

DIFFERENCES IN READING PERFORMANCE BETWEEN ELEMENTARY
CHARTER SCHOOLS AND TRADITIONAL PUBLIC SCHOOLS: A TEXAS
STATEWIDE, MULTIYEAR INVESTIGATION

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DEDICATION

First, I want to thank God for all his blessings and infinite love, because without Him, nothing would be possible. This dissertation is dedicated to my wonderful husband, Juan Carlos Escalante, for his patience and unconditional love. Gracias Flaquito for the warmth and supportive presence while I was diligently working at the computer. To my oldest son, Juancarlos, throughout this journey we shared many late-night phone calls that served as motivation. To my younger son, Cesar, I am appreciative of the long study nights we shared, taking short breaks to talk about our rigorous academic schedules. Soon we will be graduating with our Ed.D and J.D., respectively. To my mom, Antonia Rodriguez de Santa Cruz, for her constant prayers and love and always “giving me permission” to take a break. To my siblings Norma, Cesar, Betty, Rosy, Sergio, Blanca, Armando y Arturo for being the best brothers and sisters I could have ever asked for. Lastly, I dedicate this dissertation to the person who put the seed in my heart about never giving up and who kept sending me signs from heaven, motivating me to pursue this doctorate. To my dad, Cesar Santa Cruz Estrada, I am sure he is happy to see me accomplishing this dream.

ABSTRACT

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Purpose

The purpose of this journal-ready dissertation was to determine the degree to which differences were present in the reading achievement of Grade 3 students between charter elementary schools and traditional elementary schools. In the first journal article, the extent to which the reading achievement of Grade 3 students differed between charter elementary schools and traditional elementary schools was addressed. In the second study, the degree to which differences existed between charter elementary schools and traditional elementary schools in the reading achievement of their Grade 3 students who were in poverty was determined. Finally, in the third article, the extent to which differences were present between charter elementary schools and traditional elementary schools in the reading achievement of their Grade 3 Black students was ascertained.

Method

A non-experimental, causal-comparative research design was used for this quantitative study. Archival data for the 2012-2013 through the 2015-2016 school years obtained from the Texas Education Agency were analyzed to determine the degree to which the reading achievement of Grade 3 students who were enrolled in charter elementary schools differed from the reading achievement of Grade 3 students who were enrolled in traditional elementary schools in Texas.

Findings

Inferential statistical procedures revealed the presence of statistically significant differences in all 4 school years of data. Grade 3 students who were enrolled in traditional elementary schools had statistically significantly better reading performance than Grade 3 students who were enrolled in charter schools. With respect to students in poverty, results were mixed in that traditional elementary schools had better reading passing rates in the first two years of this study, whereas charter elementary schools had better reading scores in the last two years of this investigation. Regarding the performance of Grade 3 Black students, charter schools had higher reading passing rates than traditional elementary schools. Of importance, however, was that all effect sizes were below small or trivial. Accordingly, the differences that were revealed lacked any practical significance and may be attributed primarily to the very large sample sizes that were present. Implications for policy and for practice, and recommendations for future research were included.

KEY WORDS: Charter Schools, Traditional Public Schools, Economically Disadvantaged, Black, Academic Performance/Level I Unsatisfactory, Level II Satisfactory, Level III Advanced, State of Texas Assessment of Academic Readiness

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CHAPTER I

INTRODUCTION

Charter schools were approved by the Texas Legislature in 1995 as an initiative to expand parent choices (Hanushek, 2007). The U.S. Department of Education defined the charter school initiative as “one of the fastest growing education reform efforts” (U.S. Department of Education, 2003, para. 1). Within 20 years of development, charter schools in Texas have grown tremendously, approximately 250% within the last 10 years (Texas Education Agency, 2016b). Charter school proponents contend that the entire public educational system in the United States benefits from having a competitive educational market (Booker et al., 2008). Arne Duncan, former-Secretary of Education under the Obama administration, and Betsy DeVos, recently named Secretary of Education under the Trump administration, are among the advocates of charter schools (Hutchinson, 2017).

Even though charter school student enrollment in Texas represents only about 4% of the total student enrollment in Grades K-12, the percentage is substantial in some urban areas such as Houston, Dallas-Fort Worth, and San Antonio which have a high penetration of charter schools (Barden & Lassmann, 2016). Initially, under the No Child Left Behind Act (2001) signed by then-President George Bush, and later under the Every Student Succeeds Act (2015) signed by then-President Barack Obama, all students, regardless of race/ethnicity or socioeconomic status are expected to be taught to high academic standards. Moreover, all schools are expected to maintain accountability systems to ensure student academic performance. Yet, the development of charter schools has not yet been academically justified by education research.

Review of the Literature on Charter Schools

Charter schools in Texas have had a rapid growth of approximately 250% within the last 10 years (Texas Education Agency, 2016a). Traditional public schools are now facing competition, and public funds are now diverted from traditional public schools to charter schools. Charter schools have become the option that allows students to receive an education without being subject to the regulations followed by traditional public schools (Barden & Lassmann, 2016). Yet, the efficacy of charter schools has not been established. Whereas some researchers (e.g., Raymond, 2016) argue that charter schools provide better academic results for their students, other researchers (e.g., Blazer, 2010) contend that the academic performance of students enrolled in charter schools is inconsistent. Russo (2013) believed parents are opting for charter schools in a mix of idealism and desperation for interventions.

The idea of charter schools originated in 1988, when Albert Shanker, the president of the American Federation of Teachers declared charter schools would provide choice in the public school system (Vergari, 1999). The first charter school law was passed in Minnesota in 1991 and the Texas legislature approved a charter school law in 1995. In the present, almost 3 million students attend charter schools in the United States. This number represents 6% of the total public school enrollment. In the 2016-2017 school year, approximately 315,200 students were enrolled in the 761 charter schools in Texas (National Alliance for Public Charter Schools, 2017). Charter schools in Texas serve a higher percentage of Hispanic and Black students than traditional public schools (Barden & Lassmann, 2016), and a lower percentage of English Language Learners than public schools (Vasquez et al., 2016).

Readers should note that charter schools do not follow the same local and state regulations as traditional public schools (U. S. Department of Education, 2015). Among some of the major characteristics of charter schools, the following can be listed: (a) they receive per-student funds from the government, (b) their students are admitted based on a lottery system, and (c) they do not charge tuition (Flaker, 2014). Charter schools are usually granted for periods of 3 to 5 years. Although charter schools do not have the same high standards that the state requires from public schools, charter schools are obligated to follow health, safety, and nondiscriminatory regulations. Budget wise, charter schools receive less funding than traditional public schools; they receive state funds based on the average daily attendance of students. However, they do not receive funds from local tax revenue (Texas Education Agency, Charter Schools Funding, 2017b, para. 1).

The creation of charter schools as schools of choice was an initiative of the school reform efforts to open the educational market to competition (Booker et al., 2008). Nevertheless, the debate about public education and school of choice is not new. This debate started in 1966 when James Coleman, author of the Coleman Report, noted that choosing residence was the only kind of school choice in the public-school system and only the middle class and the affluent sector of the society could have the privilege of school choice (West, 2016). Coleman (1966) added residential mobility produced ethnic/racial and income segregation in education, and disadvantaged groups were the most affected ones.

Promoters of school reform believe competition in the education market will improve the efficiency of the public educational system and the student academic

achievement (Booker et al., 2008). Booker et al. analyzed changes on the academic performance in traditional public schools after the penetration of charter schools. The study included 8 years of individual test data of traditional public school students in Texas. Results were that charter school penetration produced a positive effect on public school students. Students who remained in traditional public schools, surrounded by charter schools, had a positive reading and mathematics test score performance. A problem in the Booker et al. (2008) investigation, however, is the lack of a comparison group. Without having comparative school districts in which charter schools were not present and then analyzing student performance in those districts, it is not possible to attribute any academic achievement changes to the presence of charter schools.

Penning and Slate (2011) examined the development of charter schools in Texas. Through an analysis of the funding and academic performance of charter schools, Penning and Slate reported charter schools had a higher enrollment of Black and Hispanic students than traditional public schools. Even though students who were enrolled in charter schools were not outperforming traditional public schools, they did exhibit higher academic growth than public school students (Penning & Slate, 2011). Similar results were noted by Escalante and Slate (2017a) who compared the academic performance of charter elementary school students to traditional elementary school students in the 2014-2015 school year. Using Texas statewide data, students who were enrolled in traditional public elementary schools had higher reading scores in Grades 3 and 4 and higher science scores in Grade 5. Similar reading and writing scores were present for students enrolled in either school type for Grade 4 and Grade 5. Readers should note that in their Texas statewide comparison students in charter elementary

schools were not performing better in reading, writing, or in science than students who were enrolled in traditional elementary schools.

Whereas Booker et al. (2008) claimed the expansion of school choice was beneficial to the educational system and produced positive influences on the academic performance of Black and Hispanic students who remained in traditional public schools, Frankenberg and Siegel-Hawley (2011) considered charter schools as a political success but a civil rights failure because segregation is more accentuated in charter schools. This segregation is in part due to charter schools being located in urban areas. In some large cities or school districts, charter schools are located on separate areas of an established school, being limited in space and resources (Tanner, 2013).

In Texas, charter schools follow an open enrollment process, which means charter schools are required to accept applications from students who are within their geographic boundaries. If the applications exceed the number of students they can serve, charter schools follow a lottery process to fill available spots. Another critique to charter schools is the lottery system they follow. Zernike (2016) questioned the fidelity of the lottery system because the good students are the ones who are usually selected from the pool, whereas the problematic students are left out. Weiler and Vogel (2015) perceived the lottery system as a barrier for the families who are unable to enroll the students in charters when the opening occurs in the middle of the school year.

Though not yet discussed, several researchers (e. g., Barden & Lassmann, 2016; Escalante & Slate, 2017b; Moreno & Slate, 2016) have established that charter schools have a higher percentage of beginning teachers than traditional public schools. In a statewide analysis of Texas elementary schools, Escalante and Slate (2017b) examined

the extent to which differences were present in the characteristics of teachers who were employed at charter elementary schools and at traditional public elementary schools. They documented charter schools had higher percentages of beginning teachers and teachers with no degree than traditional public schools. Moreno and Slate (2016) analyzed school characteristics that differentiated charter schools from traditional public schools in Texas at the elementary, middle, and high school levels. Moreno and Slate determined the percentage of beginning teachers was the characteristic that most strongly differentiated these two types of schools. These two characteristics, a lack of experience and a lack of a teaching credential, are important factors because both are related to student learning, or lack thereof. Inexperienced teachers have a negative effect on student academic achievement (Darling-Hammond, 2010).

Despite the extensive research documentation stating quality teachers are important for students to learn, particularly for Black, Hispanic, and students in poverty, charter schools have statistically significantly higher percentages of inexperienced and noncredentialed teachers. Taylor and Perez (2012) contended that charter schools could not recruit nor could they retain experienced teachers due to their low salaries. Charter schools pay lower salaries than traditional public schools.

Review of Literature on Charter Schools and Students in Poverty

Poverty matters, and poverty affects academic achievement (Ravitch, 2013). Despite educational reforms such as the No Child Left Behind Act (2001), students living in poverty continue to exhibit academic gaps in comparison to their more privileged peers. Students who live with families living in poverty are more likely to have poor attendance and to live in unsafe neighborhoods. Students living in poverty are less likely

to have health care, summer school activities, hear a large vocabulary at home, and educated parents who put education as a priority and who are involved in school activities (Gandara, 2010; Jensen, 2009; Ladd, 2012; Ravitch, 2013).

Homelessness and high mobility rates are other characteristics of students in poverty (Herbers et al., 2012). In the 2009-2010 school year, approximately 1 million students were identified as homeless in the United States. The number of homeless students increased 41% within the last two years. In Texas, the percentage of identified homeless students increased 139%. In 2009, at least 1 in every 38 students living in poverty were identified as homeless in the United States (Miller, 2011).

Furthermore, students in poverty develop chronic absenteeism, which increases the academic achievement gap between high and low socioeconomic class children. These academic achievement gaps start even before students enroll in kindergarten (Ravitch, 2013). Students from low-income families start school lacking background experiences due to the poor literacy skills developed at home with their families and siblings (Wamba, 2010). Family background has a greater influence on student achievement than school resources, class size, or teacher quality.

Egalite (2016) listed four family background factors that influence student achievement: (a) parental education, better educated parents pay more attention to the importance of selecting neighborhoods with high quality schools, attending parent-teacher conferences, and reading to their children; (b) family income, better income can secure more after-school activities and better neighborhoods with high-quality schools; whereas parents with low income may not have time to check homework and take their children to after-school activities; (c) parental incarceration, students with parents in

prison are more likely to be homeless; and (d) family structure, instability on the family structure (i.e. divorces and single parents) may affect the well-being of the students at school.

Wamba (2010) included socioeconomic factors such as housing, healthcare, nutrition, access to preschool, and employment as factors directly influence on student academic success. The reading achievement gap between students from high and low income families is larger than the gap between Black and White students (Ladd, 2012). The academic achievement gap of students of poverty was evidenced in the results of the Programme for International Student Assessment, conducted in 2015 with 72 participant countries and focused on the core subjects of science, reading, and mathematics. Socioeconomic status was associated with differences in student performance. Moreover, students who were economically disadvantaged scored 88 points lower in science than their advantaged peers.

Poverty is the major influential factor of students' low academic performance (Wagner, 2015). Under the No Child Left Behind Act, schools were required to improve the academic achievement of the disadvantaged and to close the academic gaps between minority and non-minority groups. Despite student economic disadvantage, under the No Child Left Behind Act (2001), school districts were expected to meet standards for all sub-groups (e.g., students in poverty, Black students, and English Language Learners) assuming schools should eliminate academic gaps (Ladd, 2012). Yet, high-poverty schools tended to have teachers with lower qualifications. Escalante and Slate (2017b) established charter schools had a higher percentage of beginning teachers, a higher percentage of Black teachers, and a higher percentage of teachers who did not have a

college degree than did traditional public schools. The implications of having a high percentage of inexperienced teachers has been identified as a negative effect on student academic achievement (Darling-Hammond, 2010).

The negative effects of poverty in student academic achievement has been confirmed by researchers (e.g., Egalite, 2016; Herbers et al., 2012; Ladd, 2012; Ravitch, 2013; Wamba, 2010). Low economic, social, and cultural position increase academic gaps. The U.S. Census Bureau (2016) reported 13.5% of the national population were living in poverty, whereas Texas had a higher percentage, 15.9%, than the national average. Furthermore, in the 2015-2016 school year, 58.9% of students in Texas public schools were identified as economically disadvantaged, compared to 69.1% students who were identified as economically disadvantaged in Texas charter schools. Even though students living in poverty are in need of additional support and resources that can help them overcome their academic gaps, parents of students in poverty are opting to enroll their children in charter schools, which started operations about 20 years ago and are characterized by having inexperienced teachers. This trend of charter school enrollment was confirmed by Penning and Slate (2011), who reported charter schools serve a greater number of Black, Hispanic, and students living in poverty than traditional public schools. Results of the study conducted by Penning and Slate (2011) were that charter school students did not outperform traditional public school students; however, they did have a higher academic growth than traditional public school students.

Review of Literature on Charter Schools and Black Students

Over the past 5 years, student enrollment in charter schools has increased by 62% (National Alliance for Public Charter Schools, 2015). Texas is one of the states where

charter schools have had an accelerated growth (Hanushek et al., 2007). For example, in the 2014-2015 school year, the Houston Independent School District was ranked the seventh school district in the United States with the greatest number of charter school students, 51,400 students compared to 196,190 non-charter students. The Los Angeles Unified School District was top in the list with 151,210 students attending charter schools (National Alliance for Public Charter Schools, 2015).

The accelerated growth of charter schools is accompanied by changes in school demographics. From 1990 to 2010, urban areas had increases in the numbers of their Hispanic and Black students. According to the 2010 census (United States Census Bureau, 2010), the non-White population in the United States increased from 29% to 43%. The ethnic/racial composition in charter schools has changed over the last 10 years. The number of Black students enrolled in open-enrollment charter schools decreased from 36.5% in the 2005-2006 school year, to 19.4% in the 2015-2016 school year, whereas Hispanic student enrollment increased from 44.9% to 58.9% within the same timeframe (Texas Education Agency, 2016a).

Oliver Brown, parent of a Black child whose access to Topeka's White schools was denied, filed a class action that uncovered the issue of segregation in public schools. *Brown v. Board of Education* (1954) is now recognized as one of the greatest Supreme Court decisions of the twentieth century. In 1954, the Supreme Court ruled segregated schools to be unconstitutional and the Civil Right Act of 1964 was created to address this issue. In the also known Coleman Report, two questions lead the discussion: (a) How extensive is racial segregation in schools in the United States? and (b) How does this segregation affect Black students?

Segregation remains, as of today, mostly because of residential segregation patterns (Frankenberg & Siegel-Hawley, 2010). Desegregation involves changes in housing patterns (Rivkin, 2017); yet, school student composition is linked to neighborhood composition. School district boundary lines mark housing patterns that are in part the explanation to school segregation. Despite the racial integration progress obtained over 60 years ago because of *Brown v. Board of Education*, this progress is regressing in some areas, such as the South of the United States, where high concentrations of Black students are present (Frankenberg & Siegel-Hawley, 2010).

Despite an apparent decrease of school segregation, especially in the South, where school segregation decreased from 80% in 1968 to 23% by 1980, school segregation persists in this 21st century. Wilson (2016) indicated school segregation has increased over the last 15 years due to cultural and legal factors. Frankenberg and Siegel-Hawley (2010) suggested the growth of school choice is one of the reasons why segregation remains today. Furthermore, Parker (2012) concluded that, by allowing parents to decide in what schools to enroll their children, charter schools promote segregation. Parker believed parents tend to choose schools where their child's race represents the majority. Black elementary students attend charter schools with a higher percentage of Black students than the public school they exited (Garcia, 2008).

School segregation is not only marked by the student population demographic characteristics, the racial/ethnic composition of the teachers is also taken into consideration when defining a school as either White or non-White (Parker, 2008). Under the premises of the No Child Left Behind Act (2001), and with the belief that students of color need teachers who mirror their race/ethnicity, some school districts

experience teacher segregation. Parker (2008) contended teacher segregation is more notorious in urban districts which have more teachers of color than suburban school districts. Charter schools have a higher percentage of Black teachers than traditional public schools (Escalante & Slate, 2017). Additionally, charter schools have a higher percentage of beginning teachers and teachers with no degree than traditional public schools (Escalante & Slate, 2017). The implications of having inexperienced teachers have been documented by researchers (e.g. Darling-Hammond, 2010) in regard to the negative effects of inexperienced teachers on student academic achievement.

Racially segregated schools limit the access of students of color to high quality teachers and to high quality facilities (Wilson, 2016). Schools with high concentration of students of color tend to provide unequal education opportunities; conversely, desegregated schools increase the academic achievement of Black students (Frankenberg & Siegel-Hawley, 2010). In 2009, the National Assessment of Educational Progress results were that only 12% of Grade 4 Black male students performed at or above proficiency level in reading compared to 38% of White male students. In Grade 8, only 12% of Black boys performed at or above grade level in mathematics, compared to 44% of White boys (Finkel, 2010).

After the approval of the No Child Left Behind Act (2001), 19 out of the 25 nation's largest school districts with high percentages of students of color experienced a decrease on their graduation rates. In fact, some of these school districts reported a decrease by more than 10% (Finkel, 2010). In 2006, out of the approximately 49 million students who graduated from high school, 56% were White, 17% were Black, and 20% were Hispanic. In the "Yes We can" report, conducted in 2008 by the Schott Foundation,

the graduation rate for Black males was less than 50%, 47%, compared to 78% of White males (Finkel, 2010).

Besides facing segregation, Black families have a higher percentage of children living in poverty and are more likely to have an incarcerated parent. In the 2015 United States Census, the Black population was the group with the highest percentage of people living below poverty, 24.1% compared to 9.1% White, and 21.4% Hispanic (U.S. Census Bureau, 2016). Additionally, Black children are more likely to have an incarcerated parent; 7.5 times more likely than White children (Egalite, 2016).

Today, an average Black student is exposed to more White students in public schools than 50 years ago, but less than in 1980. This decrease of Black and White students' interaction is in part due to the changes in the ethnic/racial diversity of students enrolled in public schools. The percentage of White students has declined, and more Hispanic and Asian students have enrolled in public schools (Rivkin, 2017).

Hanushek et al. (2007) noted Black students are more likely to attend charter schools than any other ethnic/racial groups. Black students represent 28% of total charter school enrollment compared to 15% of the student enrollment at non-charter schools (Prothero, 2016). The National Alliance for Public Charter Schools (2015) reported charter schools enrolled 2,686,166 students in 2014, of which 467,709 were Black students. The enrollment of Black students in charter school varies state by state. The highest concentration of Black students in charter schools exists in the northeast of the country and in states such as Louisiana and Tennessee, which were states with statewide turnaround districts.

In the 2015-2016 school year, 631 open-enrollment charter schools existed in Texas that served 247,389 students, 47,977 were Black. Black student enrollment in charter schools is 19.4% compared to 12.6% in non-charter schools (Texas Education Agency, 2016a). Moreno and Slate (2016) established that charter schools were more likely to have a higher percentage of Black student enrollment at the elementary and middle school level than were non-charter schools. Other researchers (e.g., Frankenberg & Siegel-Hawley, 2011; Ritter et al., 2010) attributed the higher percentage of Black students in charter schools to the geographic placement of charters. More than 50% of charter school students attend schools in the city, compared to 30% of traditional public school students.

Most of the states, Texas included, do not require any diversity or integration regulations to maintain the charter status, but even states with racial balancing provisions such as Nevada and South Carolina, still suffer from segregation. Whereas some charter schools aimed specific ethnic/racial groups, some states have statutory provisions that give preference to charter schools designed to serve students who are disadvantaged. These practices not only concentrate charter schools in areas with large percentage of students of color (Parker, 2012), but may produce harm on the students due to the lack of diversity (Prothero, 2016).

Some Black Civil Rights Organizations such as Black Lives Matters, have requested a moratorium on charter schools because they contend that charter schools promote segregation in the way they select and discipline students (Zernike, 2016). These organizations stated feeling discouraged by charter schools' enrollment procedures

which are supposed to enroll students using a lottery system, but select the best students from the pool.

Background of the Study

The idea of charter schools originated in 1988 as an innovative way to empower teachers to try new ideas (Ravitch, 2013). Minnesota was the first state in the United States to pass the charter school law in 1991. Since then, over 2 million students have enrolled in charter schools in the United States (Flaker, 2014). Charter schools were established in Texas in 1995. Within the last 10 years, the student enrollment in Texas charter schools has increased about 250% (Texas Education Agency, 2016b). The accelerated growth of charter schools is accompanied by a high enrollment of students in poverty in their campuses. Students are considered to be economic disadvantaged according to the free or reduced lunch qualifications under the National School Lunch and Nutrition Program. Generally, this term indicates the student's household income level is based on 130% (free) and 185% (reduced) of the federal poverty guidelines (U.S. Department of Education, 2012, p. 2).

Although some charter school supporters sustain school choice will address students' individual needs and will help to close the gaps between student groups, free choice markets philosophy may be a potential determinant for school segregation (Jacobs, 2013). By giving parents the option to decide where to enroll their children, they may opt for schools that are conveniently located in their neighborhoods which will result on linguistic, economic, and racial segregation. Similarly, Parker (2012) considered that, by allowing parents to decide in what school to enroll their children, charter schools allow and promote segregation.

Whereas some researchers (e.g., Raymond, 2016) have documented that charter school students have better academic achievement than students who were enrolled in traditional public schools; other researchers (e.g., Blazer, 2010) have determined that the academic results of charter school were inconsistent. Hanushek et al. (2007) compared average test score gains of students who were enrolled in charter or traditional public schools in Texas. Charter school students had lower gains the first year and no substantial gains after two years in the charter school system. Conversely, Gronberg and Jansen (2005) identified higher academic achievement gains on the Texas Assessment of Knowledge Skills for elementary and middle school students who attended charter schools for several years, and lower academic gains for students in charter high schools when compared to traditional high school students.

After conducting a comparison study between charter and non-charter schools, Logan and Burdick (2016) determined that schools with higher poverty tended to have lower test scores. Results of the study were that traditional public schools did better when comparing low poverty schools; although, charter schools did better when comparing high poverty schools. In a recent Texas investigation, Escalante and Slate (2017a) compared the academic performance of charter school and traditional public students. Grades 3, 4, and 5 traditional public school students had higher test scores than did charter school students on the State Texas Assessments of Academic Readiness in the 2014-2015 school year. Escalante and Slate identified statistically significant difference in the reading scores for students in Grades 3 and 4, as well as students in Science for Grade 5. However, writing scores for students in Grade 4 and reading scores for students in Grade 5 were similar.

According to Barlow (2005), charter school students do not perform better than traditional public school students due to the higher percentage of students in poverty they served, charter school students receiving free or reduced lunch scored statistically significantly lower in reading and mathematics on the National Assessment of Educational Progress than students with the same economic status in traditional public schools. On the other hand, Raymond (2016) reported charter school students who were economically disadvantaged improved in their reading and mathematics performance, when compared to traditional public school students. The growth was even greater in urban areas where charter school students in poverty registered improvement in reading and mathematics each year.

Statement of the Problem

Charter schools are expanding at an accelerated rate in Texas. Within the last 10 years, charter schools have grown approximately 250% (Texas Education Agency, 2016b). Under the No Child Left Behind Act (2001), schools were required to improve the academic achievement of students who are disadvantaged and to close existing academic gaps. Although the popularity of charter schools is increasing among parents, resulting in students being withdrawn from traditional public schools and enrolled in charter schools, limited research has been conducted regarding the academic achievement of students in these two types of schools. An important question that needs to be answered is, “Is the academic performance of students enrolled in charter schools better than the academic performance of students enrolled in traditional public schools?” Two of the most prominent advocates (i.e., the Walton Family Foundation and Bill & Melinda Gates Foundation) have manifested their support for charter schools. Educational

reformers have advocated and continue to advocate for the privatization of public education as a solution to improve student academic achievement, specifically for Black, Hispanic, and for students of poverty. Whereas reformers claim charter schools are the best option to help Black, Hispanic, and students in poverty (Bryant, 2016), other researchers (e.g., Frankenberg & Siegel-Hawley, 2011, Parker, 2012) considered charter schools to promote segregation.

Purpose of the Study

The purpose of this journal-ready dissertation was to determine the degree to which differences were present in the reading achievement of Grade 3 students between charter elementary schools and traditional elementary schools. In the first journal article, the extent to which the reading achievement of Grade 3 students differed between charter elementary schools and traditional elementary schools was addressed. In the second study, the degree to which differences existed between charter elementary schools and traditional elementary schools in the reading achievement of their Grade 3 students who were in poverty was determined. Finally, in the third article, the extent to which differences were present between charter elementary schools and traditional elementary schools in the reading achievement of their Grade 3 Black students was ascertained. In each of these three journal-ready articles, four years of Texas statewide data were obtained and analyzed. As such, readers were provided with an empirical comparison of student reading performance in charter elementary schools and in traditional elementary schools.

Significance of the Study

Politicians and some members of the private sector are pushing for the expansion of charter schools and the extinction of public schools alluding that public schools are in crisis due to low academic achievement on standardized tests (Nazaryan, 2017; Ravitch, 2013). Other political leaders keep blaming public schools for most of the problems in the society, instead of equipping them with the needed resources to alleviate the issues public schools are dealing with, such as demographic changes and students in poverty, just to mention some (Tanner, 2013). According to Hutchinson (2017), the promotion of voucher schools appeared to be imminent after the appointment of Betsy DeVos, however, in recent reports this issue may instead be left to the states. Nevertheless, minimal studies have been conducted regarding the academic achievement of students who are enrolled in charter schools. The information provided in this journal-ready dissertation about the differences in the academic performance between (a) charter and non-charter schools, (b) students in poverty, and (c) Black students, may be helpful to policymakers and sectors of the society who demand educational programs that can better serve the students.

Definition of Terms

The following terms, used in this study, are defined to assist the reader in understanding the context of this investigation.

Black

A person of Black ethnicity is defined as a person having origins in any of the Black racial groups of Africa (Texas Education Agency Appendix F, 2016a, p. 5).

Charter Schools

Charter schools are defined by the Texas Education Agency as a type of public schools. The Texas Legislature authorized the establishment of charter schools in 1995. Some of the first charters have been in operation since Fall 1996. There are four types of charter schools in Texas:

1. Subchapter B Home-rule School District Charters - There are no home-rule school district charters in Texas.
2. Subchapter C Campus or Campus Program Charters - Independent school districts authorize and oversee these charters.
3. Subchapter D Open-enrollment Charters - Most charters in Texas fall under this category. The commissioner authorizes these charters. Before SB 2 passed in 2013, the State Board of Education (SBOE) was the authorizer.
4. Subchapter E University or Junior College Charters - The commissioner authorizes Subchapter E charters. Eligible entities include public colleges and universities.

Charter schools are subject to fewer state laws than other public schools. The reduced legislation encourages more innovation and allows more flexibility, though state law does require fiscal and academic accountability from charter schools. The state monitors and accredits charter schools just as the state accredits school districts. (Texas Education Agency, Charter Schools, 2017a, para. 1)

Economically Disadvantaged

In this study, the term economically disadvantaged refers to students who are “eligible for free or reduced-price lunch or eligible for other public assistance” (Texas Education Agency, Glossary for the Texas Academic Performance Report, 2015, p. 10). Students of economic disadvantage qualify for free or reduced lunch under the National School Lunch and Child Nutrition Program. Generally, this term indicates the student’s household income level is based on 130% (free) and 185% (reduced) of the federal poverty guidelines (U.S. Department of Education, 2012, p. 2).

Level I Unsatisfactory Academic Performance

Level I Unsatisfactory Academic Performance refers to the label given to students who are inadequately prepared and who are unlikely to succeed in the next grade level. These students will require extensive intervention to succeed academically (Texas Education Agency, 2016d, chapter 4, pp. 26).

Level II Satisfactory Academic Performance

Level II Satisfactory Academic Performance refers to the label given to students who are prepared for the next grade level. These students may require little or no academic interventions (Texas Education Agency, 2016d, chapter 4, p. 26).

Level III Advanced Performance

Level III Advanced Academic Performance refers to the label given to students who are well-prepared for the next grade level and who have a high likelihood of success with little intervention (Texas Education Agency, 2016d, chapter 4, p. 26).

Poverty Threshold

In the United States, poverty is defined by the poverty threshold, which is updated every year. The term threshold is also known as the poverty line. A family is defined to live in poverty when one-third of their after-tax income is not sufficient to cover the cost of a minimum food diet multiplied by three (U.S. Census Bureau, 2016).

Public Education Information Management System

The Public Education Information Management System is the data management system of the Texas Education Agency and contains information regarding student demographic, academic performance, financial, personnel, and organizational information of public schools (Public Education Information Management System - Overview, 2017, para. 1).

State of Texas Assessment of Academic Readiness (STAAR)

The STAAR are a series of state-mandated standardized tests given to Texas public school students in grades 3-8 and those enrolled in five specific high school courses. First given in spring 2012, STAAR is based on the state's curriculum standards called the Texas Essential Knowledge and Skills (TEKS) (Texas Education Agency, Glossary of Acronyms, 2017c, p. 10).

STAAR Reading Assessment

For this study, Grade 3 Reading Assessment consisted of the following three categories:

1: Reporting Category 1: The student will demonstrate an ability to understand a variety of written texts across reading genres; Reporting Category 2: The student will demonstrate an ability to understand and analyze literary texts; and Reporting

Category 3: The student will demonstrate an ability to understand and analyze informational texts. (Texas Education Agency Student Assessment Division, 2011, pp. 2-6)

Texas Education Agency

The Texas Education Agency is the agency that supervises and organizes public education in the state of Texas (Texas Education Agency About TEA, 2015, para. 1). The mission of the Texas Education Agency is to “provide leadership, guidance and resources to help schools meet the educational needs of all students and prepare them for success in the global economy” (Texas Education Agency About TEA, 2015, para. 2).

Traditional Public Schools

Traditional public schools are schools that follow state guidelines. They operate with the help of tax dollars and are divided into grades and governed by school districts.

Literature Review Search Procedures

For the purpose of this journal-ready dissertation, the literature regarding reading achievement of students in charter and traditional public schools, students in poverty, and Black students who were enrolled in either charter elementary schools or traditional public elementary schools was examined. Phrases that were used in the search for relevant literature were: *charter schools*, *public schools*, *student poverty*, *economically disadvantaged*, *Black students*, and *academic achievement*.

Delimitations

The three studies in this journal-ready dissertation were delimited to charter schools and traditionally configured public elementary schools in Texas, specifically elementary schools comprised of Grade K/1 through Grade 5. Of particular interest in

this journal-ready dissertation was the extent to which differences were present between charter elementary schools and traditional elementary schools in the academic achievement of their students in general, their students in poverty, and Black students on the STAAR Reading assessment. Four school years of data (i.e., 2012-2013, 2013-2014, 2014-2015, and 2015-2016) were analyzed.

Limitations

In this journal-ready dissertation, the STAAR Reading performance of Grade 3 students was compared between charter elementary schools and traditional public elementary schools. One of the limitations was the school variables of economic status and ethnicity/race were self-reported by each school to the state. As such, inaccurate discrepancies in reporting to the state could have occurred. Because audits are routinely conducted by the Texas Education Agency, inaccuracies in data reporting were believed to be minimal. A second limitation involved the fact that only quantitative data were used to measure the academic achievement of the Grade 3 students whose data were analyzed in this journal-ready dissertation. A third limitation involved the use of archival data. In causal-comparative studies in which archival data are analyzed, no determination of a cause-effect relationship can be made. Accordingly, other variables other than school type could have contributed contributing to any differences that were obtained in reading achievement of students in poverty and Black students.

Assumptions

For the purpose of this journal-ready dissertation, the assumption was made that the achievement data for students in charter and non-charter schools, students in poverty, and Black students in the Texas Academic Performance Reports were accurately

reported. Additionally, the consistency in which charter schools and traditional public schools in Texas collect and report student data to the Texas Education Agency was assumed to be accurate and consistent statewide. Another assumption was that students in poverty were appropriately identified. Consequently, any modifications to these assumptions could have resulted in inaccurate data and contradictory findings.

Procedures

Following approval of the journal-ready dissertation proposal by the researcher's dissertation committee, an application was submitted to the Sam Houston State University's Institutional Review Board. Once a letter of approval was received from the Institutional Review Board, archival data for the 2012-2013, 2013-2014, 2014-2015, and 2015-2016 school years on Grade 3 for students in charter and traditional public schools, students in poverty, and Black students were requested from the Texas Education Agency. A Public Information Request form was submitted to the Texas Education Agency Public Education Information Management System for these data. Specific data requested were (a) type of school (i.e., charter or non-charter) in which students were enrolled; (b) student demographic characteristics; and (c) STAAR Reading test scores. Once these data were obtained, they were analyzed to address the research questions in the three journal-ready articles.

Organization of the Study

In this journal-ready dissertation, three journal-ready manuscripts were generated. In the first study, research questions specifically related to the reading achievement of Grade 3 students who were enrolled in either charter elementary schools or in traditional public elementary schools were addressed. In the second study, research questions

specifically related to the reading achievement of Grade 3 students in poverty who were enrolled in either charter elementary schools or in traditional public elementary schools were answered. In the third study, research questions specifically related to the reading achievement of Black students who were enrolled in either charter elementary schools or in traditional elementary public schools were examined.

This journal-ready dissertation is composed of five chapters. Chapter I includes the background of the study, statement of the problem, purpose of this study, significance of the study, definitions of terms, assumptions, delimitations, and limitations of the three proposed research investigations. Chapter II is the first empirical research investigation. Chapter III is the second empirical research study. Finally, Chapter IV constitutes the third empirical research investigation. Finally, the results from each of the three research articles in this journal-ready dissertation were summarized in Chapter V. Implications for policy and recommendations for future research were included in this chapter.

CHAPTER II

DIFFERENCES IN READING PERFORMANCE BETWEEN ELEMENTARY CHARTER SCHOOLS AND TRADITIONAL PUBLIC SCHOOLS: A TEXAS STATEWIDE MULTIYEAR INVESTIGATION

This dissertation follows the style and format of *Research in the Schools (RITS)*.

Abstract

In this research study, the degree to which differences were present in reading performance between charter and traditional elementary public schools in Texas were determined. Archival data were obtained from the Texas Education Agency Public Education Information Management System on all Grade 3 students who were enrolled in either elementary charter or elementary traditional schools for the 2012-2013, 2013-2014, 2014-2015, and 2015-2016 school years. Inferential statistical procedures yielded the presence of statistically significant differences in all 4 school years. Grade 3 students who were enrolled in traditional elementary schools had statistically significantly higher reading passing rates and higher reading test scores on the state-mandated assessments in all 4 school years than did students who were enrolled in charter schools.

Recommendations for future research and implications of these results are provided.

Keywords: Charter schools, Traditional schools, Level I Unsatisfactory Academic Performance, Level II Satisfactory Academic Performance, Level III Advanced Academic Performance, State of Texas Assessment of Academic Readiness

DIFFERENCES IN READING PERFORMANCE BETWEEN ELEMENTARY CHARTER SCHOOLS AND TRADITIONAL PUBLIC SCHOOLS: A TEXAS STATEWIDE MULTIYEAR INVESTIGATION

Charter schools in Texas have had a rapid growth of approximately 250% within the last 10 years (Texas Education Agency, 2016a). Traditional public schools are now facing competition, and public funds are now diverted from traditional public schools to charter schools. Charter schools have become the option that allows students to receive an education without being subject to the regulations followed by traditional public schools (Barden & Lassmann, 2016). Yet, the efficacy of charter schools has not been established. Whereas some researchers (e.g., Raymond, 2016) argue that charter schools provide better academic results for their students, other researchers (e.g., Blazer, 2010) contend that the academic performance of students enrolled in charter schools is inconsistent. Russo (2013) believed parents are opting for charter schools in a mix of idealism and desperation for interventions.

Background of the Study

The idea of charter schools originated in 1988, when Albert Shanker, the president of the American Federation of Teachers declared charter schools would provide choice in the public school system (Vergari, 1999). The first charter school law was passed in Minnesota in 1991 and the Texas legislature approved a charter school law in 1995. In the present, almost 3 million students attend charter schools in the United States. This number represents 6% of the total public school enrollment. In the 2016-2017 school year, approximately 315,200 students were enrolled in the 761 charter schools in Texas (National Alliance for Public Charter Schools, 2017). Charter schools

in Texas serve a higher percentage of Hispanic and Black students than traditional public schools (Barden & Lassmann, 2016), and a lower percentage of English Language Learners than public schools (Vasquez et al., 2016).

Readers should note that charter schools do not follow the same local and state regulations as traditional public schools (U.S. Department of Education, 2015). Among some of the major characteristics of charter schools, the following can be listed: (a) they receive per-student funds from the government, (b) their students are admitted based on a lottery system, and (c) they do not charge tuition (Flaker, 2014). Charter schools are usually granted for periods of 3 to 5 years. Although charter schools do not have the same high standards that the state requires from public schools, charter schools are obligated to follow health, safety, and nondiscriminatory regulations. Budget wise, charter schools receive less funding than traditional public schools; they receive state funds based on the average daily attendance of students. However, they do not receive funds from local tax revenue (Texas Education Agency, Charter Schools Funding, 2017, para. 1).

The creation of charter schools as schools of choice was an initiative of the school reform efforts to open the educational market to competition (Booker et al., 2008). Nevertheless, the debate about public education and school of choice is not new. This debate started in 1966 when James Coleman, author of the Coleman Report, noted that choosing residence was the only kind of school choice in the public-school system and only the middle class and the affluent sector of the society could have the privilege of school choice (West, 2016). Coleman (1966) added residential mobility produced

ethnic/racial and income segregation in education, and disadvantaged groups were the most affected ones.

Promoters of school reform believe competition in the education market will improve the efficiency of the public educational system and the student academic achievement (Booker et al., 2008). Booker et al. (2008) analyzed changes on the academic performance in traditional public schools after the penetration of charter schools. Included in the study were 8 years of individual test data of traditional public school students in Texas. Results were that charter school penetration produced a positive effect on public school students. Students who remained in traditional public schools, surrounded by charter schools, had a positive reading and mathematics test score performance. A problem in the Booker et al. investigation, however, was the lack of a comparison group. Without having comparative school districts in which charter schools were not present and then analyzing student performance in those districts, it is not possible to attribute any academic achievement changes to the presence of charter schools.

Penning and Slate (2011) examined the development of charter schools in Texas. Through an analysis of the funding and academic performance of charter schools, Penning and Slate reported charter schools had a higher enrollment of Black and Hispanic students than traditional public schools. Even though students who were enrolled in charter schools were not outperforming traditional public schools, they did exhibit higher academic growth than public school students (Penning & Slate, 2011). Similar results were noted by Escalante and Slate (2017a) who compared the academic performance of charter elementary school students compared to traditional elementary

school students in the 2014-2015 school year. Using Texas statewide data, students who were enrolled in traditional public elementary schools had higher reading scores in Grades 3 and 4 and higher science scores in Grade 5. Similar reading and writing scores were present for students enrolled in either school type for Grade 4 and Grade 5. Readers should note that in their Texas statewide comparison students in charter elementary schools were not performing better in reading, writing, or in science than students who were enrolled in traditional elementary schools.

Whereas Booker et al. (2008) claimed the expansion of school choice was beneficial to the educational system and produced positive influences on the academic performance of Black and Hispanic students who remained in traditional public schools, Frankenberg and Siegel-Hawley (2011) considered charter schools as a political success but a civil rights failure because segregation is more accentuated in charter schools. This segregation is in part due to charter schools being located in urban areas. In some large cities or school districts, charter schools are located on separate areas of an established school, being limited in space and resources (Tanner, 2013).

In Texas, charter schools follow an open enrollment process, which means charter schools are required to accept applications from students who are within their geographic boundaries. If the applications exceed the number of students they can serve, charter schools follow a lottery process to fill available spots. Another critique to charter schools is the lottery system they follow. Zernike (2016) questioned the fidelity of the lottery system because the good students are the ones who are usually selected from the pool, whereas the problematic students are left out. Weiler and Vogel (2015) perceived the

lottery system as a barrier for the families who are unable to enroll the students in charters when the opening occurs in the middle of the school year.

Though not yet discussed, several researchers (e. g., Barden & Lassmann, 2016; Escalante & Slate, 2017b; Moreno & Slate, 2016) have established that charter schools have a higher percentage of beginning teachers than traditional public schools. In a statewide analysis of Texas elementary schools, Escalante and Slate (2017b) examined the extent to which differences were present in the characteristics of teachers who were employed at charter elementary schools and at traditional public elementary schools. They documented charter schools had higher percentages of beginning teachers and teachers with no degree than traditional public schools. Moreno and Slate (2016) analyzed school characteristics that differentiated charter schools from traditional public schools in Texas at the elementary, middle, and high school levels. Moreno and Slate determined the percentage of beginning teachers was the characteristic that most strongly differentiated these two types of schools. These two characteristics, a lack of experience and a lack of a teaching credential, are important factors because both are related to student learning, or lack thereof. Inexperienced teachers have a negative effect on student academic achievement (Darling-Hammond, 2010).

Despite the extensive research documentation stating quality teachers are important for students to learn, particularly for Black, Hispanic, and students in poverty, charter schools have statistically significantly higher percentages of inexperienced and noncredentialled teachers. Taylor and Perez (2012) contended that charter schools could not recruit nor could they retain experienced teachers due to their low salaries. Charter schools pay lower salaries than traditional public schools.

Reading Skills

In Texas, student reading performance is assessed using the State of Texas Assessment of Academic Readiness (STAAR) test. Several different outcomes are provided by the STAAR Reading test. In Reporting Category 1, students are expected to demonstrate the ability to understand a variety of texts across genres (i.e., fiction, literary nonfiction, poetry, drama, expository, and persuasive) by understanding and using new vocabulary reading and writing. In Reporting Category 2, students are expected to analyze literary texts (i.e., poetry, fiction, literary nonfiction, and media literacy) by using comprehension skills. In Reporting Category 3, students are expected to analyze informational texts (i.e., expository and procedural) by making inferences and drawing conclusions (Texas Education Agency Student Assessment Division, 2011, pp. 2-6).

In addition to these three Reading Reporting categories, student academic performance is classified in three levels. Level I students are unlikely to succeed in the next level without significant academic intervention. Students who received a Level II academic performance are on track and likely to succeed in the next grade, with possible need of support. Level I is regarded as Unsatisfactory performance, Level II is considered as Satisfactory performance, and Level III is regarded as Advanced performance. Students who performed at Level III have demonstrated higher-order thinking skills and are expected to succeed in the next level. (Texas Education Agency, 2016b, Chapter 4, p. 26).

At the time of its implementation in 2012, STAAR performance measures were phased in to provide school districts enough time to prepare their teachers with professional developments and to adjust instruction. A 4-year, two-step phase-in for

Level II was initially scheduled, but this plan was changed to a three-step phase-in process. Phase-in 1 was in effect for the 2011-2012, 2012-2013, 2013-2014, and 2014-2015 school years. Phase-in 2 standards are in effect from the 2015-2016 to the 2017-2018 school years and Phase-in 3 will be in effect from the 2018-2019 until the 2020-2021 school years. The final recommended Level II standards will be in effect after the Phase-in 3 standard (Texas Education Agency Student Assessment Division, 2015, pp. 1-7).

Statement of the Problem

Charter schools are increasing at an accelerated rate, approximately 250% within the last 10 years (Texas Education Agency, 2016a). Parents are moving their children from traditional public schools to charter schools, and yet, limited evidence exists regarding their efficacy. The assumption should not be made that just because charter schools are not traditional schools that students who attend them will automatically have higher academic achievement scores. Empirical investigations are clearly needed regarding student performance in charter schools compared to student performance in traditional public schools.

Educational advocates (e.g., Bill & Melinda Gates Foundation, Eli and Edythe Broad Foundation, the Walton Family Foundation) are promoting a kind of entrepreneurial education that favors charter schools and vouchers. Based on the fundamentals of competition and an open-market, school reformers consider charter schools can alleviate current educational deficits (Ravitch, 2013). Nevertheless, the academic success of charter schools has not been confirmed and appears to be inconsistent (Blazer, 2010).

Purpose of the Study

The purpose of this study was to determine the extent to which differences were present in the reading achievement of Grade 3 students in Texas as a function of school type (i.e., charter schools and traditional public schools). Four years of statewide data were analyzed to determine whether differences were present in the reading skills of Grade 3 students between charter schools and traditional public schools. Additionally, the extent to which a trend across four school years was present in reading skills between charter schools and traditional public schools was examined.

Significance of the Study

Charter schools are increasing in popularity among students and parents nationwide. In Texas, charter schools have increased approximately 250% within the last 10 years. Some charter school advocates (e.g., The Gates foundation, the Walton Family foundation) consider charter schools as an effective way to alleviate poor student performance whereas other researchers (e.g., Frankenberg & Siegel-Hawley, 2011) have argued students do not perform academically better in charter schools than in traditional schools

Despite its popularity, minimal studies have been conducted concerning the efficacy of charter schools in comparison to traditional public schools. Through this study, important information was provided about the academic performance of charter schools and traditional public schools. Furthermore, legislators and policymakers may use the results of this study to understand better how students enrolled in elementary charter schools perform in reading compared to students who are enrolled in elementary traditional schools.

Research Questions

The following overarching research question was addressed in this empirical investigation: What is the difference in the reading performance of Texas Grade 3 students as a function of school type (i.e., charter or traditional)? Specific subquestions under this overarching research question were: (a) What is the difference on the STAAR Reading Level II Academic Performance measures (i.e., Phase-in 1, Phase-in 2, and Final Satisfactory) for Grade 3 students as a function of school type?; (b) What is the difference on the STAAR Reading Level III Academic Performance measures for Grade 3 students as a function of school type?; (c) What is the difference on the STAAR Reading Category 1: Understanding Across Genres for Grade 3 students as a function of school type?; (d) What is the difference on the STAAR Reading Category 2: Understanding/Analysis of Literary Texts for Grade 3 students as a function of school type?; (e) What is the difference on the STAAR Reading Category 3: Understanding/Analysis of Informational Texts for Grade 3 students as a function of school type?; (f) What trend is present over time in the STAAR Reading Level II Academic Performance measures for Grade 3 students as a function of school type?; and (g) What trend is present in the STAAR Reading Reporting Categories scores for Grade 3 students as a function of school type? The first five research questions were repeated for the 2012-2013, 2013-2014, 2014-2015, and the 2015-2016 school years whereas the last two research questions were comparisons across these four school years. As such, a total of 22 research questions were addressed in this empirical investigation.

Method

Research Design

A non-experimental, causal-comparative research design (Creswell, 2014) was used for this study. Archival data were utilized to examine the reading achievement of Grade 3 students who were enrolled in either charter elementary schools or in traditional elementary schools in the 2012-2013, 2013-2014, 2014-2015, and 2015-2016 school years. The independent variable involved in this research article was school type (i.e., charter or traditional public schools), and the dependent variables were the STAAR Reading scores for Grade 3 students in the 2012-2013 through the 2015-2016 school years, and the Phase in performance standards (i.e., Phase-in 1, Phase-in 2, and Phase-in 3). Because already existing data were analyzed in this multiyear, empirical investigation, neither the independent variable of school type nor the dependent variables of the STAAR Reading test measures were manipulated.

Participants and Instrumentation

For the purposes of this study, archival data for the 2012-2013, 2013-2014, 2014-2015, and 2015-2016 school years for Grade 3 students who were enrolled in either charter or in traditional public schools were requested from the Texas Education Agency. A Public Information Request form was submitted to the Texas Education Agency Public Education Information Management System for these data. The reading performance of Grade 3 students during these school years was the specific information that was analyzed in this study. Grade 3 students were specifically selected for this investigation because the third grade is the first year in which the STAAR Reading exam is administered.

Results

Pearson chi-square procedures were utilized to answer the first two questions. This statistical procedure was considered the most appropriate procedure to use because the independent variable of school type consisted of two groups (i.e., charter schools and traditional public schools) and because the dependent variables of the STAAR Phase-in standards consisted of two categories (i.e., met standard or did not meet standard). As such, chi-squares were the appropriate statistical procedures because both variables were categorical (Slate & LeBouef, 2011). Prior to conducting Pearson chi-squares procedures, its underlying assumptions of five persons available per cell and that all data were independent of each other were checked and verified.

For the first research question with regard to the STAAR Reading Level II Academic Performance measures (i.e., Phase-in 1, Phase-in 2, and Final Recommended) for Grade 3 students as a function of school type, only the Phase-in 1 and Final Recommended were in effect from the 2012-2013 to the 2014-2015 school years. Phase-in 2, and Final Recommended were in effect in only the 2015-2016 school year. As such, only the STAAR Reading Level II measures that were in effect in that particular school year were analyzed and reported herein.

Phase-in 1 Results

For the 2012-2013 school year, the Pearson chi-square procedure yielded a statistically significant difference in the Level II Reading Academic Performance Phase-in 1 standard, $\chi^2(1) = 145.03, p < .001$, for Grade 3 students between charter and traditional schools. The effect size, or Cramer's V, for this result was below small, .02 (Cohen, 1988). Grade 3 students who were enrolled in traditional elementary schools had

a statistically significantly higher pass rate, 4.5 percentage points higher, than did their Grade 3 peers who were enrolled in charter elementary schools. Table 2.1 contains the descriptive statistics for this school year.

Insert Table 2.1 about here

Regarding the 2013-2014 school year, a statistically significant difference was present, $\chi^2(1) = 91.18, p < .001$, in the Level II Reading Academic Performance by school type for Grade 3 students. The effect size for this finding was below small at .02, Cramer's V (Cohen, 1988). Grade 3 students who were enrolled in traditional elementary schools had 3.4 percentage points higher satisfactory performance on the Phase-in 1 than did Grade 3 students who were enrolled in charter schools. Revealed in Table 2.1 are the descriptive statistics for the analysis of the Phase-in 1 standard for this school year.

With respect to the 2014-2015 school year, a statistically significant difference was present in the Level II Reading Academic Performance Phase-in 1 standard, $\chi^2(1) = 48.46, p < .001$, by school type for Grade 3 students. The effect size for this finding, Cramer's V, was below small, .01 (Cohen, 1988). Grade 3 students who were enrolled in traditional elementary schools had 2.4 percentage points higher pass rate than did Grade 3 students who were enrolled in charter schools. Delineated in Table 2.1 are the descriptive statistics for the 2014-2015 school year.

Phase-in 2 Results

As discussed previously, the Phase-in 2 standard was in effect for only the 2015-2016 school year. For this school year, the Pearson chi-square procedure yielded a

statistically significant difference in the Phase-in 2 standard, $\chi^2(1) = 35.21, p < .001$, between charter and traditional schools for Grade 3 students. The effect size, or Cramer's V, for this result was below small, .01 (Cohen, 1988). Grade 3 students who were enrolled in traditional elementary schools had a higher pass rate, 2.0 percentage points higher, than did their Grade 3 peers who were enrolled in charter schools. Frequencies and percentages of Phase-in 2 standard for Grade 3 students by school type in the 2015-2016 school year are presented in Table 2.2.

 Insert Table 2.2 about here

Final Recommended Results

With respect to the Final Recommended phase for the 2012-2013 school year, a Pearson chi-square procedure was used and yielded a statistically significant difference, $\chi^2(1) = 102.37, p < .001$, Cramer's V = .02, a below small effect size (Cohen, 1988), by school type. Grade 3 students in traditional elementary schools had a statistically significantly higher passing rate, 4.4 percentage points higher, on the Final Recommended standard than did their Grade 3 peers who were enrolled in charter elementary schools. Table 2.3 contains the descriptive statistics for this school year.

 Insert Table 2.3 about here

In the 2013-2014 school year, a statistically significant difference was present in the Final Recommended phase, $\chi^2(1) = 86.71, p < .001$, by school type for Grade 3

students. The effect size for this finding, Cramer's V, was below small, .02 (Cohen, 1988). Grade 3 students who were enrolled in traditional schools scored 3.7 percentage points higher than did their Grade 3 peers enrolled in charter elementary schools.

Revealed in Table 2.3 are the descriptive statistics for this analysis.

Regarding the 2014-2015 school year, a statistically significant difference was present in the Final Recommended phase, $\chi^2(1) = 66.04, p < .001$, between charter and traditional schools for Grade 3 students. The effect size, or Cramer's V, for this result was below small, .01 (Cohen, 1988). Grade 3 students who were enrolled in traditional elementary schools had a statistically significantly higher pass rate, 3.2 percentage points higher, than did Grade 3 students who were enrolled in charter elementary schools. Delineated in Table 2.3 are the descriptive statistics for the 2014-2015 school year.

For the 2015-2016 school year, the Pearson chi-square procedure yielded a statistically significant difference in the Final Recommended standard, $\chi^2(1) = 30.67, p < .001$, between charter and traditional elementary schools for Grade 3 students. The effect size for this finding, Cramer's V, was below small, .01 (Cohen, 1988). Grade 3 students who were enrolled in traditional elementary schools had a 2.1 percentage point higher pass rate than did Grade 3 students who were enrolled in charter elementary schools.

Table 2.3 contains the descriptive statistics for this school year.

Level III Academic Performance Results

For the second research question regarding the STAAR Reading Level III Academic Performance for Grade 3 students as a function of school type, the Pearson chi-square procedure yielded a statistically significant difference in the 2012-2013 school year, $\chi^2(1) = 45.19, p < .001$. The effect size, or Cramer's V, for this result was below

small, .01 (Cohen, 1988). Grade 3 students who were enrolled in traditional elementary schools had a 2.4 percentage point higher advanced academic performance than did Grade 3 students who were enrolled in charter elementary schools. Table 2.4 contains the descriptive statistics for this school year.

Insert Table 2.4 about here

Regarding the 2013-2014 school year, a statistically significant difference was present in the Reading Level III Academic Performance, $\chi^2(1) = 70.23$, $p < .001$, between charter and traditional elementary schools for Grade 3 students. The effect size for this finding, Cramer's V, was below small, .01 (Cohen, 1988). Grade 3 students who were enrolled in traditional elementary school had a higher advanced academic performance, 2.6 percentage points higher, than did their Grade 3 peers enrolled in charter elementary schools. Revealed in Table 2.4 are the descriptive statistics for this analysis.

Concerning the 2014-2015 school year, the Pearson chi-square procedure yielded a statistically significant difference in the Level III Academic Performance, $\chi^2(1) = 50.69$, $p < .001$, between charter and traditional schools for Grade 3 students. The effect size, or Cramer's V, for this result was below small, .01 (Cohen, 1988). Grade 3 students who were enrolled in traditional schools scored 2.3 percentage points higher than did Grade 3 students who were enrolled in charter elementary schools. Delineated in Table 2.4 are the descriptive statistics for the 2014-2015 school year.

With regard to the 2015-2016 school year, a statistically significant difference was present in the Level III Academic Performance, $\chi^2(1) = 32.06$, $p < .001$, by school

type for Grade 3 students. The effect size for this finding, Cramer's V, was below small, .01 (Cohen, 1988). Grade 3 students who were enrolled in traditional schools scored 1.9 percentage points higher than did their Grade 3 peers who were enrolled in charter elementary schools. Table 2.4 contains the descriptive statistics for the Level III Academic Performance analysis for the 2015-2016 school year.

Reading Category Results

For the research questions regarding the three reading reporting categories, Multivariate Analysis of Variance (MANOVA) procedures were utilized. Prior to conducting a MANOVA procedure, the underlying assumptions for the normality of the dependent variables (i.e., the STAAR Reading categories) were checked. The standardized skewness coefficients (i.e., the skewness value divided by its standard error) and the standardized kurtosis coefficients (i.e., the kurtosis value divided by its standard error) were analyzed for normality within ± 3 (Onwuegbuzie & Daniel, 2002). Additionally, the Box's Test of Equality of Covariance assumption and the Levene's Test of Equality of Error Variances were checked. Even if the assumptions underlying the MANOVA were not met, the robustness of a MANOVA procedure made it appropriate to use on the data in this study (Field, 2009).

Overview of Reading Category Results

For the 2012-2013 school year, the MANOVA revealed a statistically significant difference, Wilks' $\Lambda = 1.00$, $p < .001$, partial $\eta^2 = .001$, trivial effect size (Cohen, 1988) as a function of school type in Grade 3 student overall reading performance. Regarding the 2013-2014 school year, the MANOVA yielded a statistically significant difference, Wilks' $\Lambda = 1.00$, $p < .001$, partial $\eta^2 = .000$, trivial effect size (Cohen, 1988) between

charter and traditional elementary schools in Grade 3 student overall reading performance. Concerning the 2014-2015 school year, the MANOVA again revealed a statistically significant difference, Wilks' $\Lambda = 1.00$, $p < .001$, partial $\eta^2 = .000$, trivial effect size (Cohen, 1988) between charter and traditional elementary schools in Grade 3 student overall reading performance. With regard to the 2015-2016 school year, the MANOVA yielded a statistically significant difference, Wilks' $\Lambda = 1.00$, $p < .001$, partial $\eta^2 = .000$, trivial effect size (Cohen, 1988) between charter and traditional elementary schools in Grade 3 student overall reading performance. Because a statistically significant difference was revealed in the overall reading achievement of Grade 3 students for each school year, univariate analysis of variance procedures were next calculated for each of the three STAAR Reading Categories for each of the four school years.

Reading Category 1 Results

With respect to the 2012-2013 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference on the STAAR Reading Category 1 scores, $F(1, 376068) = 38.41$, $p < .001$, partial $\eta^2 = .000$, trivial effect size. The average score on this Reading Category 1 was 0.09 points higher for Grade 3 students who were enrolled in traditional elementary schools than for Grade 3 students who were enrolled in charter schools. Presented in Table 2.5 are the descriptive statistics for this analysis.

 Insert Table 2.5 about here

Concerning the 2013-2014 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference on the STAAR Reading Category 1 scores, $F(1, 383002) = 68.74, p < .001$, partial $\eta^2 = .000$, trivial effect size. The average score on this Reading Category 1 was 0.11 points higher for Grade 3 students who were enrolled in traditional elementary schools than for Grade 3 students who were enrolled in charter schools. Delineated in Table 2.5 are the results for this analysis.

Regarding the 2014-2015 school year, a univariate follow-up analysis of variance procedure yielded a statistically significant difference on the STAAR Reading Category 1 results, $F(1, 384139) = 36.30, p < .001$, partial $\eta^2 = .000$, trivial effect size. The average score on this Reading Category 1 was 0.08 points higher for Grade 3 students who were enrolled in traditional elementary schools than for Grade 3 students who were enrolled in charter schools. Table 2.5 contains the descriptive statistics for this analysis.

For the 2015-2016 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference, $F(1, 395882) = 55.26, p < .001$, partial $\eta^2 = .000$, trivial effect size on the STAAR Reading Category 1 results. The average score on this Reading Category 1 was 0.09 points higher for Grade 3 students who were enrolled in traditional elementary schools than for Grade 3 students who were enrolled in charter schools. Revealed in Table 2.5 are the results for this analysis.

Reading Category 2 Results

With respect to the 2012-2013 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference on the STAAR Reading Category 2 scores, $F(1, 376068) = 216.11, p < .001$, partial $\eta^2 = .001$, trivial effect size.

The average score on this Reading Category 2 was 0.05 points higher for Grade 3 students who were enrolled in traditional elementary schools than for Grade 3 students who were enrolled in charter schools. Presented in Table 2.6 are the descriptive statistics for this analysis.

Insert Table 2.6 about here

Concerning the 2013-2014 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference on the STAAR Reading Category 2 scores, $F(1, 383002) = 36.92, p < .001$, partial $\eta^2 = .000$, trivial effect size. The average score on this Reading Category 2 was 0.19 points higher for Grade 3 students who were enrolled in traditional elementary schools than for Grade 3 students who were enrolled in charter schools. Table 2.6 contains the descriptive statistics for this analysis.

Regarding the 2014-2015 school year, a univariate follow-up analysis of variance procedure yielded a statistically significant difference on the STAAR Reading Category 2 results, $F(1, 384139) = 95.14, p < .001$, partial $\eta^2 = .000$, trivial effect size. The average score on this Reading Category 2 was 0.32 points higher for Grade 3 students who were enrolled in traditional elementary schools than for Grade 3 students who were enrolled in charter schools. Revealed in Table 2.6 are the descriptive statistics for this school year.

For the 2015-2016 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference, $F(1, 395882) = 11.51, p = .001$, partial $\eta^2 = .000$, trivial effect size on the STAAR Reading Category 2 results. The

average score on this Reading Category 2 was 0.10 points higher for Grade 3 students who were enrolled in traditional elementary schools than for Grade 3 students who were enrolled in charter schools. Presented in Table 2.6 are the results for this analysis.

Reading Category 3 Results

With respect to the 2012-2013 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference on the STAAR Reading Category 3 scores, $F(1, 376068) = 72.74, p < .001$, partial $\eta^2 = .000$, trivial effect size.

The average score on this Reading Category 3 was 0.27 points higher for Grade 3 students who were enrolled in traditional elementary schools than for Grade 3 students who were enrolled in charter schools. Table 2.7 contains the descriptive statistics for this analysis.

Insert Table 2.7 about here

Concerning the 2013-2014 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference on the STAAR Reading Category 3 scores, $F(1, 383002) = 160.45, p < .001$, partial $\eta^2 = .000$, trivial effect size.

The average score on this Reading Category 3 was 0.37 points higher for Grade 3 students who were enrolled in traditional elementary schools than for Grade 3 students who were enrolled in charter schools. Delineated in Table 2.7 are the results for this analysis.

Regarding the 2014-2015 school year, a univariate follow-up analysis of variance procedure yielded a statistically significant difference on the STAAR Reading Category 3

results, $F(1, 384139) = 32.62, p < .001$, partial $\eta^2 = .000$, trivial effect size. The average score on this Reading Category 3 was 0.16 points higher for Grade 3 students who were enrolled in traditional elementary schools than for Grade 3 students who were enrolled in charter schools. Table 2.7 contains the descriptive statistics for this school year.

For the 2015-2016 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference, $F(1, 395882) = 72.59, p < .001$, partial $\eta^2 = .000$, trivial effect size, on the STAAR Reading Category 3 results. The average score on this Reading Category 3 was 0.25 points higher for Grade 3 students who were enrolled in traditional elementary schools than for Grade 3 students who were enrolled in charter schools. Revealed in Table 2.7 are the results for this analysis.

Reading Performance Trends

With respect to the research question regarding the degree to which trends were present in the STAAR Reading Level II Academic Performance measures for Grade 3 students as a function of school type, examination of the previously discussed results yielded the presence of trends in student performance. Grade 3 students who were enrolled in traditional elementary schools had statistically significantly higher pass rates in all four school years than did students who were enrolled in charter schools. A summary of the analyses of STAAR Reading Level II Academic Performance measures by school type for Grade 3 students from the 2012-2013 through the 2015-2016 school year is presented in Table 2.8.

 Insert Table 2.8 about here

Concerning whether trends were present in the STAAR Reading Reporting Categories scores for Grade 3 students as a function of school type, examination of the statistically significant results yielded the presence of trends for all three STAAR Reading Categories. Grade 3 students who were enrolled in traditional elementary schools had higher scores on each Reading Category in all four school years than did Grade 3 students who were enrolled in charter schools. A summary of the analyses of STAAR Reading Reporting Categories by school type for Grade 3 students for the 2012-2013 through the 2015-2016 school year are presented in Table 2.9.

 Insert Table 2.9 about here

Discussion

In this investigation, the degree to which differences were present in the reading achievement of Texas Grade 3 students by school type (i.e., charter elementary schools and traditional elementary schools) was addressed. Four years of archival data from the Texas Education Agency Public Education Information Management System were obtained and analyzed to determine whether differences were present on the state-mandated Level II Reading Academic Performance measures (i.e., Phase-in 1, Phase-in 2, and Final Recommended), Level III Reading Academic Performance, and STAAR Reading Reporting Categories between charter elementary schools and traditional elementary schools.

Inferential statistical procedures yielded the presence of statistically significant differences in all four school years of data analyzed (i.e., 2012-2013, 2013-2014, 2014-

2015, and 2015-2016) for all of the STAAR Reading categories (i.e., Category 1, Category 2, and Category 3). Grade 3 students who were enrolled in traditional elementary schools had statistically significantly higher reading test scores than did their Grade 3 peers who were enrolled in charter elementary schools.

Connections with Existing Literature

Several researchers (Escalante & Slate, 2017; Penning & Slate, 2011) have previously analyzed the differences in the academic performance between charter and traditional schools in Texas. In this 4-year statewide investigation, Grade 3 students who were enrolled in traditional elementary schools had higher passing rates on the STAAR Reading Level II Academic Performance measures (i.e., Phase-in 1, Phase-in 2, and Final Satisfactory) than did Grade 3 students who were enrolled in charter schools. Grade 3 students who were enrolled in traditional elementary schools had higher average reading scores on each STAAR Reading Category (i.e., Category 1, Category 2, and Category 3) than did Grade 3 students who were enrolled in charter schools.

These results were consistent with Escalante and Slate (2017a) wherein Grade 3 students who were enrolled in traditional public schools had statistically significantly higher reading scores than did Grade 3 students who were enrolled in charter schools. Escalante and Slate (2017a) determined that Grade 3 students who were enrolled in traditional elementary schools had 4.5% higher average reading passing rate than did their peers who were enrolled in charter elementary schools. Similarly, Penning and Slate (2011) documented that students who were enrolled in charter schools were not performing better than students who were enrolled in traditional public schools.

Implications for Policy and for Practice

In this investigation, Grade 3 students who were enrolled in traditional elementary schools had higher reading passing rates than did Grade 3 students who were enrolled in charter schools. Charter schools have had an accelerated growth, 250% within the last 10 years (Texas Education Agency, 2016 a), and school reformers are advocating for the development of charter schools. Yet, the efficacy of charter schools has not been established.

Several implications for policy and for practice can be made based upon the results of this multiyear, statewide investigation. First, educational leaders need to focus their efforts in conducting more educational research in regard to the efficacy of charter schools. Second, policymakers should analyze the results of this educational research before making decisions regarding academic and financial support to these school systems. Third, the Texas Education Agency should revise the requirements, policies, and procedures followed by charter and traditional public schools based on student academic performance results. Charter schools are exempt from some regulations imposed to traditional public schools. Fourth, to help parents in the decision-making process of deciding where to enroll their children, schools should be required to provide information of the school academic rating at registration.

Recommendations for Future Research

Based upon the results of this multiyear statewide investigation, several recommendations for future research can be made. Given the higher average reading passing rate of Grade 3 students who were enrolled in traditional elementary schools revealed in this study, researchers are encouraged to extend this study to other content

areas (e.g., mathematics, writing, science, social studies). Additionally, further research encompassing other grade levels, from elementary to high school, is strongly recommended. Furthermore, given the diversity of the student population in charter and elementary schools, researchers are encouraged to investigate differences in the academic performance between these two school systems by subgroups (e.g., Black students, students in poverty, English Language Learners, Hispanic students). Another recommendation is to replicate this study in other states to determine whether differences are present in the academic performance between charter and traditional public schools.

Conclusion

The purpose of this investigation was to determine the extent to which differences were present in the reading achievement of Grade 3 students in Texas as a function of school type (i.e., charter schools and traditional public schools). Four school years of archival data from the Texas Education Agency Public Education Information Management System were analyzed. In each of the school years, Grade 3 students who were enrolled in traditional elementary schools had statistically significantly higher reading passing rates and higher reading test scores than did Grade 3 students who were enrolled in charter elementary schools. As such, no evidence was present that students enrolled in charter schools have higher reading achievement than students enrolled in traditional schools.

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Table 2.1

*Frequencies and Percentages of Reading Level II Phase-in 1 Standard by School Type
for Grade 3 Students From the 2012-2013 Through the 2014-2015 School Year*

School Year and School Type	Met Standard <i>n</i> and %age of Total	Did Not Meet Standard <i>n</i> and %age of Total
2012-2013		
Charter	9,381 (73.2%)	3,431 (26.8%)
Traditional	282,379 (77.7%)	80,879 (22.3%)
2013-2014		
Charter	10,790 (71.3%)	4,347 (28.7%)
Traditional	274,906 (74.7%)	92,961 (25.3%)
2014-2015		
Charter	11,681 (72.0%)	4,537 (28.0%)
Traditional	273,969 (74.5%)	93,954 (25.5%)

Table 2.2

Frequencies and Percentages of Reading Level II Phase-in 2 Standard for Grade 3

Students by School Type in the 2015-2016 School Year

School Type	Met Standard <i>n</i> and %age of Total	Did Not Meet Standard <i>n</i> and %age of Total
Charter	12,430 (69.9%)	5,355 (30.1%)
Traditional	271,997 (71.9%)	106,102 (28.1%)

Table 2.3

Frequencies and Percentages of Reading Level II Final Recommended Standard by School Type for Grade 3 Students From the 2012-2013 Through the 2015-2016 School Year

School Year and School Type	Met Standard <i>n</i> and %age of Total	Did Not Meet Standard <i>n</i> and %age of Total
2012-2013		
Charter	4,391 (34.3%)	8,421 (65.7%)
Traditional	140,578 (38.7%)	222,680 (61.3%)
2013-2014		
Charter	5,578 (36.9%)	9,559 (63.1%)
Traditional	149,505 (40.6%)	218,362 (59.4%)
2014-2015		
Charter	5,647 (34.8%)	10,571 (65.2%)
Traditional	139,744 (38.0%)	228,179 (62.0%)
2015-2016		
Charter	6,986 (39.3%)	10,799 (60.7%)
Traditional	156,428 (41.4%)	221,671 (58.6%)

Table 2.4

*Frequencies and Percentages of Reading Level III Academic Performance by School**Type for Grade 3 Students From the 2012-2013 Through the 2015-2016 School Year*

School Year and School Type	Met Standard <i>n</i> and %age of Total	Did Not Meet Standard <i>n</i> and %age of Total
2012-2013		
Charter	2,145 (16.7%)	10,667 (83.3%)
Traditional	69,434 (19.1%)	293,824 (80.9%)
2013-2014		
Charter	2,094 (13.8%)	13,043 (86.2%)
Traditional	60,333 (16.4%)	307,534 (83.6%)
2014-2015		
Charter	2,931 (18.1%)	13,287 (81.9%)
Traditional	74,943 (20.4%)	292,980 (79.6%)
2015-2016		
Charter	3,847 (21.6%)	13,938 (78.4%)
Traditional	88,738 (23.5%)	289,361 (76.5%)

Table 2.5

*Descriptive Statistics for the STAAR Reading Category 1 Scores by School Type for
Grade 3 Students From the 2012-2013 Through the 2015-2016 School Year*

School Year and School Type	<i>n</i>	<i>M</i>	<i>SD</i>
2012-2013			
Charter	12,812	4.02	1.64
Traditional	363,258	4.11	1.61
2013-2014			
Charter	15,137	4.12	1.62
Traditional	367,867	4.23	1.61
2014-2015			
Charter	16,218	3.90	1.63
Traditional	367,923	3.98	1.60
2015-2016			
Charter	17,785	3.97	1.64
Traditional	378,099	4.06	1.62

Table 2.6

Descriptive Statistics for the STAAR Reading Category 2 Scores by School Type for Grade 3 Students From the 2012-2013 Through the 2015-2016 School Year

School Year and School Type	<i>n</i>	<i>M</i>	<i>SD</i>
2012-2013			
Charter	12,812	10.83	3.90
Traditional	363,258	11.33	3.77
2013-2014			
Charter	15,137	11.65	3.84
Traditional	367,867	11.84	3.83
2014-2015			
Charter	16,218	10.82	4.02
Traditional	367,923	11.14	4.04
2015-2016			
Charter	17,785	11.81	4.05
Traditional	378,099	11.91	4.06

Table 2.7

*Descriptive Statistics for the STAAR Reading Category 3 Scores by School Type for
Grade 3 Students From the 2012-2013 Through the 2015-2016 School Year*

School Year and School Type	<i>n</i>	<i>M</i>	<i>SD</i>
2012-2013			
Charter	12,812	10.01	3.50
Traditional	363,258	10.28	3.41
2013-2014			
Charter	15,137	9.44	3.60
Traditional	367,867	9.81	3.53
2014-2015			
Charter	16,218	10.27	3.50
Traditional	367,923	10.43	3.52
2015-2016			
Charter	17,785	9.68	3.86
Traditional	378,099	9.93	3.79

Table 2.8

Summary of Level II Academic Performance Measures (i.e., Phase-In 1, Phase-In 2, and Final Recommended) by School Type for Grade 3 Students From the 2012-2013 Through the 2015-2016 School Year

Performance Measure and School Year	Statistically Significant	Better Performing School
Phase-In 1		
2012-2013	Yes	Traditional
2013-2014	Yes	Traditional
2014-2015	Yes	Traditional
Phase-In 2		
2015-2016	Yes	Traditional
Final Recommended		
2012-2013	Yes	Traditional
2013-2014	Yes	Traditional
2014-2015	Yes	Traditional
2015-2016	Yes	Traditional

Table 2.9

Summary of STAAR Reading Reporting Categories for Grade 3 Students From the 2012-2013 Through the 2015-2016 School Year

Reading Category and School Year	Statistically Significant	Better Performing School
Category 1		
2012-2013	Yes	Traditional
2013-2014	Yes	Traditional
2014-2015	Yes	Traditional
2015-2016	Yes	Traditional
Category 2		
2012-2013	Yes	Traditional
2013-2014	Yes	Traditional
2014-2015	Yes	Traditional
2015-2016	Yes	Traditional
Category 3		
2012-2013	Yes	Traditional
2013-2014	Yes	Traditional
2014-2015	Yes	Traditional
2015-2016	Yes	Traditional

CHAPTER III

DIFFERENCES BETWEEN ELEMENTARY CHARTER SCHOOLS AND TRADITIONAL PUBLIC SCHOOLS IN THE READING PERFORMANCE OF THEIR STUDENTS IN POVERTY: A TEXAS STATEWIDE INVESTIGATION

This dissertation follows the style and format of *Research in the Schools (RITS)*.

Abstract

In this investigation, the degree to which differences were present between charter elementary schools and traditional elementary schools in the reading achievement of their Grade 3 students in poverty in Texas was determined. Archival data were obtained from the Texas Education Agency Public Education Information Management System on all Grade 3 students in poverty who were enrolled in either elementary charter or elementary traditional schools from the 2012-2013 through the 2015-2016 school year. Grade 3 traditional elementary school students who were living in poverty had better reading performance in the first 2 years of this study whereas Grade 3 charter elementary students who were living in poverty had better reading performance in the last 2 years of this study. Implications of these results are provided, as well as recommendations for future research.

Keywords: Charter schools, Traditional schools, Economically Disadvantaged, Level I Unsatisfactory Academic Performance, Level II Satisfactory Academic Performance, Level III Advanced Academic Performance, State of Texas Assessment of Academic Readiness

DIFFERENCES BETWEEN ELEMENTARY CHARTER SCHOOLS AND
TRADITIONAL PUBLIC SCHOOLS IN THE READING PERFORMANCE OF
THEIR STUDENTS IN POVERTY: A TEXAS STATEWIDE INVESTIGATION

Poverty matters, and poverty affects academic achievement (Ravitch, 2013). Despite educational reforms such as the No Child Left Behind Act (2001), students living in poverty continue to exhibit academic gaps in comparison to their more privileged peers. Students who live with families living in poverty are more likely to have poor attendance and to live in unsafe neighborhoods. Students living in poverty are less likely to have health care, summer school activities, hear a large vocabulary at home, and educated parents who put education as a priority and who are involved in school activities (Gandara, 2010; Jensen, 2009; Ladd, 2012; Ravitch, 2013).

Homelessness and high mobility rates are other characteristics of students in poverty (Herbers et al., 2012). In the 2009-2010 school year, approximately 1 million students were identified as homeless in the United States. The number of homeless students increased 41% within the last two years. In Texas, the percentage of identified homeless students increased 139%. In 2009, at least 1 in every 38 students living in poverty were identified as homeless in the United States (Miller, 2011).

Furthermore, students in poverty develop chronic absenteeism, which increases the academic achievement gap between high and low socioeconomic class children. These academic achievement gaps start even before students enroll in kindergarten (Ravitch, 2013). Students from low-income families start school lacking background experiences due to the poor literacy skills developed at home with their families and

siblings (Wamba, 2010). Family background has a greater influence on student achievement than school resources, class size, or teacher quality.

Egalite (2016) listed four family background factors that influence student achievement: (a) parental education, better educated parents pay more attention to the importance of selecting neighborhoods with high quality schools, attending parent-teacher conferences, and reading to their children; (b) family income, better income can secure more after-school activities and better neighborhoods with high-quality schools; whereas parents with low income may not have time to check homework and take their children to after-school activities; (c) parental incarceration, students with parents in prison are more likely to be homeless; and (d) family structure, instability on the family structure (e.g., divorces and single parents) may affect the well-being of the students at school.

Wamba (2010) included socioeconomic factors such as housing, healthcare, nutrition, access to preschool, and employment as factors directly influence on student academic success. The reading achievement gap between students from high and low-income families is larger than the gap between Black and White students (Ladd, 2012). The academic achievement gap of students of poverty was evidenced in the results of the Programme for International Student Assessment, conducted in 2015 with 72 participating countries with a focus on the core subjects of science, reading, and mathematics. Socioeconomic status was associated with differences in student performance. Students who were economically disadvantaged scored 88 points lower in science than their advantaged peers.

Poverty is the major influential factor of students' low academic performance (Wagner, 2015). Under the No Child Left Behind Act (2001), schools were required to improve the academic achievement of the disadvantaged and to close academic gaps between minority and non-minority groups. Despite student economic disadvantage, under the No Child Left Behind Act (2001), school districts were expected to meet standards for all sub-groups (e.g., students in poverty, Black students, and English Language Learners) assuming schools should eliminate academic gaps (Ladd, 2012). Yet, high-poverty schools tended to have teachers with lower qualifications. Escalante and Slate (2017b) established charter schools had a higher percentage of beginning teachers, a higher percentage of Black teachers, and a higher percentage of teachers who did not have a college degree than did traditional public schools. The implications of having a high percentage of inexperienced teachers has been identified as a negative effect on student academic achievement (Darling-Hammond, 2010).

The negative effects of poverty in student academic achievement has been confirmed by researchers (e.g., Egalite, 2016; Herbers et al., 2012; Ladd, 2012; Ravitch, 2013; Wamba, 2010). Low economic, social, and cultural position increase academic gaps. The U.S. Census Bureau (2016) reported 13.5% of the national population were living in poverty, whereas Texas had a higher percentage, 15.9%, than the national average. Furthermore, in the 2015-2016 school year, 58.9% of students in Texas public schools were identified as economically disadvantaged, compared to 69.1% economically disadvantaged students in Texas charter schools. Even though students living in poverty are in need of additional support and resources that can help them overcome their academic gaps, parents of students in poverty are opting to enroll their children in charter

schools, which started operations about 20 years ago and are characterized by having inexperienced teachers. This trend of charter school enrollment was confirmed by Penning and Slate (2011), who reported charter schools serve a greater number of Black, Hispanic, and students living in poverty than traditional public schools. Results of the study conducted by Penning and Slate (2011) were that charter school students did not outperform traditional public school students; however, they did have a higher academic growth than traditional; public school students.

Background of the Study

The idea of charter schools originated in 1988 as an innovative way to empower teachers to try new ideas (Ravitch, 2013). Minnesota was the first state in the United States to pass the charter school law in 1991. Since then, over 2 million students have enrolled in charter schools in the United States (Flaker, 2014). Charter schools were established in Texas in 1995. Within the last 10 years, the student enrollment in Texas charter schools has increased about 250% (Texas Education Agency, 2016a). The accelerated growth of charter schools is accompanied by a high enrollment of students in poverty in their campuses. According to the Texas Education Agency (2015) the term economically disadvantaged refers to students who are “eligible for free or reduced-price lunch or eligible for other public assistance” (Texas Education Agency, Glossary for Texas Academic Performance Report, 2015, p. 10). Generally, this term indicates the student’s household income level is based on 130% (free) and 185% (reduced) of the federal poverty guidelines (U.S. Department of Education, 2012, p. 2).

Although some charter school supporters sustain school choice will address student individual needs and will help to close the gaps between student groups, free

choice markets philosophy may be a potential determinant for school segregation (Jacobs, 2013). By providing parents an option to decide where to enroll their children, they may opt for schools that are conveniently located in their neighborhoods which will result in linguistic, economic, and racial segregation. Similarly, Parker (2012) considered that, by allowing parents to decide in what school to enroll their children, charter schools allow and promote segregation.

Whereas some researchers (e.g., Raymond, 2016) documented charter school students have better academic achievement than students who were enrolled in traditional public schools; other researchers (e.g., Blazer, 2010) have determined that the academic results of charter school were inconsistent. Hanushek et al. (2007) compared average test score gains of students who were enrolled in charter or traditional public schools in Texas. Charter school students had lower gains the first year and no substantial gains after two years in the charter school system. Conversely, Gronberg and Jansen (2005) identified higher academic achievement gains on the Texas Assessment of Knowledge Skills, for elementary and middle school students who attended charter schools for several years, and lower academic gains for students in charter high schools when compared to traditional public school students.

After conducting a comparison study between charter and non-charter schools, Logan and Burdick (2016) determined schools with higher poverty tended to have lower test scores. They reported traditional public schools did better when comparing low poverty schools; although, charter schools did better when comparing high poverty schools. In a recent Texas investigation, Escalante and Slate (2017a) compared the academic performance of charter school and traditional public students. Grades 3, 4, and

5 traditional public school students had higher test scores than did charter school students on the State Texas Assessments of Academic Readiness in the 2014-2015 school year. Escalante and Slate (2017a) identified statistically significant difference in the reading scores for students in Grades 3 and 4, as well as students in Science for Grade 5. However, writing scores for students in Grade 4 and reading scores for students in Grade 5 were similar.

According to Barlow (2005), charter school students do not perform better than traditional public school students due to the higher percentage of students in poverty they served, charter school students receiving free or reduced lunch scored statistically significantly lower in reading and mathematics on the National Assessment of Educational Progress than students with the same economic status in traditional public schools. On the other hand, Raymond (2016) reported charter school students who were economically disadvantaged improved in their reading and mathematics performance, when compared to traditional public school students. The growth was even greater in urban areas where charter school students in poverty registered improvement in reading and mathematics each year.

Reading Skills

In this study, reading skills are defined in the State of Texas Assessment of Academic Readiness (STAAR). Students are expected to demonstrate the ability to understand a variety of texts across genres (i.e., poetry, drama, fiction, literary nonfiction, and persuasive) in Reporting Category 1. In Reporting Category 2, the students are expected to analyze literary texts (i.e., poetry, fiction, literary nonfiction, and media literacy) by using comprehension skills. In Reporting Category 3, the students are

expected to analyze informational texts (i.e., expository and procedural) by making inferences and drawing conclusions (Texas Education Agency Student Assessment Division, 2011, pp. 2-6).

Student academic performance is evaluated in the STAAR test using three levels of performance. Level I Unsatisfactory Academic Performance refers to students who are inadequately prepared and are unlikely to succeed in the next grade level. These students are in need of extensive academic interventions. Level II Satisfactory Academic Performance is given to students who are prepared for the next grade level. Students with Level II Academic Performance may require some academic interventions. Level III Advanced Academic Performance refers to students who demonstrate critical thinking skills and have a high probability of being successful in the next grade level (Texas Education Agency, 2016c, Chapter 4, p. 26).

The STAAR performance standards were phased-in to provide school districts with the time they needed to adjust instruction and to equip their teachers with appropriate training. Initially, the phase-in process was set for a four-year two-step plan, but this plan was extended to a three-step phase-in for Level II for the STAAR assessment. The Phase-in 1 standard was in effect for the 2011-2012, 2012-2013, 2013-2014, and 2014-2015 school years and the Phase-in 2 standard is in effect from the 2015-2016, 2016-2017, and 2017-2018 school years. The Phase-in 3 standard will be in effect from 2018-2019 until 2020-2021 school years. The final recommended Level II performance standards will be in effect after Phase-in 3 (Texas Education Agency Student Assessment Division, 2015, pp. 1-7).

Statement of the Problem

In 2014, approximately 20% of the student population in the United States were living in poverty (National Center for Education Statistics, 2016). The percentage of Texas students living in poverty is higher than the national average. According to the U.S. Census Bureau, 15.9% of people in Texas live in poverty. A total of 3.1 million public school students or 59% of all students in Texas were economically disadvantaged (Texas Education Agency, 2016b).

Several educational initiatives have been created to improve student academic achievement; whereas some initiatives were designed to close the gaps between minorities and non-minorities (No Child Left Behind), other initiatives were created to improve teacher quality (Race to the Top). Recently, some educational advocates (e.g., Bill & Melinda Gates Foundation, Eli and Edythe Broad Foundation, the Walton Family Foundation) have indicated education would benefit from following an entrepreneurial system where parents have the freedom to decide where to enroll their children based on personal preferences, charter schools being one of the most viable option (Ravitch, 2013). Even though the federal government does not decide what types of schools a state opens and it is still up to the States to make these choices; the nomination of Betsy DeVos as U.S. Secretary of Education has created an atmosphere of uncertainty regarding the future of public schools and the possible expansion of charters and voucher schools. Yet, no agreement has been established among the effectiveness of charter schools; specifically, on the academic achievement of students in poverty enrolled in charter schools.

Purpose of the Study

The purpose of this study was to ascertain the degree to which differences were present between charter elementary schools and traditional elementary schools in the reading achievement of their Grade 3 students in poverty. The extent to which the reading achievement for students who were in poverty differed between charter elementary schools and traditional elementary schools was investigated. Four years of Texas statewide data were obtained and analyzed, thereby permitting a determination of any trends that were present between charter elementary schools and traditional elementary schools in the academic performance of their students in poverty.

Significance of the Study

Politicians and individuals in the private sector are pushing for the expansion of charter schools and the extinction of public schools claiming the public schools are in crisis due to low academic achievement on standardized tests (Nazaryan, 2017; Ravitch, 2013). Under the No Child Left Behind Act (2001), schools were required to improve the academic achievement of students who were disadvantaged and to close the academic gaps between the demographic sub groups. Yet, minimal studies have been conducted regarding the academic achievement of students who are enrolled in charter schools. Through this study, essential information was provided about whether differences were present in the reading achievement between Texas charter and traditional elementary public school students who live in poverty. Analyses presented in this study may be helpful to policymakers when deciding to support an educational system that better serves the needs of students in poverty.

Research Questions

The following overarching research question was addressed in this empirical investigation: What is the difference in the reading performance as a function of school type (i.e., charter or traditional) for Texas Grade 3 students in poverty? Specific subquestions under this overarching research question are: (a) What is the difference on the STAAR Reading Level II Academic Performance measures (i.e., Phase-in 1, Phase-in 2, and Final Recommended) as a function of school type for Grade 3 students in poverty?; (b) What is the difference on the STAAR Reading Level III Academic Performance measures as a function of school type for Grade 3 students in poverty?; (c) What is the difference on the STAAR Reading Category 1: Understanding Across Genres as a function of school type for Grade 3 students in poverty?; (d) What is the difference on the STAAR Reading Category 2: Understanding/Analysis of Literary Texts as a function of school type for Grade 3 students in poverty?; (e) What is the difference on the STAAR Reading Category 3: Understanding/Analysis of Informational Texts as a function of school type for Grade 3 students in poverty?; (f) What trend is present over time in the STAAR Reading Level II Academic Performance measures as a function of school type for Grade 3 students in poverty?; and (g) What trend is present in the STAAR Reading Reporting Categories scores as a function of school type for Grade 3 students in poverty? The first five research questions were repeated for the 2012-2013, 2013-2014, 2014-2015, and the 2015-2016 school years whereas the last two research questions were comparisons across these four school years. As such, a total of 22 research questions were present in this empirical investigation.

Method

Research Design

A non-experimental, causal-comparative research design (Creswell, 2014) was used for this study. Archival data were utilized to examine the reading achievement of Grade 3 students who were in poverty and who were enrolled in either charter elementary schools or in traditional elementary schools in the 2012-2013, 2013-2014, 2014-2015, and 2015-2016. The independent variable involved in this research article was school type (i.e., charter or traditional public schools), and the dependent variables were the STAAR Reading Reporting category test scores for Grade 3 students in poverty in the 2012-2013 through the 2015-2016 school years, and the STAAR Reading Phase in performance standards (i.e., Phase-in 1, Phase-in 2, and Phase-in 3). Reading test scores consisted of both the Phase-in Standards and the Reading Reporting categories.

Participants and Instrumentation

For the purpose of this study, archival data for the 2012-2013, 2013-2014, 2014-2015, and 2015-2016 school years on Grade 3 students in poverty in Texas charter and public schools were obtained from the Texas Education Agency. A Public Information Request form was submitted to the Texas Education Agency Public Education Information Management System for these data. The STAAR Reading test scores of students who were in poverty during these school years were the specific variables that were analyzed in this proposed study.

Regarding student economic status, the Texas Education Agency defined students as economically disadvantaged as “coded eligible for free or reduced-price lunch or eligible for other public assistance” (Texas Education Agency, 2015, p.10). The free and

reduced lunch program indicator is frequently used to designate student living in poverty. The Department of Health and Human Services sets the poverty guidelines. In 2017, the poverty line for a household of four in the 48 contiguous (Federal Register, 2017). In this study, the term economically disadvantaged refers to students who are “eligible for free or reduced-price lunch or eligible for other public assistance” (Texas Education Agency, Glossary for the Texas Academic Performance report, 2015, p. 10).

Results

Pearson chi-square procedures were utilized to address the first two research questions. This statistical procedure was considered the most appropriate procedure to use because the independent variable of school type consisted of two groups: charter schools and traditional public schools, and because the dependent variables of the STAAR Phase-in standards consisted of two categories: (a) met standard or (b) did not meet standard. As such, chi-squares were the appropriate statistical procedures because both variables were categorical (Slate & LeBouef, 2011).

For the first research question regarding the STAAR Reading Level II Academic Performance measures (i.e., Phase-in 1, Phase-in 2, and Final Recommended) for Grade 3 students who were living in poverty as a function of school type, only the Phase-in 1 and Final Recommended were in effect from the 2012-2013 to the 2014-2015 school years. Phase-in 2, and Final Recommended were in effect in only the 2015-2016 school year. As such, only the STAAR Reading Level II measures that were in effect in that particular school year were analyzed and reported herein.

Phase-in 1 Results

For the 2012-2013 school year, the Pearson chi-square procedure yielded a statistically significant difference in the Level II Reading Academic Performance Phase-in 1 standard between charter and traditional schools, $\chi^2(1) = 39.00, p < .001$, for Grade 3 students who were living in poverty. The effect size, or Cramer's V, for this result was below small, .01 (Cohen, 1988). Grade 3 students in poverty who were enrolled in traditional elementary schools had a statistically significantly higher pass rate, 3.2 percentage points higher, than did Grade 3 students in poverty who were enrolled in charter elementary schools. Table 3.1 contains the descriptive statistics for this school year.

Insert Table 3.1 about here

Regarding the 2013-2014 school year, a statistically significant difference was present between charter and traditional schools, $\chi^2(1) = 8.40, p = .004$, in the Level II Reading Academic Performance for Grade 3 students who were living in poverty. The effect size for this finding was below small at .01, Cramer's V (Cohen, 1988). Grade 3 students in poverty who were enrolled in traditional elementary schools had 1.4 percentage points higher satisfactory performance on the Phase-in 1 than did Grade 3 students in poverty who were enrolled in charter schools. Revealed in Table 3.1 are the descriptive statistics for the analysis of the Phase-in 1 standard for this school year.

With respect to the 2014-2015 school year, a statistically significant difference was not present in the Level II Reading Academic Performance Phase-in 1 standard

between charter and traditional schools, $\chi^2(1) = 0.69, p = .41$, for Grade 3 students who were living in poverty. Similar passing rates were present on the Level II Reading Phase-in 1 standard in this school year for Grade 3 students in both charter and traditional elementary schools. Delineated in Table 3.1 are the descriptive statistics for the 2014-2015 school year.

Phase-in 2 Results

As discussed previously, the Phase-in 2 standard was in effect for only the 2015-2016 school year. For this school year, the Pearson chi-square procedure yielded a statistically significant difference in the Phase-in 2 standard, $\chi^2(1) = 7.83, p = .005$, between charter and traditional schools for Grade 3 students who were living in poverty. The effect size, or Cramer's V, for this result was below small, .01 (Cohen, 1988). Grade 3 students in poverty who were enrolled in charter elementary schools had a higher pass rate, 1.3 percentage points higher, than did Grade 3 students in poverty who were enrolled in traditional elementary schools. Frequencies and percentages of the Phase-in 2 standard by school type for Grade 3 students who were living in poverty in the 2015-2016 school year are presented in Table 3.2.

 Insert Table 3.2 about here

Final Recommended Results

With respect to the Final Recommended phase for the 2012-2013 school year, a Pearson chi-square procedure yielded a statistically significant difference between charter and traditional schools, $\chi^2(1) = 9.68, p = .002$, Cramer's V = .01, a below small effect

size (Cohen, 1988). Grade 3 students in poverty who were enrolled in traditional elementary schools had a statistically significantly higher passing rate, 1.6 percentage points higher, on the Final Recommended standard than did Grade 3 students in poverty who were enrolled in charter elementary schools. Table 3.3 contains the descriptive statistics for this school year.

 Insert Table 3.3 about here

In the 2013-2014 school year, a statistically significant difference was not present in the Final Recommended phase between charter and traditional schools, $\chi^2(1) = 1.79$, $p = .18$, for Grade 3 students who were living in poverty. Grade 3 students in both charter and traditional schools had a similar performance on the Final Recommended phase in this school year. Revealed in Table 3.3 are the descriptive statistics for this analysis.

Regarding the 2014-2015 school year, a statistically significant difference was present in the Final Recommended phase, $\chi^2(1) = 3.84$, $p = .05$, between charter and traditional schools for Grade 3 students who were living in poverty. The effect size, or Cramer's V, for this result was below small, .004 (Cohen, 1988). Grade 3 students in poverty who were enrolled in charter elementary schools had a statistically significantly higher pass rate, 0.9 percentage points higher, than did Grade 3 students in poverty who were enrolled in traditional elementary schools. Delineated in Table 3.3 are the descriptive statistics for the 2014-2015 school year.

For the 2015-2016 school year, the Pearson chi-square procedure yielded a statistically significant difference in the Final Recommended standard, $\chi^2(1) = 26.76$, $p <$

.001, between charter and traditional elementary schools for Grade 3 students who were living in poverty. The effect size for this finding, Cramer's V, was below small, .01 (Cohen, 1988). Grade 3 students in poverty who were enrolled in charter elementary schools had a 2.3 percentage point higher pass rate than did Grade 3 students in poverty who were enrolled in traditional elementary schools. Table 3.3 contains the descriptive statistics for this school year.

Level III Academic Performance Results

For the second research question regarding the STAAR Reading Level III Academic Performance for Grade 3 students who were living in poverty, the Pearson chi-square procedure did not yield a statistically significant difference in the 2012-2013 school year, $\chi^2(1) = 1.57, p = .21$. Grade 3 students in poverty who were enrolled in either traditional elementary schools or in charter schools performed similarly on the STAAR Reading Level III standard. Table 3.4 contains the descriptive statistics for this school year.

 Insert Table 3.4 about here

Regarding the 2013-2014 school year, a statistically significant difference was not present in the Reading Level III Academic Performance, $\chi^2(1) = 0.19, p = .66$, between charter and traditional elementary schools for Grade 3 students who were living in poverty. Similar to the previous school year, Grade 3 students in poverty who were enrolled in either traditional elementary schools or in charter schools performed similarly

on this STAAR reading standard. Revealed in Table 3.4 are the descriptive statistics for this analysis.

Concerning the 2014-2015 school year, the Pearson chi-square procedure yielded a statistically significant difference in the Level III Academic Performance, $\chi^2(1) = 6.50$, $p = .011$, between charter and traditional schools for Grade 3 students who were living in poverty. The effect size, or Cramer's V, for this result was below small, .01 (Cohen, 1988). Grade 3 students in poverty who were enrolled in charter elementary schools scored 0.8 percentage points higher than did Grade 3 students in poverty who were enrolled in traditional elementary schools. Delineated in Table 3.4 are the descriptive statistics for the 2014-2015 school year.

With regard to the 2015-2016 school year, a statistically significant difference was present in the Level III Academic Performance, $\chi^2(1) = 25.37$, $p < .001$, by school type for Grade 3 students who were living in poverty. The effect size for this finding, Cramer's V, was below small, .01 (Cohen, 1988). Grade 3 students in poverty who were enrolled in charter elementary schools scored 1.7 percentage points higher than did Grade 3 students in poverty who were enrolled in traditional elementary schools. Table 3.4 contains the descriptive statistics for the Level III Academic Performance analysis for the 2015-2016 school year.

Reading Category Results

For the research questions regarding the three reading reporting categories, Multivariate Analysis of Variance (MANOVA) procedures were utilized. Prior to conducting a MANOVA procedure, the underlying assumptions for the normality of the dependent variables (i.e., the STAAR Reading categories) were checked. The

standardized skewness coefficients (i.e., the skewness value divided by its standard error) and the standardized kurtosis coefficients (i.e., the kurtosis value divided by its standard error) were analyzed for normality within ± 3 (Onwuegbuzie & Daniel, 2002).

Additionally, the Box's Test of Equality of Covariance assumption and the Levene's Test of Equality of Error Variances were checked. Although some of the assumptions underlying the MANOVA were not met, the robustness of a MANOVA procedure made it appropriate to use on the data in this study (Field, 2009).

Overview of Reading Category Results

For the 2012-2013 school year, the MANOVA revealed a statistically significant difference, Wilks' $\Lambda = 1.00$, $p < .001$, partial $\eta^2 = .001$, trivial effect size (Cohen, 1988) as a function of school type in the overall reading performance of their Grade 3 students who were living in poverty. Regarding the 2013-2014 school year, the MANOVA yielded a statistically significant difference, Wilks' $\Lambda = 1.00$, $p < .001$, partial $\eta^2 = .000$, trivial effect size (Cohen, 1988) between charter and traditional elementary schools in the overall reading performance of their Grade 3 students who were living in poverty. Concerning the 2014-2015 school year, the MANOVA again revealed a statistically significant difference, Wilks' $\Lambda = 1.00$, $p < .001$, partial $\eta^2 = .000$, trivial effect size (Cohen, 1988) between charter and traditional elementary schools in the overall reading performance of their Grade 3 students who were living in poverty. With regard to the 2015-2016 school year, the MANOVA yielded a statistically significant difference, Wilks' $\Lambda = 1.00$, $p < .001$, partial $\eta^2 = .000$, trivial effect size (Cohen, 1988) between charter and traditional elementary schools in the overall reading performance of their Grade 3 students who were living in poverty. Because a statistically significant

difference was revealed in the overall reading achievement of Grade 3 students in poverty for each school year, univariate analysis of variance procedures were next calculated for each of the three STAAR Reading Categories for each of the four school years.

Reading Category 1 Results

With respect to the 2012-2013 school year, a univariate follow-up analysis of variance procedure did not reveal a statistically significant difference on the STAAR Reading Category 1 scores, $F(1, 201714) = 0.003, p = .96$. The average score on this Reading Category 1 was the same for Grade 3 students in poverty who were enrolled in either traditional elementary schools or in charter schools. Presented in Table 3.5 are the descriptive statistics for this analysis.

 Insert Table 3.5 about here

Concerning the 2013-2014 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference on the STAAR Reading Category 1 scores, $F(1, 205199) = 4.51, p = .034$, partial $\eta^2 = .000$, trivial effect size. The average score on this Reading Category 1 was 0.03 points higher for Grade 3 students in poverty who were enrolled in traditional elementary schools than for Grade 3 students in poverty who were enrolled in charter schools. Delineated in Table 3.5 are the results for this analysis.

Regarding the 2014-2015 school year, a univariate follow-up analysis of variance procedure did not yield a statistically significant difference on the STAAR Reading Category 1 results, $F(1, 203002) = 3.48, p = .06$. The average score on this Reading

Category 1 was similar for Grade 3 students in poverty, regardless of the school type in which they were enrolled. Table 3.5 contains the descriptive statistics for this analysis.

For the 2015-2016 school year, a univariate follow-up analysis of variance procedure did not reveal a statistically significant difference, $F(1, 207311) = 0.499, p = .48$, on the STAAR Reading Category 1 results. Grade 3 students in poverty had similar scores on this reading category regardless of their school type. Revealed in Table 3.5 are the results for this analysis.

Reading Category 2 Results

With respect to the 2012-2013 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference on the STAAR Reading Category 2 scores, $F(1, 201714) = 61.36, p < .001$, partial $\eta^2 = .000$, trivial effect size. The average score on this Reading Category 2 was 0.34 points higher for Grade 3 students in poverty who were enrolled in traditional elementary schools than for Grade 3 students who were enrolled in charter schools. Presented in Table 3.6 are the descriptive statistics for this analysis.

 Insert Table 3.6 about here

Concerning the 2013-2014 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference on the STAAR Reading Category 2 scores, $F(1, 205199) = 4.56, p = .033$, partial $\eta^2 = .000$, trivial effect size. The average score on this Reading Category 2 was 0.08 points higher for Grade 3 students in poverty who were enrolled in charter elementary schools than for Grade 3

students who were enrolled in traditional elementary schools. Table 3.6 contains the descriptive statistics for this analysis.

Regarding the 2014-2015 school year, a univariate follow-up analysis of variance procedure did not yield a statistically significant difference on the STAAR Reading Category 2 results, $F(1, 203002) = 2.49, p = .12$. Grade 3 students in poverty performed similarly on this Reading Category 2 regardless of their school type. Revealed in Table 3.6 are the descriptive statistics for this school year.

For the 2015-2016 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference, $F(1, 207311) = 61.04, p < .001$, partial $\eta^2 = .000$, trivial effect size on the STAAR Reading Category 2 results. The average score on this Reading Category 2 was 0.31 points higher for Grade 3 students in poverty who were enrolled in charter elementary schools than for Grade 3 students in poverty who were enrolled in traditional elementary schools. Presented in Table 3.6 are the results for this analysis.

Reading Category 3 Results

With respect to the 2012-2013 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference on the STAAR Reading Category 3 scores, $F(1, 201714) = 9.35, p = .002$, partial $\eta^2 = .000$, trivial effect size. The average score on this Reading Category 3 was 0.12 points higher for Grade 3 students in poverty who were enrolled in traditional elementary schools than for Grade 3 students in poverty who were enrolled in charter schools. Table 3.7 contains the descriptive statistics for this analysis.

Insert Table 3.7 about here

Concerning the 2013-2014 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference on the STAAR Reading Category 3 scores, $F(1, 205199) = 10.33, p = .001$, partial $\eta^2 = .000$, trivial effect size. The average score on this Reading Category 3 was 0.11 points higher for Grade 3 students in poverty who were enrolled in traditional elementary schools than for Grade 3 students in poverty who were enrolled in charter schools. Delineated in Table 3.7 are the results for this analysis.

Regarding the 2014-2015 school year, a univariate follow-up analysis of variance procedure yielded a statistically significant difference on the STAAR Reading Category 3 results, $F(1, 203002) = 28.08, p < .001$, partial $\eta^2 = .000$, trivial effect size. The average score on this Reading Category 3 was 0.18 points higher for Grade 3 students in poverty who were enrolled in charter elementary schools than for Grade 3 students in poverty who were enrolled in traditional elementary schools. Table 3.7 contains the descriptive statistics for this school year.

For the 2015-2016 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference, $F(1, 207311) = 7.72, p = .005$, partial $\eta^2 = .000$, trivial effect size, on the STAAR Reading Category 3 results. The average score on this Reading Category 3 was 0.10 points higher for Grade 3 students in poverty who were enrolled in charter elementary schools than for Grade 3 students in

poverty who were enrolled in traditional elementary schools. Revealed in Table 3.7 are the results for this analysis.

Reading Performance Trends

With respect to the research question regarding the degree to which trends were present in the STAAR Reading Level II Academic Performance measures as a function of school type for Grade 3 students who were living in poverty, examination of the previously discussed results yielded the presence of trends in student performance. Statistically significant differences were present in six of the eight academic performance measures. Grade 3 students in poverty who were enrolled in traditional elementary schools had higher pass rates in the 2012-2013 and 2013-2014 school years than did Grade 3 students in poverty who were enrolled in charter schools. However, Grade 3 students in poverty who were enrolled in charter schools had higher pass rates in the 2014-2015 and 2015-2016 school years. Readers should note, however, that the differences in pass rates for Grade 3 students between charter and traditional elementary schools were very small, as reflected by the below small effect sizes that were present for each statistically significant result. A summary of the analyses of STAAR Reading Level II Academic Performance measures by school type for Grade 3 students who were living in poverty from the 2012-2013 through the 2015-2016 school year is presented in Table 3.8.

Insert Table 3.8 about here

Concerning whether trends were present in the STAAR Reading Reporting Categories scores as a function of school type for Grade 3 students who were living in poverty, examination of the statistically significant results yielded the presence of trends for all three STAAR Reading Categories. Similar to the trends revealed in the STAAR Reading Level II Academic Performance measures, Grade 3 students in poverty who were enrolled in traditional elementary schools had higher scores on most of the STAAR Reading Categories in the 2012-2013 and 2013-2014 school years than did their peers who were enrolled in traditional elementary schools. In contrast, Grade 3 students in poverty who were enrolled in charter schools had higher scores in all the reading categories in 2014-2015 and 2015-2016 than did Grade 3 students in poverty who were enrolled in traditional elementary schools. Again, readers should note that the differences in the reading test scores were quite small, as reflected by the below small effect sizes that were present for each statistically significant result. A summary of the analyses of STAAR Reading Reporting Categories by school type for Grade 3 students who were living in poverty from the 2012-2013 through the 2015-2016 school year are presented in Table 3.9.

Insert Table 3.9 about here

Discussion

Presented in this investigation was an analysis of data on the reading academic achievement of Grade 3 students who were living in poverty and who were enrolled in either traditional elementary schools or in charter schools in Texas. Four years of

archival data from the Texas Education Agency Public Education Information Management System were obtained and analyzed to determine whether differences were present on the state-mandated Level II Reading Academic Performance measures (i.e., Phase-in 1, Phase-in 2, and Final Recommended), Level III Reading Academic Performance, and STAAR Reading Reporting Categories between charter elementary schools and traditional elementary schools.

For the four school years of data that were analyzed, statistically significant differences were present in six of the eight STAAR Reading Academic Performance measures. Grade 3 students in poverty who were enrolled in traditional elementary schools had higher pass rates in the 2012-2013 and 2013-2014 school years than did their peers enrolled in charter elementary schools. For the 2014-2015 and 2015-2016 school years, however, Grade 3 students in poverty who were enrolled in charter schools had higher pass rates than did Grade 3 students who were enrolled in traditional elementary schools. Readers should note that all of the statistically significant differences were in the below small category. As such, the meaningfulness or practical value of these differences was minimal, at best.

With regard to the STAAR Reading Categories, statistically significant difference was revealed in the overall reading achievement of Grade 3 students in poverty for each school year. Univariate analysis revealed statistically significant differences in most of the reading categories. For Reading Category 1, a statistically significant difference was present in only the 2013-2014 school year. For Reading Category 2, statistically significant differences were present in the 2012-2013, 2013-2014, and 2015-2016 school years. For Reading Category 3, statistically significant differences were present in all

four school years of data analyzed (i.e., 2012-2013, 2013-2014, 2014-2015, and 2015-2016). Again, similar to the reading passing rate analyses, all differences were in the below small effect size range. Accordingly, the differences that were present had little practical relevance or meaningfulness.

Connections with Existing Literature

In the first 2 years of this 4-year statewide investigation, Grade 3 students in poverty who were enrolled in traditional elementary schools had higher reading passing rates on the STAAR Reading Level II Academic Performance measures, and higher reading scores on the STAAR Reading Categories, than did Grade 3 students who were living in poverty enrolled in charter schools. However, the results were reversed in the last 2 years of this study. Charter school Grade 3 students who were living in poverty had better reading performance than did Grade 3 students who were living in poverty enrolled in traditional elementary schools.

Previous researchers (e.g., Penning & Slate, 2011; Raymond, 2016) have analyzed the differences between charter and traditional schools in the academic performance of their students who were living in poverty. The results of this study were consistent with Penning and Slate (2011) wherein charter school students in Texas who were living in poverty did have a higher academic growth than did traditional public students in Texas who were living in poverty. In a previous nationwide investigation, Raymond (2016) reported charter school students who were living in poverty had a higher growth in reading and mathematics than did their peers who were enrolled in traditional public schools.

Implications for Policy and for Practice

Several implications for policy and for practice can be made based upon the results of this multiyear, statewide investigation. First, more research is clearly needed into charter schools. Evidence in this study was not supportive that charter schools were more effective than traditional public schools. Policymakers should be cautious in their promotion of charter schools until such time as empirical evidence exists regarding their efficacy. Legislators are also encouraged to make budget allocation decisions using educational research data. Another implication is that the Texas Education Agency examines the results of this educational research to revise the assessed Texas Essential Knowledge Skills.

Recommendations for Future Research

Several suggestions for future research can be made based upon the results of this multiyear statewide investigation. First, researchers are encouraged to replicate this study in other states and to extend it to other academic content areas (e.g., mathematics, science, social studies, writing). Another recommendation is to examine more years of data and to conduct longitudinal studies in which the same students are followed. A third recommendation would be for researchers to investigate the degree to which academic performance differences might be present between charter and traditional public schools as a function of economically disadvantaged status (i.e., free lunch, reduced lunch, and full-priced lunch).

Given the critical need to reduce academic achievement gaps among subgroups, a fourth recommendation would be for researchers to compare the academic performance between charter and traditional schools as a function of subgroups (e.g., Black students,

Hispanic students, English Language Learners). Another recommendation for future research is to extend this study to private schools which can also serve as vouchers. A final recommendation for future research is to examine the differences in the academic performance of charter and traditional public schools in urban areas with the academic performance of charter and traditional public schools in suburban areas.

Conclusion

The purpose of this study was to ascertain the extent to which differences were present between charter and elementary traditional schools in the reading achievement of their Grade 3 students who were living in poverty. Four school years of archival data from the Texas Education Agency Public Education Information Management System were analyzed. In the first two school years of this study, Grade 3 students in poverty who were enrolled in traditional elementary schools had higher reading passing rate in the STAAR Reading Level II Academic Performance measures (i.e., Phase-in 1, Phase-in 2, and Final Recommended) than did Grade 3 students in poverty who were enrolled in charter elementary schools. However, Grade 3 students in poverty who were enrolled in charter elementary schools had a higher reading pass rate in the last 2 years of this study than did their peers who were enrolled in traditional elementary schools. Similar results were observed in the STAAR Reading Reporting Categories (i.e., Category 1, Category 2, and Category 3). All differences were in the below small effect size range. As such, the differences that were present had little practical relevance or meaningfulness.

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Table 3.1

Frequencies and Percentages of Reading Level II Phase-in 1 Standard by School Type for Grade 3 Students in Poverty in the 2012-2013, 2013-2014, and 2014-2015 School Years

School Year and School Type	Met Standard <i>n</i> and %age of Total	Did Not Meet Standard <i>n</i> and %age of Total
2012-2013		
Charter	5,334 (68.0%)	2,512 (32.0%)
Traditional	138,119 (71.2%)	55,751 (28.8%)
2013-2014		
Charter	6,338 (66.1%)	3,252 (33.9%)
Traditional	132,057 (67.5%)	63,554 (32.5%)
2014-2015		
Charter	7,004 (66.9%)	3,466 (33.1%)
Traditional	128,041 (66.5%)	64,493 (33.5%)

Table 3.2

*Frequencies and Percentages of Reading Level II Phase-in 2 Standard by School Type
for Grade 3 Students in Poverty in the 2015-2016 School Year*

School Type	Met Standard <i>n</i> and %age of Total	Did Not Meet Standard <i>n</i> and %age of Total
Charter	7,270 (64.6%)	3,987 (35.4%)
Traditional	124,055 (63.3%)	72,001 (36.7%)

Table 3.3

Frequencies and Percentages of Reading Level II Final Recommended Standard by School Type for Grade 3 Students in Poverty in the 2012-2013, 2013-2014, 2014-2015, and 2015-2016 School Years

School Year and School Type	Met Standard <i>n</i> and %age of Total	Did Not Meet Standard <i>n</i> and %age of Total
2012-2013		
Charter	2,105 (26.8%)	5,741 (73.2%)
Traditional	55,145 (28.4%)	138,725 (71.6%)
2013-2014		
Charter	2,800 (29.2%)	6,790 (70.8%)
Traditional	58,366 (29.8%)	137,245 (70.2%)
2014-2015		
Charter	2,898 (27.7%)	7,572 (72.3%)
Traditional	51,614 (26.8%)	140,920 (73.2%)
2015-2016		
Charter	3,643 (32.4%)	7,614 (67.6%)
Traditional	58,935 (30.1%)	137,121 (69.9%)

Table 3.4

Frequencies and Percentages of Reading Level III Academic Performance by School Type for Grade 3 Students in Poverty in the 2012-2013, 2013-2014, 2014-2015, and 2015-2016 School Years

School Year and School Type	Met Standard <i>n</i> and %age of Total	Did Not Meet Standard <i>n</i> and %age of Total
2012-2013		
Charter	879 (11.2%)	6,967 (88.8%)
Traditional	22,617 (11.7%)	171,253 (88.3%)
2013-2014		
Charter	897 (9.4%)	8,693 (90.6%)
Traditional	18,560 (9.5%)	177,051 (90.5%)
2014-2015		
Charter	1,351 (12.9%)	9,119 (87.1%)
Traditional	23,237 (12.1%)	169,297 (87.9%)
2015-2016		
Charter	1,827 (16.2%)	9,430 (83.8%)
Traditional	28,440 (14.5%)	167,616 (85.5%)

Table 3.5

Descriptive Statistics for the STAAR Reading Category 1 Scores by School Type for Grade 3 Students in Poverty in the 2012-2013, 2013-2014, 2014-2015, and 2015-2016

School Years

School Year and School Type	<i>n</i>	<i>M</i>	<i>SD</i>
2012-2013			
Charter	7,846	3.75	1.64
Traditional	193,870	3.75	1.62
2013-2014			
Charter	9,590	3.85	1.63
Traditional	195,611	3.88	1.62
2014-2015			
Charter	10,470	3.66	1.63
Traditional	192,534	3.63	1.60
2015-2016			
Charter	11,257	3.74	1.64
Traditional	196,056	3.73	1.63

Table 3.6

Descriptive Statistics for the STAAR Reading Category 2 Scores by School Type for Grade 3 Students in Poverty in the 2012-2013, 2013-2014, 2014-2015, and 2015-2016

School Years

School Year and School Type	<i>n</i>	<i>M</i>	<i>SD</i>
2012-2013			
Charter	7,846	10.20	3.86
Traditional	193,870	10.54	3.74
2013-2014			
Charter	9,590	11.06	3.80
Traditional	195,611	10.98	3.78
2014-2015			
Charter	10,470	10.25	3.94
Traditional	192,534	10.19	3.94
2015-2016			
Charter	11,257	11.25	4.06
Traditional	196,056	10.94	4.06

Table 3.7

Descriptive Statistics for the STAAR Reading Category 3 Scores by School Type for Grade 3 Students in Poverty in the 2012-2013, 2013-2014, 2014-2015, and 2015-2016

School Years

School Year and School Type	<i>n</i>	<i>M</i>	<i>SD</i>
2012-2013			
Charter	7,846	9.40	3.44
Traditional	193,870	9.52	3.34
2013-2014			
Charter	9,590	8.90	3.51
Traditional	195,611	9.01	3.43
2014-2015			
Charter	10,470	9.76	3.45
Traditional	192,534	9.58	3.44
2015-2016			
Charter	11,257	9.12	3.80
Traditional	196,056	9.02	3.70

Table 3.8

Summary of Level II Academic Performance Measures (i.e., Phase-In 1, Phase-In 2, and Final Recommended) by School Type for Grade 3 Students in Poverty in the 2012-2013, 2013-2014, 2014-2015, and 2015-2016 School Years

Performance Measure and School Year	Statistically Significant	Better Performing School
Phase-In 1		
2012-2013	Yes	Traditional
2013-2014	Yes	Traditional
2014-2015	No	Charter
Phase-In 2		
2015-2016	Yes	Charter
Final Recommended		
2012-2013	Yes	Traditional
2013-2014	No	Traditional
2014-2015	Yes	Charter
2015-2016	Yes	Charter

Table 3.9

Summary of STAAR Reading Reporting Categories for Grade 3 Students in Poverty From the 2012-2013 Through the 2015-2016 School Years

Reading Category and School Year	Statistically Significant	Better Performing School
Category 1		
2012-2013	No	None
2013-2014	Yes	Traditional
2014-2015	No	Charter
2015-2016	No	Charter
Category 2		
2012-2013	Yes	Traditional
2013-2014	Yes	Charter
2014-2015	No	Charter
2015-2016	Yes	Charter
Category 3		
2012-2013	Yes	Traditional
2013-2014	Yes	Traditional
2014-2015	Yes	Charter
2015-2016	Yes	Charter

CHAPTER IV

DIFFERENCES IN READING PERFORMANCE BETWEEN ELEMENTARY CHARTER SCHOOLS AND TRADITIONAL PUBLIC SCHOOLS FOR BLACK STUDENTS: A TEXAS STATEWIDE INVESTIGATION

This dissertation follows the style and format of *Research in the Schools (RITS)*.

Abstract

In this multiyear, statewide investigation, the degree to which differences were present between charter elementary schools and traditional elementary schools in the reading achievement of their Grade 3 Black students in Texas was determined. Archival data, obtained from the Texas Education Agency Public Education Information Management System, were analyzed for all Grade 3 Black students who were enrolled in either elementary charter or elementary traditional schools from the 2012-2013 through the 2015-2016 school year. Inferential statistical procedures revealed that Grade 3 Black students who were enrolled in charter elementary schools had better reading performance than did Grade 3 Black students who were enrolled in traditional elementary schools. All results had effect sizes that were below small and were reflective of limited practical relevance. Recommendations for future research and implications are included.

Keywords: Charter schools, Traditional schools, Black, Level I Unsatisfactory Academic Performance, Level II Satisfactory Academic Performance, Level III Advanced Academic Performance, State of Texas Assessment of Academic Readiness

DIFFERENCES IN READING PERFORMANCE BETWEEN ELEMENTARY CHARTER SCHOOLS AND TRADITIONAL PUBLIC SCHOOLS FOR BLACK STUDENTS: A TEXAS STATEWIDE INVESTIGATION

Over the past 5 years, student enrollment in charter schools has increased by 62% (National Alliance for Public Charter Schools, 2015). Texas is one of the states where charter schools have had an accelerated growth (Hanushek et al., 2007). For example, in the 2014-2015 school year, the Houston Independent School District was ranked the seventh school district in the United States with the greatest number of charter school students, 51,400 students compared to 196,190 non-charter students. The Los Angeles Unified School District was top in the list with 151,210 students attending charter schools (National Alliance for Public Charter Schools, 2015).

The accelerated growth of charter schools is accompanied by changes in school demographics. From 1990 to 2010, urban areas had increases in the numbers of their Hispanic and Black students. According to the 2010 census (United States Census Bureau, 2010), the non-White population in the United States increased from 29% to 43%. Charter school ethnic/racial composition has changed over the last 10 years. Numbers of Black students enrolled in open-enrollment charter schools decreased from 36.5% in the 2005-2006 school year, to 19.4% in the 2015-2016 school year, whereas Hispanic student enrollment increased from 44.9% to 58.9% within the same timeframe (Texas Education Agency, 2016a).

Background of the Study

Oliver Brown, parent of a Black child whose access to Topeka's White schools was denied, filed a class action that uncovered the issue of segregation in public schools.

Brown v. Board of Education (1954) is now recognized as one of the greatest Supreme Court decisions of the twentieth century. In 1954, the Supreme Court ruled segregated schools to be unconstitutional and the Civil Right Act of 1964 was created to address this issue. In the also known Coleman Report, two questions lead the discussion: (a) How extensive is racial segregation in schools in the United States? and (b) How does this segregation affect Black students?

Segregation remains, as of today, mostly because of residential segregation patterns (Frankenberg & Siegel-Hawley, 2010). Desegregation involves changes in housing patterns (Rivkin, 2017); yet, school student composition is linked to neighborhood composition. School district boundary lines mark housing patterns that are in part the explanation to school segregation. Despite the racial integration progress obtained over 60 years ago because of *Brown v. Board of Education*, this progress is regressing in some areas, such as the South of the United States, where high concentrations of Black students are present (Frankenberg & Siegel-Hawley, 2010).

Despite an apparent decrease of school segregation, especially in the South, where school segregation decreased from 80% in 1968 to 23% by 1980, school segregation persists in this 21st century. Wilson (2016) indicated school segregation has increased over the last 15 years due to cultural and legal factors. Frankenberg and Siegel-Hawley (2010) suggested the growth of school choice is one of the reasons why segregation remains today. Furthermore, Parker (2012) concluded that, by allowing parents to decide in what schools to enroll their children, charter schools promote segregation. Parker believed parents tend to choose schools where their child's race represents the majority.

Black elementary students attend charter schools with a higher percentage of Black students than the public school they exited (Garcia, 2008).

School segregation is not only marked by the student population demographic characteristics, the racial/ethnic composition of the teachers is also taken into consideration when defining a school as either White or non-White (Parker, 2008). Under the premises of the No Child Left Behind Act (2001), and with the belief that students of color need teachers who mirror their race/ethnicity, some school districts experience teacher segregation. Parker (2008) contended teacher segregation is more notorious in urban districts which have more teachers of color than suburban school districts. Charter schools have a higher percentage of Black teachers than traditional public schools (Escalante & Slate, 2017). Additionally, charter schools have a higher percentage of beginning teachers and teachers with no degree than traditional public schools (Escalante & Slate, 2017). The implications of having inexperienced teachers have been documented by researchers (e.g. Darling-Hammond, 2010) in regard to the negative effects of inexperienced teachers on student academic achievement.

Racially segregated schools limit students of color from having high quality teachers and high quality facilities (Wilson, 2016). Schools with high concentration of students of color tend to provide unequal education opportunities; conversely, desegregated schools increase the academic achievement of Black students (Frankenberg & Siegel-Hawley, 2010). In 2009, the National Assessment of Educational Progress results were that only 12% of Grade 4 Black boys performed at or above proficiency level in reading compared to 38% of White boys. In Grade 8, only 12% of Black male

students performed at or above grade level in mathematics, compared to 44% of White male students (Finkel, 2010).

After the approval of the No Child Left Behind Act (2001), 19 out of the 25 nation's largest school districts with high percentages of students of color experienced a decrease on their graduation rates. In fact, some of these school districts reported a decrease by more than 10% (Finkel, 2010). In 2006, out of the approximately 49 million students who graduated from high school, 56% were White, 17% were Black, and 20% were Hispanic. In the "Yes We can" report, conducted in 2008 by the Schott Foundation, the graduation rate for Black males was less than 50%, 47%, compared to 78% of White males (Finkel, 2010).

Besides facing segregation, Black families have a higher percentage of children living in poverty and are more likely to have an incarcerated parent. In the 2015 United States Census, the Black population was the group with the highest percentage of people living below poverty, 24.1% compared to 9.1% White, and 21.4% Hispanic (U.S. Census Bureau, 2016). Additionally, Black children are more likely to have an incarcerated parent; 7.5 times more likely than White children (Egalite, 2016).

Today, an average Black student is exposed to more White students in public schools than 50 years ago, but less than in 1980. This decrease of Black and White students' interaction is in part due to the changes in the ethnic/racial diversity of students enrolled in public schools. The percentage of White students has declined, and more Hispanic and Asian students have enrolled in public schools (Rivkin, 2017).

Hanushek et al. (2007) noted Black students are more likely to attend charter schools than any other groups. Black students represent 28% of charter school

enrollment compared to 15% on of the student enrollment at non-charter schools (Prothero, 2016). The National Alliance for Public Charter Schools (2015) reported charter schools enrolled 2,686,166 students in 2014, of which 467,709 were Black students. The enrollment of Black students in charter school varies state by state. The highest concentration of Black students in charter schools exists in the northeast of the country and in states such as Louisiana and Tennessee, which were states with statewide turnaround districts.

In the 2015-2016 school year, 631 open-enrollment charter schools existed in Texas that served 247,389 students, 47, 977 were Black. Black student enrollment in charter schools is 19.4% compared to 12.6% in non-charter schools (Texas Education Agency, 2016a). Moreno and Slate (2016) established that charter schools were more likely to have a higher percentage of Black student enrollment at the elementary and middle school level than were non-charter schools. Other researchers (e.g., Frankenberg & Siegel-Hawley, 2011; Ritter et al., 2010) attributed the higher percentage of Black students in charter schools to the geographic placement of charters. More than 50% of charter school students attend schools in the city, compared to 30% of traditional public school students.

Most of the states, Texas included, do not require any diversity or integration regulations to maintain the charter status, but even states with racial/ethnic balancing provisions such as Nevada and South Carolina, still suffer from segregation. Whereas some charter schools have targeted specific ethnic/racial groups, some states have statutory provisions that give preference to charter schools designed to serve students who are disadvantaged (Parker, 2012). These practices not only concentrate charter

schools in areas with large percentages of students of color (Parker, 2012), but may produce harm on the students due to the lack of diversity (Prothero, 2016).

Some Black Civil Rights Organizations such as Black Lives Matters, are requesting for a moratorium on charter schools because they contend that charter schools promote segregation in the way they select and discipline students (Zernike, 2016). These organizations stated feeling discouraged by charter schools' enrollment procedures which are supposed to enroll students using a lottery system, but select the best students from the pool.

Reading Skills

Reading skills are assessed in the State of Texas Assessment of Academic Readiness (STAAR) using three Reporting Categories. In Reporting Category 1, students are expected to demonstrate the ability to understand a variety of texts across genres (i.e., drama, poetry, persuasive, fiction, and literary nonfiction) by understanding new vocabulary. In Reporting Category 2, the students are expected to understand literary texts (i.e., poetry, fiction, literary nonfiction, and media literacy) by asking questions, making inferences, and drawing conclusions. In Reporting Category 3, the students are expected to understand informational texts (i.e., expository and procedural) by providing evidence from text to support their understanding (Texas Education Agency Student Assessment Division, 2011, pp. 2-6).

The academic performance standards on the STAAR tests are stated as Level I for Unsatisfactory performance, Level II for Satisfactory performance, and Level III for an Advanced performance. Level I is a label assigned to students who are not adequately prepared (i.e., lacking fundamental skills) for the next grade level. Level I students are in

need of substantial academic intervention. Level II students are prepared to be successful in the next grade level, with some support or academic interventions. Level III students are expected to succeed in the next grade level without academic interventions (Texas Education Agency, 2016b, Chapter 4, p. 26).

Initially, the STAAR performance standards were set for a 4-year, two-step phase-in process to give school districts time to provide training to their teachers and to do instructional adjustments. However, this plan was extended to a three-step phase-in plan. Phase-in 1 was completed from the 2011-2012 until the 2014-2015 school years. Phase-in 2 is in effect from the 2015-2016 until the 2017-2018 school years. Phase-in 3 will be in effect from 2018-2019 until 2020-2021 school years. At the end of Phase-in 3, the final recommended Level II performance standards will be in effect (Texas Education Agency Student Assessment Division, 2015, pp. 1-7).

Statement of the Problem

Despite the efforts to create a desegregated school system, segregation remains today, in part because of housing patterns and school choice (Frankenberg & Siegel-Hawley, 2010; Parker 2012). Besides facing segregation, Black students are the group with the highest percentage of people living in poverty, 24.1% compared to 9.1% White, and 21.4% Hispanics (U.S. Census Bureau, 2016). Black students are 7.5 times more likely than White children to have an incarcerated parent (Egalite, 2016).

The academic gaps between Black and White students persist. In 2009, as reported in the National Assessment of Educational Progress results 12% of Grade 4 Black boys performed at or above proficiency level in reading compared to 38% of Grade

4 White boys. In Grade 8, 12% of Black male students performed at or above grade level in mathematics, compared to 44% of White males (Finkel, 2010).

Of importance, particularly for this multiyear empirical analysis, Black students are attracted to charter schools (Hanushek, 2007). In Texas, Black student enrollment in charter schools is 19.4% compared to 12.6% Black student enrollment in traditional public schools (Texas Education Agency, 2016a). Charter schools are considered a political success; however, the claims that charter schools produce a better academic performance has not been supported by empirical research investigations (Frankenberg & Siegel-Hawley, 2011).

Purpose of the Study

The purpose of this study was to determine the extent to which differences existed between charter elementary schools and traditional elementary schools in the reading performance of their Grade 3 Black students. The degree to which the school type (i.e., charter school or traditional school) in which Black students were enrolled is related to their reading performance was investigated. Through analyzing four years of Texas statewide data, the extent to which trends were present between charter elementary schools and traditional elementary schools in the reading performance of their Grade 3 Black students was determined.

For the purpose of this study, the reading skills categories were measured according to the State of Texas Assessment of Academic Readiness. In Reporting Category 1, the students are expected to demonstrate the ability to understand a variety of texts; in Reporting Category 2, the students are expected to analyze literary texts; and in Reporting Category 3, the students are expected to analyze informational texts (Texas

Education Agency Student Assessment Division, 2011, pp. 2-6). The STAAR academic performance standards will be examined in this study. Level I represents an Unsatisfactory performance, Level II is Satisfactory performance, and Level III is considered to be Advanced performance. STAAR performance standards have been established on a three-step phase-in plan. Phase-in 1 was completed from the 2011-2012 until the 2014-2015 school years, Phase-in 2 is in effect from the 2015-2016 until the 2017-2018 school years, and Phase-in 3 will be in effect from 2018-2019 until 2020-2021 school years. The final recommended Level II performance standard will be in effect at the end of Phase-in 3.

Significance of the Study

Black students are transferring from traditional public schools to charter schools. In Texas, Black student enrollment is higher in charter schools than in traditional public schools. Some researchers (e.g., Frankenberg & Siegel-Hawley, 2010; Parker, 2012) have contended that this migration of Black students to charter schools is due to their parents seeking for schools where their racial group represents the majority of the student enrollment. Despite the accelerated growth and popularity of charter schools among Black students, minimal studies have been conducted regarding the academic achievement of this type of schools.

Provided by the results of this article was empirical information regarding the reading test scores of Black students who were enrolled in either charter elementary schools or in traditional elementary schools. As such, the efficacy or lack thereof of charter schools in comparison to traditional schools was addressed. Analyses presented

in this study may be helpful to policymakers when deciding to support an educational system that better serves the needs of Black students.

Research Questions

The following overarching research question was addressed in this empirical investigation: What is the difference in the reading performance of Texas Grade 3 Black students as a function of school type (i.e., charter or traditional)? Specific subquestions under this overarching research question were: (a) What is the difference on the STAAR Reading Level II Academic Performance measures (i.e., Phase-in 1, Phase-in 2, and Final Recommended) for Grade 3 Black students as a function of school type?; (b) What is the difference on the STAAR Reading Level III Academic Performance measures for Grade 3 Black students as a function of school type?; (c) What is the difference on the STAAR Reading Category 1: Understanding Across Genres for Grade 3 Black students as a function of school type?; (d) What is the difference on the STAAR Reading Category 2: Understanding/Analysis of Literary Texts for Grade 3 Black students as a function of school type?; (e) What is the difference on the STAAR Reading Category 3: Understanding/Analysis of Informational Texts for Grade 3 Black students as a function of school type?; (f) What trend is present over time in the STAAR Reading Level II Academic Performance measures for Grade 3 Black students as a function of school type?; and (g) What trend is present in the STAAR Reading Reporting Categories scores for Grade 3 Black students as a function of school type? The first five research questions were repeated for the 2012-2013, 2013-2014, 2014-2015, and the 2015-2016 school years whereas the last two research questions were comparisons across these four school years. As such, a total of 22 research questions were present in this empirical investigation.

Method

Research Design

A non-experimental, causal-comparative research design (Creswell, 2014) was used for this study. Archival data were analyzed to examine the reading achievement of Black students who were enrolled in either charter elementary schools or in traditional elementary schools in the 2012-2013, 2013-2014, 2014-2015, or 2015-2016 school years. The independent variable involved in this research article was school type (i.e., charter or traditional public schools), and the dependent variables were the STAAR Reading scores for Grade 3 Black students in the three reading objectives for the 2012-2013 through the 2015-2016 school years, and the phase-in performance standards (i.e., Phase-in 1, Phase-in 2, and Phase-in 3).

Participants and Instrumentation

For the purpose of this study, archival data for the 2012-2013, 2013-2014, 2014-2015, and 2015-2016 school years on Grade 3 Black students in Texas charter and public schools were requested from the Texas Education Agency. A Public Information Request form was submitted to the Texas Education Agency Public Education Information Management System for these data. Specific information analyzed in this study were the STAAR Reading test scores of Grade 3 Black students.

Results

Pearson chi-square procedures were utilized to address the first two research questions. This statistical procedure was considered the most appropriate procedure to use because the independent variable of school type consisted of two groups: charter schools and traditional public schools, and because the dependent variables of the

STAAR Phase-in standards consisted of two categories: (a) met standard or (b) did not meet standard. As such, chi-squares were the appropriate statistical procedures because both variables were categorical (Slate & LeBouef, 2011).

For the first research question regarding the STAAR Reading Level II Academic Performance measures (i.e., Phase-in 1, Phase-in 2, and Final Recommended) for Grade 3 Black students as a function of school type, only the Phase-in 1 and Final Recommended were in effect from the 2012-2013 to the 2014-2015 school years. Phase-in 2, and Final Recommended were in effect in only the 2015-2016 school year. As such, only the STAAR Reading Level II measures that were in effect in that particular school year were analyzed and reported herein.

Phase-in 1 Results

For the 2012-2013 school year, a statistically significant difference was not present in the Level II Reading Academic Performance Phase-in 1 standard between charter and traditional schools, $\chi^2(1) = 0.00, p = .99$, for Grade 3 Black students. The passing rate on this reading standard was the same for Grade 3 Black students who were enrolled in either traditional elementary schools or in charter schools. Table 4.1 contains the descriptive statistics for this school year.

 Insert Table 4.1 about here

Regarding the 2013-2014 school year, a statistically significant difference was present between charter and traditional schools, $\chi^2(1) = 5.68, p = .017$, in the Level II Reading Academic Performance for Grade 3 Black students. The effect size for this

finding was below small at .01, Cramer's V (Cohen, 1988). Grade 3 Black students who were enrolled in charter elementary schools had a higher passing rate, 2.0 percentage points higher, on the Phase-in 1 than did Grade 3 Black students who were enrolled in traditional elementary schools. Revealed in Table 4.1 are the descriptive statistics for the analysis of the Phase-in 1 standard for this school year.

With respect to the 2014-2015 school year, a statistically significant difference was present in the Level II Reading Academic Performance Phase-in 1 standard between charter and traditional schools, $\chi^2(1) = 19.82, p < .001$, for Grade 3 Black students. The effect size for this finding was below small at .02, Cramer's V (Cohen, 1988). Grade 3 Black students who were enrolled in charter elementary schools had 3.7 percentage points higher passing rate on the Level II Reading Phase-in 1 standard than did Grade 3 Black students who were enrolled in traditional elementary schools. Delineated in Table 4.1 are the descriptive statistics for the 2014-2015 school year.

Phase-in 2 Results

As discussed previously, the Phase-in 2 standard was in effect for only the 2015-2016 school year. For this school year, the Pearson chi-square procedure yielded a statistically significant difference in the Phase-in 2 standard, $\chi^2(1) = 13.53, p < .001$, between charter and traditional schools for Grade 3 students who were living in poverty. The effect size, or Cramer's V, for this result was below small, .02 (Cohen, 1988). Grade 3 Black students who were enrolled in charter elementary schools had a higher pass rate, 3.0 percentage points higher, than did Grade 3 Black students who were enrolled in traditional elementary schools. Frequencies and percentages of the Phase-in 2 standard

by school type for Grade 3 Black students in the 2015-2016 school year are presented in Table 4.2.

 Insert Table 4.2 about here

Final Recommended Results

With respect to the Final Recommended phase for the 2012-2013 school year, a statistically significant difference was not present in the Level II Final Recommended phase between charter and traditional schools, $\chi^2(1) = 1.53, p = .22$, for Grade 3 Black students. Grade 3 Black students in both charter schools and in traditional elementary schools had similar passing rates on this reading standard. Table 4.3 contains the descriptive statistics for this school year.

 Insert Table 4.3 about here

In the 2013-2014 school year, the Pearson chi-square procedure yielded a statistically significant difference in the Final Recommended standard, $\chi^2(1) = 12.72, p < .001$, for Grade 3 Black students. The effect size, or Cramer's V, for this result was below small, .02 (Cohen, 1988). Grade 3 Black students who were enrolled in charter elementary schools had a statistically significantly higher pass rate, 2.9 percentage points higher, than did Grade 3 Black students who were enrolled in traditional elementary schools. Revealed in Table 4.3 are the descriptive statistics for this analysis.

Regarding the 2014-2015 school year, a statistically significant difference was present in the Final Recommended phase, $\chi^2(1) = 12.04$, $p = .001$, between charter and traditional schools for Grade 3 Black students. The effect size, or Cramer's V, for this result was below small, .02 (Cohen, 1988). Grade 3 Black students who were enrolled in charter elementary schools had a statistically significantly higher pass rate, 2.6 percentage points higher, than did Grade 3 Black students who were enrolled in traditional elementary schools. Delineated in Table 4.3 are the descriptive statistics for the 2014-2015 school year.

For the 2015-2016 school year, the Pearson chi-square procedure yielded a statistically significant difference in the Final Recommended standard, $\chi^2(1) = 27.39$, $p < .001$, between charter and traditional elementary schools for Grade 3 Black students. The effect size for this finding, Cramer's V, was below small, .02 (Cohen, 1988). Grade 3 Black students who were enrolled in charter elementary schools had a 4.0 percentage point higher pass rate than did Grade 3 Black students who were enrolled in traditional elementary schools. Table 4.3 contains the descriptive statistics for this school year.

Level III Academic Performance Results

For the second research question regarding the STAAR Reading Level III Academic Performance for Grade 3 Black students, the Pearson chi-square procedure did not yield a statistically significant difference in the 2012-2013 school year, $\chi^2(1) = 0.24$, $p = .62$. Grade 3 Black students who were enrolled in either traditional elementary schools or in charter schools had similar passing rates on the STAAR Reading Level III standard. Table 4.4 contains the descriptive statistics for this school year.

Insert Table 4.4 about here

Regarding the 2013-2014 school year, a statistically significant difference was present in the Reading Level III Academic Performance, $\chi^2(1) = 13.56, p < .001$, between charter and traditional elementary schools for Grade 3 Black students. The effect size, or Cramer's V, for this result was below small, .02 (Cohen, 1988). Grade 3 Black students who were enrolled in charter elementary schools had a 1.8 percentage point higher passing rate than did Grade 3 Black students who were enrolled in traditional elementary schools. Revealed in Table 4.4 are the descriptive statistics for this analysis.

Concerning the 2014-2015 school year, the Pearson chi-square procedure yielded a statistically significant difference in the Level III Academic Performance, $\chi^2(1) = 10.09, p = .001$, between charter and traditional schools for Grade 3 Black students. The effect size, or Cramer's V, for this result was below small, .01 (Cohen, 1988). Grade 3 Black students who were enrolled in charter elementary schools had a higher passing rate, 1.7 percentage points higher, than did Grade 3 Black students who were enrolled in traditional elementary schools. Delineated in Table 4.4 are the descriptive statistics for the 2014-2015 school year.

With regard to the 2015-2016 school year, a statistically significant difference was present in the Level III Academic Performance, $\chi^2(1) = 25.52, p < .001$, by school type for Grade 3 Black students. The effect size for this finding, Cramer's V, was below small, .02 (Cohen, 1988). Grade 3 Black students who were enrolled in charter elementary schools had a 2.9 percentage point higher passing rate than did Grade 3 Black

students who were enrolled in traditional elementary schools. Table 4.4 contains the descriptive statistics for the Level III Academic Performance analysis for the 2015-2016 school year.

Reading Category Results

For the research questions regarding the three reading reporting categories, Multivariate Analysis of Variance (MANOVA) procedures were utilized. Prior to conducting a MANOVA procedure, the underlying assumptions for the normality of the dependent variables (i.e., the STAAR Reading categories) were checked. The standardized skewness coefficients (i.e., the skewness value divided by its standard error) and the standardized kurtosis coefficients (i.e., the kurtosis value divided by its standard error) were analyzed for normality within ± 3 (Onwuegbuzie & Daniel, 2002). Additionally, the Box's Test of Equality of Covariance assumption and the Levene's Test of Equality of Error Variances were checked. Although some of the assumptions underlying the MANOVA were not met, the robustness of a MANOVA procedure made it appropriate to use on the data in this study (Field, 2009).

Overview of Reading Category Results

For the 2012-2013 school year, the MANOVA revealed a statistically significant difference, Wilks' $\Lambda = 1.00$, $p < .001$, partial $\eta^2 = .001$, trivial effect size (Cohen, 1988) as a function of school type in the overall reading performance of their Grade 3 Black students. Regarding the 2013-2014 school year, the MANOVA yielded a statistically significant difference, Wilks' $\Lambda = 1.00$, $p < .001$, partial $\eta^2 = .001$, trivial effect size (Cohen, 1988) between charter and traditional elementary schools in the overall reading performance of their Grade 3 Black students. Concerning the 2014-2015 school year, the

MANOVA again revealed a statistically significant difference, Wilks' $\Lambda = 1.00$, $p < .001$, partial $\eta^2 = .001$, trivial effect size (Cohen, 1988) between charter and traditional elementary schools in the overall reading performance of their Grade 3 Black students. With regard to the 2015-2016 school year, the MANOVA yielded a statistically significant difference, Wilks' $\Lambda = 1.00$, $p < .001$, partial $\eta^2 = .001$, trivial effect size (Cohen, 1988) between charter and traditional elementary schools in the overall reading performance of their Grade 3 Black students. Because a statistically significant difference was revealed in the overall reading achievement of Grade 3 Black students for each school year, univariate analysis of variance procedures were next calculated for each of the three STAAR Reading Categories for each of the four school years.

Reading Category 1 Results

With respect to the 2012-2013 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference on the STAAR Reading Category 1 scores, $F(1, 46114) = 13.301$, $p < .001$, partial $\eta^2 = .000$, trivial effect size. The average score on this Reading Category 1 was 0.11 points higher for Grade 3 Black students who were enrolled in charter elementary schools than for Grade 3 Black students who were enrolled in traditional elementary schools. Presented in Table 4.5 are the descriptive statistics for this analysis.

 Insert Table 4.5 about here

Concerning the 2013-2014 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference on the STAAR Reading

Category 1 scores, $F(1, 47284) = 25.80, p < .001$, partial $\eta^2 = .001$, trivial effect size.

The average score on this Reading Category 1 was 0.14 points higher for Grade 3 Black students who were enrolled in charter elementary schools than for Grade 3 Black students who were enrolled in traditional elementary schools. Delineated in Table 4.5 are the results for this analysis.

Regarding the 2014-2015 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference on the STAAR Reading Category 1 results, $F(1, 48137) = 39.70, p < .001$, partial $\eta^2 = .001$, trivial effect size. The average score on this Reading Category 1 was 0.18 points higher for Grade 3 Black students who were enrolled in charter elementary schools than for Grade 3 Black students who were enrolled in traditional elementary schools. Table 4.5 contains the descriptive statistics for this analysis.

For the 2015-2016 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference, $F(1, 49696) = 26.56, p < .001$, partial $\eta^2 = .001$, trivial effect size. The average score on the STAAR Reading Category 1 was 0.15 points higher for Grade 3 Black students who were enrolled in charter schools than for Grade 3 Black students who were enrolled in traditional elementary schools.

Revealed in Table 4.5 are the results for this analysis.

Reading Category 2 Results

With respect to the 2012-2013 school year, a univariate follow-up analysis of variance procedure did not yield a statistically significant difference on the STAAR Reading Category 2 results, $F(1, 46114) = 3.09, p = .079$. Grade 3 Black students in both

charter schools and in traditional elementary schools had similar average scores on this reading category. Presented in Table 4.6 are the descriptive statistics for this analysis.

 Insert Table 4.6 about here

Concerning the 2013-2014 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference on the STAAR Reading Category 2 scores, $F(1, 47284) = 17.90, p < .001$, partial $\eta^2 = .000$, trivial effect size. The average score on this Reading Category 2 was 0.29 points higher for Grade 3 Black students who were enrolled in charter elementary schools than for Grade 3 Black students who were enrolled in traditional elementary schools. Table 4.6 contains the descriptive statistics for this analysis.

Regarding the 2014-2015 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference on the STAAR Reading Category 2 results, $F(1, 48137) = 14.18, p < .001$, partial $\eta^2 = .000$, trivial effect size. The average score on this Reading Category 2 was 0.26 points higher for Grade 3 Black students who were enrolled in charter elementary schools than for Grade 3 Black students who were enrolled in traditional elementary schools. Revealed in Table 4.6 are the descriptive statistics for this school year.

For the 2015-2016 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference, $F(1, 49696) = 22.07, p < .001$, partial $\eta^2 = .000$, trivial effect size on the STAAR Reading Category 2 results. The average score on this Reading Category 2 was 0.32 points higher for Grade 3 Black

students who were enrolled in charter elementary schools than for Grade 3 Black students who were enrolled in traditional elementary schools. Presented in Table 4.6 are the results for this analysis.

Reading Category 3 Results

With respect to the 2012-2013 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference on the STAAR Reading Category 3 scores, $F(1, 46114) = 9.38, p = .002$, partial $\eta^2 = .000$, trivial effect size. The average score on this Reading Category 3 was 0.19 points higher for Grade 3 Black students who were enrolled in charter elementary schools than for Grade 3 Black students who were enrolled in traditional elementary schools. Table 4.7 contains the descriptive statistics for this analysis.

 Insert Table 4.7 about here

Concerning the 2013-2014 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference on the STAAR Reading Category 3 scores, $F(1, 47284) = 7.40, p = .007$, partial $\eta^2 = .000$, trivial effect size. The average score on this Reading Category 3 was 0.17 points higher for Grade 3 Black students who were enrolled in charter elementary schools than for Grade 3 Black students who were enrolled in traditional elementary schools. Delineated in Table 4.7 are the results for this analysis.

Regarding the 2014-2015 school year, a univariate follow-up analysis of variance procedure yielded a statistically significant difference on the STAAR Reading Category 3

results, $F(1, 48137) = 28.39, p < .001$, partial $\eta^2 = .001$, trivial effect size. The average score on this Reading Category 3 was 0.32 points higher for Grade 3 Black students who were enrolled in charter elementary schools than for Grade 3 Black students who were enrolled in traditional elementary schools. Table 4.7 contains the descriptive statistics for this school year.

For the 2015-2016 school year, a univariate follow-up analysis of variance procedure revealed a statistically significant difference, $F(1, 49696) = 30.34, p < .001$, partial $\eta^2 = .001$, trivial effect size, on the STAAR Reading Category 3 results. The average score on this Reading Category 3 was 0.36 points higher for Grade 3 Black students who were enrolled in charter elementary schools than for Grade 3 Black students who were enrolled in traditional elementary schools. Revealed in Table 4.7 are the results for this analysis.

Reading Performance Trends

With respect to the research question regarding the degree to which trends were present in the STAAR Reading Level II Academic Performance measures as a function of school type for Grade 3 Black students, examination of the previously discussed results yielded the presence of trends in student performance. Statistically significant differences were present in six of the eight academic performance measures. Grade 3 Black students who were enrolled in charter elementary schools had higher pass rates in most of the Reading Academic Performance measures (i.e., Phase-in 1, Phase-in 2, and Final Recommended) than did Grade 3 Black students who were enrolled in traditional elementary schools. Readers should note that these statistically significant differences all had below small effect sizes. As such, these below small effect sizes are reflective that

the differences that were present were extremely small, lacked practical relevance, and were due primarily to the very large sample size that was present. A summary of the analyses of STAAR Reading Level II Academic Performance measures by school type for Grade 3 Black students from the 2012-2013 through the 2015-2016 school year is presented in Table 4.8.

Insert Table 4.8 about here

Concerning whether trends were present in the STAAR Reading Reporting Categories scores as a function of school type for Grade 3 Black students, examination of the statistically significant results yielded the presence of trends for all three STAAR Reading Categories. Grade 3 Black students who were enrolled in charter elementary schools had higher scores on all the STAAR Reading Categories, except on Reading Category 2 in the 2012-2013 school year, than did their peers who were enrolled in traditional elementary schools. Readers should note that these statistically significant differences all had below small effect sizes. As such, these below small effect sizes are reflective that the differences that were present were extremely small, lacked practical relevance, and were due primarily to the very large sample size that was present. A summary of the analyses of STAAR Reading Reporting Categories by school type for Grade 3 Black students from the 2012-2013 through the 2015-2016 school year are presented in Table 4.9.

Insert Table 4.9 about here

Discussion

In this investigation, the degree to which differences were present between charter elementary schools and traditional elementary schools in the reading achievement of their Grade 3 Black students in Texas was examined. Four years of archival data from the Texas Education Agency Public Education Information Management System were obtained and analyzed. For the four school years of data that were analyzed, statistically significant differences were present in six of the eight STAAR Level II Reading Academic Performance measures (i.e., Phase-in 1, Phase-in 2, and Final Recommended), and in 11 of the 12 STAAR Reading Categories (i.e., Category 1, Category 2, and Category 3). Grade 3 Black students who were enrolled in Charter elementary schools had higher reading passing rates and higher average scores on the Reading Categories than did Grade 3 Black students who were enrolled in traditional elementary schools. All differences were in the below small effect size range. Accordingly, the differences that were present had little practical relevance or meaningfulness.

Connections with Existing Literature

Several researchers (Hanushek et al., 2007; Prothero, 2016), have previously reported on increases in Black student enrollment in charter schools. In this multiyear, statewide investigation, Grade 3 Black student enrollment increased by 20% in charter schools from the 2012-2013 to the 2015-2016 school years. In contrast, traditional public schools had only a 7% increase in their Grade 3 Black student enrollment during the

same period. These results were consistent with Prothero (2016) who reported Black students constituted 28% of charter school enrollment compared to 15% at non-charter schools. The results were also consistent with Hanushek (2007) who stated Black students were more likely to attend charter schools than any other groups. As previously noted, no published empirical literature was located regarding differences between charter elementary schools and traditional elementary schools in the academic performance of their Black students in Texas.

Implications for Policy and for Practice

In this study, Grade 3 Black students who were enrolled in charter elementary schools had higher reading passing rates than did Grade 3 Black students who were enrolled in traditional elementary schools. The results were similar on the STAAR Reading Categories, Grade 3 Black students who were enrolled in charter schools had higher average scores than did their peers who were enrolled in traditional schools. Readers should keep in mind, as previously noted, that all of the effect sizes for the statistically significant differences were below small or trivial. Accordingly, the differences that were revealed may be attributed primarily to the very large sample size that was present.

Based upon the results of this multiyear, statewide investigation, several implications for policy and for practice can be made. First, more research investigations are needed into the academic performance of Black students who are enrolled in charter schools. Policymakers and legislators need to promote more educational research in which charter schools and traditional public schools are compared to determine the academic performance of their Black students. Another implication would be for

legislators to create guidelines for the enrollment of Black students in charter schools to avoid segregation. According to the Texas Education Agency (2016a), Black student enrollment in charter schools is 19.4% compared to 12.6% in non-charter schools.

Frankenberg and Siegel-Hawley (2011) attributed the higher percentage of Black students in charter schools to the geographic placement of charter schools. Frankenberg and Siegel (2011) reported that more than 50% of charter school students attend schools in the city, compared to 30% of traditional public school students. As such, more efforts are needed from state and city leaders to reconfigure school zones to prevent racial disproportionality. Another implication would be for educational leaders to establish guidelines regarding teacher diversity in charter schools. As reported by Escalante and Slate (2017), charter schools have a higher percentage of Black teachers than traditional public schools. By implementing staff diversity guidelines, school districts would be promoting desegregation.

Recommendations for Future Research

Based upon the results of this multiyear, statewide investigation, several suggestions for future research can be made. First, researchers are encouraged to expand this study to other groups of students(e.g., Hispanic students, English Language Learners, students living in poverty). Another recommendations is to replicate this study in other states. Researchers are also encouraged to conduct further studies including other content areas (e.g., mathematics, writing, science, social studies). A fourth recommendation would be to analyze differences in the student academic performance of charter and traditional public schools in other grade levels (i.e., intermediate, middle, and high school). Because this investigation was based on data from all the charter schools in

Texas, it is recommended to conduct studies based on the different types of charter schools (e.g., Campus Program Charters, Open Enrollment Charters, University or Junior College Charters).

Conclusion

The purpose of this investigation was to determine the extent to which differences were present in the reading achievement of Grade 3 Black students in Texas who were enrolled in either a charter or a traditional elementary school. Four school years of archival data from the Texas Education Agency Public Education Information Management System were analyzed. Grade 3 Black students who were enrolled in charter schools had higher reading passing rate in the STAAR Reading test, and higher average scores in the STAAR Reading Categories than did Grade 3 Black students who were enrolled in traditional elementary schools. All the statistically significant differences were in the below small and trivial range. These effect sizes are reflective of the large sample sizes included in this study. As such, only minimal differences were present in the actual reading performance of Grade Black 3 students in these two school types.

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Table 4.1

*Frequencies and Percentages of Reading Level II Phase-in 1 Standard by School Type
for Grade 3 Black Students in the 2012-2013, 2013-2014, and 2014-2015 School Years*

School Year and School Type	Met Standard <i>n</i> and %age of Total	Did Not Meet Standard <i>n</i> and %age of Total
2012-2013		
Charter	2,232 (69.0%)	1,001 (31.0%)
Traditional	29,602 (69.0%)	13,281 (31.0%)
2013-2014		
Charter	2,246 (64.8%)	1,218 (35.2%)
Traditional	27,523 (62.8%)	16,299 (37.2%)
2014-2015		
Charter	2,517 (67.0%)	1,241 (33.0%)
Traditional	28,110 (63.3%)	16,271 (36.7%)

Table 4.2

*Frequencies and Percentages of Reading Level II Phase-in 2 Standard by School Type
for Grade 3 Black Students in the 2015-2016 School Year*

School Type	Met Standard <i>n</i> and %age of Total	Did Not Meet Standard <i>n</i> and %age of Total
Charter	2,398 (62.6%)	1,433 (37.4%)
Traditional	27,319 (59.6%)	18,548 (40.4%)

Table 4.3

Frequencies and Percentages of Reading Level II Final Recommended Standard by School Type for Grade 3 Black Students in the 2012-2013, 2013-2014, 2014-2015, and 2015-2016 School Years

School Year and School Type	Met Standard <i>n</i> and %age of Total	Did Not Meet Standard <i>n</i> and %age of Total
2012-2013		
Charter	899 (27.8%)	2,334 (72.2%)
Traditional	11,496 (26.8%)	31,387 (73.2%)
2013-2014		
Charter	1,048 (30.3%)	2,416 (69.7%)
Traditional	12,024 (27.4%)	31,798 (72.6%)
2014-2015		
Charter	1,062 (28.3%)	2,696 (71.7%)
Traditional	11,396 (25.7%)	32,985 (74.3%)
2015-2016		
Charter	1,226 (32.0%)	2,605 (68.0%)
Traditional	12,859 (28.0%)	33,008 (72.0%)

Table 4.4

Frequencies and Percentages of Reading Level III Academic Performance by School Type for Grade 3 Black Students in the 2012-2013, 2013-2014, 2014-2015, and 2015-2016 School Years

School Year and School Type	Met Standard <i>n</i> and %age of Total	Did Not Meet Standard <i>n</i> and %age of Total
2012-2013		
Charter	358 (11.1%)	2,875 (88.9%)
Traditional	4,629 (10.8%)	38,254 (89.2%)
2013-2014		
Charter	347 (10.0%)	3,117 (90.0%)
Traditional	3,602 (8.2%)	40,220 (91.8%)
2014-2015		
Charter	501 (13.3%)	3,257 (86.7%)
Traditional	5,146 (11.6%)	39,235 (88.4%)
2015-2016		
Charter	629 (16.4%)	3,202 (83.6%)
Traditional	6,190 (13.5%)	39,677 (86.5%)

Table 4.5

Descriptive Statistics for the STAAR Reading Category 1 Scores by School Type for Grade 3 Black Students in the 2012-2013, 2013-2014, 2014-2015, and 2015-2016 School Years

School Year and School Type	<i>n</i>	<i>M</i>	<i>SD</i>
2012-2013			
Charter	3,233	3.86	1.63
Traditional	42,883	3.75	1.66
2013-2014			
Charter	3,464	3.93	1.65
Traditional	43,822	3.79	1.66
2014-2015			
Charter	3,758	3.77	1.66
Traditional	44,381	3.59	1.67
2015-2016			
Charter	3,831	3.83	1.66
Traditional	45,867	3.68	1.67

Table 4.6

Descriptive Statistics for the STAAR Reading Category 2 Scores by School Type for Grade 3 Black Students in the 2012-2013, 2013-2014, 2014-2015, and 2015-2016 School Years

School Year and School Type	<i>n</i>	<i>M</i>	<i>SD</i>
2012-2013			
Charter	3,233	10.19	3.87
Traditional	42,883	10.31	3.81
2013-2014			
Charter	3,464	11.10	3.86
Traditional	43,822	10.81	3.88
2014-2015			
Charter	3,758	10.23	3.96
Traditional	44,381	9.97	4.03
2015-2016			
Charter	3,831	11.05	4.09
Traditional	45,867	10.73	4.12

Table 4.7

Descriptive Statistics for the STAAR Reading Category 3 Scores by School Type for Grade 3 Black Students in the 2012-2013, 2013-2014, 2014-2015, and 2015-2016 School Years

School Year and School Type	<i>n</i>	<i>M</i>	<i>SD</i>
2012-2013			
Charter	3,233	9.47	3.46
Traditional	42,883	9.28	3.39
2013-2014			
Charter	3,464	8.71	3.61
Traditional	43,822	8.54	3.54
2014-2015			
Charter	3,758	9.65	3.49
Traditional	44,381	9.33	3.54
2015-2016			
Charter	3,831	8.96	3.91
Traditional	45,867	8.60	3.83

Table 4.8

Summary of Level II Academic Performance Measures (i.e., Phase-In 1, Phase-In 2, and Final Recommended) by School Type for Grade 3 Black Students in the 2012-2013, 2013-2014, 2014-2015, and 2015-2016 School Years

Performance Measure and School Year	Statistically Significant	Effect Size Range	Better Performing School
Phase-In 1			
2012-2013	No	Below Small	Same
2013-2014	Yes	Below Small	Charter
2014-2015	Yes	Below Small	Charter
Phase-In 2			
2015-2016	Yes	Below Small	Charter
Final Recommended			
2012-2013	No	Below Small	Charter
2013-2014	Yes	Below Small	Charter
2014-2015	Yes	Below Small	Charter
2015-2016	Yes	Below Small	Charter

Table 4.9

Summary of STAAR Reading Reporting Categories for Grade 3 Black Students From the 2012-2013 Through the 2015-2016 School Year

Reading Category and School Year	Statistically Significant	Effect Size Range	Better Performing School
Category 1			
2012-2013	Yes	Trivial	Charter
2013-2014	Yes	Trivial	Charter
2014-2015	Yes	Trivial	Charter
2015-2016	Yes	Trivial	Charter
Category 2			
2012-2013	No	Trivial	Traditional
2013-2014	Yes	Trivial	Charter
2014-2015	Yes	Trivial	Charter
2015-2016	Yes	Trivial	Charter
Category 3			
2012-2013	Yes	Trivial	Charter
2013-2014	Yes	Trivial	Charter
2014-2015	Yes	Trivial	Charter
2015-2016	Yes	Trivial	Charter

CHAPTER V

DISCUSSION

The purpose of this journal-ready dissertation was to determine the degree to which differences were present in the reading achievement of Grade 3 students between charter elementary schools and traditional elementary schools. In the first journal article, the extent to which the reading achievement of Grade 3 students differed between charter elementary schools and traditional elementary schools was addressed. In the second study, the degree to which differences existed between charter elementary schools and traditional elementary schools in the reading achievement of their Grade 3 students who were in poverty was determined. Finally, in the third article, the extent to which differences were present between charter elementary schools and traditional elementary schools in the reading achievement of their Grade 3 Black students was ascertained. In each of these three journal-ready articles, four years of Texas statewide data were obtained and analyzed. As such, readers were provided with an empirical comparison of student reading performance in charter elementary schools and in traditional elementary schools. Results and summaries of each article are provided in this chapter. Implications for policy and practice are also included. Finally, recommendations for future research are given.

Summary of Study One Results

In the first study, the extent to which differences were present in the reading achievement of Texas Grade 3 students by school type (i.e., charter elementary schools and traditional elementary schools) was addressed. Four years of archival data from the Texas Education Agency Public Education Information Management System were

obtained and analyzed for the 2012-2013 through the 2015-2016 school years.

Statistically significant differences were present in all four school years. Grade 3 students who were enrolled in traditional elementary schools had higher passing rates on the state-mandated Level II Reading Academic Performance measures (i.e., Phase-in 1, Phase-in 2, and Final Recommended), and Level III Reading Academic Performance than did Grade 3 students who were enrolled in charter schools.

These results were similar on the STAAR Reading Categories (i.e., Category 1, Category 2, and Category 3) between charter elementary schools and traditional elementary schools. Inferential statistical procedures yielded the presence of statistically significant differences in all four school years of data analyzed (i.e., 2012-2013, 2013-2014, 2014-2015, and 2015-2016). Grade 3 students who were enrolled in traditional elementary schools had statistically significantly higher reading test scores than did their Grade 3 peers who were enrolled in charter elementary schools. Table 5.1 contains a summary of the results for the differences in the reading achievement of Texas Grade 3 students by school type (i.e., charter elementary schools and traditional elementary schools) across all four school years analyzed in this study.

Table 5.1

Summary of Results for the Differences in the Reading Performance of Grade 3 Students in Texas by School Type

School Year	Level II Academic Performance	Reading Category 1	Reading Category 2	Reading Category 3
2012-2013	Traditional	Traditional	Traditional	Traditional
2013-2014	Traditional	Traditional	Traditional	Traditional
2014-2015	Traditional	Traditional	Traditional	Traditional
2015-2016	Traditional	Traditional	Traditional	Traditional

Summary of Study Two Results

Presented in the second investigation was the degree to which differences were present in the reading academic achievement of Grade 3 students who were living in poverty and who were enrolled in either traditional elementary schools or in charter schools in Texas. Four years of archival data from the Texas Education Agency Public Education Information Management System were obtained and analyzed to determine whether differences were present on the state-mandated Level II Reading Academic Performance measures (i.e., Phase-in 1, Phase-in 2, and Final Recommended), Level III Reading Academic Performance, and STAAR Reading Reporting Categories between charter elementary schools and traditional elementary schools.

For the four school years of data that were analyzed, statistically significant differences were present in six of the eight STAAR Reading Academic Performance measures. Grade 3 students who were living in poverty and who were enrolled in

traditional elementary schools had higher passing rates in the 2012-2013 and 2013-2014 school years than did their peers enrolled in charter elementary schools. For the 2014-2015 and 2015-2016 school years, however, Grade 3 students who were living in poverty and who were enrolled in charter schools had higher passing rates than did Grade 3 students in poverty who were enrolled in traditional elementary schools. Readers should note that all of the statistically significant differences were in the below small category. As such, the meaningfulness or practical value of these differences was minimal, at best.

With regard to the STAAR Reading Categories, statistically significant difference was revealed in the overall reading achievement of Grade 3 students in poverty for each school year. Univariate analysis revealed statistically significant differences in most of the reading categories. For Reading Category 1, a statistically significant difference was present in only the 2013-2014 school year. For Reading Category 2, statistically significant differences were present in the 2012-2013, 2013-2014, and 2015-2016 school years. For Reading Category 3, statistically significant differences were present in all four school years of data analyzed (i.e., 2012-2013, 2013-2014, 2014-2015, and 2015-2016). Again, similar to the reading passing rate analyses, all differences were in the below small effect size range. Accordingly, the differences that were present had little practical relevance or meaningfulness. Delineated in Table 5.2 is a summary of the results for the differences between charter and traditional elementary schools of the reading performance of their Grade 3 students who were living in poverty.

Table 5.2

Summary of Results for the Differences in the Reading Performance of Grade 3 Students in Poverty in Texas by School Type

School Year	Level II Academic Performance	Reading Category 1	Reading Category 2	Reading Category 3
2012-2013	Traditional	Same	Traditional	Traditional
2013-2014	Traditional	Traditional	Charter	Traditional
2014-2015	Charter	Charter	Charter	Charter
2015-2016	Charter	Charter	Charter	Charter

Summary of Study Three Results

Analyzed in this third investigation was the degree to which differences were present between charter elementary schools and traditional elementary schools in the reading achievement of their Grade 3 Black students in Texas. Four years of archival data from the Texas Education Agency Public Education Information Management System were obtained and analyzed. For the four school years of data that were analyzed, statistically significant differences were present in six of the eight STAAR Level II Reading Academic Performance measures (i.e., Phase-in 1, Phase-in 2, and Final Recommended), and in 11 of the 12 STAAR Reading Categories (i.e., Category 1, Category 2, and Category 3). Grade 3 Black students who were enrolled in Charter elementary schools had higher reading passing rates and higher average scores on the Reading Categories than did Grade 3 Black students who were enrolled in traditional elementary schools. All differences were in the below small effect size range.

Accordingly, the differences that were present had little practical relevance or meaningfulness. Readers are directed to Table 5.3 for a summary of the results for the differences in the reading performance of Grade 3 Black students by school type.

Table 5.3

Summary of Results for the Differences in the Reading Performance of Grade 3 Black Students in Texas by School Type

School Year	Level II Academic Performance	Reading Category 1	Reading Category 2	Reading Category 3
2012-2013	Charter	Charter	Traditional	Charter
2013-2014	Charter	Charter	Charter	Charter
2014-2015	Charter	Charter	Charter	Charter
2015-2016	Charter	Charter	Charter	Charter

Summary of Results

Across the three statewide investigations conducted in this journal-ready dissertation, statistically significant differences were present in 100% of the results in the first article, in 70% of the results in the second article, and in 85% of the results in the third article. All the effect sizes for the STAAR Reading Level II Academic Performance measures (i.e., Phase-in 1, Phase-in 2, and Final Recommended) and STAAR Reading Level III were below small whereas all of the effect sizes were in the trivial range for the STAAR Reading Categories (i.e., Category 1, Category 2, and Category 3). An analysis of four school years of archival data obtained from the Texas Education Agency Public Education Information Management System revealed Grade 3 students in Texas who

were enrolled in traditional elementary schools had better reading performance than did Grade 3 students who were enrolled in charter elementary schools. However, charter school Grade 3 students who were living in poverty had higher reading passing rates and higher reading average scores during the last two years of this study than did traditional elementary Grade 3 students who were living in poverty. Similarly, Grade 3 Black students who were enrolled in charter schools had higher passing rates in reading and higher reading scores than did Grade 3 Black students who were enrolled in traditional elementary schools in all four school years of this investigation. Readers should note that all of the statistically significant differences were in the below small effect size range. Therefore, the value of these differences was minimal.

Connections with Existing Literature

The results of this multiyear statewide investigation were consistent with the results of previous researchers (Escalante & Slate, 2017; Hanushek et al., 2007; Penning & Slate, 2011; Prothero, 2016; Raymond, 2016) regarding differences in the academic performances between charters and traditional public schools. In this research study, Grade 3 students who were enrolled in traditional elementary schools had higher passing rates on the STAAR Reading Level II Academic Performance measures (i.e., Phase-in 1, Phase-in 2, and Final Satisfactory) and higher average reading scores on each STAAR Reading Category (i.e., Category 1, Category 2, and Category 3) than did Grade 3 students who were enrolled in charter schools. These results were consistent with Escalante and Slate (2017) wherein Grade 3 students who were enrolled in traditional public schools had statistically significantly higher reading scores than did Grade 3 students who were enrolled in charter schools. Similarly, Penning and Slate (2011)

documented that students who were enrolled in charter schools were not performing better than students who were enrolled in traditional public schools.

In the first 2 years of this 4-year statewide investigation, Grade 3 students in poverty who were enrolled in traditional elementary schools had higher reading passing rates on the STAAR Reading Level II Academic Performance measures and on the STAAR Reading Categories than did Grade 3 students in poverty who were enrolled in charter schools. However, students who were enrolled in charter schools had higher reading passing rates on this same areas in the last 2 years of this study. These findings were congruent with the results of Penning and Slate (2011) wherein Texas charter school students who were living in poverty had a higher academic growth than did students who were living in poverty enrolled in Texas traditional public schools. Furthermore, in a previous nationwide investigation, Raymond (2016) documented that charter school students who were living in poverty had a higher growth in reading and mathematics than did their peers who were enrolled in traditional public schools.

Regarding the increase of Black students in charter schools, results of this journal-ready dissertation were in agreement with Prothero (2016) who reported Black student enrollment was higher in charter schools than in traditional public schools. Prothero (2016) determined that Black students constituted 28% of charter school enrollment compared to 15% at non-charter schools. In this multiyear, Texas statewide investigation, Grade 3 Black student enrollment increased by 20% in charter schools from the 2012-2013 to the 2015-2016 school years. These results were also commensurate with Hanushek (2007) who contended that Black students were more likely to attend charter schools than any other student group.

Implications for Policy and for Practice

Charter schools are being strongly recommended on a political basis. Within the last 10 years, charter schools have grown tremendously in Texas, approximately 250% (Texas Education Agency, 2016b). Policymakers should be encouraged to examine the results of these studies as no evidence was provided to justify the political push for them. Another implication for policy and for practice that can be made based upon the results of this journal-ready dissertation is for educational leaders to focus their efforts in conducting more educational research in regard to the efficacy of charter schools. Policymakers should analyze the results of these educational research studies before making decisions regarding academic and financial support to these school systems. Charter schools are exempt from some regulations imposed to traditional public schools. As such, it is recommended that the Texas Education Agency revise the requirements, policies, and procedures followed by charter and traditional public schools based on academic results.

At the time of this investigation, no published empirical literature was located regarding differences between charter elementary schools and traditional elementary schools in the academic performance of their Black students in Texas. Educational leaders are encouraged to conduct more research regarding the academic performance of Black students who are enrolled in charters and traditional public schools. Another implication would be for legislators to create guidelines regarding the enrollment of Black students in charter schools to avoid segregation. These desegregation efforts need to be extended to charter schools staff. Recruitment standards need to be implemented to ensure diversity in charter schools. Given the fact that the high percentage of Black

students in charter schools is attributed to the geographic placement of this type of schools (Frankenberg & Siegel-Hawley, 2011), more efforts are needed from state representatives and city leaders to reconfigure school zones that prevent racial/ethnic disproportionality.

Recommendations for Future Research

Based upon the results of the three studies in this journal-ready dissertation, several recommendations for future research can be made. First, given the higher reading scores of Grade 3 students who were enrolled in traditional elementary schools revealed in this investigation, researchers are encouraged to extend this study to other content areas (e.g., mathematics, writing, science, social studies). Additionally, further research encompassing other grade levels, from elementary to high school, is strongly recommended.

In this multiyear statewide investigation, the reading performance of Grade 3 students who were living in poverty was examined. Researchers are encouraged to extend this investigation, analyzing the degree to which academic performance differences might be present between charter and traditional public schools as a function of economical status (i.e., free lunch, reduced lunch, and full-priced lunch). Due to the critical need to reduce academic achievement gaps among subgroups, another recommendation would be for researchers to compare the academic performance between charter and traditional schools as a function of additional subgroups (e.g., English Language Learners, Hispanic students).

This investigation was delimited to charter and traditional public schools in Texas. It is strongly recommended to replicate this study into other states to determine

whether differences are present in the academic performance between charters and noncharters. Of great interest would be an analysis of data as a function of charter school types (e.g., Campus Program Charters, Open Enrollment Charters, University or Junior College Charters). Researchers might also choose to examine more years of data and to conduct longitudinal studies in which the same students are followed. Research studies should be extended to private schools. A final recommendation for future research is to investigate the differences in the academic performance of charter schools located in urban and suburban areas.

Conclusion

The purpose of this journal-ready dissertation was to determine the extent to which differences were present in the reading achievement of Grade 3 students, Grade 3 students who were living in poverty, and Grade 3 Black students in Texas as a function of school type (i.e., charter schools and traditional public schools). Four school years of archival data from the Texas Education Agency Public Education Information Management System were analyzed. Results of this study were that Grade 3 students who were enrolled in traditional elementary schools had better reading performance than did Grade 3 students who were enrolled in charter schools. For Grade 3 students who were living in poverty, charter schools had better reading scores the last 2 years of this study. For Grade 3 Black students, charter schools had higher passing rates than did Grade 3 Black students who were enrolled in traditional elementary schools. All the statistically significant differences had below small effect sizes. As such, minimal differences were present in the actual reading performance of Grade 3 students who were either enrolled in charter schools or in traditional elementary schools. Readers should

note that no empirical evidence was provided to justify the strong political pressure for charter schools.

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APPENDIX



Institutional Review Board
 Office of Research and Sponsored Programs
 903 Bowers Blvd, Huntsville, TX 77341-2448
 Phone: 936.294.4875
 Fax: 936.294.3622
irb@shsu.edu
www.shsu.edu/~rgs_www/irb/

DATE: June 30, 2017

TO: Martha Escalante [Faculty Sponsor: Dr. George Moore]

FROM: Sam Houston State University (SHSU) IRB

PROJECT TITLE: *Differences in Reading Performance Between Elementary Charter Schools and Traditional Public Schools: A Texas Statewide, Multiyear Investigation [T/D]*

PROTOCOL #: 2017-06-35409

SUBMISSION TYPE: INITIAL REVIEW

ACTION: DETERMINATION OF EXEMPT STATUS

DECISION DATE: June 30, 2017

REVIEW CATEGORY: Category 4—research involving existing, publicly available data usually has little, if any, associated risk, particularly if subject identifiers are removed from the data or specimens.

Thank you for your submission of Initial Review materials for this project. The Sam Houston State University (SHSU) IRB has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will retain a copy of this correspondence within our records.

*** What should investigators do when considering changes to an exempt study that could make it nonexempt?**

It is the PI's responsibility to consult with the IRB whenever questions arise about whether planned changes to an exempt study might make that study nonexempt human subjects research. In this case, please make available sufficient information to the IRB so it can make a correct determination.

If you have any questions, please contact the IRB Office at 936-294-4875 or irb@shsu.edu. Please include your project title and protocol number in all correspondence with this committee.

Sincerely,

Donna Desforjes
 IRB Chair, PHSC

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Sam Houston State University IRB's records

VITA

MARTHA L. ESCALANTE

EDUCATIONAL HISTORY

Doctorate of Education – Educational Leadership, December 2017

Sam Houston State University, Huntsville, TX

Dissertation: Differences in Reading Performance Between Elementary Charter Schools and Traditional Public Schools: A Texas Statewide, Multiyear Investigation

Master of Arts- Instructional Leadership, December 2008

Sam Houston State University, Huntsville, TX

Bachelor of Science – Communications, May 1984

Universidad Autonoma de Nuevo Leon, Mexico

PROFESSIONAL EXPERIENCE

2016-Present	Principal, Ermel Elementary, Aldine Independent School District
2010-2016	Assistant Principal, Ermel Elementary, Aldine Independent School District
2009-2010	Skills Specialist, Dyslexia and LPAC Coordinator, Odom Elementary, Aldine Independent School District
1997-2009	Bilingual Teacher, Aldine Independent School District

SCHOLARLY RESEARCH ACTIVITY

Escalante, M. L., & Slate, J. R. (2017a). Differences in academic performance between elementary charter schools and traditional public schools. *Journal of Advances in Education Research*, 2(3), 163-170.

Escalante, M. L., & Slate, J. R. (2017b). Differentiating charter elementary schools from traditional public elementary schools by teacher characteristics. *Global Journal of Human Social Science – Interdisciplinary*, 17(1), 18-23.

PRESENTATIONS

Escalante, M., & Slate, J. R. (2017, January). *Differences in academic performance between elementary charter schools and traditional public schools*. Paper presented at the Conference for Academic Research in Education, Las Vegas, NV.

Escalante, M. (2016, September). *Differences in academic performance between elementary charter schools and traditional public schools*. Paper presented at the

Texas Council of Professors of Educational Administration Graduate Research Exchange, Houston, TX.

Dietrich, M., Escalante, M., & Wiltz, J. (2016, April). *Community audit*. Paper presented at the SHSU Research Symposium, The Woodlands, TX.

Escalante, M., (2010, October). *Inquiry lesson*. Presentation at the Texas Association for Bilingual Education Conference, Houston, TX.

RECOGNITIONS

Joe Kortz Spirit Leadership Award, College of Education, Sam Houston State University, April 2016

Excellence in Writing, College of Education, Sam Houston State University, 2009

District Bilingual Teacher of the Year, Aldine ISD, 2005