate that SE 3.2C was the most difficult SE to teach. Student achievement data indicate that 66% mastered SE 3.2C. Student achievement data indicate that 41% of the students mastered SE 3.3B; 49% of the students mastered SE 3.4B; 51% mastered SE 3.4C; 59% mastered SE 3.1B; 66% mastered SE 3.1C; 59% mastered SE 3.3A; and 49% mastered SE 3.5B. For Reporting Category One teacher perception data demonstrate that SE 3.2C was the most difficult to teach and the student achievement data for this SE was at 66% which was the highest achievement score in this Reporting Category.

Table 36

Third Grade Math Reporting Category One: Teacher Perception and Student Achievement Data

Third Grade Math Reporting Category One: Numbers, Operations & Quantitative Reasoning		
Student Expectation (i.e., TEKS)	Average Teacher Perception Ranking	Student Achievement Percent Mastery STAAR Results
SE 3.2C	3.5	66%
SE 3.4C	4.3	51%
SE 3.3B	5.3	41%
SE 3.5B	5.7	49%
SE 3.1B	5.7	59%
SE 3.3A	6.1	59%
SE 3.1C	6.4	66%
SE 3.4B	6.7	49%

Third Grade Math Data Reporting Category Two

Third Grade Math Reporting Category Two is Patterns, Relationships, and Algebraic Reasoning. Students are expected to demonstrate an understanding of patterns, relationships, and algebraic reasoning. There are five taught Student Expectations (SE) in Reporting Category Two: 3.7B, 3.6A, 3.6B, 3.6C, and 3.7A.

- SE 3.7B Identify and describe patterns in a table of related number pairs based on a meaningful problem and extend the table.

- SE 3.6A Identify and extend whole-number and geometric patterns to make predictions and solve problems.
- SE 3.6B Identify patterns in multiplication facts using concrete objects, pictorial models, or technology.
- SE 3.6C Identify patterns in related multiplication and division sentences (fact families) such as 2 x 3 = 6, 3 x 2 = 6, 6 ÷ 2 = 3, 6 ÷ 3 = 2.
- SE 3.7A Generate a table of paired numbers based on a real-life situation such as insects and legs.

The teacher perception rankings indicate that Student Expectation (SE) 3.7B was the most challenging to teach. Student expectation (SE) 3.7B required students to identify and describe patterns in a table of related number pairs based on a meaningful problem and extend the table. The results indicate that 61% mastered SE 3.7B.

Table 37

Third Grade Math Reporting Category Two: Teacher Perception Average

	Readiness & Supporting Standards	Rank the following from 1 – 5 (hardest to easiest to teach)
Math Reporting Category Two	SE 3.7B Identify and describe patterns in a table of related number pairs based on a meaningful problem and extend the table.	2.1
	SE 3.7A Generate a table of paired numbers based on a real-life situation such as insects and legs,	2.7
	SE 3.6A Identify and extend whole-number and geometric patterns to make predictions and solve problems.	3
	SE 3.6B Identify patterns in multiplication facts using concrete objects, pictorial models, or technology.	3.5
	SE 3.6C Identify patterns in related multiplication and division sentences (fact families) such as 2 x 3 = 6, 3 x 2 = 6, 6 ÷ 2 = 3, 6 ÷ 3 = 2.	3.7

Third Grade Math Reporting Category Two is Patterns, Relationships, and Algebraic Reasoning. There are five assessed Student Expectations (SE) in Reporting Category Two. Teacher perceptions indicate that SE 3.7B was the most difficult SE to teach. Student achievement data indicate that 61% of the students mastered SE 3.7B. Student achievement data indicate that 46% of the students mastered SE 3.6A; 54% mastered SE 3.6B; 80% mastered SE 3.6C; and 38% mastered SE 3.7A. For Reporting Category Two teacher perception data demonstrate that SE 3.7B was the most difficult to teach and the student achievement data for this SE was at 61% which was the second highest achievement score in this Reporting Category.

Table 38

Third Grade Math Reporting Category Two: Teacher Perception and Student Achievement Data

Third Grade Math Reporting Category Two: Patterns, Relationships, and Algebraic Reasoning		
Student Expectation (i.e., TEKS)	Average Teacher Perception Ranking	Student Achievement Percent Mastery STAAR Results
SE 3.7B	2.1	61%
SE 3.7A	2.7	38%
SE 3.6A	3	46%
SE 3.6B	3.5	54%
SE 3.6C	3.7	80%

Third Grade Math Data Reporting Category Three

Third Grade Math Reporting Category Three is Geometry and Spatial Reasoning. Students are expected to demonstrate an understanding of geometry and spatial reasoning. There are four taught Student Expectations (SE) in Reporting Category Three: 3.8A, 3.10A, 3.9A, and 3.9C.

- SE 3.8A Identify, classify, and describe two- and three-dimensional geometric figures by their attributes. The student compares two- dimensional figures, three-dimensional figures, or both by their attributes using formal geometry vocabulary.
- SE 3.10A Locate and name points on a number line using whole numbers and fractions, including halves and fourths.
- SE 3.9A Identify congruent two-dimensional figures.
- SE 3.9C Identify lines of symmetry in two-dimensional geometric figures.

The Teacher Perception rankings indicate that Student Expectation (SE) 3.10A was the most challenging to teach. Student expectation (SE) 3.10A required students to locate and name points on a number line using whole numbers and fractions, including halves and fourths. The results indicate that 77% of the students mastered SE 3.10A.

Table 39

Third Grade Math Reporting Category Three: Teacher Perception Average

	Readiness & Supporting Standards	Rank the following from 1 – 4 (hardest to easiest to teach)
Math Reporting Category Three	SE 3.10A Locate and name points on a number line using whole numbers and fractions, including halves and fourths.	1.9
	SE 3.8A Identify, classify, and describe two- and three-dimensional geometric figures by their attributes. The student compares two-dimensional figures, three-dimensional figures, or both by their attributes using formal geometry vocabulary.	2.1
	SE 3.9A Identify congruent two-dimensional figures.	3
	SE 3.9C Identify lines of symmetry in two-dimensional geometric figures.	3

Third Grade Math Reporting Category Three is Geometry and Spatial Reasoning. There are four assessed Student Expectations (SE) in Reporting Category Three. Teacher perceptions indicate that SE 3.10A was the most difficult SE to teach. Student achievement data indicate that 77% of the students mastered SE 3.10A. Student achievement data indicate that 68% of the students mastered SE 3.8A; 62% mastered SE 3.9A; and 62% mastered SE 3.9C. For Reporting Category Three teacher perception data demonstrate that SE 3.10A was the most difficult to teach and the student achievement data for this SE was at 77% which was the highest achievement score in this Reporting Category.

Table 40

Third Grade Math Reporting Category Three: Teacher Perception and Student Achievement Data

Third Grade Math Reporting Category Three: Geometry and Spatial Reasoning,		
Student Expectation (i.e., TEKS)	Average Teacher Perception Ranking	Student Achievement Percent Mastery STAAR Results
SE 3.10A	1.9	77%
SE 3.8A	2.1	68%
SE 3.9A	3	62%
SE 3.9C	3	62%

Third Grade Math Data Reporting Category Four

Third Grade Math Reporting Category Four is Measurement. Students are expected to demonstrate an understanding of the concepts and uses of measurement. There are five taught Student Expectations (SE) in Reporting Category Four: 3.11B, 3.11A, 3.11C, 3.12A, and 3.12B.

- SE 3.11B Use standard units to find the perimeter of a shape.
- SE 3.11A Use linear measurement tools to estimate and measure lengths using standard units.
- SE 3.11C Use concrete and pictorial models of square units to determine the area of two-dimensional surfaces.
- SE 3.12A Use a thermometer to measure temperature.
- SE 3.12B Tell and write time shown on analog and digital clocks.

The teacher perception rankings indicate that Student Expectation (SE) 3.11A was the most challenging to teach. Student expectation (SE) 3.11A required students to use linear measurement tools to estimate and measure lengths using standard units. The results indicate that 43% of the students mastered SE 3.11A.

Table 41

Third Grade Math Reporting Category Four: Teacher Perception Average

	Readiness & Supporting Standards	Rank the following from 1 – 5 (hardest to easiest to teach)
Math Reporting Category Four	SE 3.11A Use linear measurement tools to estimate and measure lengths using standard units.	2.3
	SE 3.12B Tell and write time shown on analog and digital clocks.	2.6
	SE 3.12A Use a thermometer to measure temperature.	3.3
	SE 3.11C Use concrete and pictorial models of square units to determine the area of two-dimensional surfaces.	3.4
	SE 3.11B Use standard units to find the perimeter of a shape.	3.4

Third Grade Math Reporting Category Four is Measurement. There are five assessed Student Expectations (SE) in Reporting Category Four. Teacher perceptions indicate that SE 3.11A was the most difficult SE to teach. Student achievement data indicate that 43% of the students mastered SE 3.11A. Student achievement data indicate that 68% of the students mastered SE 3.11B; 35% mastered SE 3.11C; and 61% mastered SE 3.12A; and 59% mastered SE 3.12B. For Reporting Category Four teacher perception

data demonstrate that SE 3.11A was the most difficult to teach and the student achievement data for this SE was at 43% which was the second lowest achievement score in this Reporting Category.

Table 42

Third Grade Math Reporting Category Four: Teacher Perception and Student Achievement Data

Third Grade Math Reporting Category Four: Measurement		
Student Expectation (i.e., TEKS)	Average Teacher Perception Ranking	Student Achievement Percent Mastery STAAR Results
SE 3.11A	2.3	43%
SE 3.12B	2.6	59%
SE 3.12A	3.3	61%
SE 3.11C	3.4	35%
SE 3.11B	3.4	68%

Third Grade Math Data Reporting Category Five

Third Grade Math Reporting Category Five is Probability and Statistics. Students are expected to demonstrate an understanding of probability and statistics. There are three taught Student Expectations (SE) in Reporting Category Five: 3.13A, 3.13B, and 3.13C.

- SE 3.13A Collect, organize, record, and display data in pictographs and bar graphs where each picture or cell might represent more than one piece of data.
- SE 3.13B Interpret information from pictographs and bar graphs.

- SE 3.13C Use data to describe events as more likely than, less likely than, or equally likely as.

The teacher perception rankings indicate that Student Expectation (SE) 3.13C was the most challenging to teach. Student expectation (SE) 3.13C required students to use data to describe events as more likely than, less likely than, or equally likely as. The results indicate that 28% of the students mastered SE 3.13C.

Table 43

Third Grade Math Reporting Category Five: Teacher Perception Average

Math Reporting Category Five	Readiness & Supporting Standards	Rank the following from 1 – 3 (hardest to easiest to teach)
	SE 3.13C Use data to describe events as more likely than, less likely than, or equally likely as.	1.5
	SE 3.13B Interpret information from pictographs and bar graphs.	2.2
	SE 3.13A Collect, organize, record, and display data in pictographs and bar graphs where each picture or cell might represent more than one piece of data.	3.3

Third Grade Math Reporting Category Five is Probability and Statistics. There are three assessed Student Expectations (SE) in Reporting Category Five. Teacher perceptions indicate that SE 3.13C was the most difficult SE to teach. Student achievement data indicate that 28% of the students mastered SE 3.13C. Student achievement data indicate that 48% of the students mastered SE 3.13A; and 64% mastered SE 3.13B. For Reporting Category Five teacher perception data demonstrate

that SE 3.13C was the most difficult to teach and the student achievement data for this SE was at 28% which was also the lowest achievement score in this Reporting Category.

Table 44

Third Grade Math Reporting Category Five: Teacher Perception and Student Achievement Data

Third Grade Math Reporting Category Five: Probability and Statistics		
Student Expectation (i.e., TEKS)	Average Teacher Perception Ranking	Student Achievement Percent Mastery STAAR Results
SE 3.13C	1.5	28%
SE 3.13B	2.2	64%
SE 3.13A	3.3	48%

Results of Fourth Grade Math Data

Participating fourth grade students were administered the 2012-2013 Texas state assessment, STAAR Math. The fourth grade STAAR Math test has five reporting categories: Reporting Category One Numbers, Operations, and Quantitative Reasoning; Reporting Category Two Patterns, Relationships, and Algebraic Reasoning; Reporting Category Three Geometry and Spatial Reasoning; Reporting Category Four Measurement; and Reporting Category Five Probability and Statistics.

Fourth Grade Math Data Reporting Category One

Fourth Grade Math Reporting Category One is Numbers, Operations, and Quantitative Reasoning. Students are expected to demonstrate an understanding of numbers, operations, and quantitative reasoning. There are fifteen taught Student

Expectations (SE) in Reporting Category One: 4.1B, 4.2D, 4.4D, 4.4E, 4.1A, 4.2A, 4.2B, 4.2C, 4.3A, 4.3B, 4.4A, 4.4B, 4.4C, 4.5A, and 4.5B.

- SE 4.1B Use place value to read, write, compare, and order decimals involving tenths and hundredths, including money, using [concrete objects and] pictorial models.
- SE 4.2D Relate decimals to fractions that name tenths and hundredths using [concrete objects and] pictorial models.
- SE 4.4D Use multiplication to solve problems (no more than two digits time's two digits without technology).
- SE 4.4E Use division to solve problems (no more than one-digit divisors and three-digit dividends without technology).
- SE 4.1A Use place value to read, write, compare, and order whole numbers through 999,999,999.
- SE 4.2.A Use [concrete objects and] pictorial models to generate equivalent fractions.
- SE 4.2.B Model fraction quantities greater than one using [concrete objects and] pictorial models.
- SE 4.2.C Compare and order fractions using [concrete objects and] pictorial models.
- SE 4.3A Use addition and subtraction to solve problems involving whole numbers.
- SE 4.3B Add and subtract decimals to the hundredths place using [concrete objects and] pictorial models.

- SE 4.4A Model factors and products using arrays and area models.
- SE 4.4B Represent multiplication and division situations in picture, word, and number form.
- SE 4.4C Recall and apply multiplication facts through 12 x 12.
- SE 4.5A Round whole numbers to the nearest ten, hundred, or thousand to approximate reasonable results in problem situations.
- SE 4.5B Use strategies including rounding and compatible numbers to estimate solutions to multiplication and division problems.

The teacher perception rankings indicate that Student Expectation (SE) 4.4E was the most challenging to teach. Student expectation (SE) 4.4E required students to use division to solve problems (no more than one-digit divisors and three-digit dividends without technology). The results indicate that 52% of the students mastered SE 4.4E.

Table 45

Fourth Grade Math Reporting Category One: Teacher Perception Average

	Readiness & Supporting Standards	Rank the following from 1 – 15 (hardest to easiest to teach)
Math Reporting Category One	SE 4.4E Use division to solve problems (no more than one-digit divisors and three-digit dividends without technology).	4.6
	SE 4.2C Compare and order fractions using [concrete objects and] pictorial models.	5.2
	SE 4.2B Model fraction quantities greater than one using [concrete objects and] pictorial models.	6
	SE 4.2D Relate decimals to fractions that name tenths and hundredths using [concrete objects and] pictorial models.	7.3
	SE 4.4B Represent multiplication and division situations in picture, word, and number form.	7.3
	SE 4.3A Use addition and subtraction to solve problems involving whole numbers.	7.5
	SE 4.4D Use multiplication to solve problems (no more than two digits time's two digits without technology).	7.7
	SE 4.5A Round whole numbers to the nearest ten, hundred, or thousand to approximate reasonable results in problem situations.	7.8
	SE 4.4A Model factors and products using arrays and area models.	8.1
	SE 4.2A Use [concrete objects and] pictorial models to generate equivalent fractions.	8.7
	SE 4.4C Recall and apply multiplication facts through 12 x 12.	8.8

SE 4.5B Use strategies including rounding and compatible numbers to estimate solutions to multiplication and division problems.	9.5
SE 4.1A Use place value to read, write, compare, and order whole numbers through 999,999,999.	9.6
SE 4.3B And subtract decimals to the hundredths place using [concrete objects and] pictorial models.	9.8
SE 4.1B Use place value to read, write, compare, and order decimals involving tenths and hundredths, including money, using [concrete objects and] pictorial models.	11.5

Fourth Grade Math Reporting Category One is Numbers, Operations & Quantitative Reasoning. There are eleven assessed Student Expectations (SE) in Reporting Category One. Teacher perceptions indicate that SE 4.4E was the most difficult SE to teach. Student achievement data indicate that 52% of the students mastered SE 4.4E. Student achievement data indicate that 65% of the students mastered SE 4.1B; 54% mastered SE 4.2D; 64% mastered SE 4.4D; 62% mastered SE 4.1A; 85% mastered 4.2A; 63% mastered SE 4.2B; 75% mastered SE 4.3B; 78% mastered SE 4.4A; 73% mastered SE 4.4B; and 45% mastered SE 4.5A. For Reporting Category One teacher perception data demonstrate that SE 4.4E was the most difficult to teach and the student achievement data for this SE was at 52% which was the second lowest achievement score in this Reporting Category.

Table 46

Fourth Grade Math Reporting Category One Teacher Perception and Student

Fourth Grade Math Reporting Category One: Numbers, Operations & Quantitative Reasoning		
Student Expectation (i.e., TEKS)	Average Teacher Perception Ranking	Student Achievement Percent Mastery STAAR Results
SE 4.4E	4.6	52%
SE 4.2B	6	63%
SE 4.4B	7.3	73%
SE 4.2D	7.4	54%
SE 4.5A	7.8	45%
SE 4.4D	7.8	64%
SE 4.4A	8.1	78%
SE 4.2A	8.7	85%
SE 4.1A	9.6	62%
SE 4.3B	9.8	75%
SE 4.1B	11.5	65%

Fourth Grade Math Data Reporting Category Two

Fourth Grade Math Reporting Category Two is Patterns, Relationships, and Algebraic Reasoning. Students are expected to demonstrate an understanding of patterns, relationships, and algebraic reasoning. There are three taught Student Expectations (SE) in Reporting Category Two: 4.7A, 4.6A and 4.6B.

- SE 4.7A Describe the relationship between two sets of related data such as ordered pairs in a table.
- SE 4.6A Use patterns and relationships to develop strategies to remember basic multiplication and division facts (such as the patterns in related multiplication and division number sentences [fact families]such as 9x 9 = 81 and 81 ÷ 9 = 9).
- SE 4.6B Use patterns to multiply by 10 and 100.

The teacher perception rankings indicate that Student Expectation (SE) 4.7A and 4.6A were the most challenging to teach. Student Expectation (SE) 4.7A required students to describe the relationship between two sets of related data, such as ordered pairs in a table. Student Expectation (SE) 4.6A required students to use patterns and relationships to develop strategies to remember basic multiplication and division facts, such as the patterns in related multiplication and division number sentences [fact families] such as 9x 9 = 81 and 81 ÷ 9 = 9. The results indicate that 68% of the students mastered SE 4.7A, and 55% of the students mastered SE 4.6A.

Table 47

Fourth Grade Math Reporting Category Two: Teacher Perception Average

	Readiness & Supporting Standards	Rank the following from 1 – 3 (hardest to easiest to teach)
Math Reporting Category Two	SE 4.7A Describe the relationship between two sets of related data such as ordered pairs in a table.	1.6
	SE 4.6A Use patterns and relationships to develop strategies to remember basic multiplication and division facts (such as the patterns in related multiplication and division number sentences [fact families] such as 9x 9 = 81 and 81 ÷ 9 = 9).	1.6
	SE 4.6B Use patterns to multiply by 10 and 100.	2.7

Fourth Grade Math Reporting Category Two is Patterns, Relationships, and Algebraic Reasoning. There are assessed three Student Expectations (SE) in Reporting Category Two. Teacher perceptions indicate that SE 4.7A and 4.6A were the most difficult SE to teach. Student achievement data indicate that 68% of the students mastered SE 4.7A and 55% of the students mastered SE 4.6A. Student achievement data indicate that 53% of the students mastered SE 4.6B. For Reporting Category Two teacher perception data demonstrate that SE 4.6A was the most difficult to teach and the student achievement data for this SE was at 55% which was the second lowest achievement score in this Reporting Category.

Table 48

Fourth Grade Math Reporting Category Two: Teacher Perception and Student Achievement Data

Fourth Grade Math Reporting Category Two: Patterns, Relationships, and Algebraic Reasoning		
Student Expectation (i.e., TEKS)	Average Teacher Perception Ranking	Student Achievement Percent Mastery STAAR Results
SE 4.6A	1.6	55%
SE 4.7A	1.6	68%
SE 4.6B	2.7	53%

Fourth Grade Math Data Reporting Category Three

Fourth Grade Math Reporting Category Three is Geometry and Spatial Reasoning. Students are expected to demonstrate an understanding of geometry and spatial reasoning. There are six taught Student Expectations (SE) in Reporting Category Three: 4.8C, 4.9B, 4.10A, 4.8A, 4.8B, and 4.9C.

- SE 4.8C Use essential attributes to define two- and three-dimensional geometric figures.
- SE 4.9B Use translations, reflections, and rotations to verify that two shapes are congruent.
- SE 4.10A Locate and name points on a number line using whole numbers, fractions such as halves and fourths, and decimal such as tenths.
- SE 4.8A Identify and describe right, acute, and obtuse angles.

- SE 4.8B Identify and describe parallel and intersecting (including perpendicular) lines using [concrete objects and] pictorial models.
- SE 4.9C Use reflections to verify that a shape has symmetry.

The teacher perception rankings indicate that Student Expectation (SE) 4.10A was the most challenging to teach. Student expectation (SE) 4.10A required students to locate and name points on a number line using whole numbers, fractions such as halves and fourths, and decimals such as tenths. The results indicate that 65% of the students mastered SE 4.10A.

Table 49

Fourth Grade Math Reporting Category Three: Teacher Perception Average

	Readiness & Supporting Standards	Rank the following from 1 – 6 (hardest to easiest to teach)
Math Reporting Category Three	SE 4.10A Locate and name points on a number line using whole numbers, fractions such as halves and fourths, and decimal such as tenths.	2.3
	SE 4.8B Identify and describe parallel and intersecting (including perpendicular) lines using [concrete objects and] pictorial models.	2.7
	SE 4.9B Use translations, reflections, and rotations to verify that two shapes are congruent.	3.5
	SE 4.8C Use essential attributes to define two- and three-dimensional geometric figures.	3.6
	SE 4.9C Use reflections to verify that a shape has symmetry.	3.8
	SE 4.8A Identify and describe right, acute, and obtuse angles.	4.8

Fourth Grade Math Reporting Category Three is Geometry and Spatial Reasoning. There are six assessed Student Expectations (SE) in Reporting Category Three. Teacher perceptions indicate that SE 4.10A was the most difficult SE to teach. Student achievement data indicate that 65% of the students mastered SE 4.10A. Student achievement data indicate that 71% of the students mastered SE 4.8C; 73% mastered SE 4.9B; 67% mastered SE 4.8A; 38% mastered SE 4.8B; and 56% mastered SE 4.9C. For Reporting Category Three teacher perception data demonstrate that SE 4.10A was the most difficult to teach and the student achievement data for this SE was at 65% which was the third lowest achievement score in this Reporting Category.

Table 50

Grade Math Reporting Category Three: Teacher Perception and Student Achievement Data

Fourth Grade Math Reporting Category Three: Geometry and Spatial Reasoning		
Student Expectation (i.e., TEKS)	Average Teacher Perception Ranking	Student Achievement Percent Mastery STAAR Results
SE 4.10A	2.4	65%
SE 4.8B	2.7	38%
SE 4.9B	3.5	73%
SE 4.8C	3.6	71%
SE 4.9C	3.8	56%
SE 4.8A	4.8	67%

Fourth Grade Math Data Reporting Category Four

Fourth Grade Math Reporting Category Four is Measurement. Students are expected to demonstrate an understanding of the concepts and uses of measurement. There are seven taught Student Expectations (SE) in Reporting Category Four: 4.11A, 4.11B, 4.11C, 4.11D, 4.11E, 4.12A, and 4.12B.

- SE 4.11A Estimate and use measurement tools to determine length (including perimeter), area, capacity, and weight/mass using standard units SI (metric) and customary.
- SE 4.11B Perform simple conversions between different units of length, between different units of capacity, and between different units of weight within the customary measurement system.
- SE 4.11C Use [concrete] models of standard cubic units to measure volume.
- SE 4.11D Estimate volume in cubic units.
- SE 4.11E Explain the difference between weight and mass.
- SE 4.12A Use a thermometer to measure temperature and changes in temperature.
- SE 4.12.B Use tools such as a clock with gears or a stopwatch to solve problems involving elapsed time.

The teacher perception rankings indicate that Student Expectation (SE) 4.11B was the most challenging to teach. Student expectation (SE) 4.11B required students to perform simple conversions between different units of length, between different units of capacity, and between different units of weight within the customary measurement system. The results indicate that 66% of the students mastered SE 4.11B.

Table 51

Fourth Grade Math Reporting Category Four Teacher Perception Average

	Readiness & Supporting Standards	Rank the following from 1 - 7 (hardest to easiest to teach)
Math Reporting Category Four	SE 4.11B Perform simple conversions between different units of length, between different units of capacity, and between different units of weight within the customary measurement system.	2
	SE 4.12B Use tools such as a clock with gears or a stopwatch to solve problems involving elapsed time.	3.1
	SE 4.11A Estimate and use measurement tools to determine length (including perimeter), area, capacity, and weight/mass using standard units SI (metric) and customary.	4
	SE 4.11C Use [concrete] models of standard cubic units to measure volume.	4.3
	SE 4.11D Estimate volume in cubic units.	4.7
	SE 4.12A Use a thermometer to measure temperature and changes in temperature.	4.7
	SE .11E Explain the difference between weight and mass.	5

Fourth Grade Math Reporting Category Four is Measurement. There are four assessed Student Expectations (SE) in Reporting Category Four. Teacher perceptions indicate that SE 4.11B was the most difficult SE to teach. Student achievement data indicate that 66% of the students mastered SE 4.11B. Student achievement data indicate that 51% of the students mastered SE 4.11A; 39% mastered SE 4.11C; and 60% mastered

SE 4.12A. For Reporting Category Four teacher perception data demonstrate that SE 4.11B was the most difficult to teach and the student achievement data for this SE was at 66% which was the highest achievement score in this Reporting Category.

Table 52

Fourth Grade Math Reporting Category Four: Teacher Perception and Student Achievement Data

Fourth Grade Math Reporting Category Four: Measurement		
Student Expectation (i.e., TEKS)	Average Teacher Perception Ranking	Student Achievement Percent Mastery STAAR Results
SE 4.11B	2	66%
SE 4.11A	4	51%
SE 4.11C	4.3	39%
SE 4.12A	4.7	60%

Fourth Grade Math Data Reporting Category Five

Fourth Grade Math Reporting Category Five is Probability and Statistics. Students are expected to demonstrate an understanding of probability and statistics. There are two taught Student Expectations (SE) in Reporting Category Five: 4.13B and 4.13A

- SE 4.13B Interpret bar graphs.
- SE 4.13A Use [concrete objects or] pictures to make generalizations about determining all possible combinations of a given set of data or of objects in a problem situation.

The teacher perception rankings indicate that Student Expectation (SE) 4.13A was the most challenging to teach. Student expectation (SE) 4.13A required students to use [concrete objects or] pictures to make generalizations about determining all possible combinations of a given set of data or of objects in a problem situation. The results indicate that 56% of the students mastered SE 4.13A.

Table 53

Fourth Grade Math Reporting Category Five: Teacher Perception Average

Math Reporting Category Five	Readiness & Supporting Standards	Rank the following from 1 – 2 (hardest to easiest to teach)
	SE 4.13A Use [concrete objects or] pictures to make generalizations about determining all possible combinations of a given set of data or of objects in a problem situation.	1.2
	SE 4.13B Interpret bar graphs.	1.7

Fourth Grade Math Reporting Category Five is Probability and Statistics. There are two assessed Student Expectations (SE) in Reporting Category Five. Teacher perceptions indicate that SE 4.13A was the most difficult SE to teach. Student achievement data indicate that 56% of the students mastered SE 4.13A. Student achievement data indicate that 58% of the students mastered SE 4.13B. For Reporting Category Five teacher perception data demonstrate that SE 4.13A was the most difficult to teach and the student achievement data for this SE was at 56% which was the lowest achievement score in this Reporting Category.

Table 54

Fourth Grade Math Reporting Category Five: Teacher Perception and Student Achievement Data

Fourth Grade Math Reporting Category Five: Probability and Statistics		
Student Expectation (i.e., TEKS)	Average Teacher Perception Ranking	Student Achievement Percent Mastery STAAR Results
SE 4.13A	1.2	56%
SE 4.13B	1.7	58%

Results of Texas Essential Knowledge and Skills Survey Response

Teachers responded to a TEKS survey that described their perceptions of their preparedness to teach the TEKS and its affect on their students' achievement as measured on the STAAR. The fourth grade staff has 2.5 years more experience than the third grade staff. Based on the survey responses, fourth grade teachers have a greater belief in their teaching abilities. Both third and fourth grade teachers agree that some of the TEKS are more difficult to teach than others. Third grade teachers reported that their teacher preparation program did not adequately prepare them to teach the TEKS as measured on STAAR.

Table 55

Texas Essential Knowledge and Skills Survey Responses

	Answer each statement using 1 for strongly disagree to 5 for strongly agree.	Third Grade Responses	Fourth Grade Responses
1	I believe that all the TEKS are equally difficult to teach.	2.8	2.5
2	My teacher preparation program trained me to adequately teach the TEKS assessed on the STAAR.	2.8	4.5
3	I have the resources needed to adequately teach the TEKS.	3.8	4.1
4	I am adequately prepared to teach the TEKS assessed on the State of Texas Assessments of Academic Readiness (STAAR) in order to positively impact student achievement.	4.1	4.7
5	I believe that some of the TEKS are easier to teach than others.	4.1	4.8
6	I have received the professional development training from my campus or district to adequately teach the TEKS assessed on the STAAR.	4.2	4.7
7	I believe that my knowledge and competency of the TEKS adequately allow me teach my students.	4.2	4.7
8	I believe that my teaching abilities adequately allow me to teach the TEKS.	4.2	4.8
9	Years of Experience.	10.6 years	12.5 years

Teacher responses to the two open-ended questions were easily clustered into two themes. Teachers asked for two types of support: (1) they need their students to have a good understanding of the TEKS from previous grade levels, and (2) they asked for

ongoing professional development support for themselves, their colleagues at other grade levels, and for parents of their students.

Teachers consistently stated that students who had a solid foundation from the previous grade level were more likely to be successful at their current grade level. One teacher commented that "sometimes, the SE requires certain abilities from the students, such as basic skills that they might not completely have mastered from previous years." Another teacher commented that her students have "a shallow understanding of concepts from previous grades." A veteran teacher added, "My students are not familiar with the verbs used in the TEKS at previous grade levels."

Teachers also asked for ongoing professional support. One teacher replied, "It would be nice if teachers in lower grades also received the same trainings." Teachers realize that, in order to be successful, support and vertical alignment should begin at the early grades. A teacher with thirty years of experience commented, "Our parents need training too. They support our students and school demands, but some do not realize the time students need to invest in order to close the instructional gaps." Professional development has many forms. One teacher commented that she would like "ideas and sample lessons to be shared," while another stated he would like ongoing support to "better understand the TEKS." One teacher commented, "Knowing that each teachers' student population is different and being able to individualize the support we receive, would be very helpful." Teachers understand the need for professional development and are eagerly seeking a variety of ways to support their own learning in order to support student learning.

1 What is it about the TEK (standard) that makes it difficult to teach?

2 What additional support do you need from the principal as the instructional leader?

Chapter V

Discussion, Implications and Recommendations

Introduction

This study focused on teacher effectiveness. The purpose of the study was to determine if a teacher's perceived ability to teach and understand the Texas Essential Knowledge and Skills (TEKS) affected student achievement as measured on the State of Texas Assessments of Academic Readiness (STAAR) for third and fourth grade reading and math. In a related study, Evans (2010) emphasizes that "[u]nderstanding teachers' perceptions, attitudes, and beliefs will add to the body of knowledge in the field of school-based professional development, and will allow for revisions to the professional development activities so that they will have the desired effect of improving student achievement" (p. 6). By examining teachers' perceptions regarding their perceived preparedness to teach the TEKS and achievement of their students as measured on STAAR, school leaders can design a script for academic interventions. This chapter provides a summary of the data analysis and the implications of the findings. Limitations and recommendations are also outlined in this chapter.

The TEKS are bundled under Reporting Categories. A Reporting Category is an overall skill or objective area. Each Reporting Category measures several Readiness and/or Supporting Standards. Readiness and/or Supporting Standards are the Student Expectations (SE) that are required to be taught and tested at a particular grade level. Teachers ranked the Student Expectations (.i.e., the TEKS) from hardest to easiest to teach.

To answer the research questions, a mixed method study utilized archival data of the 2012-2013 third and fourth grade STAAR math and reading results by comparing them with teacher perception data to see if patterns existed between teacher perceptions of their preparedness to teach and understand the TEKS and achievement of their students on STAAR. The academic achievement data represents third and fourth grade students enrolled at a Title 1 school located in a large urban school district in Southeast Texas. Two Teacher Perception Charts were completed by eighteen third and fourth grade teachers for both reading and math. The Teacher Perception Charts are from the free tools on the lead4ward website. Teachers completed a TEKS survey, indicating their perceived preparedness to teach the TEKS in third and fourth grade reading and math. Reading data have three reporting categories, and math consists of five reporting categories for both third and fourth grade. The results are presented sequentially in the following section.

Summary of Findings

This mixed method study utilized archival data of the 2012-2013 third and fourth grade STAAR math and reading results by comparing them with teacher perception data to see if patterns existed between teacher perceptions of their preparedness to teach the TEKS and achievement of their students on STAAR. By comparing teachers' perceptions and their perceived preparedness to teach the TEKS with the achievement of their students as measured on STAAR, school leaders can design a script for academic interventions to support both teacher and student learning. In a related study, Tarman (2012) argued, that "teachers' beliefs have a powerful impact on their willingness to adopt new teaching strategies" (p. 1965).

Research Question One: Do patterns exist between teachers' self-ranking of their perceived difficulty in teaching the Texas Essential Knowledge and Skills in third and fourth grade reading and their students' achievement on the third and fourth grade State of Texas Assessments of Academic Readiness (STAAR) Reading?

As administrators learn more about the needs of their teachers and students, they intervene with best practices. Administrators offer multiple levels of support to teachers and students, and each level of support has affected the final outcome of this study. While support systems put into place may be viewed as a limitation, they are necessary for teacher and student growth. In order to initiate change in teacher and student success both teacher perception and teacher content awareness should addressed (Gomez Zwiep & Benken, 2012). In this study, the professional development ongoing teacher support and the many other continuous interventions affected the overall results of the study, and therefore this study was inconclusive and the researcher is unable to determine if teacher perceptions of the Student Expectations impact student achievement. Professional development is "the bridge between where teachers are now and where they need to be in order to increase academic achievement among teachers" (Evans, 2010, p. 16)

Table 56

Third and Fourth Grade Reading Data Comparisons

Third and Fourth Grade Reading Data				
	3rd Grade Perception Ranking Hardest SE to teach	3rd Grade STAAR Student Achievement Data	4th Grade Perception Ranking Hardest SE to teach	4th Grade STAAR Student Achievement Data
RC One	3.4C Multiple Meaning Words	54%	4.2A Word Meanings	59%

RC Two	3.6A Poetry	36%	4.8A Summary	53%
RC Three	3.12 Inference	85%	4.11D Multiple Text Features	70%

Research Question Two: Do patterns exist between teachers' self-ranking of their perceived difficulty in teaching the TEKS in third and fourth grade math and their students' achievement on the third and fourth grade STAAR Math?

There are several variables that affect the overall results of this study. Campus leadership should always be proactive and build in multiple interventions throughout the school year. Many ongoing interventions were put in place at the research campus. After regular data analysis, data conversations and ongoing teacher feedback, numerous interventions have been put into place. Each data point, data talks and other support systems that were put in place at the research campus effected the final outcome of the original teacher perception and its' final effect on student achievement. Each form of support that is provided to a teacher can be viewed as a limitation to this study, but it would be unethical for campus leaders not to respond to teacher and student needs. In this study, the professional development, ongoing teacher support and the many other continuous interventions affected the overall results of the study, and therefore this study is inconclusive and the researcher is unable to determine if teacher perceptions of the Student Expectations impact student achievement.

Table 57

Third and Fourth Grade Math Data Comparisons

Third and Fourth Grade Math Data				
	3rd Grade Perception Ranking (Hardest SE to teach)	3rd Grade STAAR Student Achievement Data	4th Grade Perception Ranking (Hardest SE to teach)	4th Grade STAAR Student Achievement Data
RC One	3.2C Fractions	66%	4.4E Division	52%
RC Two	3.7B Table	61%	4.7A Related Data 4.6A Use patterns	68% 55%
RC Three	3.10A Number Line	77%	4.10A Number Line	65%
RC Four	3.11A Measurement	43%	4.11B Conversions	66%
RC Five	3.13C Describe Events	28%	4.13A Generalizations	56%

Research Question Three: What are teachers' perceptions regarding their preparedness to teach the Texas Essential Knowledge and Skills?

Administrators should ensure that every teacher at every grade level is accountable for the achievement of their students. Allowing students with educational gaps to be promoted is unacceptable. In a related study, Sandoval-Lucero et al. (2011) summarize one teacher as saying "that they believed they were well prepared until they

experienced the reality of teaching in an actual classroom" (p. 345). In order to support student achievement, teacher preparation programs and campus leaders should train teachers to understand the TEKS and provide ongoing professional development to ensure the success of teachers and students. In this study, teachers are confident in stating that it is necessary for students to have mastery of grade level knowledge, and they are requesting that campus leaders provide them with differentiated professional development support based on their individual needs.

Implications for School Leaders

Although the overall results of this research study are inconclusive, based on the data explored in this research, school leaders should support student learning by first supporting teacher learning. By examining teachers' perceptions regarding their perceived preparedness to teach the TEKS and achievement of their students as measured on STAAR, school leaders can design a script for academic interventions. Teacher learning has many forms, including but not limited to professional learning communities of practice, teacher coaching and mentoring, TEKS and lesson studies. In a related study, Moore (2010) recognizes that in order to promote student learning, campus leaders should first support teacher learning, "If students are to be successful in schools their teachers must be engaged in continual learning in order to improve and enhance their teaching abilities and their understanding of the children they serve" (p. 21). In order to support student learning, administrators should support teacher learning by providing professional development activities that are aligned with student data. Listed below are four forms of interventions that were provided at the research campus.

One. Teacher teams discussed the role of the TEKS and determined how best to teach for transfer of knowledge of student learning and how to make student learning engaging.

Two. Teachers identified which TEKS they (the teachers) believe they need support with.

Three. Teacher lesson plans were monitored for curriculum alignment and to identify areas of strengths and weaknesses.

Four. Teachers were taught how to interpret student data to determine if student errors required them (the teacher) to reteach or if it requires them to provide student interventions.

Conclusion

This study focused on teacher effectiveness. This mixed method study examined STAAR data with teacher perception data to see if patterns existed between teacher perceptions of their preparedness to teach and understand the TEKS and the achievement of their students on STAAR. Several types of student assessments were administered throughout the academic school year with data meetings occurring after each assessment. As a result of the data analysis, intentional interventions were put in to place to support teacher and student learning. In a related study, data indicates that personal improvement through "professional development is a critical component of an educator's job description" (Jackson et al., 2012, p. 17). The final results of this study may encourage school leaders to consider teacher perceptions as they relate to their preparedness and understanding to teach the TEKS. By gaining a better understanding of teacher perceptions, school leaders could support student learning by first supporting teacher

learning. In addition to supporting teacher and student growth through data-driven professional development activities, this research may also have implications for measuring the effectiveness of school leaders, teacher education programs, and mentor programs.

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Appendix A

Approval from the University of Houston Human Subject Research Committee

UNIVERSITY of HOUSTON

DIVISION OF RESEARCH

September 2, 2014

Christina Gomez
Dean, Education

Dear Christina Gomez,

Based upon your request for exempt status, an administrative review of your research proposal entitled "HOW DO TEACHER PERCEPTIONS IN A TITLE ONE SCHOOL REGARDING THE DIFFICULTY IN TEACHING THE TEXAS ESSENTIAL KNOWLEDGE AND SKILLS IMPACT STUDENT ACHIEVEMENT IN THIRD AND FOURTH GRADE READING AND MATH: IMPLICATIONS FOR INSTRUCTIONAL LEADERSHIP AND TEACHER PREPARATION PROGRAMS" was conducted on August 20, 2014.

In accordance with institutional guidelines, your project is exempt under **Category 4.**

As long as you continue using procedures described in this project, you do not have to reapply for review.* Any modification of this approved protocol will require review and approval by the Committee.

If you have any questions, please contact Nettie Martinez at 713-743-9211.

Sincerely yours,

Kirstin Rochford, MPH, CIP, CPIA
Director, Research Compliance

*Approvals for exempt protocols will be valid for 5 years beyond the approval date. Approval for this project will expire **August 26, 2019**. If the project is completed prior to this date, a final report should be filed to close the protocol. If the project will continue after this date, you will need to reapply for approval if you wish to avoid an interruption of your data collection.

Protocol Number: 14543-EX

316 E. Cullen Building Houston, TX 77204-2015 (713) 743-9204 Fax: (713) 743-9577

Appendix B

ISD Consent To Participate In Research Study

Independent School District

Permission to Apply for Research Study

You must first obtain the approval of the appropriate **district level administrator** *prior to* beginning a master or doctoral research project. Complete this form, attach all RESEARCH STUDY REQUIREMENTS, and submit it to the Assistant Superintendent of Curriculum and Instruction.

1. Applicant/s
   a. Name/s & Title/s Christina Gomez Date 6-14-14
   b. School/Building (if employee) _____
   c. Telephone number _____
2. Description of proposed research
   a. Title of project How Do Teacher Perceptions Regarding the Difficulty in t
   b. Duration of project (e.g., 6 months, 3 years) _____ From: 8/13 To: 8/14
   c. Description of people participating in the project:
      (1) Number 398 (2) Age(s) 8 to 12 (3) Grade Level(s) 3rd & 4th
   d. Name/s of schools/s _____
   e. Does this research require hiring additional employees? Yes No ✓
      How many? NA Position/s and Number NA
3. Who is your subject area program director if you are an employee? _____
   Have you discussed this project with him/her? Yes No ✓
4. How will the proposed research benefit Aldine students? The goal of this research is to examine how teachers's perceptions impact student achievment, & to design differentiated PD opp
5. Attach **Research Study Requirements** as stated on the following page.

FOR OFFICIAL USE ONLY

NA
Campus Administrator(s) Date

Cabinet Level Administrator Date

7-17-14
Assistant Superintendent of Curriculum/Instruction Date

(Approved) Disapproved

RECEIVED
JUN 10 2014
Asst. Superintendent Priscilla Ridgway