

Copyright

By

Walter C. Hunt, Jr.

May, 2012

THE RELATIONSHIP BETWEEN AFRICAN-AMERICAN TEACHERS AND 8<sup>TH</sup>  
GRADE STUDENT ACHIEVEMENT ON TITLE I CAMPUSES

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

Walter C. Hunt, Jr.

May, 2012

## ACKNOWLEDGEMENTS

The pages on which these words have been printed are yet another piece to an intricate puzzle that I have yet to complete. Each piece that is already firmly positioned in its place represent the set-backs, the experiences, and the wealth of knowledge that I have encountered and accumulated throughout this wonderful journey. This piece is a culmination of everything and everyone that has played a role in my development since beginning my doctoral coursework. While this is a lengthy list, I can say with all honesty that I take great pleasure in every experience, as they all played a role in my development as a life-long learner and leader:

To my Spring ISD cohort: I appreciate the way you all embraced me and supported me throughout this process. Had it not been for your generosity, kindness, and support, this would have been a much more challenging experience; for that, I'd like to express my deepest gratitude.

To my Spring ISD Superintendent, Dr. Ralph Draper: Had it not been for your recommendation to be a part of the Spring ISD cohort, this may not have been possible.

To my former Houston A+ Principal Mentor, Dr. Charles Ned: You were the one who invited me to the informational meeting in Humble. Had I not had an opportunity to hear firsthand about all of the benefits that this program had to offer, I would have missed out on a wonderful experience.

To my Carl Wunsche Senior High school family: Your kind words of encouragement helped me to persevere when, at times, I felt as though I had bitten off more than I could

chew. Joshua and Sandra, thanks for helping me to put all of this together. The two of you helped to lower my stress levels at times with your willingness to assist me with typing and my presentation preparation. I would also like to thank Lea Clarkson. Your expertise and feedback came at a time when every minute mattered. Thanks, Jill, for your willingness to help me throughout this process. Susan, your sense of humor, while I never told you, was greatly appreciated, as it helped to take my mind off of everything else that I had going on. Craig, thanks for always being there with answers to my questions. Michael, thanks for being the mediator between Susan and me. Your quick-witted responses seem to always keep her in her place. You are the third piece to a wonderful administrative team, and I have enjoyed working in the trenches with you all. Last, but not least, Debi, you have been a great visionary leader. Having a chance to be a part of your administrative team has allowed me to continue to grow as an instructional leader, and for that I am truly appreciative.

Dr. Steve Busch and Dr. Angus MacNeil, thanks for showing us that as leaders we have a responsibility to use the privileges of academia afforded to us to be the education change agents that our students need.

I would like to thank all of my committee members for helping me to complete this study: Dr. Laveria Hutchison, thank you for your sound advice and suggestions. Had it not been for you, I'm not sure if I would have met the deadline for graduation. Dr. Cameron White, thank you for your feedback and guidance. Dr. Hope Luster, thank you for your time, insights, and, most of all, your encouragement. Finally, Dr. Allen Warner, thank you for agreeing to be my chair; your critical feedback and guidance were instrumental towards the completion of this study.

To my parents and my sister, thanks for always pushing me to greater heights. Had it not been for your vote of confidence and encouragement, none of this would have been possible.

Lastly, as I look to secure this current puzzle piece firmly in its place, I would be remiss if I didn't thank my family for giving me something to work for. Erin and Peyton, thanks for always being so understanding when I said that I had to go see my professor. At times I was overwhelmed with the guilt of knowing I couldn't stay to play with you, but you let me know that it was okay. Jordyn, thanks for waiting until my coursework and doctoral thesis were complete before making your grand entrance. I'll tell you like my mom always told me, "Academically, the three of you have to achieve a higher level of education than your mother and I." Most importantly, I want to thank my beautiful wife Shawna Evette Hunt for always being the voice that kept me calm when anxiety or doubt began to eat away at my spirit. Without you, none of this would have been possible. Thanks for seeing qualities in me that I hadn't seen in myself. You are truly my soulmate and best friend.

As I reflect on the placement of each piece and the role it played with getting me to where I am today, I can't help but to recount a notable Doctor Seuss quote, "Don't cry because it's over, smile because it happened." This phrase encapsulates the highs, the lows, and the rewards associated with the completion of this study. While this puzzle is nowhere near complete, there have been trying times, but I continue to push forward with a smile, knowing that this is one more piece that is firmly in place.

THE RELATIONSHIP BETWEEN AFRICAN-AMERICAN TEACHERS AND 8<sup>TH</sup>  
GRADE STUDENT ACHIEVEMENT ON TITLE I CAMPUSES

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

Walter C. Hunt, Jr.

May, 2012

Hunt Jr., Walter C. "The Relationship Between African-American Teachers and 8<sup>TH</sup> Grade School Student Achievement on Title I Campuses." Unpublished Doctor of Education Doctoral Thesis, University of Houston, May, 2012.

## ABSTRACT

This focus of this study was to examine the relationship between African-American teachers and academic achievement of middle school students in Title I schools. Student achievement was determined using the passing requirements on the state standardized test for reading and math. The study sought to identify a relationship between the percentage of African-American teachers and student achievement in an effort to close the achievement gap.

The study examined data from TEA for the 2010-2011 school year. There were 198 schools that met the criteria for the study. Findings showed no significant relationship between the academic achievement of 8<sup>th</sup> grade African-American students and the percentage of African-American teachers on campus. Further data analysis indicated that the achievement gap between Black and White students was larger on campuses with more African-American teachers. Therefore, more than teacher ethnicity should be considered when hiring teachers to affect student achievement on Title I campuses.

## TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION.....	1
Conceptual Underpinnings for the Study.....	6
Statement of the Problem.....	9
Purpose of the Study.....	11
Research Questions.....	11
Definition of Key Terms.....	11
Assumptions and Limitations.....	15
Significance of the Study.....	16
Contents of the Dissertation.....	17
II. REVIEW OF RELATED LITERATURE .....	18
Introduction.....	18
African-American Students.....	19
Achievement Gap.....	22
Title I Schools.....	26
Teacher Dynamics.....	29
III. RESEARCH METHODS.....	38
Introduction.....	38
Research Procedure.....	38
Population.....	39
Data Collection Procedures.....	40
Instrumentation .....	41
Validity of the Instrument.....	42
Reliability of the Instrument.....	44
Data Analysis.....	45
IV. DATA ANALYSIS.....	48
Demographic Profile of the Participants in the Study....	49
Examination of the Hypotheses.....	50
V. SUMMARY, CONCLUSIONS, & RECOMMENDATIONS	60
Summary.....	60
Conclusions.....	62
Research Question 1.....	62
Research Question 2.....	63
Recommendations Based on This Study.....	63
Recommendations for Further Study.....	64
REFERENCES.....	66
APPENDICES.....	72
Exemption Approval Letter.....	73



## LIST OF TABLES

TABLE		Page
3.1	Research Questions and Design of Study.....	47
4.1	Frequency Distribution of Campuses Servicing 8 <sup>th</sup> Grade African-American Students by Percentage of African-American Teachers...	49
4.2	Frequency Distribution of Student Groups by Ethnicity.....	50
4.3	T-test Results Regarding Difference Between Math Scores of Black 8 <sup>th</sup> Grade Students Attending Schools With 25% or More African-American Teachers and Those With Less Than 25% African-American Teachers.....	52
4.4	T-test Results Regarding Difference Between Reading Scores of Black 8 <sup>th</sup> Grade Students Attending Schools With 25% or More African-American Teachers and Those With Less Than 25% African-American Teachers.....	53
4.5	T-test Results Regarding the Difference Between TAKS Mathematics Scores of Black and White 8 <sup>th</sup> Grade Students Attending Schools With 25% or More African-American Teachers..	56
4.6	T-test Results Regarding the Difference Between TAKS Mathematics Scores of Black and White 8 <sup>th</sup> Grade Students Attending Schools With Less Than 25% African-American Teachers..	57
4.7	T-test Results Regarding the Difference Between TAKS Reading Scores of Black and White 8 <sup>th</sup> Grade Students Attending Schools With 25% or More African-American Teachers.....	58
4.8	T-test Results Regarding the Difference Between TAKS Reading Scores of Black and White 8 <sup>th</sup> Grade Students Attending Schools With Less Than 25% African-American Teachers.....	59

## **Chapter I**

### **INTRODUCTION**

#### **Background of the Study**

In most societies, education is generally seen as the foundation of success. The main purpose of education is to train members of a society, to prepare and qualify them for work in economy and integrate people into their society while teaching them the values and morals of the culture. Making sure that youth are properly educated helps to ensure that society runs smoothly and remains stable. Properly prepared youth form the next generation of leaders that will be responsible for moving their society forward into the next era. Without this up-and-coming group of individuals, how is a society supposed to move forward in today's competitive market?

The idea that education is the key to being able to financially provide for oneself and family is an age-old concept. Advocates for education often support the economic argument that greater education leads to higher wages and is critical for financial stability and independence. There is substantial evidence that supports the viewpoint that higher levels of educational attainment are linked to higher incomes, less unemployment, less poverty, and less reliance on public assistance. However, greater levels of education are also linked to better health (physical and mental), increased life expectancy, decreased crime rates, fewer incarcerations, higher voter turnout rates, greater tolerance, and brighter prospects for the next generation (Goals for the Common Good, 2009).

Students come from various backgrounds, live in different arrangements, and belong to a wide variety of familial configurations. What this means for today's educators and administrative leaders is that all students have diverse needs which can greatly impact their attainment of academic curricula at school. There are federal laws in place that make it mandatory for schools to show that their students, across various subgroups, are making adequate progress. District and campus leaders are an integral part of turning this effort into a reality. Aside from maintaining a safe environment, solidifying a sound curriculum, and cultivating public support, educational leaders must ensure that the best quality people are in the right places. Most school leaders agree that classroom teachers have the greatest impact on individual student achievement in the school setting. It is critical that those leaders and teachers understand the changing demographic population that they will be facing in their schools.

The demographics of the United States are continually changing, and in demographically diverse states, such as Texas and Georgia, this is especially true. According to the U.S. Census Bureau, the United States population has grown by 9.7% since the 2000 Census. With this growth has come an increase in the diversity of our overall population due to immigration and interracial dating. The United Nations estimates that two million people a year will move from poorer to developed nations over the next 40 years, and more than half of those will come to the United States, the world's preferred destination for educated, skilled migrants (Kotkin, 2010). By 2050, the United States will look vastly different from today: whites will no longer be the majority. The U.S. non-white population, currently 30%, is expected to exceed 50% before 2050. No other advanced, populous country is expected to

see such diversity. Most of America's net population growth will be among its non-Whites, as well as in growing mixed-race population. Multiracial Americans numbered 6.8 million in 2000 (2.4% of the population); statistics show an increase to 12.5 million in November of 2010 (6.7% of the population). Latino and Asian populations are expected to nearly triple, and the children of immigrants will become more numerous. Today in the U.S., 25% of children under age 5 are Hispanic; by 2050, that percentage is projected to be almost 40%.

In Texas, Hispanic students make up the majority of all students enrolled in public schools. According to 2010-2011 enrollment statistics, there are 2,480,000 Hispanic students in Texas public schools (50.2% of the total enrollment). In 2001-2002, Hispanic students surpassed the number of White students in Texas schools for the first time. Now Hispanic students are the largest ethnic group at every grade level from prekindergarten through 12<sup>th</sup> grade. Most of this growth came from children born to Texas residents or in-migration from residents of other states. Only about 24% of the growth came from international migration, whether legal or illegal.

This United States Census data trend is similar nationwide, according to the Brookings Institution. Hispanics, Asians, and other groups, excluding Whites, Blacks, and American Indians, account for all of the growth among the nation's child population. From 2000-2010, the national population of White children declined by 4.3 million, while the Hispanic and Asian children population grew by 5.5 million. The only major metropolitan area to experience a decline in Hispanic children from 2000-2010 was Los Angeles. It is

important to consider that this change may be somewhat attributed to the new definition that gives more flexibility in selecting one's racial heritage.

Policymakers in many states report that minority students are already the majority in elementary grades (Oliva & Menchaca, 2001). Hispanics and African Americans together make up the majority minority population of several states (Murdoch, White, Hoque, Pecotte, You, & Balkan, 2002), meaning that over half of the population will be minority. Despite this demographic reality, racial and ethnic minority students continue to suffer educational disenfranchisements, such as disproportionately high dropout rates, educational underachievement in grades K-12, and inequitable access to and retention in college (Marshall & Oliva, 2010). In addition, post secondary educators are trying to be more responsive regarding the issues that limit postsecondary opportunity for some of these same students. Those issues include inadequate school academic preparation, the achievement gap, poverty, being the first member of the family to go to college, and institutional ignorance of or insensitivity to race and cultural identity.

When working with a diverse population, a common problem that manifests nationally in the United States is the achievement gap separating minority and non-minority students. Federal legislation, the No Child Left Behind (NCLB) Act of 2001, reflects this concern in its purpose "...to ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging state academic achievement standards and state academic assessments." NCLB reflects the importance of addressing these achievement gaps by explicitly requiring that

demographic subgroups make “adequate yearly progress” towards proficiency on state assessments (Dee, 2004). The NCLB legislation requires that schools disaggregate test scores of all students along racial lines to make sure that all children are succeeding in school. This helps ensure that failures among some ethnic groups are not camouflaged by the success of others or hidden in school averages that reduce accountability. Therefore, achievement problems that need attention can be addressed properly.

In October 2001, the United States Department of Education (USDE) issued their final guidance to educational institutions on the adoption of new federal standards for collecting and reporting ethnicity and race data for students and staff. This new reporting standard was used during the 2010 Census. Ethnicity is now divided into “Hispanic/Latino” and “Not Hispanic/Latino.” In addition to selecting an ethnicity, people are asked to select a race from five choices: “American Indian or Alaskan Native,” “Asian,” “Black or African-American,” “Native Hawaiian or Other Pacific Islander,” and “White.” This system recognizes that members of Hispanic populations can be of different races, allowing Hispanic populations the opportunity to better describe themselves according to their culture and heritage.

No matter what the race of a child, many people believe that the quality of a teacher matters a great deal to the quality of education that a student receives. Substantial research going back to the Coleman et al. (1996) report has attempted to link frequently used measures of teacher quality, such as experience, degree level, and state teacher certification, to student achievement (Hanushek & Rivkin, 2010). However, except for the first few years

of classroom experience, no strong connection has appeared in earlier research. Recent research, using newly available data bases, measures teacher quality on the basis of student achievement gains. Using this approach, researchers have found strong results from better teachers, who regularly produce high average academic gains in class. Unfortunately, these variations in quality have not been closely linked to measurable characteristics of the teachers, which makes this analysis similar to prior research (Hanushek & Rivkin, 2010).

### **Conceptual Underpinnings for the Study**

The term achievement gap refers to the differences in levels of achievement, typically academic, among groups of students. These groups are often distinguished by race/ethnicity, gender, socioeconomic status (SES), or the presence of a disability (whether physical or mental). The most common way of measuring the gap is through simple subtraction, i.e. the performance of White students minus the performance of African-American students equals the African-American-White achievement gap. However, to gain a true picture of gaps in student achievement, whether on national tests, state exams, high school graduation rates, or almost any other measure, requires looking at the data from other perspectives:

- Simple Gap Narrowing – Has absolute gap in mean performance between groups decreased over time?
- Progress for All – Have all groups of students gained over time?
- Gap Size – What is the current size of the gap between groups?
- Group Comparisons Across Jurisdictions – How does each group of students currently perform compared with their counterparts in other jurisdictions?

Much research has been conducted on plausible “reasons” for the evident achievement gaps between minority and non-minority students. Researchers, such as Grissmer and colleagues, have looked at the family dynamics, such as education of parents, family income, number of siblings, single- or dual-parent household, etc. (1994). However, Jencks and Phillips (1998) argue that these “traditional” explanations for the gaps have relatively little explanatory power. Researchers also suggest that explanations in the future will be based on factors within schools, such as classroom dynamics between teachers and students (Dee, 2004).

When looking at classroom dynamics, there are a number of factors that are often considered. Teachers have varying degrees of experience, expertise, classroom management skills, training, and personality traits. In response, researchers have studied methods to improve the student-teacher dynamic. Ferguson (1998) emphasized the need for improvements in teacher training and professional development, while Clewell and Villegas (1998) proposed that an increase in the relative achievement gap of minority students could be improved with a focus on recruitment and retention of minority teachers. Researchers know that teacher-student interaction is important, but there are various opinions on how/why.

It is often stated that students “listen” to teachers that look like them. Whether there is an unspoken sense of familiarity, an instant level of respect, or a cultural connection, the automatic connection is there, even if only just for a moment. Having a personal connection with a teacher creates an increased level of trust, breeds a sense of motivation, and produces



higher academic achievement. However, this spontaneous connection must be fostered and nurtured into a lasting positive relationship in order to meet the developmental, emotional, and academic needs of students (Rimm-Kaufman, 2011).

One group of explanations is classified as “passive” teacher effects. These effects are not triggered by explicit teacher behaviors but instead simply by the teacher’s racial, ethnic, or gender identity (Dee, 2004). The most discussed examples are “role-model” effects, which manifest when the presence of a demographically similar teacher raises the academic motivation level and expectations of the student. Closely related to this passive effect is the phenomenon of the “stereotype threat” (Steele, 1997). Stereotype threat refers to the possibility that, in situations where students perceive negative stereotypes might be in to play, they experience an apprehension that hinders their academic achievement (Dee, 2004). The other class of explanations is classified as “active” teacher effects. These deal with the unintended biases in a teacher’s expectations of and interactions with students who have different demographic traits (Ferguson, 1998). Whether passive or active, these researchers agree that the teacher-student racial interaction has an effect on student achievement.

Often the kind and/or amount of effect a teacher has on a student is determined by factors within the individual child. Racial identity, a factor that is often in the process of development within the adolescent, is the formation of the concept as to which racial background a person most identifies with. Many people today have background from more than one culture/race. As part of one’s racial identity, these people will pick one culture/race that they feel they can relate to the best. This process can manifest in various ways in

different people and may be a long process. Racial identity plays a huge part in the self-esteem, confidence, and resilience of a child, which ultimately affects academic progress in school.

This is even more evident in the adolescent years, which are pivotal in the life of a child. As children transition from elementary to middle school, they undergo several external and internal changes. Aside from the adjustment of moving from a small, comfortable elementary school to a larger, faster-paced middle school, adolescents begin to mature mentally and think about their identity (Holcomb & McCoy, 2005). During adolescence, children experience rapid physical, psychological, and social changes that have ramifications for individuals' evolving sense of identity. This period can be "...especially daunting for African-American youth as they face the task of developing a positive sense of self as members of a minority group while becoming increasingly aware that society is stratified by ethnicity and race" (Harris-Britt, Valrie, Burtz-Costes, & Rowley, 2007). As a result, racial socialization, which is the implicit/explicit and purposeful/unintended ways that parents' beliefs and behaviors convey views about race to youth, has been cited as the primary practice utilized by African-American families and communities to assist African-American children in coping with race-related issues that arise (Hughes, 2003).

### **Statement of the Problem**

The U.S. Census Bureau (2008) predicts that 62% of children are expected to come from some minority ethnicity by the year 2050. Over the last 10 years, student enrollment in Texas has increased for all ethnic groups except Whites, which experienced a 7.5% decline.

Current ethnic breakdowns in Texas schools are reported to be 48% Hispanic, 34% White, and 14% Black (Swinkels & Ramirez, 2009). These statistics indicate that more than 62% of the students enrolled in Texas schools are minorities. This has risen nine percentage points over the last decade. The number of economically disadvantaged students has risen to 57% of all students in Texas, which is a 40% increase over the last decade (Swinkels & Ramirez, 2009).

An objective of the Texas State Board of Education is to have a teaching force that reflects the ethnic composition of the state. It is argued that the demographic makeup of the teaching force is an aspect of quality, relevant to learning outcomes for minority students. While minority students make up the majority of the student population, the demographics of the teachers in public schools does not match this ethnic breakdown. In 2008, White teachers made up 64% of the public teaching population. Minority teachers made up the remaining 36%, with Hispanic teachers constituting 24% and African American teachers comprising 10% (TEA, 2008). This inequity in teacher demographics compared to student demographics is often an area of concern for public school leaders. Many hours of recruitment and monetary resources are designated for finding ways to “balance” the racial playing field among potential teachers in four-year college programs and alternative certification programs. However, the question remains: Will the recruitment and hiring of more minority teachers have a significant positive impact on the academic achievement of minority youth?

### **Purpose of the Study**

The purpose of this study was to examine the relationship of the ethnicity of the teaching staff of Title I middle school campuses on 8<sup>th</sup> grade student achievement using the Texas Education Agency's accountability rating system as the measure.

### **Research Questions**

This study was guided by the following research questions:

- 1.) Is African-American student performance better academically in Title I middle schools with a larger percentage of African-American teachers, as determined by state accountability testing?
- 2.) Is the achievement gap between African-American and Caucasian students smaller on Title I middle school campuses where there is a larger percentage of African-American teachers, as determined by state accountability testing?

### **Definition of Key Terms**

The definition of terms seeks to add clarity to the body of information that is presented throughout the present study. The following terms do not constitute an exhaustive list but provide a guide to concepts that are introduced:

**Academic Achievement**, for purposes of this study, is determined by meeting the passing standard on the state reading and/or math TAKS exam; the average scale score is used for analysis purposes.

**Academic Excellence Indicator System (AEIS)** refers to the statewide system database that contains demographic and achievement information for all Texas independent school districts and their campuses. The database includes quantitative data on student performance on all parts of the Texas Assessment of Knowledge and Skills (TAKS) test and demographic information on student and teacher populations from the Public Education Information Management System (PEIMS).

**Accountability Rating System** refers to the system used by the Texas Education Agency to rate school districts and their campuses. Ratings in the 2010-2011 school year included exemplary, recognized, acceptable, and unacceptable/low performing (in order from best to worst).

**Achievement gap** refers to the difference in the performance on achievement tests of students depending on race and ethnicity. For the purposes of this study, the TAKS exam in Texas is used to determine academic achievement.

**African American** refers to citizens or residents of the United States that have origins in any of the Black populations of Africa.

**Culture** refers to the set of shared attitudes, values, goals, and practices that characterizes a group.

**Demographics** refers to the statistical characteristics of a human population or population segment (i.e. race/ethnicity, socioeconomic status, etc.).

**Educational disenfranchisement** refers to being deprived of a privilege or a right of citizenship, such as completing school (grades K-12), gaining entrance in to college, etc.

**Ethnicity** refers to a group of people whose members identify with each other through a common heritage, language, culture or ancestry. For the purposes of this study, ethnicity is defined as Caucasian/White, African American, Hispanic, and other.

**Highly-qualified Teacher** in Texas means that the classroom teacher holds at least a bachelor's degree, has full state teaching certification in any area, and must have passed the appropriate ExCET/TEGES exam for the subject they are teaching.

**Hispanic** refers to people having Latin descent or Spanish language and cultural background living in the United States.

**Large Percentage of African American Teachers** refers to campuses that have more than 25% African American teachers. This percentage was selected because the state average of African American teachers is currently 20%.

**Low Socioeconomic Status/Economically Disadvantaged** refers to a student that meets one of the following criteria: (1) eligible for free or reduced-price meals according to the National School Lunch and Child Nutrition Program; (2) eligible for benefits under the Food Stamp Act of 1977; or (3) member of a family with an annual income at or below the federal poverty line.

**Middle School** refers to any campus with students in 8<sup>th</sup> grade.

**Minority Student** refers to any member of an ethnic/racial subgroup other than White.

**No Child Left Behind Act (NCLB)** refers to federal standards of accountability for measuring adequate yearly progress of student subgroups for public schools. It was formerly known as the Elementary and Secondary Education Act.

**Non-White** refers to people that are not of European descent.

**Public Education Information Management System (PEIMS)** refers to the statewide management system for information regarding public education in the state of Texas. For the purposes of this study, student and staff demographics were the only categories of data examined through PEIMS.

**Race** refers to classification of humans to a large and distinct group by factors such as phenotypical characteristics or geographic ancestry.

**Racial identity** refers to a sense of group identity based on one's perception that he or she shares a common heritage with a particular racial group often categorized based on skin color.

**Student Achievement** refers to performance on the Texas Assessment of Knowledge and Skills (TAKS) test for the purposes of this study.

**Teacher** refers to the person of record that provides education to a group of students and meets the state's requirements as highly-qualified.

**Texas Assessment of Knowledge and Skills (TAKS)** refers to the standardized test given to all students in grades 3-12 in all Texas public schools. This test is aligned with the Texas Essential Knowledge and Skills (TEKS). Student mastery of grade-level content is assessed by meeting the minimum passing standard on TAKS.

**Texas Education Agency (TEA)** refers to the organization that guides and monitors activities and programs related to public education in Texas. TEA is funded by state and federal funds. The agency administers the statewide assessment, maintains a database on public schools, and determines accountability ratings each year.

**White** refers to people of European descent.

### **Assumptions**

The following assumptions were made in this study.

1. The researcher was impartial and objective in the analysis of the data.
2. The data received from the Texas Education Agency was accurate.
3. The methodology proposed and described offered the most logical and appropriate design for this particular research project.

### **Limitations**

The following limitations of this study were recognized:

1. The scope of this study was limited to the information acquired from the literature review.



2. The scope of this study was limited to the data acquired from the public information published by the Texas Education Agency.
3. The scope of this study was limited to the selected Title I schools in Texas that serviced students in 8<sup>th</sup> grade.
4. The findings of this study were based on data from one school year. Performance in that school year may not be indicative of performance in other school years (previous or future).

### **Significance of the Study**

In Texas, the population of minority students is steadily increasing each year. Analysis of academic achievement of standardized tests shows that there is a large achievement gap between African-American students and their White counterparts. Despite mandates from the federal government to ensure that all students make adequate yearly progress, the gap still remains. The classroom teacher can be an influential factor in increasing academic achievement among minority students and thus help continue to close the achievement gap.

The analysis of results obtained in this study showed the relationship between the demographic make-up of the campus and student academic achievement among students in 8<sup>th</sup> grade on Title I campuses in Texas. The study examined whether African-American students performed better on Title I campuses where there was a large percentage of African-American teachers or if there is no discernable difference. The study also showed how minority students performed compared to White students on Title I campuses with a large

percentage of African-American teachers. This information will be helpful when districts are determining the amount of time and monetary resources they want to devote to the recruitment and hiring of African-American teachers on their Title I campuses.

### **Contents of the Dissertation**

This dissertation is divided into five major chapters followed by a reference section. Chapter I includes an introduction, conceptual underpinnings for the study, a statement of the problem, the purpose of the study including specific research questions, assumptions and limitations of the study, and definition of key terms used throughout the study. A review of the literature is found in Chapter II. Chapter III outlines the procedures and methodology used to identify the population for the study, collect data, and analyze the data obtained. The analysis of the data and finding of the study are contained in Chapter IV. Lastly, Chapter V contains the summary, conclusions, and recommendations for further research.

## **Chapter II**

### **REVIEW OF LITERATURE**

#### **Introduction**

This review of literature was designed to provide a background of research for this particular study. In this review, the educational life of African-American students and their academic achievement in relation to their White counterparts, also known as the achievement gap, is examined. All students come to school with pre-existing outside influences that affect their academic progress in school or lack thereof in various ways. This literature review takes a look at the factors that traditionally affect African-American students at a higher rate than White students and how this relates to the perpetual achievement gap that exists in public education. A synopsis of socioeconomic status, Title I schools' qualifications, and the funding that is designed to aid students in overcoming the obstacles of living in or near the federal poverty line is included. A discussion on how culture impacts students both in school and in the community follows because the shared attitudes and characteristics a group of people has in common often plays an integral part in their interactions with others and their surroundings, such as teachers and the campus environment. The beneficial characteristics of effective teachers and the impact effective teachers have on the academic performance of their students will also be analyzed. The relationship between teachers and students is further examined for positive and negative effects. Finally, a brief examination on identity and self-esteem factors will be included, along with a summary of the accountability and rating system used by the Texas Education Agency (TEA) in Texas.

### **African-American Students**

The purpose of this study is to examine the relationship between student performance of 8<sup>th</sup> grade African-American students in Title I schools and the percentage of African-American teachers on campus. This literature review begins by examining the traditional African-American student and his/her preparedness for school. All students come to school with factors that impact their academic performance and social adjustment to the school environment. However, African-American students are more likely to enter school with certain at-risk factors that affect them at higher rates than their White classmates.

Students from underrepresented minority populations are more likely to live in poverty, come from single-parent homes, and have less school-ready skills upon entering public school (Paredes Scribner, 1995). African-American students, in particular, are more likely to experience home-based disadvantages that contribute to the early academic difficulties they may experience in school (Entwisle & Alexander, 1992). A higher proportion of African Americans are economically disadvantaged compared to Whites. This means they are more likely to live in an environment of poverty, which often constitutes belonging to a family that has fewer completed years of schooling than White students (McLoyd, 1998). A family's low socioeconomic and educational status translates directly into fewer learning opportunities and/or less support for school activities in the home (Saxe, Guberman, & Gearheart, 1987). These disadvantages also result in a reduced amount and low quality of parental interactions with preschool-age children due to the economic stresses of living at or below the federal poverty line (Hill & Stafford, 1980).

During the 1970s and 1980s there was a rapid increase in single-parent families, leading to numerous national and state policy initiatives aimed at strengthening marriage. Despite efforts to decrease single-parent families, the share of single-parent families has remained at record high levels (Mather, 2010). This problem is even more profound in African American families. According to the National Kids Count Program, approximately 67% of African-American children live in single-parent families compared to 24% for White children (2009). Of these children living with a single mother, seven out of ten are poor or low income compared with less than a third of children living in other types of families (Mather, 2010). Oftentimes, these children suffer from short-and long-term psychological disadvantages in cases of divorce and are affected by the lower socioeconomic status associated with single parents. With only one parent in the home, there is often a decrease in available resources and adult supervision, which has far-reaching effects. Children in single-mother homes tend to have higher absentee rates at school, lower levels of education, higher dropout rates, and more delinquent activity, including alcohol and drug addiction (Single-parent Families, 2011).

Maslow (1954) placed safety and security as secondary to physiological needs in his hierarchy of needs that must be satisfied in order for students to address the higher-level needs associated with academic achievement in school. Unfortunately, students living in poverty are often lacking in many of these areas. Whether lacking physiological needs, such as food and clothing, or feelings of safety due to exposure to violence in the neighborhood and/or school, children living in poverty often show effects in their school attendance and behavior (Bowen & Bowen, 1999). Feeling unsafe in the school environment can also have

an impact on psychological states, such as school motivation and satisfaction. Both ultimately have a negative impact on a student's academic achievement over time.

The everyday struggles of African-American students in public education are exacerbated by their overrepresentation in special education programs. The Annual Report to Congress on the implementation of IDEA shows that overrepresentation of African-American students in special education programs is a problem that undermines efforts to provide an equitable education for all children in this country (2000). Statistics show that African-American students are often 2.9 times more likely than White students to be labeled mentally retarded, 1.9 times more likely to be labeled emotionally disturbed, and 1.3 times more likely to be labeled as having a learning disability (National Research Council, 2002). Furthermore, African-American students are less likely than their White counterparts to be returned to general education classrooms once they have been identified as a child with special needs. When these students are misdiagnosed and/or misplaced in special education programs, there are also low expectations placed on them by their teachers. Teachers and school officials often begin to underestimate the academic achievement that is possible from these students. As a result, these students often lose interest in school, become detached to the learning environment, live "down" to the low expectations, fail academically, and/or eventually drop out of school.

There are several reasons why students hit pitfalls, struggle, and end up failing to make adequate academic progress in school. Some of the most common reasons for African-American children are (1) coming from homes in an environment of poverty, (2) living in

single-parent households, (3) peer pressure to not succeed, (4) perceptions of racial discrimination, (5) teachers and school leaders with inadequate training, (6) lack of connection with school environment, (7) poor self-image, and (8) lack of collaboration between school and home environment. These risk factors and others often cause African-American students to not perform as well as White students. These problems affect African-American students at the early stages of school and often increase as they progress through middle and high school.

### **Achievement Gap**

The achievement gap refers to the disparity in educational measures between the performance of groups of students, especially groups defined by gender, race/ethnicity, and socioeconomic status. Research into the causes of these various gaps have been ongoing since the publication of the report “Equality of Educational Opportunity” (more commonly known as the Coleman Report), commissioned by the U.S. Department of Education in 1966. Since this time, there has been a significant emphasis on closing the achievement gap, especially between White and non-White students. As the achievement gap was identified and much effort and resources, especially money, were put into closing the gap, significant progress was made between 1970 and 1988. During that time, the gap between African-American students and White students was cut by about 50%, and the gap between Hispanic students and White students was cut by about 33%. However, the progress stopped, and the gap has begun to widen again since 1988 in some areas and has become stagnant in others (U.S. Department of Education, 2001).

Analysis of achievement of low-income and minority students versus White students shows a definite achievement gap that must be addressed. In a report produced by The Education Trust in 2001, 8<sup>th</sup> grade African-American students in Texas outperformed African American 8<sup>th</sup> graders in every other state in writing. They also made more progress in math from 1990 to 1996 than African American 8<sup>th</sup> graders in most other states. However, African American 8<sup>th</sup> grade students in Texas still scored more than one year behind White 8<sup>th</sup> graders in Texas in writing, three years behind in math and science, and two years behind in reading. As for Latino American 8<sup>th</sup> graders in Texas, they are the second best Latino groups of 8<sup>th</sup> graders in the country in reading and writing. In addition, Latino 4<sup>th</sup> graders made more progress in math and reading during the 1990's than Latino 4<sup>th</sup> graders in most other states. However, 8<sup>th</sup> grade Latino students are scoring two years behind White 8<sup>th</sup> graders in reading, writing, and math, and three years behind in science (Education Trust, 2001). These numbers definitely indicate an achievement gap that truly needs a closer look and a search for a solution.

The achievement gap is very much in existence and non-White students need better teachers, effective school leadership, best-practice instruction, and divergent thinking in order to help close and eventually eliminate the gap. The goal of school administrators and teachers is to refine their skills when working with non-White and at-risk children in order to move them to grade-level proficiency and make them competitive with their White counterparts. When highly-qualified people are in place to work with needy students, significant gains are made and the achievement gap also gets significantly smaller (Ferguson, 1998).



Public schools in Texas have become increasingly diverse over the past few years. Recently in 2009-2010, Hispanic students were the majority population (48%) based on the number of students in Texas schools. Along with African-American students, the minority culture populations, non-Whites, constitute almost 2/3 (62%) of public-school students (Texas Education Agency, 2010). However, the group of individuals certified to teach these students does not follow a similar ethnic breakdown.

In recent years, White teachers have made up approximately 2/3 (67%) of the teacher population. While African American and other non-White groups of teachers are the fastest growing, they are still significantly underrepresented among teachers in the state. Although the teaching “market” has grown, partially due to economic conditions and an increase in Alternative Certification Programs, there is still typically a mismatch between the ethnic makeup of the teaching force on a campus and the ethnic makeup of the students on the campus.

Research suggests that children may perform better when they have a teacher of the same ethnicity. A teacher of a non-White background can relate to and empathize with students from similar backgrounds and increase their academic achievement as a result (Farrell, 1990). However, the majority of teachers in public education are European American or African American. With the large number of African-American males that are overrepresented on most measures of school failure, research has analyzed the difference in the perceptions of European American and African-American teachers when educating African-American boys. The purpose of such a study was to analyze the perspective of

African-American and European-American teachers on questions related to culturally responsive instruction (ability to cultivate relationships and get to know students in and out of the classroom) and cultural discontinuity (feeling that ones language, behavior, and learning style are different from and not valued by Eurocentric educators).

In this study, focus groups were used to show that through dialogue, teachers collectively construct shared understandings that reflect individual perspectives and racial/cultural shared understandings of their schools. These groups allow teachers to affirm or reject comments by other teachers in order to provide clarity on shared perceptions and values.

Participants in this study came from urban schools whose students were predominantly African American. The group of participants constituted a mixture of males and females, as well as general and special education teachers. Focus groups with 2-5 participants were formed to respond to twenty-five open-ended questions from an interviewer of the same ethnic background as the group members. Responses were analyzed for similarities and differences around three broad categories of (a) good and caring teachers, (b) relationships with students, and (c) communication styles.

The results of the study provide insight into how perspectives differ between African-American and European-American teachers. While some perspectives converged, there was divergence in emphasis and values. The implications are that it is important for the differences to merge to ensure culturally responsive teaching with explicit and implicit caring and clear expectations coupled with consistent consequences. Just as two parents should not

send mixed messages to their children, African American male students need to feel that their teachers are working together for their education and success. Separation of ideas can simply breed increased feelings of disengagement and disenfranchisement.

This disconnect can potentially cause a problem among middle school students that are typically going through identity crisis issues during this critical time in their adolescent lives. Students often need to connect to their teachers in order to open up and receive the assistance being offered. Being able to connect with someone from a similar cultural background can foster the positive relationship needed to support learning in the classroom. With social justice as a constant concern among campus leaders, having a diverse staff that can relate to the students is essential.

### **Title I Schools**

Since its inception as part of the 1965 *Elementary and Secondary Education Act* (ESEA), Title I has provided the largest amount of federal funding aimed at improving the academic achievement of poor children. Title I is meant to provide additional funding for schools serving high concentrations of poor children, but there are few curricular or programmatic constraints. As the fourth largest of all federal programs for low-income children (behind Medicaid, food programs, and Temporary Assistance to Needy Families), Title I allocated \$13.9 billion in FY 2008, reaching over half the public schools in the country and almost 17 million students. The recent federal economic stimulus bill (the American Recovery and Reinvestment Act of 2009 or ARRA) allocates an additional \$13 billion to Title I over two years (Weinstein, Stiefel, Schwartz, & Chalico, 2009).

Title I provides the monetary means to provide extra instructional services that are designed to raise achievement for low-performing students in schools with relatively high poverty rates, and for all students in many of the nation's highest-poverty schools. Since Title I targets students with low socioeconomic status and achievement, Title I participants as a group are lower-performing than those not participating in the program. At the same time, one would hope to see improved achievement among the Title I group as an indication that the program is meeting its goal of increasing academic achievement among students living in poverty. In the past, evidence about the academic achievement of Title I students has been limited, but now many states have made test data available for Title I participants. Although NCLB does not explicitly require states to disaggregate data for Title I students, as it does for various other student subgroups, many states do break out test results for the Title I group (Kober, McMurrer, & Silva, 2011). Texas is one of those states.

In recent years, the plight of Title I students cannot be discussed without including the current assessment of the achievement gap. Many believe that the achievement gap is deeply rooted in socioeconomic obstacles that we need to address in order to tackle the real causes for the achievement gap (Meffert, 2011). According to the U.S. Department of Education's Early Childhood Longitudinal Study:

The average cognitive score of pre-kindergarten children in the highest socioeconomic status was significantly higher than the average score of students in the lowest socioeconomic bracket. The composition of these socioeconomic brackets was closely tied to race: 34 percent of black children and 29 percent of Hispanic children were in the lowest socioeconomic bracket, compared with just 9 percent of white students (Lee & Burkam, 2002).

A 2006 study conducted by the Northwest Evaluation Association (NWEA) compared reading and math results of African-American and European-American students, Hispanic and European-American students, and students from poorer schools to those in wealthier schools. The sample used included 569,564 students in reading and 542,057 in math in grades 3-8 from 24 states. Results comparing the growth of students who begin the school year at the same skill level revealed that students from poor schools grew less than those from wealthier ones for each score level at each grade level. The study also looked at changes that occur during the summer when most students are not receiving instruction. When students with comparable skills at the end of the school year were measured the following fall, students from poor schools grew less or lost more ground than comparable students from wealthier schools. In the case of the African-American students in these samples, the concern carried added emphasis because their rate of change over the two-year projection was the lowest of all groups. Overall, no rate of growth in any group was sufficiently strong to close or reduce the observed achievement gap in any substantive way before the end of their K-12 career (McCall, Hauser, Cronin, Kingsbury, and Houser, 2006).

## **Teacher Dynamics**

### **School and Teacher Dynamics on Students**

One research study used a differential effectiveness model to explain the different effects schools and teachers have on students. More specifically, these researchers investigated associations between student background characteristics, students' perceptions of teacher-student interpersonal relationships, and student outcomes across and within several subgroups. While these researchers studied different demographic groups (Dutch, Turkish, Moroccan, and Surinamese), the teacher-student relationship dynamics can still be analyzed.

Educational effectiveness researchers have demonstrated that differential effects of the teacher-student interpersonal relationship can be expected from different ethnic groups due to (1) evidence suggesting students from ethnic minority groups have fewer resources and receive less parental support at home compared to other students, (2) differences regarding beliefs and expectations about schools and teachers related to national cultures of countries where they have their roots, and (3) possibility of being treated differently by their teacher. Although important, evidence for the differential effect of teacher-student interpersonal relationship on student outcome for various ethnic minority groups is scarce (Brok, et. al., 2010).

In this study, teacher-student relationships are described in terms of two independent dimensions, influence (the degree of control of the teacher over what happens in the classroom) and proximity (degree to which teacher and students interact in harmony or

disharmony). A questionnaire on teacher interaction was created by gathering information about students' perceptions of their teachers' interpersonal styles. This is the first experiment of its time to simultaneously investigate the associations between student ethnicity, students' perceptions of the teacher-student relationship, and student achievement and subject attitudes (Brok, et. al., 2010).

### **Effects of Racial and Ethnic Identity**

As one studies the effects of teacher/student relationships on academic achievement of students, it is also necessary to mention how perceptions of racial discrimination affect the well-being of one's racial identity. A research study of 322 African-American adolescents completed measures of racial identity, racial discrimination, self-esteem, and depressive symptoms for analysis. The goal of this study was to determine how the level of racial identity affects perceived racial discrimination in the environment and how it serves as a buffer for the psychological well-being of students (Seaton, 2009).

This study used four racial identity groups in order to classify the adolescents: (1) Buffering/Defensive group, which believed race was important to their identity, felt positive about being African American, and believed others viewed African Americans negatively (high racial centrality level); (2) Alienated group, who considered race unimportant to their identity, felt less positive about being African American, and believed others viewed African Americans negatively (low racial centrality level); (3) Idealized group, which believed race was important to their identity, felt positive about being African American, and believed that others viewed African Americans positively (high racial centrality level),\; and (4) Low

Connectedness/High Affinity, who did not think race was important to their identity, felt positive about being African American, and believed others viewed African Americans negatively (low racial centrality level). It was hypothesized that the groups with high racial centrality levels would not show a link between psychological well-being and perceived racial discrimination and anticipated having a link with the other two groups (Seaton, 2009).

A study conducted by French, Seidman, Aber & Aber (2006) examined the development of ethnic identity among African American, Latino American, and European-American adolescents. The purpose of this study was to further the understanding of ethnic identity development by investigating longitudinally the developmental paths of two major dimensions of ethnic identity: group-esteem and exploration. Subjects were studied over a three-year period during early and middle adolescence. These researchers sought to determine whether patterns of ethnic identity are similar across different ethnic groups, there is affirmation of heightened group-esteem and exploration during early or middle adolescence, and there is a difference in patterns of change over the transition year to middle school and senior high schools than over the first two years in each new school (French, et. al., 2006).

The results of the study revealed that group-esteem and exploration are highly correlated but follow different paths. Group-esteem rose for both early and middle adolescents; however, exploration only rose for the latter. African-American and Latino-American students showed the greatest amount of change in group-esteem over the three-year period. European-American students started off high and stayed there. Early



adolescents experiencing growth in group-esteem without experiencing a growth in exploration indicates that mere social influence from peers, teachers, parents, and popular media may be a basis for the rise (French, et. al., 2006).

When looking for predictors of academic performance among minority students, racial identity attitudes and self-esteem are often analyzed. While parental attitudes and family values are seen as interesting variables in the development of self, the impact of school experiences, peer group acceptance, and mass media are socializing agents that also impact how a child views his/her racial group.

A research study conducted by Bonvillain and Honora (2004) studied 175 African-American adolescents in 7<sup>th</sup> grade attending urban schools. The purpose of the study was to explore the psycho-socio-cultural variables related to African-American students, especially the extent to which academic achievement is related to the self-esteem and racial identity for African American middle school students. Although there is agreement that ethnic and racial differences in school performance is prevalent, there is little consensus about the causes for these differences.

This study used a Multi-Ethnic Identity Measure developed by Phinney in 1991 to measure racial identity. The 15-item instrument assesses ethnic identity search (the level at which the subject seeks out information about his/her ethnic/cultural group and engages in behaviors associated with it) and ethnic affiliation, belonging, and commitment (focuses on level of these attributes the youth feels toward his/her ethnic/cultural group). To measure the youth's global self-esteem, the Rosenberg Self-Esteem instrument was utilized. This 10-

item instrument that assesses overall self-esteem has a possible range of scores from 0-30. For the measure of academic achievement, the student's cumulative grade point average for the academic year (on a 4.0 scale) was taken from school records.

The results for determining the relationship between self-esteem and academic achievement showed a positive correlation. Self-esteem was determined to be a significant predictor of academic achievement, but little variance in the prediction of academic achievement was based on self-esteem scores. As for racial identity, the results showed a statistically significant positive correlation between academic achievement and ethnic identity, as well as between academic achievement and ethnic affiliation. However, only ethnic affiliation was determined to be a statistically significant predictor of academic performance. In this study, each area (self-esteem, ethnic identity search, and ethnic affiliation) showed that students with higher levels of these indicators performed better in school.

Overall, the strongest predictor for academic achievement was ethnic affiliation. The findings also revealed that having a sense of belonging and connectedness to one's racial and ethnic group is more important than being involved in activities centered around one's own racial group. Findings also suggest that self-esteem and racial identity play a vital role in the total development of an African-American child, which supports the push in education for the integration of multicultural curriculum in the school system.

As it relates to the school environment, the relationship between minority students and their teachers and the effects on academic achievement is often a topic of interest. This

is especially true with economically disadvantaged children. Therefore, this study seeks to compare minority student academic achievement by ethnicity and longevity of their teachers. Since it would appear that students would perform better academically if taught by teachers of the same ethnic background, the study was conducted to determine the extent that teachers' characteristics (gender, ethnicity, and longevity) are predictors of the academic achievement of students relative to their minority status and academic prowess.

The teacher sample consisted of 19 fourth-grade teachers (40% African American and 60% Caucasian American). Two hundred twenty fourth-grade students were used with 113 (51.4%) male and 107 (48.6%) female. As for race, 7 students (3.2%) were Asian American, 113 students (51.4%) were African American, 32 students (14.5%) were Hispanic American, and 68 students (30.9%) were Caucasian American. Academic achievement was determined using math scores on the Texas Assessment of Knowledge and Skills (TAKS), which is the state accountability test.

Results in this study showed that minority and non-minority students performed better academically when taught by teachers of their own ethnic backgrounds accounted for 12% of explained variance. However, the ability to generalize these results is hindered because the learning style differentials and teacher efficacy, age, level of education, and other variables were not considered.

A different study by Thomas Dee (2004) looks at the racial pairings of students and teacher and the impact on math and reading achievement as determined by test score data from Tennessee's Project STAR class-size experiment where the Stanford Achievement

Tests were used. The results used in this study were edited to only include Black and White non-Hispanic teachers due to the limited number of Hispanic, Asian, and American Indian Project STAR participants. Pooling the observations over four years created 23,883 observations on the math test and 23,544 observations on the reading test.

Across the board, results show that both Black and White students assigned to an own-race teacher had higher test scores. However, it is important to note that 94% of White student participants had an own-race teacher in their current academic year while only 45% of black student participants did. These results support the conventional push to recruit minority teachers in an effort to generate important achievement gains among minority students. In addition, it is crucial to keep in mind that such efforts can also result in a substantial reduction in the educational achievement of non-minority students. While this study shows the influence on academic achievement, it does not provide evidence on the exact mechanisms by which own-race teachers influence student achievement, passive and active teacher effects.

A research study by Tenenbaum and Ruck (2007) conducted meta-analysis to examine whether teacher expectations differed for minority students (African American, Asian American, and Latino) as compared with European-American students. The four separate meta-analyses included (1) differences in teachers' expectations for ethnic minority versus European-American children; (2) differences in teachers' special education, disciplinary, or gifted referral rates between ethnic minority and European-American children; (3) teachers' positive and neutral speech; and (4) teachers' negative speech. For

teacher expectations, typically teachers were asked to rate students from different ethnic groups in their classes or were asked to rate hypothetical children from different ethnic groups. School files and the corresponding districts' definitions for referrals were sampled to examine teacher referral rates. Teacher-directed speech that is either encouraging or neutral was combined so that the amount of attention which can be seen as beneficial to children could be examined. On the other hand, teacher directed negative speech, such as criticism and ignoring responses, were seen as discouraging to students.

A small but significant effect was determined, suggesting that teachers had more positive expectations, made more positive referrals and fewer negative referrals, and provided more positive and neutral speech for European-American children than for African-American and Latino-American children. The last meta-analysis did not indicate that teachers used more negative speech with African-American and Latino children than with European-American children. Overall, these findings substantiate that teachers hold more positive expectations for European children than for African-American and Latino-American children. When minority children are given fewer opportunities to respond and receive less positive feedback, negative ramifications on their learning may result. Such occurrences can contribute to children's beliefs about their teachers' expectations for their learning, which can be internalized.

With all the research surrounding the discussion of African-American youth and the achievement gap, this research study seeks to analyze the relationship from the perspective of race and ethnicity of teachers. Using an ex post facto approach, the goal of this study is to

analyze the answers to the following questions: (1) Is African-American student performance in Title I middle schools enhanced on campuses with a larger percentage of African-American teachers? (2) Is the achievement gap reduced on these Title I campuses? Chapter III provides an explanation of the procedures and methodology used to identify the sample population, collect the data, and analyze the results.

## **CHAPTER III**

### **METHODOLOGY**

#### **Introduction**

The purpose of this study will be to analyze the relationship between teacher ethnicity and student achievement as measured by the accountability state testing used for the state accountability rating system in schools servicing students in 8<sup>th</sup> grade on Title I campuses in the state of Texas. This study will seek to determine the effects on the academic performance of African-American students if the population of African-American teachers is higher than the state average. The relationship will be presented in the following research questions:

- 1.) Is African-American student performance better academically in Title I middle schools with a larger percentage of African-American teachers, as determined by state accountability testing?
- 2.) Is the achievement gap between African-American and Caucasian students smaller on Title I middle school campuses where there is a larger percentage of African-American teachers, as determined by state accountability testing?

#### **Research Procedures**

This research study will be conducted using quantitative research methods. Data will be obtained from the Texas Education Agency (TEA) to determine student performance on state accountability testing in schools with more than 75% free and/or reduced lunch that

service students in 8<sup>th</sup> grade in the state of Texas. All data used in this study will be obtained from TEA for the 2010-2011 school year. The researcher will contact TEA via e-mail and telephone with a request for data on schools that meet a certain set of parameters, and TEA will provide all requested data via e-mail in an Excel file.

For this study, an ex post facto research design will be employed. With this type of research design, variables are studied in retrospect in search of possible relationships and effects. There are no variables that are deliberately manipulated by the researcher (Wiersma & Jurs, 2009). The research design starts with groups that are already different and seeks to determine the consequences or the antecedents of the differences (Ary, Jacobs, & Razavieh, 1996). In other words, it is observed that groups are different on some variables, and the research attempts to identify the factors that will lead to this difference. Moreover, both the effect and the alleged cause(s) have already occurred, and they are studied by the researcher in retrospect. Kerlinger (1986) defined ex post facto research as “systematic, empirical inquiring in which the scientist does not have direct control of independent variables because their manifestations have already occurred or because they are inherently manipulable.” This research type is also referred to as causal-comparative research, which explores effects between variables in a non-experimental setting.

### **Population**

In this research, the population referred to the overall group that the researcher is attempting to learn something about by studying data. A small portion of the larger group was used to learn about the larger group through research (Gall, Borg, & Gall, 1996). In this



study, the Texas Education Agency (TEA) provided the researcher with data on the entire population that met the set criteria in Texas. There were approximately 487 Texas middle schools that gave TAKS in the year 2010 from the information provided by TEA. From this list of schools, the data set was narrowed down further when campuses that reported 0% African-American teachers are eliminated. Therefore, the final sample population of this study for analysis of student performance included 198 campuses with 8<sup>th</sup> grade students in Texas with an enrollment of 75% or more free and reduced lunch. Included in this sample were 96 campuses that reported at least 25% African-American teachers and 102 campuses that reported less than 25% African-American teachers.

The final sample population of this study used for data analysis included 198 schools in Texas serving students in 8<sup>th</sup> grade with an enrollment of at least 75% free and reduced lunch. Title I campuses with less than 75% free or reduced lunch and no African-American teachers were excluded from the study. Performance data from subgroups of these campuses and teacher demographics were analyzed.

### **Data Collection Procedures**

The data collected for analysis in this study were derived from the Public Education Information Management System (PEIMS) and Academic Excellence Indicator System (AEIS) in its entirety. The Texas Education Agency defines PEIMS as the system that encompasses all data requested and received by TEA about public education, including student demographic and academic performance, personnel, financial, and organizational information (TEA, 2012).

All TAKS data from the 2010 administration was requested from the Texas Education Agency (TEA) and sent in an Excel file via e-mail. Data requests consisted of only testing information for students in 8<sup>th</sup> grade. Information included school names, teacher ethnic breakdown, passing rate, commended rate, and average scale score for each ethnic group and socioeconomic group on each subject assessment.

### **Instrumentation**

The mathematics and reading TAKS tests were the instruments that were used for the purposes of collecting data for this study. TAKS is a yearly test that is administered in grades 3-11 (Exit Level) and is required of most students in public school in Texas. The purpose of TAKS is to measure the mastery of the state curriculum, the Texas Essential Knowledge and Skills (TEKS) by students. The results are used to make sure that educators, school campuses, and school districts are held accountable for the academic achievement of all students.

For the 8<sup>th</sup> grade math TAKS assessment, there are six objectives that are tested. Objective 1 covers basic quantitative reasoning, such as place value, comparing and ordering numbers, operations with whole numbers, decimals, and fractions. Objective 2 focuses on algebraic reasoning and patterns. Geometry and fundamental concepts of size and shape are tested under objective 3. Measurement is covered in objective 4, probability and statistics in objective 5, and mathematical processes and tools in problem solving in objective 6.

The reading TAKS test in 8<sup>th</sup> grade is divided into four objectives. Objective 1 is called basic understanding, and it assesses students' understanding of main idea, details, and

word meaning. Knowledge of literary elements is objective 2, and it focuses on students' understanding of how literary elements shape a narrative and contribute to its meaning. A student's ability to use reading strategies to help them analyze different types of written texts is assessed in objective 3. Lastly, students' ability to apply critical-thinking skills to analyze various types of written texts is the focus of objective 4.

Each of these TAKS assessments is given in the spring semester of each school year to assess academic achievement and mastery of the current grade-level curriculum. A passing standard is set by TEA dependent on the grade level, subject, and level of difficulty of each assessment. The met standard scale score was used to determine successful academic achievement in this study.

### **Validity of the Instrument**

The Texas Assessment of Knowledge and Skills, TAKS, is a standards-referenced assessment that is defined by the content it assesses. Therefore, test validity is content based and dependent on the statewide curriculum. The No Child Left Behind Act of 2001 (NCLB) mandates that states have to verify the accurate alignment of their assessments and the state adopted curriculum (TEA, 2006). As a result, the process of aligning TAKS to the state curriculum was implemented and utilized numerous review committees comprised of Texas educators. An advisory committee for each tested subject area at the appropriate grade level was formed using educators from districts across the state of Texas (TEA, 2006). Committee members consisted of teachers, test development specialists, and TEA staff members. Their main objective was to identify TEKS student expectations that were vital to assess for

mastery and to develop test objectives, item development guidelines, and test-item types. Some of these committees assembled in 2001-2002 to review and edit TAKS items for content and possible bias and to review data from field testing (TEA, 2008).

According to TEA (2008), Texas educators, both past and present, provide valuable input on the content of the test items and the statewide curriculum. Independent contractors and educators in Texas and from other states write test items to specifically measure certain test objectives. Employing various sources of expertise from around the nation allows for a checks-and-balances system. Multiple sources for item development reduces the possibility of bias that might be introduced if a single source were used. These sources provide for a system of direct input from educators, which increases the validity of constructed TAKS tests questions. The items are reviewed by a team of experts at TEA, along with test developers from Educational Testing Service (ETS), Pearson, and Questar, Inc. This internal review provides another layer to increase the probability of the item accurately measuring the proposed objective. TEA (2008), along with Pearson, participates in ongoing panels with national testing experts regarding plans for collecting validity evidence for the TAKS test.

Another method of criterion-related validity evidence for the TAKS tests is the Grade Correlation Study. This study compared the met standard/did not meet standard rates of Texas students on the TAKS tests with their pass/fail rate in their related courses. Results indicated that a high percentage of students who pass the TAKS test also pass their related courses. Small percentages of students passed the TAKS tests but did not pass their related

courses, passed their related courses but did not pass the TAKS tests, or failed to pass the TAKS test or their related courses.

### **Reliability of the Instrument**

Reliability is an expression of how well an assessment measures actual learning on a consistent basis. TAKS assessments can provide only estimates of achievement levels; therefore, their scores contain a certain amount of error. Test reliability measurements quantify the range of this error.

Test reliability is an indication of the consistency of an assessment. TAKS reliability data are based on internal consistency measures (TEA, 2007). The Kuder Richardson Formula 20 (KR20) is often used to measure internal consistencies and determine test reliability. This formula is used for tests with multiple-choice items (dichotomously-scored items) and tests involving a combination of multiple choice and short-answered/extended response items (polytomous-scored items) (TEA, 2007). As related to TAKS, the Kuder Richardson Formula 20 shows most internal consistency reliabilities in the high .80s to low .90s range, with 1.0 being perfectly reliable. Therefore, the Texas Education Agency (TEA) reports the validity of the TAKS test as very high. This means that they feel the TAKS test offers an aligned evaluation of the state curriculum (Texas Essential Knowledge and Skills/TEKS) and student performance. Various groups are involved in the Texas Assessment Program, serving a specific function, and their collaborative efforts contribute significantly to the quality of the assessment program and the alignment of the TEKS and TAKS test.

## **Data Analysis**

The analysis of student performance in schools servicing students in 8<sup>th</sup> grade in Texas with an economically disadvantaged population greater than 50%, as reported by the Academic Excellence Indicator System (AEIS) database, was conducted using the accepted quantitative measures that have been identified by Wiersma & Jurs (2009). Analysis of the collected data from the AEIS database was performed using the Statistical Package for Social Sciences (SPSS), a computer statistical software program. The instruments used in this research analysis produced quantitative data for the independent and dependent variables.

A parametric statistical procedure was used in this investigation to analyze and determine whether there was a significant difference present between student performance measures in regard to the African-American population of the teaching staff in Texas schools servicing 8<sup>th</sup> graders with an economically disadvantaged population of at least 75%. The significance level for testing all hypotheses for this research was set at 0.05 ( $p < .05$ ) or better. A chart and table was used to display descriptive and inferential statistics.

## **T-test Distribution**

The parametric procedure used in this study was the t-test of independent samples. Parametric studies require the following set of assumptions: (1) measurement of the dependent variable, the variable whose data are being analyzed, is on at least an interval scale; (2) the observations or scores are independent, which means that the score of one individual is not influenced by the score of any other; (3) the scores (dependent variable) are selected from a population distribution that is normally distributed; and (4) when two or more

populations are being studied, they have homogeneous variance, meaning that the populations being studied have about the same dispersion in their distributions (Wiersma & Jurs, 2009). According to Gravetter and Wallnau (2007), a t-test of independent samples is a statistical procedure, which examines the difference between the means of two independent samples.

Table 3.1 delineated the research questions and the study design. The variable indicators listed the TAKS data that were used for analysis purposes. Data sources showed where the TAKS data used as the variable indicators are obtained. Participants were the student samples whose TAKS data will be used for the purposes of this study. A t-test distribution was used to analyze the data for each research question.

After this methodology approach was employed on the TAKS data that were collected for Title I schools with at least 75% free and/or reduced lunch servicing students in 8<sup>th</sup> grade and having a minimum of 1% African-American teachers, the data were analyzed and reported in Chapter IV. Each component of the data was examined for analysis purposes and charted for easy reference. Next, each research question was analyzed on an individual basis. At the end of this chapter, a summary of findings was included from the analyzed data.

**Table 3.1 – Research Questions and Design of Study**

<b>Research Questions</b>	<b>Variable Indicators</b>	<b>Data Sources</b>	<b>Participants</b>
Is African-American student performance better academically in Title I middle schools with a larger percentage of African-American teachers than those with a smaller percentage of African-American teachers, as determined by state accountability testing?	Average scale score on Math and Reading TAKS test	April 2011 8 <sup>th</sup> grade Math and Reading TAKS data reported by Texas Education Agency (TEA) according to PEIMS and AEIS data	All 8 <sup>th</sup> grade African-American students assessed with Math and/or Reading TAKS on Title I campuses with 75% or more free/reduced lunch and at least 1% African-American teachers
Is the achievement gap between African-American and Caucasian students smaller on Title I middle school campuses where there is a larger percentage of African-American teachers than those with a smaller percentage of African-American teachers, as determined by state accountability testing?	Average scale score on Math and Reading TAKS test	April 2011 8 <sup>th</sup> grade Math and Reading TAKS data reported by Texas Education Agency (TEA) according to PEIMS and AEIS data	All 8 <sup>th</sup> grade African-American and Caucasian students assessed with Math and/or Reading TAKS on Title I campuses with 75% or more free/reduced lunch and at least 1% African-American teachers



## **CHAPTER IV**

### **ANALYSIS OF FINDINGS**

The purpose of this study was to analyze the relationship between teacher ethnicity and student achievement as measured by the accountability state testing used for the state accountability rating system in schools servicing students in the 8<sup>th</sup> grade on Title I campuses in the State of Texas. Additionally, this study sought to determine the effects on the academic performance of African American students and Caucasian students if the population of African-American teachers was higher than the state average. Answers to the following questions were sought:

1. Is the academic performance of African-American 8<sup>th</sup> grade students better in Title I middle schools with a larger percentage of African-American teachers, as determined by state accountability testing?
2. Is the achievement gap between 8<sup>th</sup> grade African-American and Caucasian students smaller on Title I middle school campuses where there is a larger percentage of African-American teachers, as determined by state accountability testing?

The sample population of this study consisted of 198 8<sup>th</sup> grade campuses. The data analysis for this study was divided into two major sections. The first section consisted of the demographic profile of the participants in the study. The second section addressed the hypotheses formulated for this study. The hypotheses were tested through the application of the t-test of independent samples. All hypotheses were tested at the .05 level.

### **Demographic Profile of the Participants in the Study**

There were 198 middle school campuses who participated in the study. The middle schools were described descriptively by percentage of African-American teachers and the student groups by ethnicity.

### **Campuses by Percentage of African-American Teachers**

Shown in Table 4.1 were the descriptive results pertaining to the number of schools servicing 8<sup>th</sup> grade African-American students with 25% or more of African-American teachers and less than 25% of African-American teachers. There were 96 or 44.5% of middle schools with 25% or more of their teachers being African-Americans. On the other hand, 102 or 51.5% of the middle schools had less than 25% African-American teachers..

**Table 4.1**

**Frequency Distribution of Campuses Servicing  
8<sup>th</sup> Grade African-American Students by Percentage  
of African-American Teachers**

Percentage of African-American Teachers	Number	Percentage
25% or Greater	96	48.5
Less than 25%	102	51.5
Total	198	100.0

### **Ethnicity**

Indicated in Table 4.2 were the descriptive findings regarding middle school student group ethnicity. There were 198 or 58.1% of the student groups who reported their ethnic identity as Black Americans and 143 or 41.9% of the student groups expressed their ethnic background as White Americans.

**Table 4.2**  
**Frequency Distribution of Student Groups by Ethnicity**

Ethnicity	Number	Percentage
Black Americans	198	58.1
White Americans	143	41.9
Total	341	100.0

### **Examination of Hypotheses**

HO<sub>1</sub>: There is no statistically significant difference in the TAKS mathematics and reading scores of African-American 8<sup>th</sup> grade students attending middle schools with 25% or more African-American teachers and those with less than 25% of African-American teachers.

### **Mathematics Scores**

Presented in Table 4.3 were the t-test results pertaining to the difference in the TAKS mathematics scores of African-American 8<sup>th</sup> grade students attending institutions with 25% or more African-American teachers and those with less than 25% of African-American teachers. The mean TAKS math score for African-American 8<sup>th</sup> grade students attending middle schools with 25% or more African-American teachers was 729.92 (SD = 27.87) and

the mean TAKS math score for African-American 8<sup>th</sup> grade students attending middle schools with less than 25% of African-American teachers was 729.70 (SD = 26.80). A statistically significant difference was not found between the TAKS math scores of African-American 8<sup>th</sup> grade students enrolled in middle schools with 25% or more African-American teachers and those enrolled in middle schools with less than 25% of African-American teachers ( $t = -.057$ ,  $df = 196$ ,  $P > .05$ ) at the .001 level. Thus, hypothesis 1A was not rejected.

### **Reading Scores**

Reported in Table 4.4 was the separate variance independent t-test findings regarding the differences in the TAKS reading scores of African-American middle school students enrolled in institutions with 25% or more African-American teachers and those with less than 25% of African-American teachers. The mean TAKS reading score for African-American students attending middle schools with 25% or more African-American students was 780.26 (SD = 29.87) and the mean TAKS reading score for African-American students attending middle schools with less than 25% African-American teachers was 785.25 (SD = 33.07). Statistically significant differences were not found between the TAKS reading scores ( $t = -1.11$ ,  $df = 196$ ,  $P > .05$ ) of African-American students attending middle schools with 25% or more African-American teachers and those with less than 25% of African-American teachers at the .05 level. Therefore, hypothesis 1B was not rejected.

**Table 4.3**

**T-test Results Regarding the Difference Between the  
TAKS Mathematics Scores of  
Black 8<sup>th</sup> Grade Students Attending Schools  
With 25% or More African-American Teachers and  
Those With Less Than 25% of African-American Teachers**

Statistics	More than 25% (N = 96)	Less than 25% (N = 102)
Mean	729.92	729.70
S.D.	27.87	26.80
S.E.	2.84	2.65
Mean Diff	.22	
t	.057	
D.F.	196	
P	.955	

**Table 4.4**  
**T-test Results Regarding the Difference Between the**  
**TAKS Reading Scores of**  
**Black 8<sup>th</sup> Grade Students Attending Schools**  
**With 25% or More African-American Teachers and**  
**Those With Less Than 25% of African-American Teachers**

Statistics	More than 25% (N = 96)	Less than 25% (N = 102)
Mean	780.26	785.25
S.D.	48.08	33.07
S.E.	2.84	3.27
Mean Diff	4.98	
t	-1.11	
D.F.	196	
P	.268	

HO<sub>2</sub>: There is no statistically significant difference in the achievement gap, according to TAKS mathematics and reading scores, of Black and White students attending middle schools with 25% or more African-American teachers compared to those attending middle schools with less than 25% African-American teachers.

**Mathematics Scores on Campuses with 25% or More African-American Teachers**

Illustrated in Table 4.5 were the independent t-test results pertaining to the differences in the TAKS mathematics scores of Black and White students enrolled in middle schools with 25% or more African-American teachers. The mean TAKS math score for

Black students was 729.92 (SD = 27.87) and the mean TAKS math score for White students was 772.73 (SD = 45.78). Statistically significant differences were found between the TAKS math scores of Black and White students ( $t = -6.858$ ,  $df = 139.00$ ,  $P < .000$ ) attending middle schools with 25% or more African-American teachers at the .001 level.

Further data analysis employing the mean results revealed that White students who attended middle schools with 25% or more African-American teachers scored significantly higher in mathematics than their African-American peers.

#### **Mathematics Scores on Campuses with Less Than 25% African-American Teachers**

Illustrated in Table 4.6 were the independent t-test results pertaining to the differences in the TAKS mathematics scores of Black and White 8<sup>th</sup> grade students enrolled in schools with less than 25% African-American teachers. The mean TAKS math score for Black students was 729.70 (SD = 26.80) and the mean TAKS math score for White students was 757.96 (SD = 31.89). Statistically significant differences were found between the TAKS math scores of Black and White 8<sup>th</sup> grade students ( $t = -3.306$ ,  $df = 198.00$ ,  $P < .001$ ) attending schools with less than 25% African-American teachers at the .001 level.

Further data analysis employing the mean results revealed that 8<sup>th</sup> grade White students who attended middle schools with less than 25% African-American teachers scored significantly higher in mathematics than their African-American peers.

#### **Reading Scores on Campuses with 25% or More African-American Teachers**

Table 4.7 shows the non-paired t-test that was computed to investigate the differences in the TAKS reading scores of Black and White students attending middle schools with 25% or more African-American teachers. The mean TAKS reading score for Black students was

780.26 (SD = 29.87) and the mean TAKS reading score for White students was 822.73 (SD = 39.68). A statistically significant difference was found between the TAKS reading scores of Black and White students attending middle schools with 25% or more African-American students ( $t = -7.060$ ,  $df = 139.00$ ,  $P < .000$ ).

Further data analysis using the mean results revealed that White students who attended middle schools with 25% or more African-American teachers performed significantly higher in reading than African-American middle school students.

#### **Reading Scores on Campuses With Less Than 25% African-American Teachers**

Table 4.8 displays the non-paired t-test computed to investigate the differences in the TAKS reading scores of Black and White 8<sup>th</sup> grade students attending middle schools with less than 25% African-American teachers. The mean TAKS reading score for Black students was 785.25 (SD = 33.07) and the mean TAKS reading score for White students was 819.73 (SD = 33.47). A statistically significant difference was found between the TAKS reading scores of Black and White 8<sup>th</sup> grade students attending middle schools with less than 25% African-American students ( $t = -7.330$ ,  $df = 198.00$ ,  $P < .000$ ).

Further data analysis using the mean results revealed that White students who attended middle schools with less than 25% African-American teachers did perform significantly higher in reading than their African-American counterparts.

#### **Comparison of Campuses With 25% or More African-American Teachers to Those With Less Than 25% African-American Teachers**

Analysis of the mean scores on TAKS math shows a gap of 42.81 on campuses with 25% or more African-American teachers and a gap of 28.26 on campuses with less than 25%



African-American teachers. This shows that the achievement gap, according to TAKS math results, is larger on campuses with 25% or more African-American teachers.

Further data analysis of the mean TAKS reading scores shows a mean difference of 42.47 on campuses with 25% or more African-American teachers. Campuses with less than 25% African-American teachers showed a mean difference of 34.48. This data indicates that the achievement gap in reading, according to TAKS results, is larger on campuses with 25% or more African-American teachers.

**Table 4.5**  
**T-test Results Regarding the Difference Between the**  
**TAKS Mathematics Scores of**  
**Black and White 8<sup>th</sup> Grade Students Attending**  
**Schools With 25% or More African-American Teachers**

Statistics	Black (N = 96)	White (N = 45)
Mean	729.92	772.73
S.D.	27.87	45.78
S.E.	2.84	6.78
Mean Diff	-42.81	
t	-6.858	
D.F.	139.00	
P	.000***	

\*\*\*P < .001

Note: Homogeneity of Variance assumption was violated.

**Table 4.6**  
**T-test Results Regarding the Difference Between the**  
**TAKS Mathematics Scores of**  
**Black and White 8<sup>th</sup> Grade Students Attending**  
**Schools With Less Than 25% African-American Teachers**

Statistics	Black (N = 102)	White (N = 98)
Mean	729.70	757.96
S.D.	26.80	31.89
S.E.	2.65	2.91
Mean Diff	-28.26	
t	-3.306	
D.F.	198.00	
P	.001	

Note: Homogeneity of Variance assumption was violated.

**Table 4.7**

**T-test Results Regarding the Difference Between the  
TAKS Reading Scores of  
Black and White 8<sup>th</sup> Grade Students Attending  
Schools With 25% or More African-American Teachers**

Statistics	Black (N = 96)	White (N = 45)
Mean	780.26	822.73
S.D.	48.08	39.68
S.E.	2.84	5.91
Mean Diff	-42.47	
t	-7.060	
D.F.	139.000	
P	.000***	

\*\*\*P < .001

Note: Homogeneity of variance assumption was violated.

**Table 4.8**  
**T-test Results Regarding the Difference Between the**  
**TAKS Reading Scores of**  
**Black and White 8<sup>th</sup> Grade Students Attending**  
**Schools With Less Than 25% African-American Teachers**

Statistics	Black (N = 102)	White (N = 98)
Mean	785.25	819.73
S.D.	33.07	33.47
S.E.	3.27	3.57
Mean Diff	-34.48	
t	-7.330	
D.F.	198.00	
P	.000***	

\*\*\*P < .001

Note: Homogeneity of Variance assumption was violated.

## **CHAPTER V**

### **SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS**

#### **Summary**

This study looked at the relationship of the presence of African-American teachers on academic achievement of students in 8<sup>th</sup> grade on Title I campuses with at least 75% free or reduced lunch. Many states in the United States are reporting that minority students are already the majority in elementary grades (Oliva & Menchaca, 2001). The number of minority students in Texas schools is rapidly increasing. According to Swinkels & Ramirez (2009), approximately 62% of the students enrolled in Texas schools are minority. This is an increase of 9 percentage points over the last 10 years. The number of economically disadvantaged students has experienced a 40% increase in the last decade, reaching 57% (Swinkels & Ramirez, 2009).

Despite the large number of minority students in Texas schools, the teacher workforce does not resemble the ethnic breakdown of students. In 2008, White teachers were the majority of the public teaching population at 64%. The remaining 36% are minority teachers, comprised of 24% Hispanic and 10% African American. This apparent inequity in teacher demographics in relation to student demographics is often the motivator behind hiring recruitment practices and expenses in many public school districts across the United States of America.

The focus of this research study was on the relationship between the percentage of African-American teachers on a campus and the academic achievement of students on that campus. Meeting passing criteria on the state accountability test (TAKS) was used to determine academic achievement for the 2010—2011 school year. The study compared campuses with 1—24% African-American teachers to campuses with 25% or greater African-American teachers to determine if 8<sup>th</sup> grade African-American students performed better academically on campuses with a larger percentage of African-American teachers. Campuses reporting 0% African-American teachers and Title I campuses with less than 75% free or reduced lunch were excluded from the research study.

The sample population of this study was Texas campuses serving students in 8<sup>th</sup> grade with at least 1% African-American teachers and 75% or more free or reduced lunch. After filtering the total population based on the defined criteria, there were 198 schools that were used for research purposes, which consisted of 338 ethnic groups of 8th grade students. Approximately 49% of the middle school students attended campuses with 25% or more of their campus teachers being African-American while 51% attended campuses with less than 25% African-American teachers. These criteria were examined in relation to the average scale score on TAKS for reading and math for African-American and White students.

The intention of this study was to determine if schools with a larger percentage of African-American teachers would attain higher academic performance, according to state accountability testing, among 8<sup>th</sup> grade students than campuses with a smaller percentage of African-American teachers. In essence, this meant determining if African-American students

perform better when there are more African-American teachers on campus. The purpose was to find meaningful information that could be helpful in the recruitment of teachers on Title I campuses in an effort to close the achievement gap.

### **Conclusions**

This study found that there was no significant relationship between the academic achievement, as measured by the state accountability system, of 8<sup>th</sup> grade African-American students and the percentage of African-American teachers on campus. The study also found that achievement gap between Black and White students was greater on campuses with a larger percentage of African-American teachers.

### **Research Question 1**

The first research question was, “Is African-American student performance better academically in Title I middle schools with a larger percentage of African-American teachers, as determined by state accountability testing?”

The collected and analyzed data showed that there was not a significant relationship between 8<sup>th</sup> grade African-American student achievement and the percentage of African-American teachers on campus. Prior research has shown a correlation between student achievement and same-ethnicity teachers. However, the data from this study does not support the idea that ethnicity of the teachers impacts student achievement.

## **Research Question 2**

The second research question was, “Is the achievement gap between African-American and White students smaller on Title I middle school campuses where there is a larger percentage of African-American teachers, as determined by state accountability testing?”

The findings from the data for both groups suggested that the achievement gap among Black and White students is not smaller on campuses with a larger percentage of African-American teachers. Data actually showed that the achievement gap was smaller on campuses with a smaller percentage of African-American teachers. These findings would support the notion that there are more important attributes, skills, and characteristics that define a teacher who can make a positive impact on student achievement than race and/or ethnicity.

## **Recommendations Based on This Study**

In an effort to ensure that African-American students on Title I campuses have an opportunity to achieve at the same level as their White counterparts, schools must make sure that the right teachers are in place to positively impact student achievement of all students. District and campus leaders that are in charge of recruiting and hiring teachers need to be knowledgeable of whether or not teacher ethnicity has a positive impact on students. This should help guide resource allotment in recruiting practices. While it might seem logical that African-American students would perform better academically when there is a larger percentage of African-American teachers, this study did not validate this idea. While there may be some benefits to having African-American teachers on campus to build relationships



with African-American students, it did not translate to an increase in academic achievement as measured by TAKS, the state accountability test used by TEA. Therefore, recruiting efforts need to focus on having educators who are highly-qualified and possess proven skills that positively impact student achievement. Hiring decisions should not be driven primarily by race or ethnicity; instead, teachers should be hired based on qualities such as experience and skills.

### **Recommendations for Further Study**

During the course of this study, questions emerged that gave rise to recommendations for further study:

- 1.) Conduct a similar study looking at academic achievement in grades 6-8 in Texas.
- 2.) Conduct a similar study analyzing academic achievement of high school students in grades 9-11 in Texas.
- 3.) Conduct a similar study looking at the relationship between the academic achievement of Hispanic students and the percentage of Hispanic teachers.
- 4.) Conduct a similar study focusing on predominantly African-American campuses.
- 5.) Conduct a similar study soliciting qualitative data, such as student surveys and questionnaires about individual teacher preference.
- 6.) Examine science and social studies TAKS scores for a relationship between African-American student achievement and percentage of African-American teachers.

When hiring teachers to work with African-American students on Title I campuses, race or ethnicity should not be a deciding factor in hiring decisions. All teacher applicants should be evaluated on a level playing field where experience, skill set, and education are major factors in hiring decisions at the campus level. Recruitment efforts and resources should center around all qualified applicants with no extra emphasis on African-American teachers in particular.

## References

- Bacon, E., Banks, J., Young, K., & Jackson, F. R. (2007, December). Perceptions of African American and European American teachers on the education of African American boys. *Multiple Voices*, 10(1&2), 160-172.
- Barth, R. S. (1990). Improving schools from within: Teachers, parents, and principals can make the difference. San Francisco: Jossey-Bass.
- Bonvillain, J.F., & Honora, D. (2004, September 21). Retrieved Month, day, year, from <http://www.eric.ed.gov/PDFS/ED493468.pdf>
- Caine G., & Caine, R. N. (2000). The learning community as a foundation for developing teacher leaders. *NASSP Bulletin*, 84(616), 27-31.
- Caine, R. (2000). Building the bridge from research to classroom. *Educational Leadership*, 58(3), 59-61.
- Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2006, Fall). Teacher-student matching and the assessment of teacher effectiveness. *Journal of Human Resources*, 41(4), 778-820.
- Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2007, March). How and why do teacher credentials matter for student achievement? (Working Paper 2). Washington DC:

Urban Institute, National Center for Analysis of Longitudinal Data in Educational Research.

Dee, T. (2004, February). Teachers, race, and student achievement in a randomized experiment. *The Review of Economics and Statistics*, 86(1), 195-210.

Dee, T. S. (2004). The race connection: Are teachers more effective with students who share their ethnicity? *Education Next*, 4(2), 53-59.

den Brok, P., van Tartwijk, J., Wubbels, T., & Veldman, I. (2010). The differential effect of the teacher-student interpersonal relationship on student outcomes for students with different ethnic backgrounds. *British Journal of Educational Psychology*, 80, 199-221.

Entwisle, D. R., & Alexander, K. L. (1992). Summer setback: Race, poverty, school composition, and mathematics achievement in the first two years of school. *American Sociological Review*, 57, 72-84.

French, S. E., Seidman, E., Aber, L. A., & Aber, J. L. (2006). The development of ethnic identity during adolescence. *Developmental Psychology*, 42(1), 1-10.

Gall, M., Borg, W., & Gall, J. (1996). *Educational research: An introduction* (6<sup>th</sup> ed.). New York: Longman.

Garcia, E. (1994). Understanding and meeting the challenge of student cultural

- diversity. Boston: Houghton Mifflin.
- Garcia, E. (1999). Student cultural diversity: Understanding and meeting the challenge (2nd ed.). Boston: Houghton Mifflin.
- Gay, G. (2000). Culturally responsive teaching: Theory, research, & practice. New York: Columbia University, Teachers College.
- Gordon, R., Kane, T. J., & Staiger, D. O. (2006, April). Identifying effective teachers using performance on the job. (The Hamilton Project, Discussion Paper 2006-01.) Washington, DC: The Brookings Institution.
- Grissmer, D., Flanagan, A., Kawata, J., & Williamson, S. (2000). Improving student achievement: What state NAEP scores tell us. Arlington, VA: RAND.
- Haycock, K. (2001, March). Closing the achievement gap: Helping all students achieve. *Educational Leadership*, 58(6), 6-11.
- Hill, C.R. & Stafford, F.P. (1980). Parental care of children: Time diary estimates of quantity, predictability, and variety. *Journal of Human Resources*, 15(2): 219-239.
- Hodgkinson, H. (2000). Educational demographics: What teachers should know. *Educational Leadership*, 58(4), 6-11.

Ikegulu, T. N. (2009, August 6). Economically disadvantaged student failure: The role of non-minority teachers of elementary school students. ERIC Digests. Retrieved from <http://www.eric.ed.gov/PDFS/ED507249.pdf>.

Klauke, A. (1989). Coping with changing demographics. ERIC Digests. Retrieved March, 20, 2007, from <http://www.ericdigests.org/pre-9214.coping/htm>

Kotkin, J. (2000, August). The changing demographics of America. *Smithsonian Magazine*, Retrieved from <http://www.smithsonianmag.com/people-places/The-Changing-Demographics-of-America.html?c=y&story=fullstory>

Marshall, C., & Oliva, M. (2010). *Leadership for social justice: Making revolutions in education*. Boston: Pearson Education, Inc.

Mather, M. (2010, May). U.S. children in single-mother families. Washington DC: Population Reference Bureau.

McLoyd, V. C. (1998). Socioeconomic disadvantage and child development. *American Psychologist*, 53, 185-204.

National Research Council (2002). *Minority students in special and gifted education*. Washington, DC: National Academy Press.

Oliva, M., & Menchaca, V. (2001). *Texas educator certification and social justice*. Paper

presented at the American Educational Research Association annual meeting, Seattle, WA.

Paredes Scribner, A. (1995). Advocating for Hispanic high school students: Research-based educational practices. *High School Journal*, 78(4), 206-214.

Peterson, P. E., & Nadler, D. (2009, September). What happens when states have genuine alternative certification? We get more minority teachers and scores rise. *Education Digest*, 9(1), 57-60.

Saft, E. W., & Planta, R. C. (2001, June). Teachers' perceptions of their relationships with students: Effects of child age, gender, and ethnicity of teachers and children. *School Psychology Quarterly*, 16(2), 125-141.

Saxe, G.B., Guberman, S.R., & Gearhart, M. (1987). Social processes in early number development. *Monographs of the Society for Research in Child Development*. 52(2).

Seaton, E. K., (2009). Perceived racial discrimination and racial identity profiles among African American adolescents. *Cultural Diversity and Ethnic Minority Psychology*, 15(2), 137-144.

Single-parent families: The effects on children. (2011, November). Retrieved from <http://family.jrank.org/pages/1577/Single-Parent-Families-Effects-on-Children.html>.

Stevenson, H. C., & Arrington, E. G. (2009). Racial/ethnic socialization mediates perceived racism and the racial identity of African American adolescents. *Cultural Diversity and Ethnic Minority Psychology*, 15(2), 125-136.

Tenenbaum, H. R., & Ruck, M. D. (2007). Are teachers' expectations different for racial minority than for European American students? A meta-analysis. *Journal of Educational Psychology*, 99(2), 253-273.

Texas Education Agency (TEA). (2012). Academic Excellence Indicator System. Austin, TX: Author. Retrieved May 2, 2012, from <http://www.tea.state.tx.us/index4.aspx?id=3012>.

Tresslar, C. A. (2010, May). *The relationship between principal ethnicity and other chosen demographics and student achievement as measured by the Texas Education Agency's accountability rating system in predominantly Hispanic public high schools in Texas*. (Doctoral Dissertation). Retrieved from <http://repository.tamu.edu/bitstream/handle/1969.1/ETD-TAMU-2010-05-7925/TRESSLAR-DISSERTATION.pdf?sequence=2>.

U.S. Department of Education (2000). *Twenty second annual report to congress on the implementation of the individuals with disabilities education act*. Washington DC: US Government Printing Office.



**APPENDIX A**  
**EXEMPTION APPROVAL LETTER**

# UNIVERSITY of HOUSTON

## DIVISION OF RESEARCH

April 16, 2012

Walter Hunt  
c/o Dr. Allen R. Warner  
Curriculum and Instruction

Dear Walter Hunt,

Based upon your request for exempt status, an administrative review of your research proposal entitled ""The Relationship Between African-American Teachers and 8th Grade Student Achievement on Title I Campuses"" was conducted on March 21, 2012.

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 Alicia Vargas at (713) 743-9215.

Sincerely yours,



Kirstin M. 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 **December 1, 2016**. 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: 12333-EX