THE RELATIONSHIP BETWEEN THE HABERMAN STAR TEACHER PRE-SCREENER SCORE AND THE STUDENTS' ACADEMIC GROWTH IN A LARGE URBAN SCHOOL DISTRICT'S LOW-PERFORMING SCHOOLS

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

Karla Loria

December 2014

THE RELATIONSHIP BETWEEN THE HABERMAN STAR TEACHER PRE-SCREENER SCORE AND THE STUDENTS' ACADEMIC GROWTH IN A LARGE URBAN SCHOOL DISTRICT'S LOW-PERFORMING SCHOOLS

A Doctoral Thesis for the Degree
Doctor of Education
by
Karla Loria

Approved by Doctoral Thesis Committee:

_____

Dr. Stephen Busch, Chairperson

_____

Dr. Angus McNeil, Co-Chairperson

_____

Dr. Wayne Emerson, Committee Member

_____

Dr. Robin McGlohn, Committee Member

_____

Dr. Robert Borneman, Committee Member

_____

Robert H. McPherson, Dean

College of Education

December 2014

Dedication

This dissertation is dedicated to my husband Mainor, whose words of encouragement and support helped me every step of the way. Words cannot express the gratitude I feel to have him as my friend and loving husband. I dedicate this work to my beautiful daughters, Melania and Karina, whose commitment to be the best they can be inspires me each day.

I dedicate this work to the Lord, whose words of wisdom remind me that it is by His grace that I exist, and that it is not a title what makes me wise but what He said to mankind in Job 28:28, “the fear of the Lord, that is wisdom; and to shun evil is understanding”.

Acknowledgement

I would like to heartily thank my boss, Superintendent Dr. Terry Grier, for having trusted in me and supported me throughout the years. His passion and commitment to offer students the best education that will prepare them for the demands of the future is a daily motivation. I offer my regards and blessings to my professors, all my colleagues and friends who offered words of encouragement and guidance during the completion of this project.

THE RELATIONSHIP BETWEEN THE HABERMAN STAR TEACHER PRE-SCREENER SCORE AND THE STUDENTS' ACADEMIC GROWTH IN A LARGE URBAN SCHOOL DISTRICT'S LOW-PERFORMING SCHOOLS

An Abstract
of 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

Karla Loria

December 2014

Loria, Karla. “The Relationship Between the Haberman Star Teacher Pre-Screener Score and the Students’ Academic Growth in a Large Urban School District's Low-Performing Schools.” <Published or Unpublished> Doctoral Thesis, University of Houston, December 2014.

Abstract

A large number of students are failing or are at-risk of failing in schools across the US. Low-income and minority students, specifically African American students, have a reduced chance to get teachers of high quality when compared with their non-minority, non-low-income peers (Center for Public Education, 2005). Teacher attrition has a significant cost to school districts (The Cost of, n.d.). Teacher effectiveness is an important factor in student growth and achievement (Wahlstrom, Louis, Leithwood and Anderson, 2010). The present study used 2010-2013 archival data from grades fourth and fifth in 49 low-performing schools in a large urban district in Texas. The purpose of this study was to determine if a relationship existed between the Haberman Star Teacher Pre-Screener score and the students’ academic growth using scores of the State of Texas Assessment of Academic Readiness (STAAR) in English Reading and Mathematics as measured by the Educational Value-Added Analysis System. In this correlational study, two types of inferential analyses were conducted to measure the correlation and the strength of the relationship between the two variables. The analyses were the Pearson’s Correlation Coefficient and a simple linear regression. During the analysis, it was noted that the teachers hired with the Haberman Star Teacher PreScreener online questionnaire had a greater tendency to return to the school as compared to those hired in the same years without using the Haberman online tool, somewhat alleviating these particular

schools' teacher turnover in the year 2013. Although the relationship between the 2 variables was not statistically significant at $p = <0.01$, it was positive in each instance and statistically significance at $p=<0.05$ in one instance. Suggested recommendations included to add the face-to-face component of the interview to the online pre-screener for the teacher recruitment process for low-performing schools, and to increase the sample size in future studies to determine any relationship with statistical significance. These recommendations should be taken with caution as there are other variables that influence teacher effectiveness and the small sample size of the study.

Table of Contents

List of Tables

List of Figures

Chapter 1

Introduction

This study focused on the existing relationship between the Haberman Star Teacher Pre-Screener score and the fourth and fifth grade students' academic growth in reading and mathematics standardized state tests in the lowest performing schools in one of the largest urban school districts in the nation. Over the years, the United States has experienced moments of negative perceptions regarding the public education system resulting in different reform initiatives centered on increasing student achievement. These waves of initiatives come accompanied with higher levels of stress from multiple expectations on educators, generating high turnover of teachers. Excess demands on the teachers create what is commonly known as the "revolving door"—where significant amount of teachers abandon the profession due to reasons different than retirement (Ingersoll, 2002). When these demands take place in urban schools impacted by high levels of poverty, the number of teachers leaving is even higher (Ingersoll, 2003).

There is not enough evidence to link teacher traits and characteristics to their effectiveness in the classroom that can be identified during the recruitment process (Rockoff, J., Jacob, B., Kane, T., & Staiger, D., 2008). Structured interviews have been developed throughout the years to assist school districts in selecting teachers who will be effective with children and youth impacted by poverty. In an attempt to measure teacher effectiveness, many school districts have adopted statistical measures in addition to principals' observations to more accurately determine the impact a teacher has on student learning based on the students' performances on standardized tests. These measures provide district and policy makers with valuable information to improve teaching and

learning. Districts use statistical analyses of multiple metrics that analyze student academic growth over time. These measures can help determine which schools or teachers positively impact student academic growth at a faster rate, or which aggregated variables (teacher preparation, school size, school budget, etc.) affect growth rates (Shin, 2007). It is important, however, to note that these types of analyses measure only the teachers' contributions on the students' academic growth and not other contributions the teacher may have had on the students' development throughout the year, such as social and emotional support.

Discussion around what model to measure student academic growth should be used is widely discussed by school districts and states. In a *Practitioner's Guide to Growth Models*, Castellano and Ho (2013) define growth as "a collection of definitions, calculations, or rules that summarizes student performance over two or more time points and supports decisions about students, their classrooms, their educators, or their schools". Growth models summarize –usually by quantifying– student academic performance over at least two periods of time (Castellano & Ho, 2013).

In general, growth models support 3 fundamental interpretations:

1. *Growth description*: how much academic growth? The absolute academic growth of a student or a group of students.
2. *Growth prediction*: academic growth to where? Predicting future status of a student or a group of students based on past scores.
3. *Value-added*: what caused the academic growth? Inferring what caused the academic growth of students by connecting this growth to an individual teacher or school.

There are several value-added models (VAMs) that measure student academic growth using different data points. These VAMs can be categorized in 4 different groups (Goldhaber & Theobald, 2012).

1. VAMs that account student background information.
2. VAMs that do not account student background information.
3. VAMs that compare teachers across schools, districts or states.
4. VAMs that compare students with similar test scores history.

Differences among these models include the type of information they account for in the calculations. For example, one model does not take into account the background aspects of students, when another one does. The results for these value-added models are comparable as long as they use prior achievement information of the students (Goldhaber & Theobald, 2012).

The data used for this study is from a large urban school district in the southwest region of the United States. This district interprets growth using a combination of statistical analyses to determine teacher effectiveness as it relates to impacting student academic growth: student growth percentiles, called Comparative Growth within this district, to describe and predict student growth (Colorado Dept. of, n.d.), and the value-added model based on Dr. William Sanders Education Value Added Analysis System (EVAAS®) to describe and predict student academic growth.

There are a variety of value-added models to measure teacher impact on student academic growth. Value-added models use past test scores to predict future test scores of a student. The difference detected in the previous and current test scores in standardized tests is what is considered “student’s growth”. A given teacher’s student growth is

averaged and then ranked with other same grade and content teachers within a district or a similar group of teachers to determined their value-added "score" (Goe, Holdheide & National Comprehensive Center for Teacher Quality, 2011). Differences among the value-added models include accounting of student background data, school, classroom resources, and comparisons among teachers across the state, across the district, or across the school (Goldhaber & Theobald, 2012). When a student performs "well" on the standardized test as predicted, the teacher is considered "average". At the same time, if the student performed higher than predicted or lower than predicted, the teacher is considered above average or below average (Goe et al., 2011).

The purpose of this study was to analyze if there is a relationship between the scores of the teacher's HSTPS and the impact of the teacher on student academic growth as measured by the district's value-added model in its lowest performing schools. In addition, the study shed light regarding the tendency that teachers who taught in a low-performing school had to return to teach in the district on the year 2013.

Background of the Problem

There are large numbers of failing students and students at-risk of failing in US schools (The Haberman Foundation, n.d.). Teacher effectiveness is an important factor in student growth and achievement. Many school districts are consistently recruiting and selecting teachers that have the potential to increase students' academic level. Studies show that there is a higher attrition of teachers in urban low-income schools (Carroll & Hunt, 2003). This attrition represents an extra challenge to the schools serving children in poverty.

School districts face the immense task of finding teachers that will be effective

and will stay on the job long enough to impact higher student performance. Millions of dollars are infused into low-income schools each year by the United States Government to increase student academic performance. Nonetheless, student achievement has not always been a primary focus of the U.S. Government. For decades, the government stayed apart from educational decisions until 1957 when the Russian satellite Sputnik was perceived as a threat to the United States' security. President Eisenhower recognized that the Russians had developed a love for mathematics and science in elementary students and was convinced that, eventually, this advancement in science was going to take Russia to a dominant position in the world, leaving the United States at a disadvantage (D.D. Eisenhower, Staff Notes, 1957).

Recognizing that American mathematicians and scientists were basically working in isolation, the government decided to increase science lessons in schools to develop a new generation of scientists. Approximately three hundred million dollars (D.D. Eisenhower, Staff Notes, 1957) were poured into the educational system to increase the number of young mathematicians and engineers. Historian and former Assistant Secretary of Education under President George H.W. Bush, Diane Ravitch, explained that during that period of time, bright children were pulled aside by their teachers and principals and were told they were going to study physics and foreign language (PBS, 2009).

In 1964, the government continued with their attempts to improve education. Again, millions of dollars were given to schools in poverty during the Civil Rights movement. Soon after, the need to support English Language Learners (ELL) arose in 1968. Later, the inclusion of students with disabilities in 1975 became a focus for the

government. In 1983, the National Commission of Excellence in Education assembled by T.H. Bell, U.S. Secretary of Education, shared their report, "A Nation at Risk", with the nation, reporting important gaps in education (Burdick, 2012). Almost twenty years later, President George W. Bush signed into legislation the No Child Left Behind Act (NCLB) of 2001 and prescribed mandatory testing and sanctions to schools with poor performance (Public Law 107-110, 2001).

The No Child Left Behind Act (2001) brought to the surface not only student achievement as the most important goal of education but also high stakes accountability. With this accountability came the added pressure that all students must perform at high levels and the stress in teachers that they can lose their jobs if student achievement is not improved (Dworkin, 2001). Nonetheless, little guidance has been given to school districts on how to achieve the primary goal of 100% of students performing at the proficiency level by 2013-2014 as measured by standardized state tests and as prescribed by NCLB (Public Law 107-110, 2001).

Good teaching matters (D. Stafford, personal communication June 17, 2013). Good teachers help students achieve higher scores on standardized tests and excel in other areas (McKinney, Berry, Dickerson, & Campbell-Whately, 2007). All researchers come to an agreement that good teaching does matter (Wiley, 1999). Hence, finding effective teachers with the qualities and attributes needed to commit to the task of teaching all students is a major task for many districts. Schools can impact student achievement by implementing different initiatives to improve student learning with the expectation that effective teaching practices will result in higher student learning. Such initiatives may include implementation of effective instructional delivery techniques,

which studies show it represents a gain of 16 percentile points above the expected gain of teachers who do not use effective instructional delivery techniques (Haystead & Marzano, 2009). Other researches have stressed the fact that longer school years can minimize summer academic loss due to the disruption in the rhythm of instruction (Cooper and ERIC, 2003). In addition, class size reduction can also contribute to increased student achievement when implemented in a much focused approach (Chingos and Center for American Progress, 2011).

No Child Left Behind Act (2001) measures schools' adequate academic growth by comparing the percent of students proficient in state standardized tests in one grade level to the percent of students proficient in the same grade level but the following year. Therefore, it compares two groups of students. On the contrary, value-added models measure academic progress of a student during a school year (Koretz, 2008). Value-added measures a student's academic growth from one point in time to another (Rivers & Sanders, 2002). Some districts have chosen this analysis to evaluate teachers for the impact they had on the student on a particular school year, rather than the achievement level of the student. In other words, value-added measures growth regardless of the achievement level of the student at the beginning or at the end of the year, or whether the student passed the standardized test or not.

The Comparative Growth Model is also used by the large urban school district in the southwest region included in this study. The district takes student scores and converts them into percentiles, determining the growth in their ranking (as compared to similar students) from one year to the next (C. Stevens, personal communication, June 17, 2013).

One immense challenge that all large urban districts face is finding teachers that

have a high probability of effectively helping students not only grow academically, but achieve high levels on the standardized assessments. Many districts have decided to use structured interviews when hiring teachers to identify certain qualities and attributes good teachers must possess. In the early 80's, a teacher interview called the Gibson and Dembo Teacher Efficacy Scale was largely used to determine the belief of self-efficacy in teachers to predict the teacher effectiveness and commitment to teaching (Estes, 2008). Likewise, Gallup Teacher Insight Interview has been used by many school districts. The interview has a series of questions that can predict if educators can focus on students' hope, engagement, and wellbeing. The makers of this interview affirm that these are characteristics that the best educators have (Gallup Education Knowledge Center, n.d.).

Another structured interview that has been widely used most recently is the Haberman Star Teacher Interview (HSTI), developed by Dr. Martin Haberman. This interview consists of two components: an online pre-screener and a face-to-face interview. Both components ask a series of research-based questions that evaluate the teacher's knowledge and skills when teaching students in urban, lower income settings (The Haberman Foundation, n.d.). Dr. Haberman interviewed approximately five thousand teachers throughout the years. He selected a pool of candidates for interview based on the principals' positive evaluation of the teachers, asking questions that revealed the undergirding ideology of fundamental core beliefs of these great teachers. He then crafted questions based on two interview components: pre-screener and live interview tools. Both tools assess the same set of core beliefs, although the online pre-screener should be used as a "time saver". The pre-screener tool tells you who interview in person, and the face-to-face interview tells you whom to hire (D. Stafford, personal

communication, June 17, 2013).

The Haberman Star Teacher Pre-Screener (HSTPS) was a focus in this study, most specifically on its relationship to student academic growth as measured by the value-added model used in a large urban school district in the southwest region of the United States.

Statement of the Problem

The study pursued to identify any relationship between teachers' Haberman Star Teacher Pre-Screener score and their subsequent impact on student academic growth as measured by the district's value-added model in its lowest performing schools. When students are placed in classrooms of ineffective teachers, their learning is hindered. More significantly, if they are placed with ineffective teachers for two or more consecutive years, the effects are detrimental. On the contrary, when students are placed in classrooms of effective teachers, especially for several consecutive years, their academic achievement and growth is positively impacted (Rivers & Sanders, 2002). Districts can use the Haberman Star Teacher Pre-Screener tool as a way to initially screen teachers, and its scores can then be used to determine whether a teacher candidate can or cannot continue participating in the remaining recruitment and selection process. The district in this study uses student academic growth models to determine the student's growth from one year to the next, including Dr. William Sanders' value-added model, EVAAS®.

This study focused on the existence of a relationship between the HSTPS score and the teacher's impact on student academic growth as measured by the district's EVAAS® model in its lowest performing schools. Limited studies have been conducted around the existence of the relationship between the HSTPS score and the teacher's

impact on student academic growth as measured by value-added models, particularly the EVAAS® (D. Stafford, personal communication, June 17, 2013).

Purpose of the Study

The purpose of this doctoral study was to determine any existing relationship between the Haberman Star Teacher Pre-Screener score and the fourth and fifth grade students' academic growth in reading and mathematics standardized state tests in low-performing schools in one of the largest urban school districts in the nation. The academic growth of the students was measured by the value-added analysis ran for the district. For the purpose of this study, low-performing schools were the schools designated as improvement required, priority and focus schools by the state accountability system. The teachers considered for this study had a passing score in the Haberman Star Teacher Pre-Screener score as determined by the district in study. Hence, the goal of the study was to determine if the higher the Haberman Star Teacher Pre-Screener score, the more growth the students in the classroom showed on standardized tests as measured by the value-added model selected by the district.

Significance of the Study

Urban districts serving large numbers of students in poverty struggle to find and retain effective teachers (D. Stafford, personal communication, June 17, 2013). Additionally, urban school districts with low-performing schools have difficulty closing the achievement gap between student populations because they have a hard time closing the teacher quality gap (Barnes, Crowe & Schaefer, 2007).

Teacher attrition has an implied monetary cost to districts in addition to the lack of students' progress and stability. Teacher turnover in urban schools is higher than in

non-urban school districts. There is a significant difference in the types of teachers' stressors that create job dissatisfaction between urban public schools with a high level of poverty and suburban district schools with lesser levels of poverty (Ingersoll, 2003).

However, not all monetary constraints caused by teacher attrition remain at the school level. Ineffective teaching, especially in urban schools, will result in students who lack basic skills since the early grades. Urban school environments tend to allow students to slip through school years, eventually resulting in school failure (Haberman, 2004 pg. 59). Seven thousand students drop out of school every day (The White House, 2010); almost 5 students each second. Each dropout student represents high costs to society in potential lost wages, culminating to around $300 billion every year. In addition, if a dropout becomes a life-long criminal, the cost increases to an average $1.5 million per dropout in his or her lifetime (D. Stafford, personal communication, September 27, 2014). One out of every ten male dropouts is incarcerated on any given day, compared to one in every thirty-five high school graduates (Dillon, 2009). "A teacher can make a difference" in this statistic by having a positive impact in the lives of his or her students (D. Stafford, personal communication, September 27, 2014).

Several studies have focused on the use of Haberman Star Teacher Interview to select and hire teachers in urban school districts. At the same time, multiple studies around value-added models and its uses in school districts have been done, including the use of value-added for informational purposes and for teacher and schools' evaluation. Nonetheless, there is not enough research to determine if there is relationship between the HSTPS score and the teacher's subsequent impact on student achievement and growth as measured by value-added models (D. Stafford, personal communication, June 17, 2013).

There has been little research pertaining to the ability to predict teacher success and effectiveness at the time of recruitment due to the lack of data that is normally available (Rockoff, Jacob, Kane, & Staiger, 2008).

The results of this doctoral study could have a significant impact for large urban school districts and their teacher recruitment and selection processes, which is directly linked to the district's budget and policy.

Theoretical Framework

The No Child Left Behind Act of 2001 (NCLB) has brought to the surface the need to monitor student academic growth on standardized tests and schools' effectiveness on educating students. This focus on school and teacher accountability has intended and unintended consequences that impact schools and teachers in many ways (Goldschmidt, Choi, & Beaudoin, 2012). Simple and unconditional averages for school performance or student proficiency does not adequately hold schools accountable in the areas they need to be held accountable for and often place diverse schools in a clear disadvantage (Novak & Fuller, 2003).

Teachers are the school factor that possesses the most influence on student achievement (Rivkin, Hanushek, & Kain, 2005). The NCLB Act of 2001 mandates a teacher to be "highly qualified", requiring every teacher to hold a degree in the area that they teach. However, there are effective teachers and ineffective teachers, and a great discrepancy between teacher credentials and student learning growth (Weisberg, Sexton, Mulhern, & Keeling, 2009).

Teacher effectiveness has been linked to student achievement, especially after the NCLB Act of 2001. Nonetheless it is important to remember that the school leader and

the school culture also influence a teacher and his or her effectiveness; therefore, it is important to consider that looking at student growth alone is not an absolute indicator of teacher effectiveness. Thomas Sergiovanni, a professor of Education in San Antonio, Texas, studied communities in schools and wrote about the importance of relationships as "the critical leverage point for school improvement" (Sergiovanni, 1994). Strong relationships among students and teachers and among the adults in the school building influence overall teacher performance and effectiveness.

In his book *Building Communities in Schools*, Sergiovanni (1994) explained the hierarchy of needs as described by Abraham Maslow in 1943, who used a pyramid to categorize human needs from "basic" to "higher" needs, including belonging, psychological, self-esteem, and self-actualization needs, among others. Self-esteem and self-actualization are considered higher needs, making people believe that basic needs (belonging, i.e.) are less important. According to Sergiovanni (1994), such thinking tends to make people forget about basic needs and focus on achievement and success (higher needs). As a result to this tendency of thinking, school administrations are more inclined to value more achievement and strong leadership than caring and nurturance (Sergiovanni, 1994).

His theoretical framework is founded on the fundamental idea of schools as communities bonded together by common goals and shared moral assurances rather than structured organizations held by bureaucratic systems and regulations (Westheimer, 1996).

An influencing factor on teacher's performance is the school culture. School cultures are complex dynamics of traditions and day-to-day operations of the school,

including managerial systems, collaboration opportunities, and instructional practices at the school, that, in many cases, have taken years to develop. The culture is primarily shaped by the underlying beliefs, values, and norms of all stakeholders day after day. These cultural patterns have a strong impact on the performance of everyone in the school, including adults and students, molding the way people think, act, and feel about the school (Deal & Peterson, 1999). When measuring student academic growth through standardized tests, these factors cannot be measured. In other words, these behavioral patterns play a pivotal role on student success, hence, teacher success.

Sergiovanni (2001) gave a close look at the leadership of the principal as an important factor on school performance. He concluded that the position with the greater impact on maintaining and increasing school quality was the principalship. Sergiovanni argues, "The quality of schooling is greatly influenced by the leadership of the principal (pg. 162). He added that "no other school position has greater potential for maintaining and improving quality schools" (pg. 99). The principal shapes the school culture, which affects teacher performance (Sergiovanni, 2001). In turn, school culture, teacher preparation, effectiveness of the school leaders, and curricular programs are key factors in teacher effectiveness. However, teachers understand that they are *the* variable that can make a difference in the classroom (Whitaker, 2004).

Teacher effectiveness has been seen differently since the NCLB Act of 2001. This study attempts to identify any existing relationship between teacher selection practices in a large urban school district and teachers' impact on student academic growth as measured by statistical analyses; although, it does not take into account other factors that may contribute to the student success or lack of success.

Primary Research Question

- Does a relationship exist between the teachers' Haberman Star Teacher Pre-Screener score and the student's academic growth in Reading and Mathematics STAAR tests in fourth and fifth grade in low-performing schools as measured by a value-added model?

Null Hypothesis

It is my null hypothesis that there is no relationship between the teachers' Haberman Star Teacher Pre-Screener interview score and their impact on student academic growth in the STAAR Reading and Math in grades fourth and fifth grades as measured by a value-added model.

Research Design

For the purpose of this doctoral study, quantitative data from a large urban school district in the southwest region of the United States was used to determine the existence of a relationship between the Haberman Star Teacher Pre-Screener score and the teachers' impact on student academic growth on STAAR in low-performing schools as measured by the value-added analysis chosen the district. Teacher data from a large urban school district was used; more specifically, the fourth and fifth grade teacher's Haberman Star Teacher Pre-Screener score and the teachers' value-added score in reading, math and the composite across subject areas was used in this study.

This was a correlational study to determine the strength of a relationship between the two variables. Two inferential statistical analyses were conducted to determine any existing relationships.

Assumptions, Limitations, and Scope (Delimitations)

There were several assumptions considered during this study. First, it was assumed that teachers who completed the Haberman Star Teacher Pre-Screener responded to each question honestly and without assistance from another person. Additionally, it was also assumed that the teacher understood each question as it was intended. It was assumed that the value-added methodology is a strong statistical analysis to measure student growth from one point in time to another. It was also assumed that teachers with a high value-added score possess a set of values and beliefs that can be recognized by the Haberman Star Teacher Pre-Screener.

A limitation to this study was the difference that participating low-performing schools had in their student demographics within a large urban school districts. Another limitation was that due to this study being a quantitative study, only test scores were considered to determine teacher effectiveness, when there are multiple other factors that contribute to the success of students in a particular year. These factors may include, but are not limited to, leadership style, site-based instructional organization, other teachers' effectiveness, instructional resources, parental involvement, teacher preparation programs and professional development available to the teachers. The study only included quantitative data, which did not measure these or any other qualitative factors.

In addition, the results of this study were directly linked to a particular large urban school district in the southwest, and may not be the same if the study were conducted in a different urban school district in the nation.

Definition of Terms

At risk students–students in danger of failing academically or dropping out due to being deficient in basic skills; students living in societal conditions that may affect their learning or living in situations that may affect their emotional state; or students who attend a school that lacks academic rigor or conditions to meet the students' individual needs.

Attrition – the number of teachers that leave the school or school district for reasons other than retirement.

Comparative Growth – a statistical analysis conducted in a large urban school district in the southwest area of the United States to determine student growth and teacher impact on this growth using two points in time.

Focus Schools – schools that have been identified by the state education agency as being in the top 10% of having the widest gaps in student performance when comparing the two lowest performing student groups within the school.

Haberman Star Teacher Interview – a structured interview that identifies teachers with a level of maturity, values, and beliefs that will equip them to build relationships with students through a scenario-based assessment of personal qualities (Haberman Foundation, n.d.).

High-needs campus– a campus that qualifies for supplemental federal funds based on percentage of students on free or reduced lunch.

Improvement required school – a school that does not meet minimum state standards in the state standardized assessment.

Local Educational Agency(LEA) – an authority such a public board of education legally constituted within a state to administratively control o give direction to public schools in a city, county, town, school district, or any other political subdivision of the state.

Low-income students – students from families with a gross income below the poverty level as indicated by the US Census Bureau (DeNavas-Walt, Proctor & Smith, 2013). This term is used interchangeably with the definitions *economically disadvantaged students* and *high-poverty impacted students*.

Low-performing schools – schools that are not meeting state standards and are identified by the state recognition, accountability, and support system as schools in need of improvement. For the purpose of this study, this term is used interchangeably with the definitions *priority schools* and *focus schools*.

Priority schools – a school that has been identified by the state recognition, accountability, and support system as being among the 5% lowest performing schools in the state based on the state standardized tests.

Reliability – the extent to which test scores show to be consistent when the assessment is administered in a variety of testing conditions (TEA, 2012).

School district – a government agency vested with the responsibility of operating public schools in a geographical area.

Standardized tests – tests or assessments administered to students and scored in a predetermined, standard fashion (Popham, 1999).

State of Texas Assessment of Academic Readiness (STAAR) - the state of Texas standardized test for grades third through eighth (STAAR®).

Student academic growth– the measure of growth a student demonstrates in standardized test scores from one point in time to another.

Student achievement– refers to the level of proficiency of students as measured by the state standardized test.

Title I school – schools identified under the Title I of the Elementary and Secondary Education Act of 1965 to improve the academic achievement of the disadvantaged (U.S. Department of Education, n.d.)

Validity – the degree in which an assessment evaluates what is intended to evaluate (TEA, 2012).

Urban district – a public school district that meet a certain criteria related to size (42,000 students or more) with a large percent of students from minority schools (at least 40%) in an urban designation by the state government (Eligible School, n.d.).

Value-added models – statistical analysis done in an effort to estimate the level of influence a teacher has on the academic growth of a group of students (Bill and Melinda Gates Foundation, 2011).

Summary

There are large numbers of students in US schools who are failing or are considered to be at-risk of failing (Haberman, 2004). Understanding that good teaching greatly impact students' academic growth, it is pivotal for schools, especially urban schools serving low-income students, to identify teachers who will most likely be successful teaching in these settings. Schools have undertaken the great challenge of finding effective teachers whose practices will increase student performance (D. Stafford, personal communication June 17, 2013). Over the years, the federal government has

increased school's accountability requiring schools to meet the Public Law 107-110's goal of 100% of the students passing the standardized state tests (Public Law 107-110, 2001) administered in third through fifth grades by 2014. It can be concluded that the term "effective teachers" is now directly related to the ability of the students to pass a test, although "effective teachers" have multiple definitions.

Urban districts serving large numbers of students in poverty struggle to find and keep effective teachers (D. Stafford, personal communication June 17, 2013). The Haberman Education Foundation has developed a structured interview to assist schools in finding teachers who have a high potential to be effective with children in poverty. The school district in this study uses a component of Dr. Haberman's interview in its initial steps of their recruitment process to identify teachers that may be suited to work in its schools. In addition, it uses the EVAAS® value-added model developed by Dr. William Sanders to measure the impact teachers have on student academic growth demonstrated in standardized state tests.

Chapter 2

Literature Review

Historical Background

Student achievement was not always considered to be a primary focus of the public eye and the government, but the role of the federal government in education has increased over the years. For decades, the federal government stayed aside from educational decisions and focused on building a country where mass production was stressed and achieved. It was not until 1957, under the leadership of President Eisenhower, when conversations pertaining to the enhancement of science development within the youth became common. The goal was to successfully compete against Russia. These conversations were sparked as a reaction to the launching of the Russian satellite Sputnik on October 4, 1957, which was perceived as a threat to the nation's safety under the assumption that the next action from the Russians could be missiles that would jeopardize national security. President Roosevelt affirmed that young Americans were not learning rigorous mathematics and elevated science curriculums (D.D. Eisenhower, Staff Notes, 1957).

Realizing that the Russians had embraced science as part of their lives and had developed science programs for their most brilliant youth as a window to a brighter future, Eisenhower's government declared the need to do the same and compete with Russia. On December 2, 1957 as noted in the minutes of the President Eisenhower Cabinet's meeting, it was discussed that a focus on science and mathematics needed to occur in schools throughout the nation, and 300 million dollars were allocated to help

states enhance their mathematics and science programs. There was flexibility given to the states on how to develop such programs (DD Eisenhower, Cabinet Minutes 1957).

Thereafter, the government continued with their attempts in improving education. In the early 1960's, the acceptance speech for the political party candidacy of the later elected President John F. Kennedy included his idea of a "new frontier". He described that beyond the new frontier were "uncharted areas of science and space, unsolved problems of peace and war, unconquered problems of ignorance and prejudice, unanswered questions of poverty and surplus" (American Rhetoric, J.F. Kennedy, 1960).

Elementary Secondary Education Act of 1965. After President John F. Kennedy's assassination in 1963, Lyndon Johnson assumed the office and transformed the new frontier concept into the idea of the "great society", with a clear vision of maintaining democracy and protecting civil rights. By 1964, millions of dollars were given to schools under the Title VI of the Civil Rights Act of 1964 to protect individuals from any discrimination based on race, color, or national origin in programs that were funded by the federal government (Education and Title VI, n.d.).

President Johnson signed into law the Elementary Secondary Education Act in 1965 (ESEA). This Act was a major law in the "war on poverty". It emphasized equity in the access of high quality education for all students and higher accountability standards. Under this act, the Annual Measurable Objectives (AMOs) were intended to offer states a way to track their student learning progress by student subgroups in reading and mathematics. It also authorized the federal government to allocate funding to states to run educational programs for the most impoverished students using their discretion (Washington Department of, n.d.). This act was an important component that President

Lyndon Johnson's agenda called "The Great Society". It intended to narrow the economical chasm that separated the races (Association for Educational, 2001).

The ESEA of 1965 is the underpinning of the No Child Left Behind Act of 2001 (Whilden, 2010) when it was reauthorized. Similar to the ESEA law, it provided higher accountability standards; however, this time it included sanctions to states and school districts and schools that did not meet such expectations. The Bilingual Education Act of 1968 followed the Civil Rights Act of 1964 to address the need of bilingual instructional opportunities during the instructional day to English Language Learners (Education and Title VI, n.d.). Included in the war against poverty and also funded by federal funds through Title VI was the creation of Head Start. It was a new opportunity for low-income families to enroll their preschool children in a program focusing on health and early child development. This act also included equal educational opportunities for children whose primary language was not English (Public Law 88-362, 1964).

The government once again became involved in the U.S. educational system, when the congress ratified the Education for All Handicap Children Act of 1975. This law protected individuals with special needs and supported the states in meeting the students' specific needs. The federal government poured 14 billion dollars to the states to meet the demands of this act, which was amended in 1997 as the Individuals with Disabilities Education Act (IDEA). Approximately 27 billion dollars were dedicated to the IDEA of 1997 (Background and Analysis, n.d.).

In 1983, the "A Nation at Risk" report shook the foundations of the educational system. This report published by the federal government addressed the current educational issues of the time and highlighted important educational gaps and the

regression of the academic performance of students since Sputnik. It suggested that the new generation of Americans would not be able to reach, or get close to, the academic skills of their parents (Burdick, 2012). It also pointed out the inability of many teachers to teach and their lack of preparation in their content area, in addition to the low salaries that would generate attrition of the brightest teachers to better paid jobs in the industry. Most importantly, the report suggested the use of standardized testing on educational milestones, especially in the last year of high school and before entering college (State-Federal Education Policy, n.d.).

President Clinton gave a stronger boost to standardized testing when he presented his plan to action for the American Education in February 1997 during his Address on the State of the Union. His plan, which would require 50 billion dollars in 1998, included several basic principles. One of these principles was to have a close look to national education standards in order to prepare students for the future. The plan urged districts to strengthen their academic curriculums and adopt high national standards, as well as standardized testing in 4thand 8th grades to ensure that such standards were met (Clinton, 1997). He also proclaimed his strong belief of ending social promotion as a crucial breakthrough to better education. This idea was stressed again in the Guide to Educators and State and Local Leaders from the U.S. Department of Education when it concurred with the need to end social promotion, stating that it is unacceptable for all students, teachers, taxpayers, and employers (Wiley, 1999). Soon after, a new law was enacted that changed the future of education in the U.S.

No Child Left Behind. The No Child Left Behind Act of 2001 (NCLB) was signed by President George W. Bush into law in 2002 and marks the most recent

reauthorization of the ESEA of 1965. The law enforces strict sanctions to schools and school districts that fail to meet Adequate Yearly Progress (AYP). President G.W. Bush took pride on this law, stating that it was the "cornerstone" of his administration. He added that despite the nearly 200 billion dollars invested in education since the enactment of ESEA of 1965, too many of the most fragile children were not being adequately prepared for their future, and therefore, "left behind" (Bush, 2002). The new law required states to abide to a series of proposed principles and improvement strategies, which included higher standards, higher accountability for states, school districts and schools, and a bolder ability of choice for parents of students attending schools that did not meet expectations (Public Law 107-110).

Primary goals of the law were to close the achievement gap between student groups and increase school's accountability. Schools failing to meet AYP expectations for consecutive school years would receive a collection of sanctions such as the implementation of a school improvement program, inclusion of supplemental educational services by state-authorized organizations, and loss of federal funds. An additional sanction was prescribed to schools that were categorized as Title I, giving options to parents to transfer their children out of the failing schools (Texas Education Agency, n.d.).

Title I was the first section of the ESEA designed to provide additional fund allocation to local education agencies with an elevated number of students coming from poverty. These funds were allocated based on statutory formulas, which included four separate formulas that were combined for a single fund allocation. According to the U.S. Department of Education (n.d.), formulas under the statute are:

1. Basic Grant, allocated to basically all Local Educational Agencies (LEA).
2. Concentration Grant, additional funds to education agencies with at least 6,500 students in poverty.
3. Targeted Grant, further funding for educational agencies with higher concentration of students in poverty.
4. Education Finance Incentive Grants formula, for education agencies that incorporated measurements to assess the state's commitment to deliver adequate funding to education agencies (US Department of, n.d.).

Race to the Top (RTTT). President Obama announced his intentions to strengthen student learning with his program Race To The Top (RTTT). This program was authorized under the American Recovery and Reinvestment Act of 2009 (ARRA), providing funding to states and school districts to develop assessments that will accurately inform what students know and can do, and to measure student achievement against the state standards that will prepare them for the career of their choice (Duncan, n.d.). States and school districts would need to apply to the RTTT grant after they fulfill a number of requirements. An important requirement is a reformed teacher evaluation that uses multiple measures, including student performance, career development, and support of professional development (Reform Support Network, n.d.).

Increased school accountability. The NCLB Act of 2001 is a long and complex law, with five major objectives to ensure student proficiency in standardized tests (Yell, 2010):

1. 100% of the students demonstrating proficiency in standardized reading and mathematics tests by 2014.

2. 100% of the students graduating from high school by 2014.
3. Learning environments in all schools will be safe, drug free and conducive to learning by 2014.
4. All English language learners will be proficient in standardized test, demonstrating high levels of performance in mathematics and language arts.
5. All teachers will be highly qualified by 2006.

The law clearly stipulated that each school district would be required to provide annual reports to inform their AYP status to parents and communities each year. For this purpose, states were obligated in the year 2001-2002 to set a baseline to determine the proficiency level of student achievement. Consequently, the states were required to create a 12-year plan to increase the percentage of students achieving at a proficient level as measured by their state standardized tests (Wenning et al., 2003).

For reporting purposes, the students needed to be grouped by pre-established criteria and each subgroup represented an AYP target. To meet AYP targets, each school had to develop measurable goals for each subgroup with increments to attain the 100% proficiency goal by the end of the 12-year plan. Failure to meet the AYP target goals for two or more consecutive years resulted in imposition of sanctions that incremented in severity each year they failed to meet AYP targets (No Child Left, n.d.). These schools that were considered to be in need of improvement were labeled with a "school improvement" status. As noted above, each consecutive year not meeting AYP targets resulted in additional sanctions, from school transfer option, to supplemental tutoring

services paid by the school, to corrective action and reconstitution. Failure to adhere to the sanctions could result in school closure (No Child Left, n.d.).

Many critics of the requirements outlined by the NCLB Act of 2001 have emerged since the enactment of the law in 2002. Critics agree that there is an eminent need to close the achievement gap among student subgroups, but they have strongly criticized the accountability metrics and the reporting requirements. The law was responsible for labeling thousands of schools as failing schools. Although some schools deserved that label, others did not. Schools acquired this label based on poor performance on standardized tests, but the law dedicated a few lines to determine school quality other than standardized test scores (Popham, 2004). Other critics have highlighted the unfortunate reality that the ultimate goal of 100% of the students attaining a proficiency level by the year 2014 was set without considering what it implies (Meier et al., 2004).

Critics have also emerged for the law requirement of all teachers being highly qualified by the year 2006. To this regard, it is proclaimed that although content knowledge is important to teach any subject, it shortchanges the fact that knowledge alone cannot determine whether a person can teach in a way that results in students' learning (Barnes, Crowe, & Schaefer, 2007). To ensure that the teacher not only has knowledge in the content but also basic skills in pedagogical knowledge, the National Council for Accreditation of Teacher Preparation (NCATE) requires that professional teacher preparation must simultaneously increase the teacher candidate's content knowledge and the general pedagogical knowledge and skills of the teacher candidate. It also requires that teacher candidates increase their knowledge in student learning to assess, analyze data, and implement relevant learning experiences for the students

according to the students' developmental stage and prior experiences and knowledge (Unit Standards in Effect, 2008).

According to the National Council for Accreditation of Teachers (2006), teachers that complete a full teacher preparation program show high success rates when compared with teachers that do not complete a full teacher preparation program. The difference on teachers highly qualified as determined by the NCLB Act of 2001 and a high quality teacher preparation that includes student teaching, induction programs and appropriate teacher certification is that the last ones are more likely to successfully stay in education as compared to those who had inadequate training (National Council for, 2006). In other words, the mere act of passing a content knowledge test does not imply that the teacher is highly qualified to teach.

Toch and Rothman (2008) explained the findings of a study in 2005 by Thomas Kane of Harvard University and Douglas Staiger of Darthmouth University on more than 9,000 teachers from Los Angeles. They explain how their findings demonstrate no indicators supporting the mere accreditation of a teacher credential will result in higher student learning in that teacher's classroom. In some occasions, the teacher without a licensure (that would certify the teacher as a highly qualified teacher as indicated by NCLB) produced substantially higher results than his or her colleagues holding a license (Toch & Rothman, 2008). Hence, it is crucial that all schools, particularly low-performing schools, have not only certified teachers but teachers that will have a greater chance to effectively increase students' learning. For some of the students in these schools, a great teacher could be the difference between life and death (D. Stafford, personal communication, June 17, 2013).

State Accountability

Schools within each of the 50 states and Local Educational Agencies (LEA) are held accountable under two systems: the state accountability system and the federal system, which was enforced by the No Child Left Behind Act of 2001 (U.S. Department of, n.d.). However, the state in which the study is being done led the nation in state accountability systems since 1993 when the state's legislature enacted statutes to hold accountable LEAs and evaluate performance of schools based on the state standardized assessments. Under this statute, the state is required to provide supports and interventions to improve student performance in low-performing districts. Interventions may include external appointment of a team to assist and monitor intervention plans for improvement that could lead to the need of hearings and corrective plans of action. At the school level, interventions may include appointment of external teams to support and monitor the individual school intervention plan and the establishment of performance standards that escalate if the school fails to improve and meet state standards. Sanctions may lead to campus repurposing, change in school leadership and management, and even in school closure (U.S. Department of, n.d.).

To respond to the multiple demands of comprehensive school improvement, the state included in this study created a research-based framework to support schools and LEAs in its continuous improvement efforts. The framework provisions for changes in district ownership that will generate improvement in performance of the schools. It provides guidance on strategically utilizing state supports for low-performing schools through skills and capacity development of districts' central office teams in a structure that facilitates organization, delivery, and monitoring of the improvement process (Texas

Education Agency, n.d.). The state utilizes a methodology to categorize its lowest performing schools as priority or focus school.

Priority and focus schools. Priority elementary schools are Title I schools serving large numbers of economically disadvantaged students and fall in the lowest 5% performing schools. The methodology utilized by the state to identify these schools starts with all Title I schools being rank-ordered based on their performance on the state standardized assessment State of Texas Assessment of Academic Readiness (STAAR). The lowest 5% of the schools are identified as priority schools based on the overall performance of elementary students in the areas of reading, math, science, and writing. It includes schools that receive Title I federal grants for student improvement. To exit the priority status, a school must make significant progress towards meeting state targets for two consecutive years. If a school maintains its priority status for consecutive years by continuously failing to meet state targets, it is required to engage in reconstitution plans and adopt additional sanctions, more prescribed plans, and monitoring systems. Priority schools must continue implementing improvement plans for 3 consecutive years (Texas Education Agency, n.d.).

Focus schools will also be Title I schools that, although may not be the lowest performing schools in the state, have the widest achievement gaps between the student groups. The schools that fall in the top 10% of schools with the widest achievement gap among student groups are identified as focus schools. To exit the focus status, a school must make significant progress in closing the achievement gap for two consecutive years. Significant progress is considered when the school closes the achievement gap among student groups by at least 50%. Failure to make significant progress will result in

additional sanctions. All focus schools must engage in intervention plans for 3 consecutive years (Texas Education Agency, n.d.).

Title I schools may fall in both categories, focus and priority, if they are ranked among the lowest 5% in the state and also falls in the top 10% of schools with the widest achievement gaps between student groups (Texas Education Agency, n.d.). If such is the case, the priority status will take precedent.

For both, priority and focus elementary schools, the achievement results from state standardized tests used to run the analysis include federally required subject areas such as reading, mathematics, science, and writing.

Standards and Assessments

The NCLB Act of 2001 created a new standardized testing era in the United States. The Act counts with the state assessment systems as one of its pillars (US Department of, 2008). Administering standardized testing in schools provide administrators with useful data on student achievement. When analyzed thoroughly, schools can identify instructional needs, grade level proficiency rates, effectiveness of the instructional program of the school, and the capability to monitor whether the school is making AYP as stipulated by NCLB and the state requirements (Weaver, 2011). The Student achievement data is a measure of knowledge for admission into higher education entities, passing to the next grade level, and many other uses (Stull, 2006). The data are reported in aggregated and disaggregated forms with the idea of identifying improvement areas (Marsh, Pane, & Hamilton, 2006).

McGlynn (2008) and Redell (2010) have expressed concerns regarding standardized testing as mandated by NCLB Act of 2001. States have different definitions

to what proficiency means, making the NCLB goal of 100% proficiency by 2014 weak in scientific significance (McGlynn, 2008). According to Redell (2010), the NCLB Act of 2001 encourages teachers to "teach to the test" in an attempt to avoid the serious sanctions should the children perform poorly on the test. This high stress on teachers and administrators is noticeable to students, and the unintended consequences on students are detrimental to their self-esteem and well-being (Redell, 2010). Teachers working in schools that are both low-performing and have large numbers of students impacted by high-poverty experience additional stressors that result in higher teacher attrition. In order for schools to meet NCLB requirements, school districts in urban settings serving children impacted by high poverty must address an even higher attrition problem (McKinney et al., 2007).

Texas state tests. The Texas Education Agency (TEA) provides a brief historical overview of the standardized assessment (Historical overview, 2008). The assessments for third and fifth grade students were first administered in 1980 when the state created legislation to evaluate the students with the Texas Assessment of Basic Skills (TABS). In 1990, the administration of the Texas Assessment of Academic Skills (TAAS) replaced the TABS. Spanish versions of the TAAS were developed for bilingual students firstly in third grade, and by 1996 for fourth and fifth grades. In addition, English Language Learners (ELL) in third through fifth grades were given yet another test, the Reading Proficiency Test in English (RPTE) to evaluate their English acquisition progress. Alternative assessments were developed in 2001 for special education students in grades third through fifth (Historical overview, 2008).

Texas Assessment of Knowledge and Skills (TAKS) replaced the TAAS test in 2001. TAKS was known to be a more comprehensive test to evaluate proficiency on curriculum standards in third through fifth grades. An additional test, the Texas English Language Proficiency Assessment System (TELPAS), was given to ELL in all grades to comply with requirements under the NCLB Act of 2001. Additional accommodations and modifications were provided to special education students who were ELL and for students with severe disabilities. Most recently, in 2012, the State of Texas Assessment of Academic Readiness (STAAR), a more rigorous test that requires multi-step processes to solve problems and with a limit amount of time to be completed, replaced the TAKS (Historical overview, 2008).

As mentioned above, due to the complexity of requirements to meet AYP standards added to the normal teacher stressors, school districts in urban settings serving children impacted by high poverty must address an even higher attrition problem (McKinney et al., 2007).

Teacher Turnover

Teacher attrition costs school districts significantly (The Cost of, n.d.). Teacher turnover in urban schools is higher than that of non-urban schools as a result of the added stressors that these school environments have. It affects school district management. School districts invest an important amount of resources in recruiting effective teachers (Barnes, Crowe, & Schaefer, 2007). Urban schools impacted by high-poverty have an even more difficult challenge when compared to non-urban, low-poverty impacted schools by successfully selecting and retaining effective teachers. Very often, these urban schools staff their classrooms with inexperienced, young teachers that tend to leave

education at high rates (McKinney et al., 2007). Urban school districts with low-performing schools have difficulty closing the achievement gap between student populations because they have a hard time closing the teacher quality gap (Barnes, Crowe, & Schaefer, 2007).

Struggling schools spend valuable time as they are constantly rebuilding their teaching staff to great cost to the district and the students. The monetary cost would vary depending on the size of the district (Barnes, Crowe, & Schaefer, 2007). In a study conducted by Barnes, Crowe & Schaefer (2007) they find that the cost of teacher turnover in school districts, ones like Chicago, IL., would have an average cost of $17, 872 per teacher. In smaller districts, in areas like New Mexico, the cost per teacher turnover is approximately $4,366 (pg.4).

The National Commission on Teaching and America's Future (NCTAF) District's Cost of Teacher Turnover calculates that the cost of each teacher leaving an urban school is approximately 40% higher than that of a teacher leaving a non-urban school district. Following NCTAF process to determine a district's cost of teacher turnover, the large urban school district included in this study had a cost of over 17 million dollars replacing the teacher leavers in the school year of 2012-2013 (District costs of, n.d.). Without a doubt, thousands of taxpayer dollars are lost each time a teacher leaves a district, especially a large urban school district. Teacher turnover represents a high cost to the schools. Thus, teacher turnover highly impacts school districts struggling with low-performing, high minority, and impoverished schools (Barnes, Crowe, & Schaefer, 2007). These schools' attrition rates are consistently high, and turnover costs become an exhaustive drain to the schools and to the administrators of these schools.

This does not only translate to economic losses but also to a negative impact on students (Barnes, Crowe, & Schaefer, 2007). Low-income and minority, most specifically African American students, are less likely to get teachers of high quality than their non-minority, non-low-income peers (Center for Public Education, 2005).

Researches have studied the reason for teacher attrition, finding that the vast majority of teachers leave the profession in their early years due to job dissatisfaction and to pursue a different career. This phenomenon is also known as teacher turnover, referring to the "revolving door" of teachers leaving soon after they enter the profession (Ingersoll, 2002). High attrition rates affect student's learning and school district management. There is a significance difference in the types of teachers' stressors that create job dissatisfaction between urban public schools with a high level of poverty and suburban districts schools with a lesser level of poverty (Ingersoll, 2003).

Given high accountability requirements and high teacher attrition, school districts have experienced an imminent need to consistently recruit and retain effective teachers. The abundance of teachers to be hired in the 1960's and 1970's are retiring, and the number of teachers entering the profession is not matching the number of retirees (Ingersoll, 1999). The National Commission on Teaching and America's Future (NCTAF) highlights that the nation does not have a teacher shortage, but a teacher retention problem. Approximately one third of the new teachers leave the profession by the third year, and nearly half of the teachers leave the profession before their fifth year (Carroll & Hunt, 2003; Rebora, 2003).

Consistently recruiting and selecting teachers to replace those that leave at a higher rate each year, especially in the lower performing, high minority, and high poverty

schools, put schools in an even higher disadvantage (Ingersoll, 2002). To efficiently replace teachers does not mean simply hiring additional teachers and placing them in classrooms. Some studies show that in fact, teacher turnover may not hurt student achievement as much as it is assumed. It all depends on what teachers are leaving. In some cases, some teacher turnover is actually beneficial to students. This is true only if the teacher vacating the position is an ineffective teacher and the new teacher hire is a more effective teacher. If the educator vacating the position is less effective than the new teacher, then there is no effect on the teacher turnover (Ronfeldt, Loeb, & Wyckoff, 2013). "Unmanaged" teacher turnover, where teachers leave the profession due to low salaries, inadequate administrative support, behavioral issues, low parent involvement, low student learning, and lack of professional advancement, will unequivocally create a negative impact on schools and student achievement. Nonetheless, "managed" teacher attrition has been used as an effective strategy for school improvement (Lewis & London, 2009).

Some teacher turnover is considered to be healthy for the organization, as it will allow for new ideas and new people to enter the school and will permit innovation, but only if ineffective teachers are being replaced. Not enough teacher turn over tends to create a sense of stagnation in the school. On the contrary, massive turnover could be the result of problematic conditions and low efficacy in schools (Ingersoll and Center for the Study, 1999; Ingersoll, 2002).

The fact is that new teachers do not stay on the job long enough (Carroll & Foster, 2010), and that low-income and minority, particularly African American students, are more likely to get teachers of low quality than their non-minority, non-low-income peers

(Center for Public Education, 2005). Different organizations and individual professionals, including Selection Research Inc. (1970's), Gibson and Dembo (1984), the Gallup Organization (1988), Dr. Martin Haberman (1989), and the Haberman Foundation (1994), have devoted their research efforts to create interview instruments to assist school districts select teachers that hold certain characteristics that will increase their chances of success, increasing the chances of higher job satisfaction, and ultimately, higher students' learning.

Structured Interviews

Nearly 15% (approximately 2,000) of the school districts in the United States use some type of commercially developed teacher selection tool (Delli, 2001 as noted by Metzger & Wu, 2008). These interviews are scripted and are given in a standardized manner by company-trained interviewers. These interviews have been perceived as being a "gatekeeper", preventing many teacher candidates from entering in the teaching profession (Metzger & Wu, 2008). Many of these structured interviews have recently become available online, making it easier for school districts to use them as part of their screening process. Although, the subsequent interview conducted by the employer continues to be the most common format for teacher selection (Vitale, 2009).

Advantages and disadvantages of online questionnaires. According to Sincero (2012), an online questionnaire is a method of gathering data from an identified target by invitation. It is a faster way to collect data as compared to the paper-pencil or face-to-face traditional methods. This method of collecting data has more advantages that the one mentioned above; however, it also has disadvantages and pitfalls that need to be considered (Sincero, 2012).

In addition to the promptness of the data collection mentioned above lays the advantage of the low cost of the tool. It can be deployed faster via electronic invitation and results can be gathered as soon as the respondent completes the questionnaire (Sincero, 2012). Other advantages include standardization of questions for the respondents and an effective use of place and time, which impacts both, the researcher and the respondent. The respondent can answer the questionnaire when it is convenience for him and from any computer connected to the internet, which results in an automatized manner to capture responses, saving time to the researcher as well (Sincero, 2012). Responses can be easily quantified using data analysis tools (Munn, Drever, & Scottish Council for Research in, 1990).

Disadvantages of the use of online questionnaires include the absence of the interviewer, which can lead to lack of precision in the question or the answer of the respondent without the possibility of providing clarification (Sincero, 2012), or superficiality in the responses (Munn et al., 1990). Online questionnaires do not guarantee the identification of the respondent, resulting in possible survey fraud (Sincero, 2012).

Gibson & Dembo Teacher Efficacy Scale. In 1984, the teacher interview called Gibson and Dembo Teacher Efficacy Scale was developed as a result of a research initiated by the authors of the interview, Sherri Gibson and Myron Dembo. The purpose of the study was to develop a tool to provide validation that teacher efficacy matters and to evaluate the relationship between teacher's beliefs of his or her own efficacy and the subsequent behaviors of the teacher in the classrooms (Gibson & Dembo, 1984).

In their research, Gibson and Dembo (1984) looked at evidence from studies from

Armor, Berman & McLaughin, Brookover, Brophy & Everston dated from 1976-1978 proving that the measure of the teacher's sense of efficacy is paramount. To validate the importance of the teacher's sense of efficacy, the authors of the interview developed a teacher efficacy scale with a pilot study of 53 items administered to 90 teachers. After analysis of the data they collected, they narrowed the items to 30 and revised them to avoid ambiguities. Then the authors administered a series of tests to the teachers that included verbal assessments, followed by classroom observations. Trained observers looked at the teacher's behavior and daily rituals, transitions, whole and small group instruction, planning, focused lessons, and recess. Teacher persistence, feedback, and academic focus were correlated to teacher efficacy (Gibson & Dembo, 1984).

This framework of self-efficacy is based in part on the work of Albert Bandura. Self-efficacy is the grasping of possessing an adequate level of necessary knowledge, attitudes, and ability to successfully fulfill a role (Balci, 2005 as noted by Yesilyurt, 2013). In having self-efficacy, there is an attitude that will be exercised that the job can be done based on the abilities and level of knowledge the person has. Yesilyurt (2010) asserts, "The notion of efficacy taking place in an individual is self-efficacy" (pg 1).

Bandura (1977) explained that psychological and cognitive processes, including motivation and analytical thinking, would determine the strength of the person's self-efficacy. He added that self-efficacy in the person would determine the level in which the person would cope with difficult situations, the level of effort, and the persistence demonstrated to cope. According to the author, personal efficacy is consequential of 4 sources of information: performance, vicarious experiences, verbal persuasion, and physiological state (Bandura, 1977). Studies have shown positive connections between

teacher's self-efficacy and the teacher's evaluations (Rockoff et al., 2008).

In 1976, David Armor conducted another study in which the findings are among the first studies on self-efficacy. He led a research to find the variables that resulted in high student reading achievement in minority schools in California. The research team conducted a series of interviews with principals, reading teachers, and classroom teachers. They concluded that important variables resulted in the success of the reading program in these Californian high-minority, high-poverty urban schools. The variables were (Armor, 1976):

- Teacher training in the use of a variety of materials to meet specific student needs.
- Teachers felt efficacious.
- Teachers with the ability to maintain classroom order.
- Teachers with high level of contact with parents.
- Teachers' ability to adapt the instructional strategy to meet the needs of the students.
- Teacher collaboration on the implementation of the reading programs.

Based on these and other studies, Gibson and Dembo developed an interview tool in 1984 that schools could use to measure the teacher self-perception on their sense of efficacy to predict the level of commitment that teacher candidate possessed in order to be considered a potential effective teacher (Estes, 2008).

Gallup Organization's Teacher Perceiver Interview (TPI). The Teacher Perceiver Interview (TPI) was initially created by Selection Research Inc. (SRI) in the early 1970's. This corporation purchased Gallup Organization and changed its corporate

name in 1988 (Vitale, 2009). The structured interview is given to teacher candidates by interviewers who are trained to look for certain themes in the candidates' responses. The face-to-face interview could take up to 2 hours, but a new version of the interview, the online format called Teacher Insight, can take approximately 40 minutes to complete. The Teacher Insight, developed in 2002, prompts questions to identify potential successful teachers. The newly revised version of the Teacher Insight Interview was released in 2011 (Gallup, n.d.).

The questions are categorized in three different groups. Multiple-choice, with 50 seconds to read the question and choose one of four possible answers that best describes the teacher candidate. A second group is the forced-choice questions that differ from multiple-choice questions only in the number of answer choices provided, as they are reduced from 4 to 2 answer choices. The last group is called Likert questions, with 20 seconds to read a statement and choose 1 of 5 response choices in a scale of strongly disagree, disagree, neutral, agree, and strongly agree (Gallup, n.d.).

Gallup has developed the questions of the interviews from 12 themes (Vitale, 2009):

1. *Activation*- the teacher's ability to stimulate students' learning.
2. *Empathy*- the ability of the teacher to grasp and accept the state of mind of another individual, being the students. This characteristic is crucial to understand student's feelings and state of mind.
3. *Focus*- the ability of the teacher to develop models and goals and keep them in the forefront.
4. *Gestalt*- the inner sense of completeness and urgency to continue with the task

until the work is completed. High Gestalt indicates high tendency to perfectionism, with the students' interest always first.

5. *Individualized perception*- the willingness of the teacher to instinctively put each student's needs and interests first and make an effort to adapt the lesson to them.
6. *Innovation*- the spontaneous reaction to try new ideas, techniques and strategies.
7. *Input drive*- the consistent search for new ideas and ways to adapt lessons to benefit the students.
8. *Investment*- the capacity to accept students' growth as an investment and a satisfactory reward.
9. *Listening*- the ability to listen with an attitude of responsiveness and acceptance.
10. *Mission*- individuals with a strong sense of purposiveness, with the underpinning principle that all students can grow.
11. *Objectivity*- the teacher is able to respond to the situation after gathering all the facts rather than making impulsive decisions.
12. *Rapport drive*- the teacher's ability to develop an adequate relationship with the students, and the expectation that such relationship will be reciprocal.

A voice version of these interviews is also available for prospective candidates via telephone, called the Interactive Voice Response (IVR), which takes approximately 20 minutes to complete. This version assesses the same themes as the other two formats (Vitale, 2009).

A meta-analysis conducted by Metzger and Wu in 2008 combined findings of 24 studies on the Gallup Teacher Perceiver Interview (TPI) teacher selection instrument. The interview has a series of questions that can predict if educators can focus on student's

hope, engagement, and wellbeing. The makers of this interview affirm that these are characteristics that the best educators have (Gallup Education Knowledge Center, n.d.). They concluded that this interview effectively identified characteristics of successful teachers that were observed in the classrooms in the form of organization, student expectations, planning, instruction delivery, and student progress tracking ability (Metzger & Wu, 2008).

Another structured interview that has been widely used most recently is the Haberman Star Teacher Interview (HSTI), developed by Dr. Martin Haberman.

The Haberman Star Teacher Interview. Over the years, school districts in the United States have used tests to select new teachers (Hansen, n.d.). Dr. Martin Haberman is the co-founder of the Haberman Educational Foundation (HEF), a non-profit organization that has focused its efforts in providing training to school districts' personnel on how to interview teachers that will be successful in the most challenging schools (The star teacher, n.d.). Dr. Martin Haberman was a Distinguished Professor of Education at the University of Wisconsin in Milwaukee. He was passionate about the characteristics of successful teachers of students in poverty, which he called "star teachers". To find these teachers, he personally interviewed around five thousand teachers who had been recommended by their principals as highly effective. He asked them questions centered on student achievement, student attendance, parent involvement, and other educational areas in which these teachers excelled. Dr. Haberman then extracted the foundational values and beliefs of these teachers and crafted the questions for the Haberman Star Teacher Interview (D. Stafford, personal communication, June 17, 2013). As the developer of the interview, he affirmed that star teachers must possess a set

of characteristics and beliefs to provide urban low-income students a relevant curriculum and meet their particular needs (Haberman & Post, 1998). This interview is used in more than 300 cities across the United States (The Haberman Foundation, n.d.).

The Haberman Star Teacher Interview has two components. The first one is the online tool, the Haberman Star Teacher Pre-Screener (HSTPS), an online timed questionnaire with 50 questions and three possible answers for each question. The assessment is developed to evaluate the individual's knowledge and skills when it comes to teaching low-income students (The star interview, n.d.). The pre-screener is designed to evaluate 10 dimensions of teaching according to the teacher's responses. The questions evaluate each dimension at different levels, with some being evaluated by 3 of the 50 questions and others being evaluated by 10 of the 50 questions. If on the dimensions the teacher gets a certain number of questions correct, then the teacher is rated "high", "average" or "low" on each particular dimension. The number of questions correct needed for each rating varies based on the number of questions that assesses each dimension. The questions on the Haberman Star Teacher PreScreener tool have been developed to identify values and beliefs that have been linked to teacher success (Rockoff et al., 2008).

The candidates complete the online questionnaire and are informed of whether they have potential to become a teacher of children in poverty or not. Candidate teachers are grouped in quartiles based on the number of responses correct, in combination with the number of "low" rates they get in one of the dimensions. If the teacher responds correctly to 39 or more of the 50 questions, the teacher is placed in the "top quartile". Responding correctly between 33 and 38 questions will place the teacher in the second

quartile. Consequently, anyone scoring 33 or higher is in the top half of the rubric. Those teachers who respond correctly between 28 and 32 questions are placed in the third quartile, and those scoring below 27 questions correct are in the fourth or bottom quartile. A teacher who gets two or more "low" scores is not recommended to be hired to work with children in poverty (D. Stafford, personal communication, September 16, 2014).

The second component is the live, or the face-to-face, interview. During the live interview, the interviewer gets an opportunity to talk with the candidate and ask probing questions to determine whether the individual is suited to effectively teach students in high-poverty urban schools. Dr. Haberman recommended using the online tool as a time-saver. The pre-screener would tell the employer whom to interview using the face-to-face tool, which is more time consuming. He added that the face-to-face interview would tell the employer whom to hire (D. Stafford, personal communication, June 17, 2013).

The makers of this interview instrument affirm that the complete interview assertively identifies star teachers with an accuracy rate of 95%. Star teachers are those suited to handle the stress of teaching low-income students and stay on the job longer. It will also identify "quitters / failures" (p.4; Stafford, D., personal communication June 17, 2013), a term Dr. Haberman used to describe the teachers who were not suited to effectively teach students at-risk. The "quitters / failures" are those who had left the teaching profession with poor evaluations from their supervisors or have a poor self-image regarding their teaching abilities (The Haberman Foundation, n.d.; Stafford, D., personal communication June 17, 2013). Dr. Haberman (2004) explained in his book *The Star Teacher* what the more effective teachers do in the classroom. He called these teachers "star teachers. Star teachers understand the role of schools as if it were a matter

of life or death. Haberman argues, “For children in poverty being successful in school is a matter of life and death” (p. 98). As an adult without a high school diploma, the possibility of securing a job that offers health insurance and other benefits are slim and push these adults to live in unsafe neighborhoods and not able to provide health care and adequately meet the needs of their families. This is the primarily reason that star teachers have a high sense of urgency and work under stress. Haberman indicates that star teachers “believe that every day they involve their students in learning important subject matter; they are, in effect, saving them form lives of desperation and unfulfilled promise” (2004, p. 98).

A teacher’s future success rate will be revealed from the individual’s responses to different scenarios that will expose the individual’s beliefs regarding teaching children at risk. It will then predict how the teacher will behave on the job (The Haberman Foundation, n.d.).

The HEF assures that the complete instrument has a high level of reliability of interview teams when is used by individuals who have received their training. These teams would become reliable after at least six interviews conducted. It is expected that the interviewers will pass or fail the same candidates 95% of the cases (The Haberman Foundation, n.d.). In terms of validity of content, the foundation explains that the identifying attributes that distinguish “quitters / failures” and “star” teachers were used to develop the tool. During the development of the instrument, not a single quitter passed the interview, but 100% of the “star” teachers passed it (The Haberman Foundation, n.d.).

Finally, in terms of criterion related validity, it is important to clarify that the validity and reliability will vary depending on how the interview is used, when the

interview is used, and by whom the interview is used. Each school district that has used this instrument keeps records of their scores, which and can be later compared against the teacher's performance ratings from their supervisor. HEF sustains that 95% of the time the supervisor rated the passing teacher with at least a satisfactory rating when the instrument was used correctly (The Haberman Foundation, n.d.).

A Star teacher must have a strong set of beliefs and core values regarding teaching low-income students. These beliefs translate into deep commitments to teach every child to which the teachers act upon. These beliefs also increase their receptiveness to continue learning from colleagues and trainings to develop their own effectiveness as teachers (Teachers.Net News Desk, 2013). The HSTI evaluates the level of the beliefs and the attributes of the teacher.

The dimensions or attributes that are assessed with the two Haberman Star Teacher Interview components, the online and the face-to face interview are:

- *Persistence*- this attribute refers to the level of commitment the teacher will hold to teach all the students every day of the school year regardless of any behavioral or academic challenges the children may present (The Haberman Foundation, n.d.). There is an understanding that Star teachers persist endlessly. In other words, Star teachers will not give up and will continue trying to help children learn. Persistence promotes higher expectations for all students, and, when a teacher is not persistent, it shows as failing grades on the report cards of the students (Dill & Stafford, 2007)
- *Organization and planning*- this characteristic refers to the abilities of the Star teacher not only to plan a thorough lesson but also to manage complex classroom

arrangements (The Haberman Foundation, n.d.). Star teachers understand that they will not be free of problems and are committed to teach all students, and this commitment can be clearly seen not only from the planning to the delivery phases of the lesson but also beyond the classroom (Teachers.Net News Desk, 2013).

- *Values student learning*- the assessment will predict whether the teacher values student learning and centers all his or her efforts to protect his students' learning as a priority (The Haberman Foundation, n.d.). Star teachers believe that it is important to protect student learning, fostering significant and appealing education by knowing what catches the students' attention.
- *Theory into practice*- the assessment will predict the teacher's skills to trickle the new learning into his or her class in a way that enhances student learning. The Star teacher can see the practicality of generalizations and extract concepts from specific practices (The Haberman Foundation, n.d.). Star teachers are separated by the interview when they demonstrate ability to learn from others and apply new concepts learned in the classroom (Dill & Stafford, 2007).
- *At-risk students*- the interview can effectively predict the approach the teacher will have towards teaching students at-risk and his ability to connect with the children (The Haberman Foundation, n.d.). Star teachers understand the outside causes that determine a student's "at-risk" classification but understand that schools can put a student at-risk as well (Dill & Stafford, 2007). Multiple labels and a sense of complaisance, therefore, inundate school cultures. Star teachers are also able to make a distinction between simple student misbehavior and those

behaviors that are a result of deeper causes relative to the child's developmental stage (Teacher.Net News Desk, 2013).

- *Approach to students*- the questions asked during the interviews will determine the ability of the teacher to attempt to connect with them and whether the approach selected will be successful (The Haberman Foundation, n.d.). The teacher's attitude toward students will determine the teacher's success. Star teachers inquire multiple sources of data, from test scores to conversations with the learners, to motivate students and help them achieve (Dill & Stafford, 2007). Star teachers are convinced that maintaining student motivation is part of their daily work (Teachers.Net News Desk, 2013).
- *Survive in bureaucracy*- questions addressing this dimension will reveal the teacher's beliefs and understanding of the environment of the school in which they work, in particular those in large and depersonalized school districts (The Haberman Foundation, n.d.). The school environment can become an extra load that makes the teacher's job more difficult and could prevent them from staying focused on teaching and student learning (Teachers.Net News Desk, 2013). Star teachers also possess the ability to understand the implications of burnout and how factors surrounding the classrooms contribute to teacher burnout. The work itself does not cause Star teachers to burn out, but the constant interruptions that consume their energy will (Dill & Stafford, 2007).
- *Explains teacher success*- this area addresses the values the teacher has regarding teacher success and whether these are relevant when teaching students in poverty (The Haberman Foundation, n.d.).

- *Explains student success*- likewise to the dimension above, this area addresses the teacher's beliefs around what makes a student successful and whether his or her answer is relevant to students in poverty (The Haberman Foundation, n.d.).
- *Fallibility*- this dimension addresses the way the teacher plans to deal with the mistakes he or she will make as a teacher in the classroom. It assesses the capacity of teachers to recognize that mistakes are a human nature, and they quickly address the situation as they put student's trust first. All these attributes create a sense of urgency, as they understand that schooling is a matter of life and death to children in poverty (Dill & Stafford, 2007).

The Haberman Star Teacher Interview identifies a set of core values and beliefs that will, without a doubt, help a teacher be successful in an urban setting. These attributes, therefore, make these teachers perform in an exceptionally effective manner, making them outstanding teachers for schools impacted by poverty and low-performing scores (McKinney et al., 2007).

Teacher Effectiveness in Low-Performing Urban Schools

Teachers who teach in urban schools commonly face more challenges related to student behavior and environmental situations than those who teach in non-urban schools (Voltz, 1998). Additional stressors in the schools and their environments make teacher turnover higher in urban schools as compared with the teacher turnover in non-urban schools. This impacts school districts' management, and urban school districts invest heavily in recruiting effective teachers (Barnes, Crowe, & Schaefer, 2007). When high poverty impacts urban schools, the challenge of selecting and retaining teachers becomes more difficult. As a result, high-poverty urban schools often staff classrooms with

inexperienced, younger teachers that tend to leave education at high rates (McKinney et al., 2007). Low-performing schools in urban school districts struggle to close the achievement gap between student groups because they have a hard time closing the teacher quality gap (Barnes, Crowe, & Schaefer, 2007).

Teacher quality has been a topic of discussion for centuries. During the industrial era in the late 1800's, the larger cities faced the challenge of creating more complex schools, and the need to employ teachers with more expertise in instruction. With the growth of the schools, one teacher was selected to be the head teacher, a role that grew into the building principal (Marzano, Frontier & Livingston, 2011). It was during the late 1800's when formal schooling developed in the United States and teacher knowledge and instructional skills were considered to be crucial to hold a teaching job (Marzano, Frontier, & Livingston, 2011).

Educational writer John Dewey changed the way that educators interpreted instructional effectiveness. Dewey supported student-centered schools that included differentiation, student democratic participation, relevance in the curriculum, and students as citizens (Marzano, Frontier, & Livingston, 2011).

Teacher "effectiveness" is a term that has evolved throughout the years; however, the meaning of the term continues to be ambiguous, and the term is defined in many ways. In the mid 1800's effective teachers were those who fit well in a community and its local societal beliefs, such as a religion, family principles, citizenship, and moral values. There was a general expectation about the attitudes of the teacher that was part of the evaluation to determine whether the teacher kept the job or not. Most teachers were a single-class teacher, and the curriculum was determined by the needs of the community

(Clark 1993). The teacher was considered to be of service to the community, and powerful members determined whether the teacher was good or not, without necessarily establishing any criteria to determine effective instruction, the quality of teaching, or the pedagogical expertise of the individual (Marzano, Frontier, & Livingston, 2011).

A large study known as the Coleman Report, conducted by James Coleman and the John Hopkins University in 1966, concluded that the school's conditions such as facilities, curriculums, and teachers' quality have a greater impact on the academic achievement level of minority and low-income students when compared to the impact on the academic achievement level of the majority (white) students. When these school conditions are improved, the impact it has on segregated and low-income students is greater than that on any other group (Coleman, Hopkins University, 1966).

Teacher effectiveness is now linked to student achievement, especially after the NCLB Act of 2001. Nonetheless, it is important to remember that the school leader and the school culture also influence a teacher and the teacher's effectiveness; therefore, it is important to consider that looking at student growth alone is not an absolute indicator of teacher effectiveness. It is expected that effective teaching practices will result on improved student learning regardless of what teaching practices the teacher selects; these practices will be considered effective only if they result in student academic growth (Ritter & Shuls, 2012).

Many studies have been done to identify teacher effectiveness and the variables that contribute to it such as school culture, relationships, communities in schools and leadership (Sergiovanni, 1994, 2001; Deal & Peterson, 1999; Whitaker, 2004). A study conducted by Audrey Amrein-Beardsley (2012) at Arizona State University found that

expert teachers considered leadership, money and colleagues as important variables when accepting a job in a high-needs school. Amrein-Beardsley (2012) interviewed teachers considered to be "experts" based on their student data, National Board Certification, and recognition by the State of Arizona and the Arizona Department of Education. The purpose of the study was to understand what might take to retain and recruit expert teachers into high-needs schools (Amrein-Beradsley, 2012). David Berliner (Scherer, 2001) verifies that expert teachers need between five to eight years to be able to master their craft of teaching. He identifies certain characteristics of expert teachers. He asserts that expert teachers:

- have content knowledge;
- have a memory bank to compare situations and can easily retrieve such information to make decisions;
- have the ability to act appropriately in impromptu situations;
- have the ability to take advantage of teachable moments;
- are aware of what happens in the classroom at all times; and
- are able to move their students from one point to another.

All these are characteristics evidenced in the expert teacher, according to Berliner (Scherer, 2001). Amrein-Beradsley (2012) concluded that expert teachers analyze certain variables before they accept a job in a high-needs school. The variables included the administration, the salary, professionalism, students, and community. Across analyses, the quality of the principal in schools with high-needs was the factor that matters the most when accepting a job. On the other hand, what pushed them away from high-needs

schools was a principal who did not care, was not committed to the teachers and students' learning, was controlling, and was ineffective (Amrein-Beradsley, 2012).

Principals and superintendents have a strong impact on student achievement as well, but individual teachers are the strongest variable on student academic performance (Public Impact, 2008). Teacher quality matters and is one of the most important school-related factors influencing student achievement (Rice, 2003). There are several characteristics that successful teachers possess, such as high student expectation, positive attitudes, good planners, collaborators, and high contributors to the development of the school and classroom (Varlas, 2009).

Todd Whitaker has outlined "things that matter the most", referring to different behaviors teachers demonstrate that make them "great teachers", including:

- their attitude towards learning;
- their ability to set clear and high expectations early in the year for students and self;
- their aptitude to de-escalate student misbehaviors;
- their skill to understand they are a variable in the classroom;
- their capability to create positive classroom environments;
- their talent to filter out negativism;
- their capacity to work hard;
- their ability to plan with purpose;
- their aptitude to be reflective;
- their interest to keep testing in perspective; and
- their gift to be caring (Whitaker, 2004).

There is a wide selection of definitions to what an effective teacher looks like (Clark, 1993; Marzano et al., 2011; Rice, 2003; Public Impact, 2008; Varlas, 2009; Whitaker, 2004). What all researches agree upon is that good teaching does matter (Wiley, 1999). The quality of teachers can determine the future of a student at-risk. Students with an effective teacher for three consecutive years show significant academic progress in comparison to students with less effective teachers. Furthermore, students with ineffective teachers for three years in a row lose important academic ground, making it sometimes even impossible to recover. Many times, the students with the consecutive ineffective teachers are low-income and minority students (Access to strong, 2009).

Associated with teacher effectiveness are teacher dispositions, which are closely linked to core beliefs (Hartlep & McCubbins, 2012). Masunaga and Lewis (2011), professors at Illinois State University, conducted a study on teacher dispositions, focusing on dispositions of student teachers during their program's teaching practice. They concluded, "positive teacher dispositions predict effective, successful teaching outcomes" (p. 44). There is not a common definition for "dispositions"; nonetheless, the National Council for Accreditation of Teacher Education (2008) has one of the most cited definitions on teacher dispositions. They define the term as "professional attitudes, values and beliefs demonstrated through both verbal and nonverbal behaviors as educators interact with students, families, colleagues and communities" (p.89-90). Although they are broad on the extent of dispositions, emphasis is made on two dispositions that must be assessed by teacher preparation institutions. These are fairness and the belief that all children can learn (Unit Standards in, 2008). These dispositions are assessed in a variety of ways, most commonly evaluated with checklists, pedagogical practices or teaching

behaviors that are frequently named “values”, “beliefs”, and “commitments” and can be observed in the classroom venue. It goes beyond teacher content knowledge and teaching skills, and it is linked to patterns of behaviors or dispositions to act, and to ways of thinking in the classroom that impacts student learning (Thornton, 2006).

Thus, teacher effectiveness and quality is the combination of teacher knowledge and skills, and a third element known as teacher dispositions. However, not all dispositions are positive. Teachers can nurture dispositions such as curiosity, persistence, and other dispositions that are desirable in students, as well as undesirable dispositions such as close-mindedness, and intolerance (Da-Ross Voseles & Moss, 2007).

In the quest for the effective teacher, states have been forced to turn to the NCLB Act of 2001 to determine the minimum requirements to be “highly qualified”. A general understanding to be “highly qualified” is that the teacher must hold subject-content knowledge and be able to impact student achievement in a positive manner (Ansell & McCabe, 2003). The U.S. Department of Education clarifies that to be considered a highly qualified, it is imperative for teachers to have a degree, full licensure or certification from the state in which the teacher teaches, and demonstrate knowledge of the subject area being taught (US Department of, 2003 & 2004). States, however, determine minimum requirements to be fully licensed or certified (Paige, 2003).

Regardless of what initiative or the teaching practices selected by the school or the teacher, they will be considered effective only if they result in student academic growth (Ritter & Shuls, 2012). The characteristics and aptitudes demonstrated in the classroom by the teachers determine their level of effectiveness, and, ultimately, the level of impact they have on student academic achievement (Stronge, 2007).

In order to more effectively evaluate a teacher and a school, districts have adopted statistical models to identify the impact a teacher and a school has on student growth on the achievement tests, which provide a measure or score of academic growth to individual teachers and schools. Teacher measures are usually combined with the principal's ratings to provide a more holistic evaluation of the teacher. However, these statistical analyses to show growth vary in purpose, and its use should be considered before its application (Auty & Brockmann, 2012).

To determine this "effectiveness", some states have decided to use student academic growth as one measure to evaluate teacher success. Colorado, Louisiana, and Tennessee are states that have recognized student learning as the primary goal in education and have implemented teacher evaluation systems that weigh student academic growth at 50% or more (Baker, Green III, & Oluwole, n.d.).

For the purpose of this study, teacher effectiveness will refer to teachers who successfully prepare their students for the standardized state tests and, not only have a higher rate of proficient students as measured by these assessments, but also have a higher impact on student growth as measured by value-added model analyses using the scores of state standardized tests.

Value-Added

Several states and school districts have decided to use value-added models to measure the impact that teachers have on students' growth as part of their teacher appraisal and development systems. The term value-added has been around for many years, and it was not originally used in education but in business and economics. It refers to the value that is added to primitive materials through the fabrication process (Kennedy,

Peters, & Thomas, 2012). In the late 1980's, the management team of Stern Stewart & Co. developed an approach to provide incentives for the executive managers called Economic Value Added (EVASS®). Soon after, big corporations like Coca-Cola, General Electric, and AT&T incorporated the framework as part of their business (Stern Stewart & Co., n.d.). In the terms of education, value-added makes reference to the impact a teacher, school, or school district has on the students' academic growth from one point in time to another. Value-added uses standardized state tests to run the analysis. The Research and Accountability Officer for a large school district in Texas explained that value-added compares the student performance in standardized test using prior student tests as a baseline (C. Stevens, personal communication, June 17, 2013).

There are different value-added models in the market. The level of complexity of the model will vary depending on the data points it accounts for the calculation. The models are roughly grouped in 4 categories (Goldhaber & Theobald, 2012).

1. *Models that account student background information*- the statistical analysis includes the student's background, which in many cases the companies running the analysis for the school districts tailors the data points based on the client's (school district) needs.
2. *Models that do not account student background information*- in this model, the student background information does not account the students' background other than previous test scores of the student.
3. *Models that compare teachers across schools, districts or states*- this is considered to be a basic analysis as it uses data points of the average growth of the state and compares schools with the state average. If the end point for

the school is higher than the average end point of the district, the value-added of the school is positive (Harris, 2011).

4. *Models that compare students with similar test score history*- this model takes into account the background information of the students and uses similar test scores (Goldhaber & Theobald, 2012).

Whereas one model does not take into account the background factors of the student, another model does account for this information. The results are comparable as long as they use prior achievement information of the students.

Dr. William Sanders (date), Senior Research Fellow with the University of North Carolina and Senior Manager of Value-Added Assessments and Research for the company SAS®, started using value-added methodology to measure the influence a school has on students. He started his research more than 20 years ago as Professor and Director of the University of Tennessee's Value-Added Research and Assessment Center. Dr. Sanders and his colleagues at the University of Tennessee polished the methodology when analyzing student assessment scores in order to help schools identify impediments and accelerators of student academic growth. These factors would determine the level of influence that schools have, which would determine the value-added by providing important diagnostic information to determine actionable steps to improve teaching and learning in schools. Many states, including Ohio, Tennessee, Pennsylvania, and North Carolina, have adopted the use of value-added to measure student growth and calculate student projection reports to drive discussions and make decisions around teaching and learning (SAS® EVAAS® for K-12, n.d.). SAS® provides states with the technical requirements to run these complex analyses at a district and state level. The school

district selected for this doctoral study contracts SAS® to run its longitudinal reports to measure student growth at a district, school and teacher level (C. Stevens, personal communication, June 17, 2013).

It was mentioned above that different value-added models use different data-points to analyze student academic growth. SAS® intentionally does not include the background of the student because it considers that using the demographic characteristics of the students will set different expectations for students in the groups, but it does control the students prior test scores, which determine the baseline of the comparison (Goldhaber & Theobald, 2012).

Marzano (2011) points out that a flaw of value-added measures, that he calls indices, is that regardless of the value-added model that it is used to rate a teacher, the score or index given to the teacher is an inexact attempt to measure the impact the teacher had on student achievement (Marzano, Frontier, & Livingston, 2011).

Jane David (2010) explains that using value-added to determine the causal effect a teacher has on student achievement using standardized tests requires a sophisticated analysis. In her report, David emphasized the importance to have good principal evaluations combined to value-added results to effectively rate a teacher rather than just value-added scores. David (2010) asserts, "To protect teachers from erroneous and harmful judgments, a consensus is emerging that we need multiple measures that tap evidence of good teaching practices as well as a variety of student outcomes, including but not limited to standardized test score gains" (pg. 82).

Using value-added measures as part of the annual teacher's evaluation is grounded on the belief that a combination of evaluation sources (observations and

student's academic gains on standardized tests) better measure the teachers' effectiveness (C. Stevens, personal communication, June 17, 2013). Some states have decided to use student academic growth as one measure to evaluate teacher success. Colorado, Louisiana, and Tennessee are states that have recognized student learning as the primary goal in education and have implemented teacher evaluation systems that weigh student academic growth as measured by value-added models at 50% or more (Baker, Green III, & Oluwole, n.d.).

Value-added scores are not only used to evaluate teachers. Value-added scores can be a powerful tool when analyzing the impact on subgroups of students that the teaching strategies selected by a specific teacher had. It can also be used to analyze the academic growth of the students in a classroom as compared to another class and to develop professional growth and plans for teachers in conjunction with other indicators (Marzano, Frontier, & Livingston, 2011).

Chapter 3

Methodology

The purpose of this study was to determine the existence of a relationship between the Haberman Star Teacher Pre-Screener score and the students' academic growth in the State of Texas Assessment of Academic Readiness (STAAR) in English Reading and Mathematics as measured by the Educational Value-Added Analysis System (EVAAS®) in one of the largest urban school districts in the nation. Specifically, this study used the score the teachers obtained when they completed the Haberman Star Teacher Pre-Screener tool, an online questionnaire that the district of study started using in 2010, and their value-added score as measured by EVAAS®. The researcher relied on archival data provided by the district.

Research Design

The research method for this study was quantitative and it focused only on archival data. Two types of analyses were conducted for determine the existence of a relationship between the two datasets and to determine the strength in the relationship between the independent variable Haberman Star Teacher PreScreener score and the dependent variable Reading, Mathematics, and Composite across subject areas value-added score of the teachers. A Pearson product-moment correlation was computed to determine the existence of a correlation between the Haberman Star Teacher PreScreener score and the Reading, Mathematics, or Composite across subject areas value-added scores of fourth and fifth grade teachers in low-performing schools in a large urban school district. In addition, a simple linear regression analysis was conducted considering the Haberman Star Teacher Pre-Screener score as the independent variable, and the

EVAAS® scores in Reading, Mathematics, or Composite across subject areas value-added score as the dependent variable. The Haberman Star Teacher Pre-Screener was completed by the teacher once, whereas the value-added score of the teacher is analyzed every year after the spring STAAR assessments are administered. The value-added score is subject-area specific; therefore, each teacher may have one or two scores (Reading, Mathematics, or a Composite score across subject areas). According to Chatterjee and Simonoff (2013), regression models serve a purpose in the analysis that will allow any of the three following outcomes:

1. Model the relationship between the dependent and the independent variables.
2. Predict or forecast the dependent variable or target.
3. Test the hypothesis.

Regression analysis are characterized by the interest of understanding one target (dependent variable, which, for the purpose of this study, is student academic growth as measured by EVAAS®) and identifying predicting factors (independent variable) that might be useful as we aim for the target (Chatterjee & Simonoff, 2013). In the case of this study, the independent variable is the Haberman Star Teacher Pre-Screener score.

Each year, the value-added model used by the district provides each teacher with a score that is specific to that particular year. It also provides teachers with a Composite score across subject areas, which is calculated using scores of up to 3 previous years. Since the state changed the standardized test from the Texas Assessment of Knowledge and Skills (TAKS) to the State of Texas Assessment of Academic Readiness (STAAR) in spring of 2012, the accumulated value-added score that was used in this study contained

up to 2 previous years only. However, teachers who taught fourth and fifth grade for the first time in 2012-2013 only had one year's score.

Value-added scores of 2.0 or above are given to teachers whose students demonstrate growth that is *well above* the expected growth for the academic year. These are the most effective teachers; the higher the score, the higher the effectiveness of the teacher. Scores ranging between 1.0 and 1.99 are given to teachers whose students grow 1 standard deviation from the value given to the expected growth (zero). These teachers are considered effective, *above* the standard growth that was expected for the academic school year in which the analysis was done. Scores between -1.0 and .99 are given to teachers whose students whose growth does not show a detectable difference from the average (zero) because it is between 1 standard error from zero. These teachers are considered to have an *average* effectiveness. Scores between -1.0 and -1.99 are for teachers considered to be below 1 and 2 standard errors from the average expected growth of zero. These teachers are considered *below* but approaching average effectiveness. Scores at -2.0 or below are considered *well below* the average of zero, and is given to teachers whose students are 2 standard errors or more from the average. These students are considered not having made the expected average growth normed at zero (O'Brien, personal communication October 8, 2014). Table 3-1 illustrates the different effectiveness levels determination.

Table 3-1

Value-Added Levels of Effectiveness

Level of Effectiveness	Characteristics	Value-added score range
Well Above Average	Most effective teacher	= or > 2
No Detectable Difference (NDD)	Average effectiveness	= or > -1 < 1
Below	Below the average teacher	= or > -2 < -1
Well Below	Least effective teacher	< -2

In short, the data used was the teachers' Haberman Star Teacher Pre-Screener score and the teachers' value-added data based on their students' STAAR Reading, Mathematics, and Composite across subject areas performance score. The teachers participating in the study were those who worked in improvement required, focus or priority schools in the district during the year 2012-2013.The district provided the data noted above and a regression analysis was made to determine the relationship between the Haberman Star Teacher Pre-Screener score and their value-added score.

Research Question

The study pursued to answer the primary research question: does a relationship exist between the teachers' Haberman Star Teacher Pre-Screener score and their student's academic growth in English Reading and Mathematics standardized tests in fourth and fifth grades in low-performing schools within the selected district as measured by a the Educational Value-Added Analysis System model (EVAAS®)?

The purpose of this doctoral study was to determine if a relationship exists between the Haberman Star Teacher Pre-Screener score and the students' academic

growth as measured by the value-added model Educational Value-Added Analysis System, which produces a value-added score for each teacher. The analyses determined the statistical significance in the relationship that exist between these two scores using the Pearson product-moment correlation coefficient (also known as Pearson correlation coefficient) and any existing strength in the relationship between the independent variable (The Haberman Star Teacher Pre-Screener score) and the dependent variable (Composite across subject areas value-added score).

Setting

The data that was used for this study included the value-added score and the Haberman Star Teacher Pre-Screener score of teachers who taught English reading or math in fourth and fifth grade in the school year 2012-2013 in Title I low-performing schools in a large urban school district. The Title I schools selected for this study were those categorized as improvement required, priority and focus schools under the State Differentiated Recognition, Accountability, and Support System. Priority schools were those schools that fell in the lowest 5% of all the Title I elementary schools in the state of Texas in the year 2013, based on the overall performance of students in the areas of Reading, Mathematics, Science, and Writing. Focus schools have the widest achievement gaps between federal student groups (as identified by the state as focus schools), identified in 2013 by the State Differentiated Recognition, Accountability, and Support System in the top 10% of the schools with the widest achievement gaps among student groups. Improvement required schools are schools identified by the State Differentiated Recognition, Accountability, and Support System as schools that did not meet minimum standards in the state's standardized tests.

Sixteen elementary schools in the district of study were identified in 2013 by the state of Texas as priority schools after being ranked by the State Differentiated Recognition, Accountability, and Support System based on the All Students group's Reading and Mathematics performance falling in the state's bottom 5%. Twenty-five elementary schools in the district of study were identified in 2013 by the State Differentiated Recognition, Accountability, and Support System as focus schools based on the widest achievement gaps in the STAAR Reading and Mathematics between federal student groups, falling in the top 10% schools with the widest gaps. Eighteen additional schools were identified as improvement required schools.

The federal student groups identified by the Department of Education are African American, White, Hispanic, English Language Learners (ELL), Special Education, Economically Disadvantaged, and All students (Background & Analysis, 2013). The minimum requirement for a student group to be considered in the accountability system is 25 students testing per a grade level and per subject area in a campus. In addition, thirty-four schools were identified as improvement required based on the State Differentiated Recognition, Accountability, and Support System, for a grand total of seventy five schools to be considered low-performing within this large urban school district.

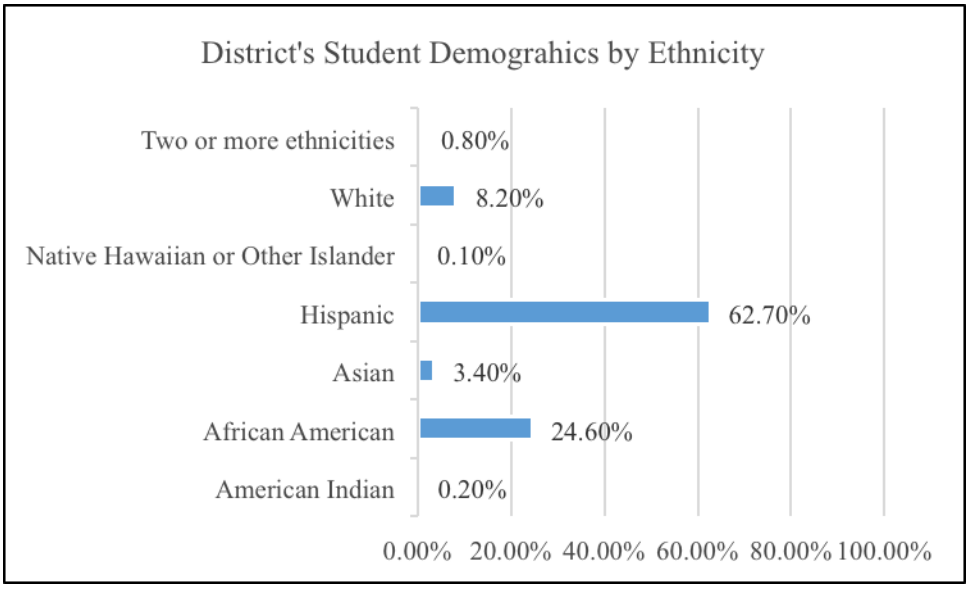
All district charter schools, one focus school and five priority schools, in the district were excluded from the study as a result of these schools not having historical data due to very special circumstances. In total, forty nine elementary improvement required, focus or priority low-performing schools were considered for the study. These schools represent a variety of geographical locations within the district, student demographics, and campus sizes.

The district offers a bilingual education program. Students participating in the bilingual programs may take the Reading and Mathematics STAAR in Spanish. For the purpose of this study, only the teachers who taught Reading and Mathematics in English in the year 2012-2013 and whose students tested in English for at least two consecutive years were part of the study.

The district of study is one of the largest school districts in the nation; it covers 300.2 square miles of land. The district's 2013-2014 enrolment is slightly over 210,000 students. The approximate students' breakdown by ethnicity is American Indian or Alaskan Native 0.2%, African American 24.6%, Asian 3.4%, Hispanic 62.7%, Native Hawaiian or Other Islander 0.1%, White 8.2%, and students with two or more ethnic backgrounds 0.8%. Figure 3-1 illustrates the breakdown of the district's student demographics by ethnicity.

Figure 3-1

District's Student Demographics by Ethnicity



In the year 2010, the district launched multi-year program devoted to the goal of securing an effective teacher in every classroom. One key strategy to achieve this goal is smart recruitment. As part of the smart recruiting component, teacher candidates go through a process to be admitted in "the pool" of eligible teachers to be hired in the district. After a teacher is placed in the pool, individual principals can then proceed with a face-to-face interview and potentially recommend them for hire as appropriate. One of the first steps of the recruitment process is to complete the Haberman Star Teacher Pre-Screener, an online questionnaire that gives teachers a score which allows or prevents them from continuing in the process to be included in the district's teacher pool.

The district of study interprets student academic progress using a combination of growth statistical analyses that help determine teacher effectiveness as it relates to their impact on student academic growth. One statistical analysis uses student growth

percentiles called in the district Comparative Growth, (based on the Colorado Model) to describe and predict student growth. Another statistical analysis is the value-added model based on Dr. William Sanders Education Value-Added Analysis System, EVAAS®. The district's data from this value-added model will be used in this study.

Value-added uses previous student data of standardized assessments to determine the student academic growth from one point in time to another. For the purpose of this study, the value-added used contained the students' STAAR Reading and Mathematics, and the Composite across subject areas scores for two consecutive years. Hence, only fourth and fifth grade teachers with both a Haberman Star Teacher score and a value-added score in Reading, Mathematics and the Composite across subject areas and who taught during the school year 2012-2013 in schools that have been identified as improvement required, focus or priority schools by the State Differentiated Recognition, Accountability, and Support System within the selected district were part of this study.

Participant Subjects

For the purpose of this study, the 45 teachers that were included are those who meet the following criteria:

1. Successfully completed the Haberman Star Teacher Pre-Screener as part of their recruitment process and have successfully received a score.
2. Taught English Reading or Mathematics in fourth and fifth grade during the school year 2012-2013.
3. Received a value-added EVAAS® score after the students' completion of the English reading or math STAAR test in spring 2013.

4. The school in which the teacher taught is a Title I school that has been identified by the State Differentiated Recognition, Accountability, and Support System as an improvement required, priority or focus school due to its low student performance or its wide achievement gap amongst student groups.

Teachers not included in the study were teachers who:

1. Did not teach in a selected improvement required, priority or focus school within the district during the school year 2012-2013.
2. Taught in a priority or focus school within the district but does not have a Haberman Star Teacher Pre-Screener Score.
3. Taught in a priority or focus school within the district but does not have a value-added score in grades 4 and 5 in Reading or Mathematics.
4. Taught in a priority or focus school within the district but the students in the teacher's class are taking the STAAR standardized test in English for the first time due to their language background.

The study used data of 49 schools within a large urban school district. These schools were either improvement required, focus or priority schools as determined by the State's Reward, Accountability and Support System. These schools were also referred as "low-performing" schools for the purpose of the study. A total of two hundred and sixty three (263) teachers who taught Reading or Mathematics in 4^{th} or 5^{th} grade in one of the 49 identified low-performing schools had a value-added score for the school year 2012-2013. Out of these 263 teachers with a value-added score, 121 teachers were hired after 2010, the year in which the district started using the Haberman Star Teacher PreScreener as part of their recruitment process. This represents an accumulated 46% teacher turnover

between 2010 and 2013 in the 49 low-performing schools. Of the 121 teachers, 45 teachers also had a Haberman Star Teacher PreScreener score and 76 did not have a Haberman Star Teacher PreScreener score.

Urban districts serving large numbers of students in poverty struggle finding and keeping effective teachers (D. Stafford, personal communication, June 17, 2013). Additionally, urban school districts with low-performing schools have difficulty closing the achievement gap between student populations because they have a hard time closing the teacher quality gap (Barnes, Crowe, & Schaefer, 2007).

Procedure and Timeframe

The study was quantitative research and focused only on archival district data between 2010 and 2013. A request for data was submitted to the district's Research and Accountability Department. Specifically, the teacher Haberman Star Teacher Pre-Screener score was retrieved from the archival data in the Human Resources' department, and the value-added scores in the subject areas of English Reading and Mathematics from archival data in the Research and Accountability Department. The value-added data was based on the Reading, Mathematics and Composite across subject areas 2013 STAAR scores in fourth and fifth grades. All personal information particular to the teachers or the students was removed to protect confidentiality of the data studied. The teachers participating in the study were those who worked in low-performing schools in the school year 2012-2013 as determined by the State Differentiated Recognition, Accountability, and Support System in the large urban school district selected for this study.

Instrumentation

The data used were the district's archival data on value-added scores and Human Resource's data on teachers' online Haberman Star Teacher Pre-Screener scores since 2010. The teachers with a Haberman Star Teacher Pre-Screener score who taught English Math or Reading in fourth and fifth grade in improvement required, focus or priority schools and who have a value-added score on English reading or math were part of the study. A group of teachers only had one score, either for Mathematics, Reading or Composite across subject areas. In respect to the validity of the Haberman Star Teacher Pre-Screener tool, it is important to clarify that the validity and reliability vary depending on how the interview is used, when it is used, and who used it. Each school district that has used this instrument keeps records of their scores, which can be later compared against the teacher's performance ratings from their supervisor. The Haberman Education Foundation sustains that the rating is 95% accurate if the supervisor rated the passing teacher with at least a satisfactory rating when the instrument is used correctly (The Haberman Foundation, n.d.).

The fourth and fifth grades Reading and Mathematics STAAR are used to calculate the value-added score of teachers. Reliability methods have been put in place by the state to determine how reliable the results of the STAAR are. Statistically speaking, general rule for excellent reliability falls at 0.90 or above, good reliability falls between 0.80 and 0.89, and adequate reliability falls between 0.70 and 0.79. For the elementary STAAR English assessment administered in spring of 2012, the reliability ranged from 0.75 to 0.94 (Texas Education Agency, 2012).

Data Analysis

The data set was composed of the Haberman Star Teacher Pre-Screener scores and value-added scores of teachers in fourth and fifth grade Reading, Mathematics and Composite across subject areas who worked during the school year 2012-2013 in a low-performing school as determined by the State Differentiated Recognition, Accountability, and Support System. The total number of schools that were included in the study was 49 schools. The data was analyzed using Excel spreadsheets and SPSS systems for Windows to run the Pearson correlation coefficient analysis using two variables, in this case, the Haberman Star Teacher Pre-Screener score and the value-added score. In addition, an analysis was conducted using the STATA system to determine the strength of any existing relationship between the independent (the Haberman Star Teacher PreScreener score) and the dependent variable (Composite across subject areas value-added score).

Scope and Limitations

The study was limited to teachers of students who have taken the Reading and Mathematics STAAR tests in the spring of 2012 and 2013. These students were in fourth and fifth grades in the spring of 2013. Only students with two consecutive years of English STAAR scores were included in the study.

There are a number of limitations that were considered in the analysis of the data. An important limitation was that only quantitative data was considered when there are many other qualitative factors that contribute to the success of students in any given year. These factors have a direct or indirect impact on their STAAR score that is used to calculate the teacher's value-added. These factors may include but are not limited to campus specific leadership style, site-based instructional organization, other teachers'

effectiveness, instructional resources, parental involvement, and tutoring opportunities for students. The study only included quantitative data, which do not measure these or any other qualitative variables. In addition, the STAAR assessment is a standardized test, and, therefore, it has a degree of error accounted in the score. Thus, the sole score of the STAAR test do not reflect the success of the student with complete accuracy.

Another limitation considered was that the Haberman Star Teacher Pre-Screener questionnaire was completed by the teacher in an unmonitored setting. Therefore, the teacher may or may have not received assistance during the completion of the screener. In addition, an extra limitation was the potential fact of the teacher not being truthful when responding to the questionnaire, or that the teacher misunderstood the question or the answer choices provided. Additionally, the sample size of teachers included in the analysis ended up being much smaller as expected, due to the unexpected fact that many teachers received waivers not to participate in the Haberman Star Teacher PreScreener online tool based on principal request.

Chapter 4

Results

Restatement of the Problem

The central purpose of this study was to determine the existence of a relationship between the Haberman Star Teacher Pre-Screener score and the fourth and fifth grade students' academic growth in the State of Texas Assessment of Academic Readiness (STAAR) in English Reading and Mathematics as measured by the Educational Value-Added Analysis System (EVAAS®) in one of the largest urban school districts in the nation.

This was a correlational study. This type of analysis was selected to produce a measure of relationship between the two variables. Two inferential statistical analyses were conducted to determine any existing relationships. The targeted outcomes were to model the relationship between the dependent and the independent variables, predict or forecast the dependent variable or target, and answer the research question. One analysis was the Pearson's Correlation Coefficient or Pearson's *r* using IBM SPSS Statistics® software, which was selected to find the existence of a correlation between the two values. The equation for the Pearson's Correlation Coefficient *r* is

$$Correl(X,Y) = \frac{\sum (x-\bar{x})(y-\bar{y})}{\sqrt{\sum (x-\bar{x})^2 \sum (y-\bar{y})^2}}$$

where $\bar{y}$ and $\bar{x}$ are the sample average for each array. The second inferential analysis conducted was a simple linear regression using STATA® to determine the strength of the relationship and influence between the independent and the dependent variable. The equation for the simple linear regression coefficient (West, 2014) is

$$Y_i = \beta_0 + \beta_1 T_i + \mathbf{\beta X}_i + \varepsilon_i$$

The independent variable was the Haberman Star Teacher PreScreener score, which is a whole number no larger than 50. The dependent variable was the value-added score given to the teachers on three major categories, Reading, Mathematics, and Composite across subject areas, which is a number that can fall anywhere in the number line.

The subjects who participated in the study were teachers who taught English Reading and Mathematics in any 49 of the identified low-performing schools during the school year 2012-2013 to fourth and fifth grade students who took the same STAAR test in the English language the year before in order to use these scores as a starting point for the value-added calculation. The teachers considered for the study needed to have two sets of data, the Haberman Star Teacher PreScreener score and the value-added score for the year 2012-2013, in order to be eligible to be included in the study. The researcher relied on the accuracy of the archival data provided by the district and The Haberman Educational Foundation.

A large urban public school district was selected for the study especially for the accessibility of the district's data to the researcher. The data retrieved from the archival data warehouse of the district and from The Haberman Foundation was used to answer the following research question:

1. Does a relationship exist between the teachers' Haberman Star Teacher Pre-Screener score and their student's academic growth in English Reading and Mathematics standardized tests in fourth and fifth grades in low-performing

schools within the selected district as measured by a the Educational Value-Added Analysis System model?

Two types of statistical inferential analyses were conducted to determine the existence of a relationship between the two datasets and to determine the strength in the relationship between the independent variable (Haberman Star Teacher PreScreener score) and the dependent variable (Reading, Mathematics, Composite across subject areas, and all value-added scores combined) of the teachers. A Pearson product-moment correlation, also known as the Pearson *r*, was computed to determine the existence of a correlation between the Haberman Star Teacher PreScreener score and the Reading, Mathematics, or Composite across subject areas value-added scores of fourth and fifth grade teachers in low-performing schools in a large urban school district. In addition, a simple linear regression analysis using the STATA® program was conducted considering the Haberman Star Teacher Pre-Screener score as the independent variable and the EVAAS® scores in Reading, Mathematics or Composite across subject areas value-added score as the dependent variable.

Data Analysis

The study used data of 49 schools within a large urban school district. These schools were improvement required, focus or priority schools as determined by State Differentiated Recognition, Accountability, and Support System. These schools were also referred as "low-performing" schools for the purpose of the study. Two hundred and sixty three (263) teachers who taught Reading or Mathematics in fourth or fifth grade in one of the 49 identified low-performing schools had a value-added score in the school year 2012-2013. Out of these 263 teachers with a value-added score, 121 teachers were hired

after 2010, the year in which the district started using the Haberman Star Teacher PreScreener as part of their recruitment process. This represents an accumulated 46% teacher turnover between 2010 and 2013 in the 49 low-performing schools. Of the 121 teachers, 45 teachers also had a Haberman Star Teacher PreScreener score and 76 did not have a Haberman Star Teacher PreScreener score. Table 4-1 illustrates the reasons for teachers leaving the district.

Table 4-1

Teachers with a value-added score and Haberman Star Teacher PreScreener score in 49 low-performing schools in the district

Teacher Description	Number of Teachers
Teachers with a value-added score in grades 4 and 5	263
Of the 263 teachers, teachers with value-added score hired on or after 2010	121
Of the 121 teachers hired on or after 2010, teachers with a value-added score but no Haberman Star Teacher PreScreener score	76
Teachers with a value-added score and a Haberman Star Teacher PreScreener score	45

As mentioned above, a total of 121 teachers had a Haberman Star Teacher PreScreener score and a value-added score in Reading, Mathematics, or Composite across subject areas, but the archival data from the district showed a Haberman Star Teacher PreScreener score for only 11 teachers, which represented 9% of the teachers.

The district had a loss of data in the year 2011 after their software crashed, and, for the purpose of the study, The Haberman Foundation facilitated the Haberman Star Teacher PreScreener score for additional 34 teachers, for a grand total of 45 teachers. This represents 37% of the teachers who had a Haberman Star Teacher PreScreener score and a value-added score in Reading, Mathematics, or Composite across subject areas as they were hired after 2010, the date in which the district started using this online questionnaire as part of their recruitment process. The Haberman Foundation confirmed that the remaining 63% of the teachers eligible to have a Haberman Star Teacher PreScreener score due to the time of hire, actually do not have one and have never had a score. The district explained that the online questionnaire is occasionally waived for a variety of reasons. In short, out of the 121 teachers eligible to have a value-added score and the Haberman Star Teacher PreScreener score, only 45 teachers actually had both scores. Hence, the number of teachers used for this study was a total of 45.

For the purpose of the analysis, the 45 teachers selected for the study were grouped by 4 categories, the Reading value-added score, the Mathematics value-added score, the Composite across subject areas, and all combined value-added scores. There was no distinction made between teachers with single year or multiyear value-added scores.

Results

The study focused on answering the primary research question:

1. Does a relationship exist between the teachers' Haberman Star Teacher Pre-Screener score and their student's academic growth in English Reading and Mathematics standardized tests in fourth and fifth grades in low-performing

schools within the selected district as measured by a the Educational Value-Added Analysis System model?

The data was analyzed in 4 categories and included a total of 45 teachers:

a) The Haberman Star Teacher Pre-Screener score and the English Reading value-added score (32 teachers).
b) The Haberman Star Teacher Pre-Screener score and the English Mathematics value-added score (30 teachers).
c) The Haberman Star Teacher Pre-Screener score and the Composite across subject areas value-added score (17 teachers)
d) The Haberman Star Teacher Pre-Screener score and all value-added scores combined (45 teachers)

Larger sample sizes in the number of entries increase the statistical authority of a study's results, Researchers may use a p-value threshold of 0.05 for small sample sizes (Triola, 2011, Howell, 2011, StataCorp, 2013). To avoid a Type II error or a false negative due to the small sample size for each of the analysis (17-45), both p-values (0.01 and 0.05) will be considered.

Haberman Star Teacher PreScreener score and Reading Value-Added score.

The first analysis included the Haberman Star Teacher PreScreener score and the English Reading value-added score. The data included in the first analysis were for a total of 32 teachers in grades fourth and fifth.

A Pearson product-moment analysis was conducted to assess the existence of a correlation between the two values. The results showed $r = 0.066645$ and $p = 0.717$ which indicated no correlation $p = <.01$ or $p = <.05$ levels between the Haberman Star

Teacher Pre-Screener score and the Reading value-added scores of the teachers. Table 4-2 illustrates the output of the Pearson product-moment analysis.

Table 4-2

Correlation Data

		Correlations		
			Variable 1	Variable 2
Variable 1	Reading Value-Added	Pearson Correlation	1	.067
		Sig. (2-tailed)		.717
		N	32	32
Variable 2	Star Teacher Score	Pearson Correlation	.067	1
		Sig. (2-tailed)	.717	
		N	32	32

Correlation is not significant at the 0.01 or 0.05 levels (2-tailed).

A simple linear regression analysis was also conducted using STATA® to determine the relationship between the Haberman Star Teacher Pre-Screener score as the independent variable and the Reading value-added as the dependent variable. Table 4-3 illustrates the output of the regression exercise.

Table 4-3

Simple Linear Regression Analysis Summary Haberman Star Teacher PreScreener and Reading Value-Added

	B	SE B	β	*t*	Sig	R^2
Haberman	-1.633559	.0667637	.024425	0.37	0.717	0.0044

NOTE: a Simple Linear Regression was used in STATA for the analysis. The dependent variable was the Reading value-added score of teachers. N = 32 Prob > F = 0.717. *Indicates statistical significance at p<.01, ** indicates statistical significance at p<.01 and NS indicates no statistical significance.

A simple linear regression analysis using STATA® was conducted and suggested a positive relationship coefficient predicting that for every 1 point increase in the Haberman Star Teacher PreScreener score; a .024425 unit increase in the reading value-added score of the teacher can be expected. The $R^2 = 0.0044$ suggests that approximately 0.44% of the Reading value-added score of a teacher is explained by the Haberman Star Teacher Pre-Screener score with no statistical significance p = <.01 or p = <.05 levels between the independent and the dependent variables. The zero in the x axis in Figure 4-1 represents the normed value for the expected average academic growth of the student as determined by EVAAS®. However, a mean average for each value was calculated to demonstrate the relationship between the two data sets when divided into quartiles. A scatterplot summarizes the results.

Figure 4-1

Reading

Haberman Star Teacher PreScreener score and Mathematics Value-Added score. The second analysis included the Haberman Star Teacher PreScreener score and the Mathematics value-added score. The data included for this correlation were for a total of 30 teachers who taught in fourth and fifth grade the target subject area in low-performing schools in the district of study.

A Pearson product-moment analysis was conducted to assess the existence of a correlation between the two values which resulted in $r = 0.325$. There was no correlation $p = <.01$ or $p = <.05$ levels between the two variables. Table 4-4 illustrates the output of the Pearson product-moment analysis.

Table 4-4

Correlation Data

Correlations

			Variable 1	Variable 2
Variable 1	Mathematics Value-Added	Pearson Correlation	1	.325
		Sig. (2-tailed)		.080
		N	30	30
Variable 2	Star Teacher Score	Pearson Correlation	.325	1
		Sig. (2-tailed)	.080	
		N	30	30

Correlation is not significant at the 0.01 or 0.05 levels (2-tailed).

A simple linear regression analysis using STATA® was conducted between the independent variable Haberman Star Teacher PreScreener score and the dependable variable Mathematics value-added score of the 30 teachers. Table 4-5 illustrates the output of the regression exercise.

Table 4-5

Simple Linear Regression Analysis Summary Haberman Star Teacher PreScreener and Mathematics Value-Added

	B	SE B	β	*t*	Sig	R^2
Haberman	-7.991634	.1003048	.1823469	1.82	0.080	0.1056

NOTE: a Simple Linear Regression was used in STATA for the analysis. The dependent variable was the Mathematics value-added score of teachers. N = 30 Prob > F = 0.0798. *Indicates statistical significance at p<.01, ** indicates statistical significance at p<.01 and NS indicates no statistical significance.

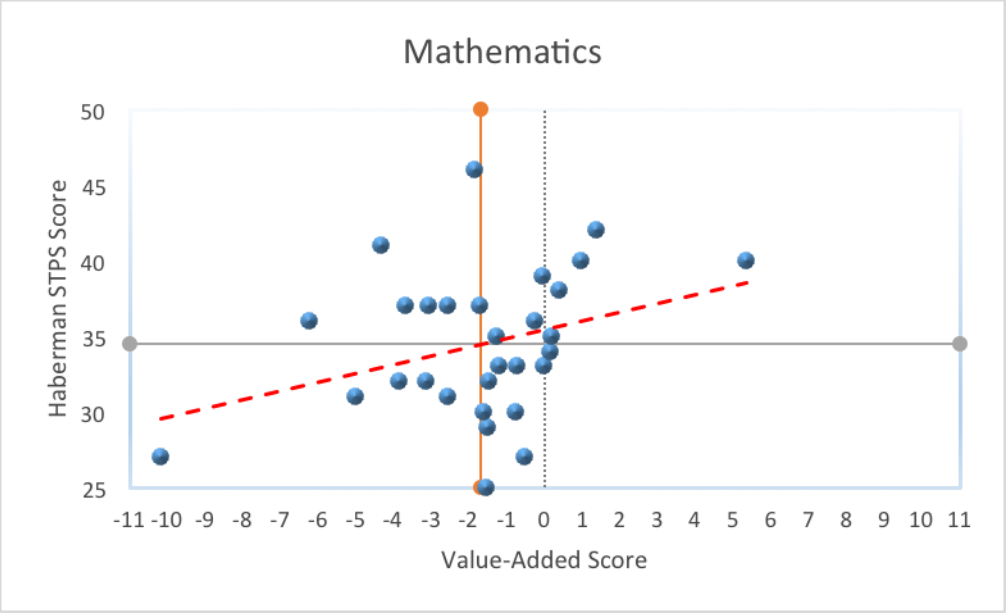
The simple linear regression analysis using STATA® suggested a positive coefficient of .1823469 predicting that for each point increase in the independent variable Haberman Star Teacher PreScreener score, an over .18 point increase in the value-added score can be expected. The $R^2 = 0.1056$ indicates a significant positive relationship between the independent variable Haberman Star Teacher PreScreener score and its influence on the Mathematics value-added score of the teacher. This suggests that approximately 11% of the Mathematics value-added score of a teacher is influenced by the Haberman Star Teacher Pre-Screener score.

The scatterplot (Figure 4-2) summarizes the relationship between the two values. Overall, it suggested a positive relationship as illustrated with the regression line. The zero in the x axis represents the expected average academic growth of the students from one point in time to another as determined by EVAAS®. A midpoint was calculated to illustrate the quadrants based on the mean averages of each value, which nonetheless showed to be skewed to the bottom left from the zero point as normed by the value-added analysis. The data indicates relationship between the independent variable Haberman Star

Teacher PreScreener score and the dependent variable Mathematics value-added score with no statistical significance at p = <.01 or p = <.05 levels.

Figure 4-2

Mathematics



Haberman Star Teacher PreScreener Score and Composite across Subject Areas Value-Added score. The third analysis was conducted using the Haberman Star Teacher PreScreener score and the composite across subject areas value-added score of fourth and fifth grade teachers in low-performing schools in the district selected for the study. The data included for this analysis were for a total of 17 teachers, which are the teachers who taught both subject areas during the school year 2012-2013.

The Pearson coefficient correlation analysis resulted in $r = 0.424$; no statistically significant correlation at p = <.01 or p = <.05 levels between the Haberman Star Teacher

PreScreener score independent variable and the composite across subject areas value-added score dependent variable. However, it did show an increase in the correlation as compared to the Haberman Star Teacher PreScreener score and the Reading and Mathematics value-added score correlation. Table 4-6 illustrates the output of the Pearson product-moment analysis.

Table 4-6

Correlation Data

Correlations

			Variable 1	Variable 2
Variable 1	Composite Across Subject Areas Value-Added	Pearson Correlation	1	.424
		Sig. (2-tailed)		.090
		N	17	17
Variable 2	Star Teacher Score	Pearson Correlation	.424	1
		Sig. (2-tailed)	.090	
		N	17	17

Correlation is not significant at the 0.01 or 0.05 levels (2-tailed).

A simple linear regression analysis using STATA® was computed between the independent variable Haberman Star Teacher PreScreener score and the dependable

variable composite across subject areas value-added score of the teachers. Table 4-7 illustrates the output of the regression exercise.

Table 4-7

Simple Linear Regression Analysis Summary Haberman Star Teacher PreScreener and Composite across Subject Area Value-Added

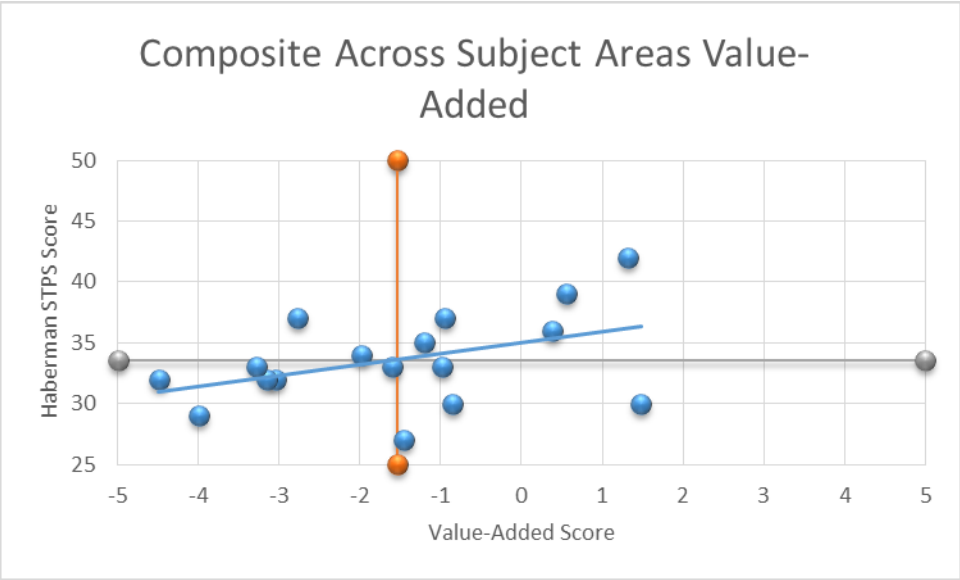
	B	SE B	β	*t*	Sig	R^2
Haberman	-8.220808	.1099466	.1991309	1.81	0.090	0.1247

NOTE: a Simple Linear Regression was used in STATA for the analysis. The dependent variable was the Composite across subject areas value-added score of teachers. N = 17 Prob > F = 0902.
*Indicates statistical significance at p<.01, ** indicates statistical significance at p<.01 and NS indicates no statistical significance.

The simple linear regression analysis showed a positive coefficient predicting that for every 1 point increase in the Haberman Star Teacher PreScreener score, a 0.199 unit increase in the Composite across subject areas value-added score of the teacher. The R^2 = 0.1247 shows the relationship between the independent variable Haberman Star Teacher PreScreener score and the dependent variable Composite across subject areas value-added score of the teachers. The rooted square suggests that 12% of the Composite across subject areas value-added score is influenced or explained by the Haberman Star Teacher PreScreener score. The quadrants in the scatterplot below (Figure 4-3) illustrates a midpoint based on the mean averages of the values, which appears lower to the zero average expected growth as determined by EVAAS® to illustrate the strength of the relationship.

Figure 4-3

Composite Across Subject Area Value-Added



Haberman Star Teacher PreScreener Score and All Value-Added Scores Combined

The fourth and last analysis was conducted using the Haberman Star Teacher PreScreener score and all available value-added score of fourth and fifth grade teachers in low-performing schools in the district selected for the study. The data included for this analysis were for a total of 45 teachers, which were the teachers who had a value-added in either, Math, Reading or Composite across subject areas and who taught during the school year 2012-2013.

The Pearson coefficient correlation analysis resulted in $r = 0.022$; no statistically significant correlation at $p = < 0.01$ but statistically significant at $p = <0.05$ value between the Haberman Star Teacher PreScreener score independent variable and the

combined Reading and Mathematics composite value-added score dependent variable. Table 4-8 illustrates the output of the Pearson product-moment analysis.

Table 4-8

Correlation Data

Correlations

			Variable 1	Variable 2
Variable 1	All Value-Added Scores Combined	Pearson Correlation	1	.340*
		Sig. (2-tailed)		.022
		N	45	45
Variable 2	Star Teacher Score	Pearson Correlation	.340*	1
		Sig. (2-tailed)	.022	
		N	45	45

Correlation is not significant at the 0.01 level (2-tailed); correlation is significant at the 0.05 level (2-tailed).

A simple linear regression analysis using STATA® was computed between the independent variable Haberman Star Teacher PreScreener score and the value-added score of the teachers. Table 4-9 illustrates the output of the regression exercise.

Table 4-9

Simple Linear Regression Analysis Summary Haberman Star Teacher PreScreener and All Value-Added Scores Combined

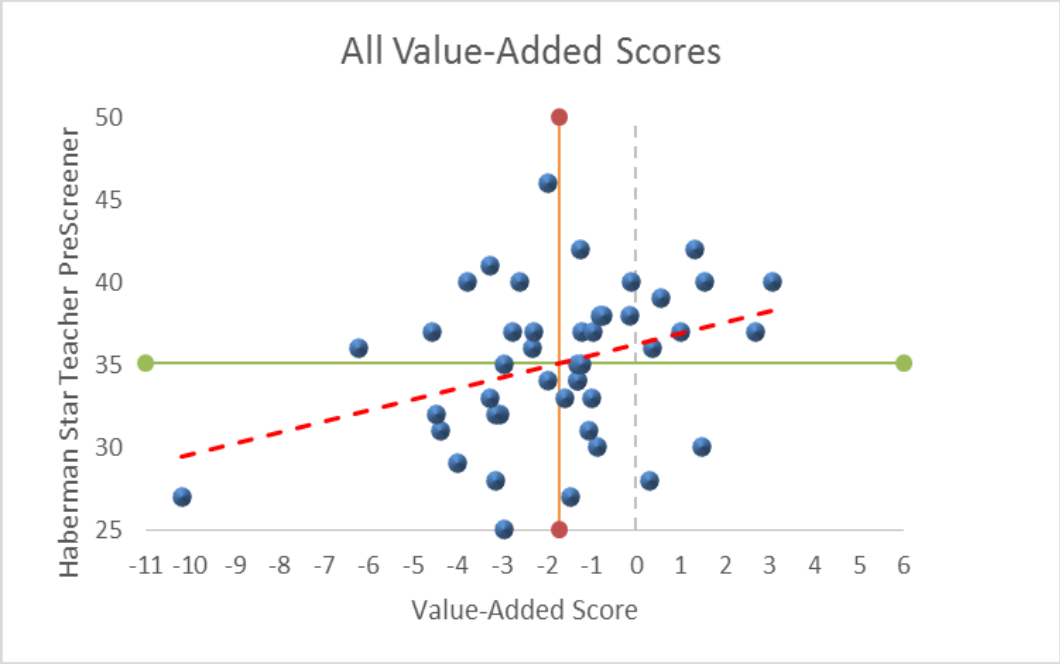
	B	SE B	β	*t*	Sig	R^2
Haberman	-7.795898	.0731355	.17317	2.37	0.022*	0.1153

NOTE: a Simple Linear Regression was used in STATA for the analysis. The dependent variable was the Mathematics value-added score of teachers. N = 45 Prob > F = 0.0225.
* indicates statistical significance at p<.01 NS indicates no statistical significance.

The simple linear regression analysis showed a positive coefficient predicting that for every 1 point increase in the Haberman Star Teacher PreScreener score, a .17317 unit increase in the combined value-added scores available. The p = 0.022 indicates no correlation at p = <0.01, although it represents statistically significance at p = <0.05 which is often used by researches (Triola, 2011, Howell, 2011, StataCorp, 2013) for small sample sizes such as the 45 teacher count in this study. The $R^2 = 0.1153$ indicates the proportion of variance of value-added growth that can be predicted from the Haberman Star Teacher PreScreener. This suggests that approximately 12% of the Mathematics value-added score of a teacher is explained by the Haberman Star Teacher Pre-Screener score. The quadrants in the scatterplot below (Figure 4-4) illustrates a midpoint based on the mean averages of the values, which appears lower to the zero average expected growth as determined by EVAAS® to illustrate the relationship of the existing scores.

Figure 4-4

All Value-Added Scores Combined



Between May 2013 and September 2014, 14 out of 45 teachers with a Haberman Star Teacher PreScreener and a value-added score left the district. These were teachers who taught in the target grade levels and subject areas in the school year 2012-2013 and were hired using the Haberman Star Teacher PreScreener as part of their recruitment process. This represents a 31% teacher turnover between May 2013 and September 2014. Table 4-10 illustrates the reasons for teachers leaving the district. The table includes teacher turnover out of 45 teachers hired since 2010 in 49 low-performing schools by reason for leaving the district.

Table 4-10

May 2013 - September 2014 Teacher Turnover Using Haberman Star Teacher PreScreener Online Questionnaire

Reason for Leaving the District	Number of Teachers Leaving	Percent of 45 Teachers
Resignation with District's consent	10	24%
Resignation without District's consent	2	4%
Job abandonment	1	2%
Early Notification	1	2%
TOTAL	14	31%

Between May 2013 and September 2014, 43 out of 76 teachers hired since 2010 without using the Haberman Star Teacher PreScreener score left the district. These were teachers who taught in the target grade levels and subject areas in the school year 2012-2013 but were hired without using the Haberman Star Teacher PreScreener as part of their recruitment process. This represents a 57% of teacher turnover between May 2013 and September 2014, or a 53% of teacher turnover for reasons other than retirement. Table 4-11 illustrates the reasons for teachers leaving the district. The table includes teacher turnover out of 76 teachers hired since 2010 in 49 low-performing schools by reason for leaving the district.

Table 4-11

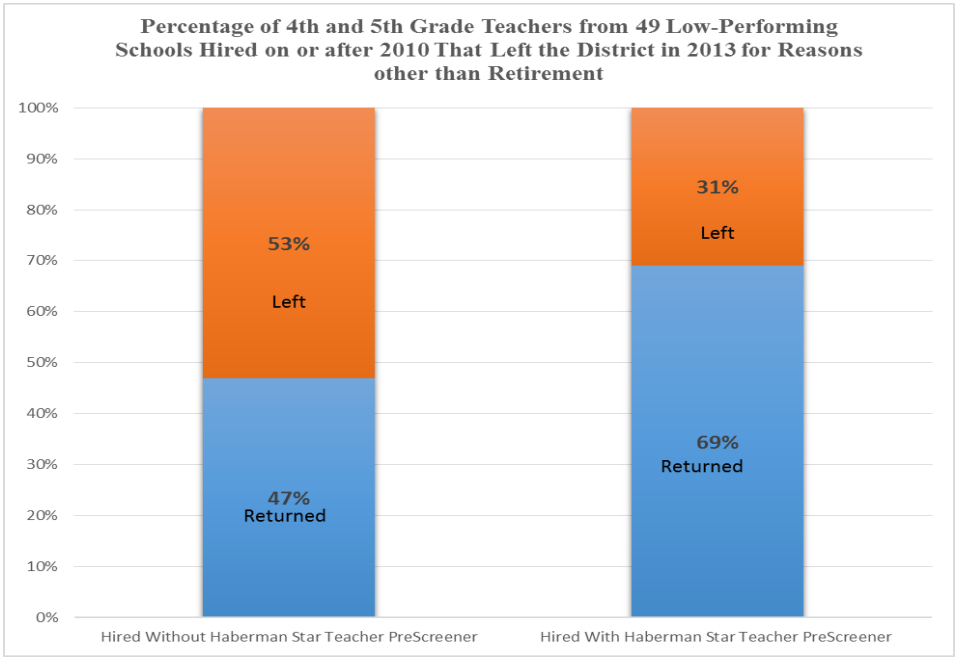
May 2013 - September 2014 Teacher Turnover Not Using the Haberman Star Teacher PreScreener Online Questionnaire

Reason for Leaving the District	Number of Teachers Leaving	Percent of 76 Teachers
Attendance	1	1%
Job abandonment	1	1%
Elimination of position/program	6	5%
Misconduct	1	1%
Not cleared for employment	1	1%
Resignation without District's consent	1	1%
Resignation with District's consent	28	37%
Early Notification	1	1%
Retirement	3	4%
TOTAL	43	57%

Figure 4-5 illustrates the percentage of fourth and fifth and grade teachers in the 49 low-performing schools hired on or after 2010 and left the district at the end of the school year in the spring of 2013 in two categories, hired *using* the Haberman Star Teacher PreScreener and hired *without using* the Haberman Star Teacher PreScreener as it was waived.

Figure 4-5

Percentage of fourth and fifth Grade Teachers from 49 Low-Performing Schools Hired on or after 2010 that left the District in 2013 for Reasons other than Retirement



Chapter 5

Conclusions

Introduction

A large number of students are failing or are at-risk of failing in schools across the United States. Low-income and minority students, specifically African American students, have a reduced chance to get teachers of high quality when compared with their non-minority, non-low-income peers (Center for Public Education, 2005). To add to this misfortune, minority students are more likely to have a change of teacher within an academic year. Dr. Haberman (2004) explained in his book *The Star Teacher* that a class of minority students, predominantly African American, have a 50% chance of having 2 or more teachers in a year, and a class of predominately White students have an 80% change of keeping the same teacher in a school year (p. 4). Very often, urban schools impacted by poverty staff their classrooms with inexperienced, younger teachers that tend to leave education at high rates (McKinney et al., 2007). Teacher attrition costs school districts significantly (The Cost of, n.d.). According to Barnes, Crowe, and Schaefer (2007) the cost of teacher turnover in large school districts like Chicago, IL, would have an average cost of $17, 872 per teacher (pg.4). Although some managed teacher attrition can be beneficial for a school, consistent and high attrition of teachers can be detrimental to the school culture and student learning (Ingersoll & Center for the Study, 1999; Ingersoll, 2002). Dr. Haberman explained in his book *The Star Teacher* that in urban school districts, one tenth of the newly hired teachers leave the schools that are highly impacted by poverty before they can develop into effective teachers for these schools (p. 29). It is expected that effective teaching practices will result in improved student learning

regardless of what teaching practices the teacher chooses; these practices will be considered effective only if they result in student academic growth (Ritter & Shuls, 2012). This study shed unexpected light in regards to the tendency of teachers that were hired between 2010 and 2012 *using* the Haberman Star Teacher PreScreener online tool to stay at the school at higher rates than those teachers that were hired between 2010 and 2012 *without using* the Haberman Star Teacher PreScreener online tool.

Urban school environments have a tendency to allow students to slip through school years, eventually resulting in failing students (Haberman, 2004 pg. 59). Seven thousand students drop out of school every day (The White House, 2010); almost 6 students each hour of each school day in a year. Each dropout student represents high costs to society in potential lost wages, culminating to around $300 billion every year. In addition, if a dropout becomes a life-long criminal, the cost increases to an average $1.5 million per dropout in his or her lifetime (D. Stafford, personal communication, September 27, 2014). One out of every ten male dropouts is incarcerated on any given day, compared to one in every thirty-five high school graduates (Dillon, 2009). A teacher can make a difference by having a positive impact in the lives of his or her students (D. Stafford, personal communication, September 27, 2014).

The purpose of this study was to determine if a relationship exists between the Haberman Star Teacher Pre-Screener score and the fourth and fifth grade students' academic growth in the State of Texas Assessment of Academic Readiness (STAAR) in English Reading and Mathematics as measured by the Educational Value-Added Analysis System (EVAAS®) in one of the largest urban school districts in the nation. The Haberman Star Teacher Pre-Screener is an interview developed by Dr. Martin

Haberman in 1989 in response to an arduous research on what makes a highly effective teacher (D. Stafford, personal communication October 29, 2014).

In this correlational study, two types of inferential analyses were conducted to measure the relationship between the two variables. The intent of the analyses was to thoroughly respond to the following research question:

1. Does a relationship exist between the teachers' Haberman Star Teacher Pre-Screener score and their student's academic growth in English Reading and Mathematics standardized tests in fourth and fifth grades in low-performing schools within the selected district as measured by a the Educational Value-Added Analysis System model?

One analysis conducted was the Pearson's Correlation Coefficient or Pearson's *r* using IBM SPSS Statistics® software, which was selected to find the existence of a correlation between the two values. The second inferential analysis conducted was a simple linear regression using STATA® to determine the strength of the relationship and influence between the independent and the dependent variables. This chapter presents an abridged summary of the data analyses outputs and the implications of such outputs.

The data utilized in the analyses were of teachers who taught English Reading and Mathematics during the school year 2012-2013 in any of the 49 identified low-performing schools in the district. The teachers considered for the study needed to have two sets of data, the Haberman Star Teacher PreScreener score and the value-added score to be included in the study for the year 2012-2013. The researcher relied on the accuracy of the archival data provided by the district and by The Haberman Educational Foundation.

Ultimately, the data of 45 teachers was analyzed in 4 categories:

1. The Haberman Star Teacher Pre-Screener score and the English Reading value-added score (32 teachers).
2. The Haberman Star Teacher Pre-Screener score and the English Mathematics value-added score (30 teachers).
3. The Haberman Star Teacher Pre-Screener score and the Composite across subject areas value-added score (17 teachers).
4. The Haberman Star Teacher Pre-Screener score and the combination of all value-added scores available (45 teachers).

Discussion of the Results

A total of 45 teacher scores were analyzed after being grouped in the 4 categories described above. These teachers taught either Reading, Mathematics, or both in one of the 49 low-performing school in the school year 2012-2013 in the urban school district of study. Forty-nine schools were included in the study, representing roughly 28% of the elementary schools in the district.

Researches in the area of teacher attrition and its impact on student academic growth (Barnes, Crowe & Schaefer, 2007; Carroll & Hunt, 2003; Rebora, 2003; Center for Public Education, 2005; District costs of, n.d.; Haberman, M., 2004; Ingersoll, 2002, 2003; Ingersoll and Center for the Study, 1999; McKinney, Berry, Dickerson, & Campbell-Whately, 2007) stress the negative impact that high and constant attrition of teachers in schools. Teachers that leave the profession before year 5 do not develop into effective teachers for the school (Haberman, 2004). This study shed serendipitous light in regards to the tendency of teachers that were hired between 2010 and 2012 *using* the

Haberman Star Teacher PreScreener online tool to stay at the school at higher rates than those teachers that were hired between 2010 and 2012 *without using* the Haberman Star Teacher PreScreener online tool. The data revealed that 31% of the teachers hired *using* the Haberman Star Teacher PreScreener online tool left the district for reasons other than retirement, whereas 53% of the teachers hired *without* using the Haberman Star Teacher PreScreener online tool left the district for reasons other than retirement at the end of the school year 2013. That is, this group of teachers hired with Haberman showed to be 70% more likely to return to the school district than the teachers hired without the Haberman. This merits additional study to determine any level of statistical significance considering any other group of teachers. Researchers Rockoff, Jacob, Kane, and Staiger (2008) had similar findings pertaining to the inclination of teachers to return to teaching the following year. In their research, *Can You Recognize a Teacher When You Recruit One?,* they concluded that increases in the teacher's Haberman Star Teacher PreScreener score was associated with the tendency of the teachers to return on the following year to teach (pg. 34).

Dr. Martin Haberman spoke in his book *The Star Teacher* about increasing the district's chances of securing teachers in the field of education for urban, poor minority students by hiring teachers with a set of values and beliefs that are effectively uncovered by his interview tool (p. 39). Considering Barnes, Crowe, and Schaefer's (2007) calculations, the cost of teacher turnover in large school districts would have an average cost of $17, 872 per teacher (pg.4) that was considerably lower in the group of teachers hired with the Haberman Star Teacher PreScreener as compared to the group hired without the use of the tool.

To answer to the research question for *Category 1- The Haberman Star Teacher Pre-Screener score and the English Reading value-added score (32 teachers),* the first statistical inferential analysis conducted to determine the existence of a correlation between the two datasets (the Haberman Star Teacher PreScreener score and the English Reading value-added score of the teachers) was the Pearson product-moment correlation also known as the Pearson *r.* The output of the Pearson *r* resulted in $r = 0.067$, indicating that although there is a positive correlation, it is not statistically significant at the 0.01 or 0.05 values.

The second statistical inferential analysis conducted to determine the strength in the relationship between the independent variable (Haberman Star Teacher PreScreener score) and the dependent variable (English Reading value-added score) was the simple linear regression analysis using the STATA® program. The output of the linear regression suggests a positive relationship coefficient, predicting that for every 1 point increase in the Haberman Teacher PreScreener score, a .024425 unit increase in the reading value-added score of the teacher can be expected. This represents that over 2% of the Reading value-added score can be explained by the Haberman Star Teacher PreScreener score. The $p = 0.717$ suggested no statistical relationship at the 0.01 or 0.05 values. The $R^2 = 0.0044$ indicates a proportion of variance of value-added growth that can be predicted from the Haberman Star Teacher PreScreener.

To answer to the research question for *Category 2- The Haberman Star Teacher Pre-Screener score and the English Mathematics value-added score (30 teachers),* the first statistical inferential analysis conducted to determine the existence of a correlation between the two datasets and to determine the strength in the relationship between the

independent variable (the Haberman Star Teacher PreScreener score and the English Mathematics value-added score of the teachers) of the teachers was the Pearson product-moment correlation also known as the Pearson *r*. The output of the Pearson *r* resulted in $r = 0.325$ and $p = 0.080$ suggested there is no statistically significant relationship at the 0.01 or 0.05 values. Although the correlation was a positive value, it is not statistically significant.

The second statistical inferential analysis conducted to determine the strength in the relationship between the independent variable (the Haberman Star Teacher PreScreener score and the English Mathematics value-added score) was the simple linear regression analysis using the STATA® program. The output of the regression showed a positive coefficient of 0.1823469, predicting that for each point increase in the independent variable Haberman PreScreener score, over .18 point increase in the value-added score can be expected. The $p = 0.080$ indicated that there is no statistically significant relationship at the 0.01 or 0.05 values. Rockoff, Jacob, Kane, and Staiger (2008) concluded that one standard deviation in the Haberman Star Teacher PreScreener score explains an increase in the student's Mathematics score (pg. 33).

The $R^2 = 0.1056$ indicated that approximately 11% of the Mathematics value-added score of a teacher is explained by the Haberman Star Teacher Pre-Screener score. Considering the multiple variables that impact student academic growth, including campus specific leadership style, site-based instructional organization, other teachers' effectiveness, instructional resources, parental involvement, and tutoring opportunities for students and considering the small size sample, to attribute 11% to only one variable might be significant. Dr. Haberman's research focused on the importance of securing star

teachers in poor-low-performing schools in urban school districts with a set of values and beliefs that will effectively remain in the school and will positively impact student academic growth.

To answer to the research question for *Category 3- The Haberman Star Teacher Pre-Screener score and the Composite across subject areas value-added score (17 teachers),* the first statistical inferential analysis conducted to determine the existence of a correlation between the two datasets (the Haberman Star Teacher PreScreener score and the Composite across subject areas value-added score of the teachers) was the Pearson product-moment correlation also known as the Pearson *r*. The output of the Pearson *r* resulted in $r = 0.424$, indicating that although there is a positive correlation, it is not statistically significant at the 0.01 or 0.05 values. Nonetheless, this correlation suggests the possibility of an even stronger relationship between the Haberman Star Teacher PreScreener score and the Composite across subjects value-added score than the correlation found between the two variables in the subject area of Reading ($r = 0.067$) and the subject area of Mathematics ($r = 0.325$).

The second statistical inferential analysis conducted to determine the strength in the relationship between the independent variable (the Haberman Star Teacher PreScreener score and the Composite across subject areas value-added score) was the simple linear regression analysis using the STATA® program. The output of the regression suggested a positive coefficient of .1991309, predicting that for each point increase in the independent variable Haberman PreScreener score, over .199 point increase in the value-added score can be expected. The $R^2 = 0.1247$ indicates the proportion of variance of value-added growth that can be predicted from the Haberman

Star Teacher PreScreener. This suggests that approximately 12% of the Composite across subject areas value-added score of a teacher is explained by the Haberman Star Teacher Pre-Screener score. The p = 0.090 indicates that the relationship is not statistically significant at the 0.01 or 0.05 values.

To answer to the research question for *Category 4- The Haberman Star Teacher Pre-Screener score and All value-added scores combined (45 teachers),* the first statistical inferential analysis conducted to determine the existence of a correlation between the two datasets (the Haberman Star Teacher PreScreener score and the Composite across subject areas value-added score of the teachers) was the Pearson product-moment correlation also known as the Pearson *r*. The output of the Pearson *r* resulted in $r = 0.022$, indicating that there is a positive correlation not statistically significant at $p = <0.01$, but statistically significant at $p = <0.05$. This value indicates higher correlation value between the Haberman Star Teacher PreScreener score and the Composite across subjects value-added score than the correlation found between the two variables in the subject area of Reading ($r = 0.067$) and the subject area of Mathematics ($r = 0.325$), and Composite across subject areas ($r = 0.424$).

The second statistical inferential analysis conducted to determine the strength in the relationship between the independent variable (the Haberman Star Teacher PreScreener score and the Composite across subject areas value-added score) was the simple linear regression analysis using the STATA® program. The output of the regression suggested a positive coefficient of .0.199, predicting that for each point increase in the independent variable Haberman PreScreener score, over .19 point increase in the value-added score can be expected. The $R^2 = 0.1247$ indicates the proportion of

variance of value-added growth that can be predicted from the Haberman Star Teacher PreScreener. This suggests that approximately 12% of the Composite across subject areas value-added score of a teacher is explained by the Haberman Star Teacher Pre-Screener score. The $p = 0.090$ indicates that the relationship is not statistically significant at $p<0.01$ but it is statistically significant at $p<0.05$.

The null hypothesis formulated was that there is no relationship between the teachers' Haberman Star Teacher Pre-Screener interview score and their impact on student academic growth in the STAAR Reading and Math in grades fourth and fifth grades as measured by a value-added model, which resulted true in all analyses except the simple linear regression using STATA® with the Haberman Star Teacher PreScreener score and all the value-added scores combined for the 45 teachers. Researchers may use a p-value threshold of 0.05 for small sample sizes (Triola, 2011, Howell, 2011, StataCorp, 2013). To avoid a Type II error or a false negative due to the small sample size for each of the analysis, both p-values (0.01 and 0.05) will be considered. However, the results indicated no statistically significant difference at $p = <0.01$.

In the Pearson *r* analysis, all correlations were positive although not statistically significant. One limitation during the analysis was the small sample of data points for each of the 4 identified categories. Reading showed the weakest correlation value, and the combined value-added scores category resulted with the strongest correlation value of the 4 groups.

The linear regression conducted also showed a positive strength in the relationship between the Haberman Star Teacher PreScreener scores and the effectiveness of the teachers to grow students academically as measured by the value-added model

EVAAS® using Reading and Mathematics STAAR tests for fourth and fifth grades administered in the spring of 2013, although statistically significant at $p = <0.05$ for only one category, but not statistically significant at $p = <0.01$ for any category.

Rockoff, Jacob, Kane, and Staiger (2008) with Harvard Graduate School of Education, concluded in their study that there is a "marginally significant increase in math achievement (p-value 0.11) (pg. 33).

Implications and Recommendations for School Leaders

There is a crisis in urban schools recruiting and retaining teachers in poverty. The inability to retain effective teachers and the consistent turnover of teachers in urban schools filled with children in poverty exasperates the crisis even more. When schools hire and retain effective teachers, children learn more. (Haberman, 2004, pg. 17).

This study showed that the Haberman Star Teacher PreScreener online questionnaire is a tool that can potentially identify teachers that possess a set of values and beliefs that equip them to have a higher tendency to return to teaching the following year. Although the relationship was not statistically significant in any but one area, it showed a positive as relationship as opposed to a negative relationship between the two variables at all times.

Urban districts serving large numbers of students impacted by poverty struggle to find and keep effective teachers (D. Stafford, personal communication June 17, 2013). Teacher attrition has a significant cost to school districts (The Cost of, n.d.), becoming an additional stressor to urban school teachers and administrators; it affects school district management negatively as well. School districts invest an important amount of resources in recruiting effective teachers (Barnes, Crowe, & Schaefer, 2007). Urban schools

serving children impacted by high-poverty have an even greater challenge when compared to non-urban, low-poverty impacted schools in successfully selecting and retaining effective teachers.

The results of this study should be taken with caution for a variety of reasons. Firstly, the small sample size due to the large amount of waivers the district granted for teachers not to participate in the online Haberman Star Teacher PreScreener tool who worked in the schools selected for the study in the school year 2012-2013. It is crucial for any research study to count with a sample size that is large enough to define whether the findings are as a result of coincidence or chance; in other words, if they is statistically significant or not. The smaller the sample size, the more difficult for the results to be statistically significant (Howell, 2011).

Secondly, while they provide support to the notion that teachers hired with the Haberman online tool have a higher tendency to return to teach the following year but this is true only for this group of 121 teachers. Longitudinal studies to proof this idea is necessary. Additionally, there are many factors that could contribute to students' academic growth or lack of growth, including school culture, teacher preparation, effectiveness of the school leaders, and curricular programs. However, teachers understand that they are *the* variable that can make a difference in the classroom (Whitaker, 2004). Sergiovanni's theoretical framework is founded on the fundamental idea of schools as communities bonded together by common goals and shared moral assurances rather than structured organizations held by bureaucratic systems and regulations (Westheimer, 1996). Hiring teachers with a common set of values and beliefs will provide schools with a faculty that will have the potential to develop as a community

bonded together by the common goals and shared moral values. The results of this study provide support to the notion that this interview tool has the capacity to identify individual's characteristics that are related to teacher effectiveness.

The following recommendations for school leaders are suggested:

1. Establish a consistent practice at the school level pertaining to the use of the Haberman Star Teacher PreScreener questionnaire as part of the recruitment process to ensure uniformity in the hiring process.
2. Minimize or eliminate the number of waivers granted to teachers as they use the Haberman Star Teacher PreScreener questionnaire as part of the recruitment process especially in the lowest-performing schools of the district.
3. Ensure that both modules of the interview tool (online pre-screener and face-to-face component) are used rather than just the online tool as recommended by the Haberman Educational Foundation.
4. Use the district data available to assess the relationship that the Haberman Star Teacher PreScreener score may have on teacher effectiveness. The findings may vary from one district to another based on the special circumstances of the district.
5. Potentially identify the schools in which the tool must be used to increase the ability to potentially retain teachers in low-performing schools, particularly low-performing urban schools.

An interesting fact noticed during the inferential analyses conducted was that teacher retention in this group of teachers was higher when teachers were hired using the Haberman Star Teacher PreScreener tool as compared to the teachers who were hired

without using the Haberman Star Teacher PreScreener tool. This is particularly important for low-performing urban schools to increase the opportunities to build a strong cadre of teachers that will sustain communities in schools bonded by common goals and moral values.

Implications and Recommendations for Further Research

The purpose of this research study was to determine the existence of a relationship between the Haberman Star Teacher Pre-Screener score and the fourth and fifth grade students' academic growth in the State of Texas Assessment of Academic Readiness (STAAR) in English Reading and Mathematics as measured by the Educational Value-Added Analysis System (EVAAS®) in one of the largest urban school districts in the nation. The data secured and analyzed accomplished this goal. Nonetheless, additional research on the same topic including more variables will provide more clarity on the variables that influence teacher effectiveness.

The study suggested positive relationship between the independent variable (Haberman Star Teacher PreScreener Score) and the dependent variable (the teacher's value-added score) although not statistically significant. A limitation to the study was the small sample in the 49 low-performing schools selected for the study, where over 120 teachers could have had the two data values, but only 45 teachers actually had the Haberman Star Teacher PreScreener score and a value-added score in the areas of English Reading, Mathematics, or Composite across subject areas.

For further research, the following recommendations are suggested:

1. Increase the number of teachers, either by securing that more teachers are recruited using the Haberman Star Teacher PreScreener tool or by increasing the number of participating schools in the study.
2. Include analyses that will provide additional research pertaining whether the teachers leave the school district and abandon teaching or simply move to another school district.
3. Consider further work on the correlation between the teacher program preparation in which the teacher obtained the teaching license and the teacher effectiveness as measured by value-added or any other student achievement or growth measurement.
4. Dr. Haberman (2004) mentioned in his book *The Star Teacher* that many teachers leave the school before they can develop into effective teachers for that school (pg. 29). Further research could include the level of influence of teacher experience and the teacher value-added score.
5. Include qualitative analyses to shed light on other variables that influence teacher effectiveness other than test scores data.
6. Consider mixed qualitative and quantitative analysis on the impact of the leader in low-performing schools and the relationship between the Administrators' Haberman Interview and the schools' value-added score.

Conclusion

Students impacted by poverty and attending low-performing schools deserve the opportunity to be well educated and prepared for the demands that they will face in the future. It is our obligation as educational professionals to seek for avenues that will allow

school communities to better prepare themselves to serve students, especially impoverished students, when schools may be the only haven they experience. Without basis skills and educations, poor-minority students will have slim chances to succeed in life.

The purpose of this research study was to determine the existence of a relationship between the Haberman Star Teacher Pre-Screener score and the fourth and fifth grade students' academic growth in the State of Texas Assessment of Academic Readiness (STAAR) in English Reading and Mathematics as measured by the Educational Value-Added Analysis System (EVAAS®) in one of the largest urban school districts in the nation. The data collected and analyzed achieved this goal.

The study provided information regarding the relationship between that Haberman Teacher Star PreScreener score and the value-added score of the teacher. Nonetheless, as stated before, the results of this study should be taken with caution for a number of reasons explained earlier in this chapter, including the small sample size and the number of other factors that can impact student academic growth or lack of growth. Thus, additional research work is warranted in this area.

References

Access to Strong Teachers | Education Trust. (2009). *Education Trust | Closing the achievement gap*. Retrieved June 15, 2013, from http://www.edtrust.org/issues/pre-k-12/access-to-strong-teachers

American Rhetoric: John F. Kennedy -- 1960 Democratic National Convention Address. (n.d.).*American Rhetoric: The Power of Oratory in the United States*. Retrieved June 13, 2013, from http://www.americanrhetoric.com/speeches/jfk1960dnc.htm

Amrein-Beardsley, A., & Collins, C. (2012). The SAS Education Value-Added Assessment System (SAS® EVAAS®) in the Houston Independent School District (HISD): Intended and Unintended Consequences. *Education Policy Analysis Archives, 20*, 12. Retrieved from http://epaa.asu.edu/ojs/article/view/1096

Amrein-Beardsley, A. (2012). Recruiting Expert Teachers into High-Needs Schools: Leadership, Money, and Colleagues. *Education Policy Analysis Archives, 20*(27),

Ansell, S. E., & McCabe, M. (2003, January 9). Off target. *Education Week, The Teacher Gap*. Retrieved June 15, 2013, from http://www.edcounts.org/archive/sreports/qc03

Armor, D., Rand Corp., S. A., & And, O. (1976). Analysis of the School Preferred Reading Program in Selected Los Angeles Minority Schools.

Association for Educational Communications and Technology, (2001). Retrieved on September 28, 2013 from http://www.aect.org/about/history/esea.htm

Auty, B., Brockmann, F., & Council of Chief State School, O. (2012). Growth Model Comparison Study: A Summary of Results. *Council Of Chief State School Officers*,

Baker, B. D., Green III, P. C., &Oluwole, J. (n.d.). 2012 Brigham Young University Education and Law Journal 2012 Legal and Policy Implications of Value-Added Teacher Assessment Policies, The *Hein Online*. Retrieved April 27, 2013, from http://heinonline.org/HOL/LandingPage?collection=journals&handle=hein.journals/byuelj2012&div=5&id=&page

Background & Analysis.(n.d.).*Federal and Education Budget Project*. Retrieved June 13, 2013, from http://febp.newamerica.net/background-analysis/individuals-disabilities-education-act-funding-distribution

Bandura, A. (1977). *Self-Efficacy: Toward a Unifying Theory of Behavioral Change*. Psychological Review.

Barnes, G., Crowe, E., & National Commission on Teaching & America's Future, N. Y. (2007). The Cost of Teacher Turnover in Five School Districts: A Pilot Study. *National Commission On Teaching And America's Future*.

Berry, B., Hoke, M., & Hirsch, E. (2004). NCLB: Highly Qualified Teachers - The Search for Highly Qualified Teachers. *Phi Delta Kappan*, *85*(9), 684.

Bill & Melinda Gates Foundation (2011).*Selecting growth measures: a guide for educational leaders.* Battelle for Kids.

Burdick, J. (2012). The Legacy of "A Nation at Risk". *Online Submission.*

Bush, G. W. U.S. Government, Presidential Office (2002).*The no child left behind act of 2001*. Retrieved from website: http://www2.ed.gov/nclb/overview/intro/execsumm.pdf

Castellano, K. & Ho, A.D. (2013). A practitioner's guide to growth models. *Council Of Chief State School Officers,*

Carroll, T. & Foster, E. (2010). Who will teach? Experience matters. *NCTAF*, Retrieved from http://nctaf.org/wp-content/uploads/2012/01/NCTAF-Who-Will-Teach-Experience-Matters-2010-Report.pdf

Carroll, T., & Hunt, J. (2003).*No dream denied: a pledge to America's children*. New York, NY: National Commission on Teaching and America's Future.

Center for Public Education. (2005). *Teacher quality and student achievement: At a glance*. *Center for Public Education*. Retrieved June 20, 2014, from http://www.centerforpubliceducation.org/Main-Menu/Staffingstudents/Teacher-quality-and-student-achievement-At-a-glance /article/goals-no-child-left-behind/

Chatterjee, S., & Simonoff, J. (2013). *Handbook of regression analysis*. New Jersey: John Wiley and Sons.

Chingos, M. M., & Center for American Progress. (2011). The False Promise of Class-Size Reduction. *Center For American Progress.*

Clark, D. (1993, January 1). Teacher Evaluation: A Review of the Literature with Implications for Educators.

Clinton, William J: Address Before a Joint Session of the Congress on the State of the Union. (1997). *The American Presidency Project*. Retrieved June 13, 2013, from http://www.presidency.ucsb.edu/ws/?pid=53358

Coleman, J., & Hopkins, J. (1966).Equality of Educational Opportunity. *Florida State University*, 1966, 22. Retrieved June 12, 2013, from http://mailer.fsu.edu/~ldsmith/garnet-ldsmith/Coleman%20Report.pdf

Colorado Department of Education, School View. (n.d.). *Colorado growth model*. Retrieved from website: http://www.schoolview.org/ColoradoGrowthModel2.asp

Cooper, H., & ERIC Clearinghouse on Elementary and Early Childhood Education, C. L. (2003).*Summer Learning Loss: The Problem and Some Solutions. ERIC Digest*.

Da Ros-Voseles, D., & Moss, L. (2007). The Role of Dispositions in the Education of Future Teachers. *Young Children*, *62*(5), 90-96

David, J. (2010, May). What research says about using value-added measures to evaluate teachers. *Educational Leadership, 67*, 81-82. Retrieved on October 28, 2013, from What Research Says About… / Using Value-Added Measures to Evaluate Teachers

Deal, T. E., & Peterson, K. D. (1999). *Shaping school culture: the heart of leadership*. San Francisco: Jossey-Bass Publishers.

DeNavas-Walt, C., Proctor, B., & Smith, J. U.S. Department of Commerce, Economics and Statistics Administration. (2013). *Income, poverty and health insurance coverage in the united states: 2012* (P60-245). Retrieved from US Government Printing Office website: https://www.census.gov/prod/2013pubs/p60-245.pdf

Dill, V., & Stafford, D. (2007).Empowering children through effective education. In R. Sider & H. Unruh (Eds.), *Hope for children in poverty*. Pennsylvania: Judson Press.

Dillon, S. (2009, October 8). Study finds high rate of imprisonment among dropouts. *New York Times*, p. A12.

District Costs of Teacher Turnover - NCTAF.(n.d.). *NCTAF - National Commission on Teaching & America's Future*. Retrieved June 15, 2013, from http://nctaf.org/teacher-turnover-cost-calculator/district-costs-of-teacher-turnover-2/

Duncan, A. (n.d.). Retrieved on September 22, 2013 from website: http://www2.ed.gov/programs/racetothetop-assessment/performance.html

Dwight D. Eisenhower's Papers as President, DDE Diary Series, Box 27, October '57 Staff Notes (2). *Memorandum of Conference with the President on American science education and Sputnik.* October 15, 1957 (dated October 16, 1957). Retrieved June 12, 2013 from http://www.eisenhower.archives.gov/research/online_documents/sputnik.html

Dwight D. Eisenhower's Papers as President, Cabinet Series, Box 10, Cabinet Meeting of 12/2/57.Minutes of the cabinet meeting concerning improvements in science and mathematics education. December 2, 1957, 1—3.Retrieved June 12, 2013 from http://www.eisenhower.archives.gov/research/online_documents/sputnik.html

Dworkin, A. (2001). Perspectives on teacher burnout and school reform. *International Education Journal*, *2*(2), 76. Retrieved May 1, 2013, from http://ehlt.flinders.edu.au/education/iej/articles/v2n2/dworkin/paper.pdf

Eligible School Districts - The Broad Prize for Urban Education. (n.d.). *Home Page - The Broad Prize for Urban Education*. Retrieved September 28, 2013, from http://www.broadprize.org/about/eligible_school

Education and Title VI. (n.d.).*U.S. Department of Education*. Retrieved June 13, 2013, from http://www2.ed.gov/about/offices/list/ocr/docs/hq43e4.html

Estes, T. (2008).*Teacher efficacy and its relationship to instructional effectiveness.* Lamar University - Beaumont). *ProQuest Dissertations and Theses, ,* 144. Retrieved from http://search.proquest.com.ezproxy.lib.uh.edu/docview/734621810?accountid=7107. (734621810).

Gallup Education Knowledge Center. (n.d.).*Gallup.Com - Daily News, Polls, Public Opinion on Politics, Economy, Wellbeing, and World*. Retrieved May 2, 2013, from http://www.gallup.com/strategicconsulting/en-us/education.aspx

Gallup. (n.d.). *TeacherInsight assessment*. Retrieved September 29, 2013, from https://gx.gallup.com/teacherinsight.gx/ZMkWMTV2YGeaX8aFBH-3PQzVeHDRgKYKM7fMdDuom-z~sqUVphd4F6Xd5zus~Y6EgvoqcZmg2oBHt

Gibson, S., & Dembo, M. H. (1984). Teacher Efficacy: A Construct Validation. *Journal Of Educational Psychology, 76*(4), 569-82.\

Goe, L., Holdheide, L., & National Comprehensive Center for Teacher, Q. (2011). Measuring Teachers' Contributions to Student Learning Growth for Non-tested Grades and Subjects. Research & Policy Brief. *National Comprehensive Center For Teacher Quality*,

Goldhaber, D. & Theobald, R. (2012). Do different value-added models tell us the same things? *Carnegie Knowledge Network,* Retrieved on June 18, 2013 from http://www.carnegieknowledgenetwork.org/briefs/value-added/different-growth-models/

Goldschmidt, P., Choi, K., Beaudoin, J. P., & Council of Chief State School, O. (2012). Growth Model Comparison Study: Practical Implications of Alternative Models for Evaluating School Performance. *Council Of Chief State School Officers*,

Haberman, M., & Post, L. (1998). *Teachers for multicultural schools: The power of selection*. (2 ed., Vol. 37, pp. 96-104). Ohio: Ohio State University.

Haberman, M. (2004). *Star teachers of children in poverty* (3rd ed.). The Haberman Foundation and Northeast Magic Consulting.

Hansen, P. (n.d.). Training successful teachers for challenging urban schools. *The Haberman Foundation*. Retrieved June 14, 2013 from http://www.habermanfoundation.org/Articles/Default.aspx?id=47

Hartlep, N., & McCubbins, S. (2012). *What makes a star teacher?*. Retrieved from http://www.habermanfoundation.org/Articles/PDF/WhatMakesAStarTeacher.pdf

Haystead, M., & Marzano, R. (2009). Meta-analytic synthesis of studies conducted at Marzano Research Laboratory on Instructional Strategies. *Marzano Research Laboratory*. Retrieved June 12, 2013, from files.solution-tree.com/MRL/documents/Instructional_Strategies

Harris, D. (2011). *Value-added measures in educations*. (1st ed.). Cambridge, Massachusetts : Harvard Education Press.

Historical overview of assessment in Texas. (2008). Technical Digest 2008-2009. Retrieved from Texas Education Agency.

Howell, D. (2011). *Fundamental statistics for the behavioral sciences* (7th ed.) Belmont, CA: Wadsworth Publishing.

Ingersoll, R. M., & Center for the Study of Teaching and Policy, S. A. (1999). Teacher Turnover, Teacher Shortages, and the Organization of Schools. A CTP Working Paper.

Ingersoll, R. M. (2002). The Teacher Shortage: A Case Of Wrong Diagnosis And Wrong Prescription. *NASSP Bulletin*, *86*(631), 16—31.

Ingersoll, R.M. (2003). The teacher shortage: myth of reality? *Educational Horizons*, 81(3), 146—152.

Kennedy, K., Peters, M., & Thomas, M. (2012). *How to use value-added analysis to improve student learning*. (1st ed.). Thousand Oaks, California: Corwin SAGE Company.

Koretz, D. (2008, Fall). A measured approach. *American Educator*, *1*, 18—39.

Lewis, J. L., & London, T. D. (2009). "Managed" Teacher Turnover: A Strategy for School Improvement. *AASA Journal Of Scholarship & Practice*, *6*(3), 25-31.

Marsh, J. A., Pane, F. J., & Hamilton, L. S. (2006). Making Sense of Data-Driven Decision Making in Education: Evidence from Recent RAND Research | RAND. *RAND Corporation Provides Objective Research Services and Public Policy Analysis*. Retrieved June 13, 2013, from http://www.rand.org/pubs/occasional_papers

Marzano, R. Frontier, T. & Livingston, D. (2011). Effective supervision supporting the art and science of teaching. Alexandria, Va.: ASCD.

Masunaga, H., & Lewis, T. (2011). Self-Perceived Dispositions that Predict Challenges during Student Teaching: A Data Mining Analysis. *Issues In Teacher Education*, *20*(1), 35-49.

McGlynn, A. (2008). New Report, "The Proficiency Illusion," Challenges NCLB. *Education Digest: Essential Readings Condensed For Quick Review*, *74*(3), 11-14.

McKinney, S., Berry, R., Dickerson, D., & Campbell-Whately, G. (2007). Addressing urban high-poverty school teacher attrition by addressing urban high-poverty school teacher retention: Why effective teachers persevere. *3*(1), 001-009. Retrieved from http://www.academicjournals.org/ERR

Meier, D., Kohn, A., Darling-Hammond, L., Sizer, T. R., & Wood, G. (2004).*Many children left behind.* (p. 6). Boston, Massachusetts: Beacon Press.

Metzger, S., & Wu, M. (2008). Commercial Teacher Selection Instruments: The Validity of Selecting Teachers through Beliefs, Attitudes, and Values. *Review Of Educational Research*, *78*(4), 921-940.

Munn, P., Drever, E., & Scottish Council for Research in, E. n. (1990). *Using Questionnaires in Small-Scale Research. A Teachers' Guide*.

National Council for Accreditation of Teacher, E. (2008). Professional Standards for the Accreditation of Teacher Preparation Institutions. *National Council for Accreditation of Teacher Education*,

National Council for Accreditation of Teacher Education, W. C. (2006). What Makes a Teacher Effective? A Summary of Key Research Findings on Teacher Preparation. *National Council For Accreditation Of Teacher Education*,

No Child Left Behind (NCLB). (n.d.).*Requirements for schools. GreatSchools - Public and Private School Ratings, Reviews and Parent Community*. Retrieved June 13, 2013, from http://www.greatschools.org/definitions/nclb

Novak, J., & Fuller, B. (2003, 01 10). *Penalizing diverse schools?*. Retrieved from http://nepc.colorado.edu/publication/penalizing-diverse-schools

Paige, R., & Department of Education. (2002). Meeting the Highly Qualified Teachers Challenge: The Secretary's Annual Report on Teacher Quality. *US Department Of Education*,

PBS, NewsHour. (Director). (2009). *The Race To The Top Series* [Documentary]. USA: Learning MattersTV.

Popham, W. J. (2004). *America's "failing' schools: How parents and teachers can cope with no child left behind.*. (p. ix, 4). Great Britain: RoutledgeFarmer.

Popham, W. James. (1999) "Why standardized tests don't measure educational quality." *Educational Leadership* Mar. 1999: 8-15. *ASCD*. Web. 12 June 2013. Race to the Top | The White House. (n.d.).*The White House*. Retrieved May 2, 2013, from http://www.whitehouse.gov/issues/education/k-12/race-to-the-top

Public Impact. (2008).*School turnaround teachers: competencies for success. Part of the school turnaround collection from Public Impact.* Public Impact.

Public Law 88-352 (1964).Civil Rights Act of 1964.

Public Law 107-110 (2001). No Child Left Behind Act of 2001.

Rebora, A. (2003). The retention imperative. *Education Week*, Retrieved June 14, 2003 from http://resources.topschooljobs.org/tsj/articles/2003/01/01/07keep_tr.h02.html

Reddell, S. (2010). *High-stakes testing: Our children at risk*. Retrieved from http://eric.ed.gov/?id=ED513338

Reform Support Network. (n.d.). Retrieved on September 22, 2013 from http://www2.ed.gov/about/inits/ed/implementation-support-unit/tech-assist/evaluations-of-teacher-effectiveness.pdf

Rice, J. K. (2003). *Teacher quality: understanding the effectiveness of teacher attributes*. Washington, DC: Economic Policy Institute.

Ritter, G. W., & Shuls, J. V. (2012, November 1). If a tree falls in a forest, but no one hears.... *Phi Delta Kappan*, *94 Issue 3*, 35—38.

Rivers, J., & Sanders, W. (2002).*Teacher quality and equity in educational opportunity: findings and policy implications*. Stanford, Calif.: Hoover Institution Press.

Rivkin, S., Hanushek, E., & Kain, J. (2005). Teachers, schools, and academic achievement. *Ecometrica*, *73*(2), 417-458. Retrieved September 28, 2013, from http://www.econometricsociety.org/issue.asp?ref=0012-9682&vid=73&iid=2&oc=&s

Rockoff, J. E., Jacob, B. A., Kane, T. J., Staiger, D. O., & National Bureau of Economic, R. (2008). Can You Recognize an Effective Teacher When You Recruit One? NBER Working Paper No. 14485. *National Bureau Of Economic Research*.

Ronfeldt, M., Loeb, S., & Wyckoff, J. (2013). How Teacher Turnover Harms Student Achievement. *American Educational Research Journal*, *50*(1), 4-36.

SAS® EVAAS® for K-12. (n.d.). *Schooling Effectiveness*. Retrieved on October 28, 2013, from http://www.sas.com/govedu/edu/k12/evaas/dr-william-sanders.html

Sergiovanni, T. J. (1994). *Building community in schools*. San Francisco: Jossey-Bass.

Sergiovanni, T. J. (2001). *The principalship: a reflective practice perspective*. Boston: Allyn and Bacon.

Shin, T. (2007). Comparison of Three Growth Modeling Techniques in the Multilevel Analysis of Longitudinal Academic Achievement Scores: Latent Growth Modeling, Hierarchical Linear Modeling, and Longitudinal Profile Analysis via Multidimensional Scaling. *Asia Pacific Education Review, 8*(2), 262-275.

Sincero, S. (2012). Online Surveys. Retrieved September 28, 2014, from https://explorable.com/online-surveys

StataCorp. (2013). Stata: Release 13. Statistical Software. College Station, TX: StataCorp LP. Retrieved on November 21, 2014 from http://www.stata.com/manuals13/pss.pdf

State-Federal Education Policy, (n.d.).*Historical Essay, Reagan Years*.New York State Archives. Retrieved June 13, 2013, from http://www.archives.nysed.gov/edpolicy/research/res_essay_reagan_anational_risk.shtm

Stern Stewart & Co. (n.d.). Retrieved on September 22, 2013 from http://www.sternstewart.com/?content=history&p=1980s

Stronge, J. H., & Association for Supervision and Curriculum, D. (2007). *Qualities of Effective Teachers. 2nd Edition.* Association for Supervision and Curriculum Development.

Stull, J. (2006, July 07). Copyrighted standardized tests: Is there a fair use. *The Brand Journal of Law and Education*, Retrieved from http://brandlaw.org/2010/01/copyrighted-standardized-tests-is-there-a-fair-use/

Teachers.Net News Desk.(2013, June). The beliefs and behaviors of star teachers by martin haberman.*Teacher.Net Gazette*, *10*(6), Retrieved from http://gazette.teachers.net/gazette/wordpress/editor/star-teachers/

Texas Education Agency - No Child Left Behind/Elementary and Secondary Education Act.(n.d.). *Texas Education Agency - Welcome*. Retrieved June 13, 2013, from http://www.tea.state.tx.us/nclb/

Texas Education Agency, (n.d.). *Principle 2: State-developed differentiated recognition, accountability, and support.* Retrieved on September 25, 2014 from website www.tea.state.tx.us/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=25769808386&libID=25769808388 – 269k

Texas Education Agency, (2012). Technical Digest 2011-2012. *Texas Education Agency -*. Retrieved April 23, 2014, from http://www.tea.state.tx.us/index2.aspx?id=25769805232&menu_id=793

The Cost of Teacher Turnover Study and Cost Calculator - NCTAF. (n.d.). *NCTAF - National Commission on Teaching & America's Future*. Retrieved September 29, 2013, from http://nctaf.org/teacher-turnover-cost-calculator/the-cost-of-teacher-turnover-study-and-cost-calculator/

The Haberman Foundation.(n.d.).*Reliability of the star teacher selection interview*. Retrieved June 14, 2013, from http://www.habermanfoundation.org/Articles/Default.aspx?id=94

The Haberman Foundation.(n.d.). *The star teacher pre-screener*. Retrieved May 5, 2013, from http://www.habermanfoundation.org/StarTeacherPreScreener.aspx

The Haberman Foundation - Home Page. *The Haberman Foundation - Home Page*. N.p., n.d. Web. 12 June 2013. http://www.habermanfoundation.org/

The White House Press Release, (2010). *President Obama Announces Steps to Reduce Dropout Rate and Prepare Students for College and Careers*. Retrieved September 27, 2014, from www.whitehouse.gov.

Thornton, H. (2006). Dispositions in Action: Do Dispositions Make a Difference in Practice?. *Teacher Education Quarterly*, *33*(2), 53-68.

Toch, T., Rothman, R., & Education, S. (2008). Rush to Judgment: Teacher Evaluation in Public Education. Education Sector Reports. *Education Sector*,

Triola, M. F. (2001). *Elementary statistics* (8th ed.). U.S.A.: Addison Wesley Longman.

Unit Standards in Effect, (2008). *NCATE: Home*. Retrieved September 29, 2013, from http://www.ncate.org/Standards/UnitStandards

U.S. Department of Education, (2012). *ESEA flexibility review guidance for window 3.* Retrieved September 25, 2014, from www.ed.gov/sites/default/files/review-guidance-w3.doc

U.S. Department of Education, (2003). *Meeting the highly qualified teachers challenge. The secretary's annual report of teacher quality.* Retrieved on June 14, 2013 from U.S. Government website:

U.S. Department of Education, (2004).*New no child left behind flexibility: Highly qualified teachers*. Retrieved on June 14, 2013 from U.S. Government website: http://www2.ed.gov/nclb/methods/teachers/hqtflexibility.html

U.S. Department of Education, (2008). *State standards and assessment updates*. Retrieved from website: http://www.eric.ed.gov/PDFS/ED502946.pdf

U.S. Department of Education, Office of Elementary and Secondary Education, (n.d.). *Title 1 grants to local educational agencies* (84.010). Retrieved on June 14, 2013 from website: http://www2.ed.gov/about/reports/annual/teachprep/2003title-ii-report.pdf

U.S. Department of Education, (n.d.). *Title I - Improving The Academic Achievement Of The Disadvantaged*. Retrieved on September 25, 2014, from website http://www2.ed.gov/policy/elsec/leg/esea02/pg1.html

Varlas, L. (2009). Highly Effective Teachers: Defining, Rewarding, Supporting, and Expanding Their Roles.*ASCD*, *15*, 3.

Vitale, T. L. (2009, January 1). An Analysis of Teacher Selection Tools in Pennsylvania. *ProQuest LLC*,

Voltz, D. L. (1998). Challenges and Choices in Urban Education: The Perceptions of Teachers and Principals. *Urban Review, 30*(3), 211-228.

Washington Department of Education, Office of the Superintendent (n.d.). *Elementary and secondary education act of 1965*. Retrieved from State of Washington website: Elementary and secondary education act. (n.d.). Retrieved on September 28, 2013 from http://www.k12.wa.us/ESEA/default.aspx

Weaver, K. (2011). Standardized Testing: Measurement of Academic Achievement.*Online Submission*,

Weisberg, D., Sexton, S., Mulhern, J., Keeling, D., & New Teacher, P. (2009). The Widget Effect: Our National Failure to Acknowledge and Act on Differences in

Teacher Effectiveness. Executive Summary. Second Edition. *New Teacher Project*,

Wenning, R., Herdman, P.A., Smith, N., McMahon, N., Washington, K., ERIC Clearinghouse of Urban Education, N.Y. (2003). No child left behind: Testing, reporting and accountability. *ERIC Digest*.

West, M., (2014, October). Key issues in impact evaluation. Strategic Data Project Harvard Graduate School of Education. Harvard University. Boston, MA.

Westheimer, J. (1996). Building Communities in Schools- Thomas Sergiovanni. Harvard Education Publishing Group. Retrieved September 13, 2014, from http://hepg.org/her-home/issues/harvard-educational-review-volume-66-issue-4/herarticle/_251

Whilden, B. E. & U.S. Congress, House of Education and Labor Committee. (2010). *The elementary and secondary act: A primer on reauthorization in 2010*. Retrieved from website: http://www.congressweb.com/aascu/docfiles/esea primer final.pdf

Whitaker, T. (2004). *What great teachers do differently.*. (1st ed.). Poughkeepsie, NY: Richard H. AldinFeelance Editorial Services.

Wiley, R. Department of Education, (1999).*Taking responsibility for ending social promotion*. Retrieved from Department of Public Education website: http://www2.ed.gov/PDFDocs/socialprom.pdf

Yell, M. L. (2010). The goals of no child left behind.*Education.com*, Retrieved from http://www.education.com/reference

Appendix A

University of Houston Consent to Participate in Research

UNIVERSITY of HOUSTON
DIVISION OF RESEARCH

October 31, 2014

Mrs. Karla Loria
c/o Dr. Steven Busch
Educational Leadership & Cultural Studies

Dear Johannah Sommer,

Based upon your request for exempt status, an administrative review of your research proposal entitled "The Relationship Between the Haberman Star Teacher Pre-Screener Score and The Student's Academic Growth in a Large Urban School District's Low Performing Schools" was conducted on October 22, 2014.

At that time, your request for exemption under **Category 4** was approved pending modification of your proposed procedures/documents.

The changes you have made adequately respond to the identified contingencies. 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 further approval. Please contact me to ascertain the appropriate mechanism.

If you have any questions, please contact Nettie Martinez at 714-743-9211.

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 **October 30, 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: 15126-EX

Appendix B

Houston Independent School District Permission to Conduct Research

HOUSTON INDEPENDENT SCHOOL DISTRICT
HATTIE MAE WHITE EDUCATIONAL SUPPORT CENTER
4400 WEST 18th STREET • HOUSTON, TEXAS 77092-8501

TERRY B. GRIER, Ed.D.
Superintendent of Schools

www.houstonisd.org
www.twitter.com/HoustonISD

Carla J. Stevens
Assistant Superintendent
Research and Accountability Department
Tel: 713-556-6700 • Fax: 713-556-6730

November 21, 2013

Karla Loria
2610 Edgefield Lakes Drive
Houston TX 77054

Dear Ms. Loria:

The Houston Independent School District (HISD) is pleased to approve the study "The Relationship Between the Teacher's Haberman Star Teacher Pre-screener Score and the Student's Academic Growth in 4th and 5th Grade Reading and Math State Assessment in a Large Urban School District". The study is being conducted in partial fulfillment of doctoral degree requirements at the University of Houston. The purpose of the study is to examine the relationship between teacher's scores on a tool used to pre-screen for employment and student achievement as measured by value-added models. The projected date of study completion is December 31, 2014.

Approval to conduct the study in HISD is contingent on your meeting the following conditions:

- The study will be based on archival data of teachers with a Haberman Star Teacher Pre-Screener score in fourth and fifth grades and a value-added score in either, reading, math or both.
- The researcher with work directly with the HISD Department of Human Resources staff to access the data.
- The researcher must follow the guidelines of HISD and the University of Houston regarding the protection of human subjects and confidentiality of data.
- The HISD Department of Research and Accountability will monitor this study to ensure compliance to ethical conduct guidelines established by the Department of Health and Human Services, Office for Human Research Protection (OHRP) as well as the disclosure of student records outlined in Family Educational Rights and Privacy Act (FERPA).
- In order to eliminate potential risks to study participants, the reporting of proposed changes in research activities must be promptly submitted to the HISD Department of Research and Accountability for approval prior to implementing changes. Noncompliance to this guideline could impact the approval of future research studies in HISD.
- The final report must be submitted to the HISD Department of Research and Accountability within 30 days of completion.

Any other changes or modifications to the current proposal must be submitted to the Department of Research and Accountability for approval. Should you need additional information or have any questions concerning the process, please call (713) 556–6700.

Sincerely,

Carla Stevens

CS: vh
cc: Daniel Gohl
Drew Houlihan
Rodney Watson

Appendix C

Houston Independent School District Value-Added Focus and Priority Schools, Grades Fourth and Fifth Reading and Haberman Star Teacher PreScreener Score
Spring 2013

Houston Independent School District

Value-Added Data Focus and Priority Schools, Grades Fourth and Fifth English Reading and Haberman Star Teacher PreScreener Score

Spring 2013

Reading Cumulative Value-Added	Haberman Score
-0.44	27
0.36	28
0	28
-3.05	29
1.22	30
-1.09	30
-1.55	32
-0.45	32
-2.96	32
-1.86	33
0.07	33
-1.62	33
-0.16	34
-0.16	34
-2.67	34
-3.26	35
-2.03	35
-0.01	36
-1.33	36
-0.74	37

Appendix D

Houston Independent School District Value-Added Focus and Priority Schools, Grades Fourth and Fifth Mathematics and Haberman Star Teacher PreScreener Score
Spring 2013

Houston Independent School District

Value-added data focus and priority schools, grades fourth and fifth Mathematics and Haberman Star Teacher PreScreener score

Spring 2013

Mathematics Cumulative Value-Added	Haberman Score
-1.57	25
-10.18	27
-0.52	27
-1.52	29
-0.77	30
-1.63	30
-2.57	31
-5.03	31
-3.16	32
-3.85	32
-1.48	32
-1.23	33
-0.03	33
-0.73	33

0.15	34
-1.3	35
0.19	35
-6.23	36
-0.28	36
-3.09	37
-1.73	37
-2.57	37
-3.7	37
0.38	38
-0.05	39
5.35	40
0.96	40
-4.34	41
1.36	42
-1.85	46

Appendix E

Houston Independent School District Value-Added Focus and Priority Schools, Grades Fourth and Fifth Composite across subject areas and Haberman Star Teacher PreScreener Score
Spring 2013

Houston Independent School District

Value-Added Data Focus and Priority Schools, Grades Fourth and Fifth Composite across Subject Areas and Haberman Star Teacher PreScreener Score

Spring 2013

Value-Added	Haberman Score
-1.46	27
-3.99	29
1.48	30
-0.86	30
-3.05	32
-4.49	32
-3.15	32
-3.28	33
-0.98	33
-1.6	33
-1.98	34
-1.21	35
0.38	36
-0.95	37

-2.77	37
0.55	39
1.31	42

Appendix F

Houston Independent School District All Value-Added Scores combines for Improvement Required, Focus and Priority Schools, Grades Fourth and Fifth Grades and the Haberman Star Teacher PreScreener Score
Spring 2013

Houston Independent School District

Value-Added Scores Combined for Improvement Required, Focus and Priority Schools, Grades Fourth and Fifth and Haberman Star Teacher PreScreener Score

Spring 2013

Value-Added	Haberman Score
-2.97	25
-10.18	27
-1.46	27
0.32	28
-3.15	28
-3.99	29
1.48	30
-0.86	30
-1.06	31
-4.37	31
-3.05	32
-4.49	32
-3.15	32
-3.28	33

-0.98	33
-1.6	33
-1.31	34
-1.31	34
-1.98	34
-2.96	35
-1.3	35
-1.21	35
-6.23	36
0.38	36
-2.33	36
-4.57	37
-1.22	37
2.67	37
-2.28	37
-0.95	37
-2.77	37
0.99	37
-0.13	38
-0.81	38
-0.74	38
0.55	39
-3.78	40

-2.6	40
1.54	40
3.05	40
-0.11	40
-3.26	41
-1.24	42
1.31	42
-1.99	46