KINDERGARTEN RETENTION AND THE LONG-TERM EFFECTS ON STATE

ASSESSMENT IN THIRD GRADE

A Record of Study

by

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ABSTRACT

The purpose of this study was to determine how kindergarten retention impacts a child's Grade 3 STAAR Reading exam scores at the Meets Expectations level. Curriculum requirements continue to change and become more rigorous for students in public schools each year. The state of Texas does not require children to attend kindergarten, however, once the child is enrolled, they are subject to the compulsory attendance laws. The lack of requirement has led to several school districts in the state of Texas not including kindergarten in their district retention policies. This lack of policy leaves a child's educational future in the hands of the teacher their assigned for the school year.

Students entering kindergarten are exposed to the state curriculum which includes basic reading skills. As more and more demands are placed on students, the achievement gap continues to grow between peers. With this in mind, it is crucial to determine what interventions breed the most success for students who are falling behind. There is a lack of research focused on kindergarten and the long term effects retention has on a child. The grade retention studies available focus more on Grade 1-12 and the impact the retention has on the child's academic scores, behaviors, dropout rates, etc.

Through this quantitative study, I focus on determining the relationship of kindergarten retention and the performance on the Grade 3 STAAR Reading exam at the Meets Expectations level. Furthermore, I begin with data from the state of Texas on all Grade 3 students in the 2015-2016, 2016-2017, 2017-2018, and 2018-2019 school years who were retained in kindergarten. Next, a case study was conducted for students in one

Other Central City School District focusing on the Grade 3 students in the 2015-2016, 2016-2017, 2017-2018, and 2018-2019 school year who were retained in kindergarten, while also examining their peers that were not retained in kindergarten but were at the same reading level.

Data for this study were analyzed using a Pearson Chi Square by state and Other Central City School district, in addition to ethnicity, economic status, and English Learner status. Overall, the results indicated that students who were retained in kindergarten were the lowest performing group on the Grade 3 Reading STAAR exam at the Meets Expectations level.

DEDICATION

I would like to dedicate my dissertation to my amazing husband, Rick Reeves. Thank you for the love that you have shown me throughout this journey and our lives together. The day we said I do was the BEST day of my life. You not only are my rock, you inspire me to continue to push myself to pursue my dreams and I will never take this for granted. You are my best friend, and the man I always dreamed I would marry. Without you my life would be incomplete. I love you more than anything in this world and am thankful every day that God chose you for me.

I would also like to dedicate my dissertation to my children, Peyton, Parker, and Ashlynn. You are my EVERYTHING! You bring me such joy each day and inspire me through your sweet words, hugs, and snuggles. I want you to always know that God has made you SO special. Don't ever change who you are for anyone else. Pursue your dreams and know that I will ALWAYS be behind you. Mommy hopes that one day you will grow to realize that this was all for you. My goal in completing this degree is to show you that no matter how tough life is, we will love each other and support each other throughout these obstacles, and that when you are passionate about changing the world, you can absolutely do it. God is SO good! I am grateful EVERY DAY that I get to be your Mommy. I love you all to the triple back and sideways moon!

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Contributors

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NOMENCLATURE

ACT	American College Testing
BAS	Benchmark Assessment System
DRA	Developmental Reading Level
ED	Economically Disadvantaged
EL	English Learner
ERG	Education Resource Group
ESEA	Elementary and Secondary Education Act
ESL	English as a Second Language
ESSA	Every Student Succeeds Act
GED	General Educational Development test
GPC	Grade Placement Committee
Κ	Kindergarten
NAEP	National Assessment of Educational Progress
NASP	National Association of School Psychology
NCLB	No Child Left Behind
PEIMS	Public Education Information Management System
РК	Pre-Kindergarten
PIR	Public Information Request
SAT	Scholastic Aptitude Test
SBOE	State Board of Education
SPED	Special Education

STAAR	State of Texas Assessment of Academic Readiness
SSI	Student Success Initiative
TAAS	Texas Assessment of Academic Skills
TAC	Texas Administrative Code
TAKS	Texas Assessment of Knowledge and Skills
TEA	Texas Education Agency
TEC	Texas Education Code
TEKS	Texas Essential Knowledge and Skills

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CHAPTER I

INTRODUCTION

Background of Study

On December 10, 2015, President Obama signed The Every Students Succeeds Act (ESSA) into law (U.S. Department of Education, 2018). This law was fully implemented in the 2017-2018 school year. The law gives power back to the states and local districts regarding decisions of testing and teacher quality on how to address lowperforming schools. Although states still required to submit their accountability plan to the Department of Education, this has shifted the power back in the hands of the state. The state must monitor the districts to ensure all students are proficient on state assessments, they increase the English-language proficiency levels, and graduation rates continue to rise (U.S. Department of Education, 2018).

In addition, ESSA requires that the bottom 5% of all schools K-12 in each state determined by the state's established accountability system and high schools with a drop-out rate of 33% or higher, work with their districts and staff members to develop an evidence-based plan for improvement (US Department of Education, 2018). This plan includes interventions for students and staff. According to ESSA, it is the states' responsibility to monitor this plan, and if the school continues to lack progress after four years, the state can either take over the school, terminate the principal, or turn the school into a charter school (US Department of Education, 2018). Prior to the four years, districts could allow for public school choice, making the schools with the lowest performing students to be the priority on enrollment (U.S. Department of Education,

2018). Given that some schools would choose retention for students as an intervention, it is important that educators use current research to support their decision on retention or promotion.

The state of Texas has implemented many different plans for the promotion and retention requirements of students over the years, however, beginning in 1984, Texas Education Code 21.721 began requiring the basis of retention be the student's academic achievement (Texas Education Agency, 2007). This law was implemented to help develop a consistent education system for all students (Texas Education Agency, 2018). In addition, Texas Administrative Code 75.191-195, established in 1985, indicated that students could not repeat the same grade level more than once nor could they repeat more than two grade levels in elementary school (Texas Education Agency, 2007).

In 1987, the legislation was expanded to include Compensatory and Remedial Education. Grades 7-12 now had to review student's records to see if they were considered at-risk of not graduating high school. The definition of an at-risk student is a student that had not advanced from one grade level to the next in a two year grading period (Texas Education Agency, 2018). These students were targeted early with interventions to help reduce the number of high school dropouts which had become an increasingly large concern from the nation (National Center for Education Statistics, 2019).

In 1991, School districts were responsible for determining the grade level to place a six-year old child based on their ability to be developmentally ready for first grade curriculum (Texas Education Agency, 2018). In some districts, this decision placed six-year-old students back in Kindergarten or they were assigned to a pre-first grade classroom. In other districts, these students were placed in the first grade classroom with interventions. The problem with this plan was that there was not consistency from one district to the next, nor one school to the next. The decision regarding the child being developmentally ready or not for first grade was determined by the teacher in the classroom. This system lacked consistency for students and led to a disadvantage depending on the teachers' feelings on promotion and retention for the student. Due to the disadvantage, TEC 21.721 focused on creating a system that was consistent for all children. This law initiated the requirement for a promotion and retention policy from each school district. The policies were to include a multitude of resources including: an overall grade average of 70 in their classes; performance on state assessments, or extenuating circumstances. Extenuating circumstances began allowing the school and the parent to have input regarding the decision to retain or promote a student.

Due to the increasing rise of retention rates, the districts were encouraged to begin implementing interventions for students as young as Kindergarten such as: tutoring, mentor programs, summer school, and extended school year. These interventions were to help decrease the number of retentions needed beginning in first grade. The decision on which way to address the drop-out rates was left to the districts to outline in a plan that they would then submit to the state. This plan was then considered for funding specifically allocated to reduce retention rates in first grade during the 1992-93 school year (Texas Education Agency, 2013). In 1995, the commissioner of education implemented 19 TAC 105.0001, which stated that districts were required to promote students if they were in attendance for 90% of the extended year program days unless the parents made the request for the student to be retained. In these instances, the parent would have to meet with the principal, teacher, and counselor to be given information on how the decision could impact the students' academic future, including their self-esteem, and the chance of high school dropout rate increasing (Texas Education Agency, 2018).

The 76th legislature passed the Student Success Initiative (SSI) in 1999. This was the year test performance, promotion, and instruction were added to the decision of promoting or retaining students (Texas Education Code 28.0211, 2018). The decision stated students may only pass to the next grade level if they are successful on the state exam or by unanimous vote of the grade placement committee. The committee must ensure the student would be likely to perform on grade level after intervention was put into place. The cohort of students in grade three during the 2002-2003 school year were required to pass the state exam, which was referred to as Texas Assessment of Knowledge and Skills (TAKS), in order to be promoted to fourth grade. The requirements changed in the 2004-2005 school year to include the expectation fifth grade students would pass the Texas Assessment of Knowledge and Skills (TAKS) examination in both reading and math to be promoted to sixth grade. Additionally, during the 2007-2008 school year, students in eighth grade were required to pass the reading and math exam to be promoted to ninth grade. If a student did not pass the exam in third, fifth, or eighth grade, Texas Education Code 28.011 required that accelerated

instruction was provided to the student prior to a second and third attempt at the exam. The expectation was accelerated instruction groups would be limited to ten students per teacher. Once the Grade Placement Committee becomes involved in making the decision for a student, the decision is final and cannot be appealed.

Although interventions can help after a student has failed a state exam, the best time to provide interventions or accelerated instruction begins as young as Kindergarten (Wanzek, Vaughan, Scammacca, Gatlin, Walker, & Capin, 2016). Each year a student falls behind academically, they begin to develop an achievement gap between themselves and their peers in their grade level (Lovett, Frijters, Wolf, Steinbach, Sevcik, & Morris, 2017). For each year the student continues to fall behind in their academics, the bigger the gap grows and the more discouraged the student becomes. Donald Hernandez (2011) emphasizes the impact third grade reading has on a child's future success. His research found that third grade is the year that students "shift from learning to read to reading to learn" (Hernandez, 2011, p. 4). He found that interventions after third grade are typically not as effective on student growth in reading as they are in grades Kindergarten, First, and Second due to the shift in instructional focus (Hernandez, 2011).

The Nation's Report Card, which is produced by the National Assessment of Educational Progress (NAEP), indicated that in 2019 only 35% of fourth graders read at or above the proficient level. This indicates 65% of all fourth graders in the United States were at the basic or below basic level (National Assessment of Educational Progress, 2019). In 2017, the rate for 4th grade students who were reading at or above the proficient level was 37%. This indicates a decline of another 2% (National Assessment of Educational Progress, 2018). If a child is reading at the proficient level in fourth grade, they are more likely to be able to interpret texts and draw conclusions based on their understanding about what they are reading (Hernandez, 2011). Based on the results from Hernandez's research, nearly two-thirds of the nation's fourth grade students are unable to complete this higher level of thinking. In Hernandez's research, he determined one in six students do not graduate from high school on time if they are not reading at the proficient level in third grade (Hernandez, 2011). These statistics should be very concerning to all parents and educators and therefore, we need to determine interventions that will help our students close this gap on performance.

Often times, educators and parents quickly decide to use retention as the answer to the intervention that will help the student close the gap (Hong & Yu, 2007). Although one would believe these policies would be clear on the stance that the state is taking on retention, in reality, 15 out of 50 states in the United States do not have a Kindergarten retention policy in place, instead the decision is left to the local authorities (Workman, 2014). Table 1 illustrates the states with and without a Kindergarten retention policy or the state determines the decision will be made locally in the United States.

Table 1

State	Legislative Specifications	Directs State Authorities	Directs Local Authorities	Legislature Authorizes State Authorities	Legislature Authorizes Local Authorities	Local Decision	No Policy
Alabama						X	
Alaska							X
Arizona		X					
Arkansas	X	X			X		
California			X				
Colorado		X					
Connecticut	X		X				
Delaware	X	X					
Florida			X				
Georgia		X	X				
Hawaii							X
Idaho							X
Illinois			X				
Indiana							X
Iowa							X
Kansas							X
Kentucky						X	
Louisiana			X				
Maine							X
Maryland			X				
Massachusetts						X	
Michigan							X
Minnesota					X	X	
Mississippi				X			
Missouri	X				X		
Montana							X
Nebraska						X	
Nevada		X	X	X	X		
New Hampshire							X
New Jersey			X				
New Mexico			X				
New York						X	
N. Carolina		X					
N. Dakota							X
Ohio	X		X	X	X		
Oklahoma					X		
Oregon							X

States with and without a Kindergarten Retention Policy or Local Determinations

Table 1 Continued

State	Legislative	Directs	Directs	Legislature	Legislature	Local	No
	Specification	State	Local	Authorizes	Authorizes	Decision	Policy
	S	Authorities	Authorities	State	Local		
				Authorities	Authorities		
Pennsylvani						X	
a							
Rhode Island							X
S. Carolina		X	X				
S. Dakota							X
Tennessee			X		X		
Texas	X				X		
Utah		X	X				
Vermont							X
Virginia					X		
Washington							X
W. Virginia		X			X		
Wisconsin			X				
Wyoming							X

States with and without a Kindergarten Retention Policy or Local Determinations

Note. Retention policy as of December 2014

In addition, 17 states have policies that specify a test to determine promotion or retention, which has increased since 2005 (Workman, 2014; Zinth, 2005). Three additional states recommend retention if the child is not successful on the test and the teacher, parent or superintendent determine retention is in the child's best interest (Workman, 2014).

According to the US Census in 2018, Texas ranks as the second largest state in The United States after California (United States Census Bureau, 2018). Zinth (2005) and Workman (2014) stated Texas leans on the legislative specifications that authorize local authorities to determine if retention should be part of the policy or not. Leaving the decision to local authorities leaves the child's future in school to chance based on where their parents determine they will live. According to the Texas Education Agency, there are 1,025 independent school districts in the state of Texas (Texas Education Agency, 2018). Thirty eight of the 1,025 school districts qualify as an Other Central City District. The Texas Education Agency has defined an Other Central City District as being "located in a county with a population between 100,000 to 959,999; and its enrollment is the largest in the county or at least 75% of the largest district enrollment in the county" (Texas Education Agency, 2018). Of these 38 school districts, only 14 have a policy in place that outlines the retention or promotion policy for students in Kindergarten. Table 2 illustrates the Other Central City Districts within Texas that have established a Kindergarten retention policy.

Table 2

Other Central City Districts within Texas that have Established a Kindergarten Retention Policy

District	Kindergarten Retention Policy Established
Abilene ISD	
Amarillo ISD	
Beaumont ISD	
Brazosport ISD	Х
Brownsville ISD	Х
Bryan ISD	Х
Burleson ISD	
Canyon ISD	
College Station ISD	Х
Conroe ISD	
Corpus Christi ISD	
Denton ISD	
Dickinson ISD	
Ector County ISD	
Edinburg ISD	Х
Frisco ISD	
Galveston ISD	
Georgetown ISD	Х
Kileen ISD	
LaJoya ISD	Х
Lamar ISD	
Longview ISD	
Lubbock ISD	Х

Retention Policy			
District	Kindergarten Retention Policy Established		
Midland ISD			
Midlothian ISD			
New Braunfels ISD			
Pharr-San Juan Alamo ISD			
San Angelo ISD	Х		
San Marcos ISD			
Schertz-Cibolo-U City ISD			
Sherman ISD	Х		
Terrell ISD			
Tyler ISD	Х		
United ISD	Х		
Waco ISD			
Waxahachie ISD			
Weatherford ISD	Х		
Wichita Falls ISD	Х		

Table 2 Continued Other Central City Districts within Texas that have Established a Kindergarten Retention Policy

*Note: Of the districts that do have a kindergarten retention policy, 5 out of the 9 require a parent approval before the retention can take place.

In the public education system, parents are sometimes led to believe that retaining their child will help the student become more successful on the standardized test. The decision to retain a child is not always based on careful assessment of whether the student needs to repeat the whole year of curriculum (Hong & Yu, 2007). Students progress at different academic paces, while grades are homogeneous with regard to age, often times, there is a discrepancy in academic ability (Ehmke, T., Drechsel, B., & Carstensen, C.H., 2010).

Demanet and Van Houtte (2013) stated that proponents for retention argue that the gift of time will help the child close the achievement gap between themselves and their peers. Jimerson and Ferguson (2007) stated that the retention can have a positive effect on the students' cognitive growth, however these benefits do not last long. More recently, researchers are opposed to grade retention stating it is an ineffective practice with regards to boosting student success (Van Houtte & Demanet, 2013).

Often times, academic failure, unsatisfactory academic progress, insufficient scores on a state examination, age, and poor school attendance are indicators that help educators determine if retention is necessary for students or not (Spencer, 2009). Other areas that cause students risk level to increase toward being retained include low household income, English language status, and ethnicity (Hernandez, 2011). Students who are identified by multiple factors increase their retention risk to one-in-nine chance (Cannon & Lipscomb, 2008). Hong and Raudenbush (2005; 2006) found most children retained in Kindergarten would have performed higher in reading and math that year had they been promoted to first grade instead. Although some educators find short-term benefits in student retention, the controversial discussion falls on the long-term consequences (Hernandez, 2011). Therefore, it is crucial that school districts determine if Kindergarten retention will benefit the student long-term so that the staff can be trained on the impact to children while also sharing this information with parents as they begin to make these life influencing decisions.

Problem and Significance of the Study

According to the National Center for Educational Statistics (2019), the grade retention rates for students in grades K-8 has increased from 1.9% in 2013 to 2.3% in 2015 nationally. Using grade retention as an intervention is typically due to the belief that extra time and exposure to the curriculum will give struggling students the opportunity to master the content they did not grasp the first year in the grade level. This retention is intended to increase the student's academic ability level the following school year (Bonvin, Bless, & Schuepback, 2008; Pagani, Tremblay, Vitaro, Boulerice, & McDuff, 2001). According to the National Association of School Psychologists (NASP, 2003), approximately 30-50% of American students will experience a grade level retention by the time they enter 9th grade and 15% of students are retained each year in school.

Prior to 1984, students could be promoted to the next grade level without passing the expectations set by the school board (Texas Education agency, 2017). In addition, the State Board of Education (SBOE) rules implementing the legislation, Promotions and Alternatives to Social Promotion (Title 19), outlined the expectations for grading guidelines and promotion of students from one grade level to the next (Texas Education Agency, 2017). In the rules, it was stated that students could not repeat the same grade level more than once or repeat more than two grade levels during the elementary education years (Texas Education Agency, 2017). In 1991, the retention rule was amended to indicate that districts could determine grade placement for students who were six years old, however did not show signs that they were developmentally ready for first grade as determined by the campus the student attended (Texas Education Agency, 2017).

In 1991, the Texas Legislature updated TEC 21.721 to prevent retaining students based solely on the student earning a grade average of 70 for the school year. The new ruling indicated that districts should develop a policy on promotion that incorporated at minimum the following factors: yearly grade point average of 70; course grades earned

in each subject; performance on the Texas Assessment of Academic Skills (TAAS); extenuating circumstances; and the judgements of parents and school personnel. Under this new update, districts were forced to provide alternatives to retention such as extended school year, specialized tutoring, small group instruction, student mentoring, and summer school (Texas Education Agency, 2017). To fund the extended school year programs, school districts were allowed to decrease the number of days in the regular school year by five days for all students (Texas Education Agency, 2017).

When retention is the intervention that is chosen for a student, parents often ask how this will impact a student's confidence. Vandercandelaere, Schmitt, Vanlaar, De Fraine, and Van Damme (2014) indicated that retaining children in Kindergarten was best for the children's psychosocial development, as well as, less harmful for their academic performance when compared to students who were retained in first grade. Among children who were retained in Grades Kindergarten through 8, 34.1% of students were retained in Kindergarten or in Grade 1, making the early elementary grades a common time for children to experience retention (Raffaele Mendez, Sook Kim, Ferron, & Woods, 2014).

In addition to kindergarten and first grade retention being the most common, researchers have also established, on average, boys and girls who have a summer birthday are typically the students who are most likely to remain in Kindergarten for a second year (Dong, 2006). Many factors play into retention decisions for children. The results of the national demographic analysis of the Current Population Survey completed from 1995 to 2010 indicated race/ethnicity, gender, maternal education, and social class all were factors in the retention process. In a study conducted by Warren, Hoffman and Andrew (2014), they determined that nationally 2.4% of students were retained from 1995 to 2010. Among these students, 6.2% were students in first grade. Warren et al. (2014) also documented that the retention rate was higher for boys than for girls. Moreover, they established that retention rates were highest for students of color and for Hispanic students, as well as, students born somewhere other than the United States.

A clear need exists for educational leaders to focus on how to meet the needs of all students. The Texas Education Agency continues to increase the state standards and the level of rigor that students are expected to master (Texas Education Agency, 2017). It is crucial that educators determine if kindergarten retention influences student success on the state assessments. The rise in retention rate for Kindergarten students indicates that parents are under the impression that Kindergarten retention will increase their child's academic success as he or she moves through the grade levels (Raffaele Mendez, et. al., 2014). The results of this empirical research investigation are important because of the focus on the current State of Texas Assessments of Academic Readiness (STAAR) exam and the impact that policy makers need to consider prior to writing policies that increase the retention rate of students. Third grade reading success is determined by the ability for a child to transition from learning to read to reading to learn (ExcelinED, 2017). As the grade level demands rise, students who are not reading on level tend to retreat in the classroom due to their lack of understanding, leading to a higher percentage rate of the child dropping out of high school (ExcelinED, 2017). Through this research, administrators and teachers will be informed on how using

retention as an intervention in kindergarten will impact the student's reading skills in third grade, and how to increase the chance of a child graduating from high school.

Statement of Purpose

The purpose of this study was to determine the relationship of kindergarten retention and the performance on Grade 3 STAAR Reading test performance. In this investigation, data on elementary school campuses across an Other Central City district, as defined by the Texas Education Agency, will be examined. The Texas Education Agency defines Other Central City District as a district if "(a) it does not meet the criteria for classification as a major urban or major suburban district; (b) it is not contiguous to a major urban district; (c) it is located in a county with a population of between 100,000 and 949,999; and (d) its enrollment is the largest in the county or at least 75% of the largest district enrollment in the county" (Texas Education Agency, 2017). Groups of students will be formed based upon the reading level, as well as, gender, race, and socio-economic status. An Other Central City district will be selected based on the need for research to examine how a Kindergarten retention policy could benefit the students.

According to Jimerson (2001), there is a lack of adequately designed studies. Jimerson's meta-analysis (2001) showed there is still an interest in retaining students among educators despite the unreliable results previous research has shown. In the study, Jimerson states further research needs to be conducted on the long-term impact that retention has on the student (Jimerson, 2001). Jimerson states in his meta-analysis that the studies completed between 1900 and 1989 include mixed results of outcomes for the
students. His concerns were with the methodological section of the research. The research that was conducted between 1900 and 1989 (a) only looked at pre and posttest scores of retained students and did not compare students that were retained to those that were not retained, (b) rarely determined what the characteristics were of each of the comparison groups, (c) did not include socioeconomic outcomes of the students, and (d) lacked a long term outcome for the students in later grades (Jimerson, 2001). In addition, Bornfreund (2012), states that the research completed by Schwerdt, G., West, M. R., and Winters, M. A. (2017) regarding Florida's retention policy and student test scores in third grade did not take into account that students who were promoted would have additionally been given interventions in fourth grade. Bornfreund (2012) challenges the movement of highly qualified teachers to the younger grades, as well and calls for more research to determine what interventions truly make an impact in grades as young as Kindergarten.

Definition of Terms

The terms used in the context of this study are as follows:

Texas Education Agency (TEA)

The Texas Education Agency is a branch of the state government of Texas that is responsible for public education (Texas Education Agency, 2017).

The State of Texas Assessments of Academic Readiness (STAAR)

The state of Texas Assessments of Academic Readiness (STAAR) test was implemented in the Spring of 2012. This test includes annual assessments for reading and mathematics in grades 3-8, writing in grades 4 and 7, science in grades 5 and 8, social studies in grade 8, and end-of-course (EOC) assessments for English I, English II, Algebra I, Biology and US History (Texas Education Agency, 2017).

Raw Score

The raw score indicates the number of questions a student answered correctly on the STAAR exam (Texas Education Agency, 2017).

Rigor

In education, *rigor* is commonly applied to lessons that encourage students to question their assumptions and think deeply, rather than to lessons that merely demand memorization and information recall (Great Schools Partnership, 2016).

Kindergarten Students

Kindergarten students are identified as students who are five years old on or before September first of the current school year (Texas Education Agency, 2017).

Kindergarten Retention

Kindergarten retention is defined as the practice of keeping a child in Kindergarten for a second year (Texas Education Agency, 2017).

Retention Rate

The retention rate is indicated by the percentage of students who are retained in Kindergarten for a second school year (Texas Education Agency, 2017).

At-risk Students

Students are identified as At-risk if they are not academically or behaviorally meeting the standards that are established by the state and by the school district (Texas Education Agency, 2017).

Texas Essential Knowledge and Skills (TEKS)

The Texas Essential Knowledge and Skills (TEKS) outline the state standards for what students should know and be able to do by the time they exit the grade level (Texas Education Agency, 2017).

Ethnicity/Race

Parents report the ethnicity/race of the student at the date of enrollment. The options include White (not Hispanic origin), Hispanic, African American, American Indian, Asian or Pacific Islander, Multiple Races, and Other. Parents may indicate one ethnicity/race per student. If a parent leaves the form blank, a district staff member identifies the ethnicity/race based on observation (Texas Education Agency, 2017).

Extenuating Circumstances

An extenuating circumstance can be any extraordinary circumstance that is determined by the district or building principal for a student, which causes unusual factors surrounding the child's academic performance (Texas Education Agency, 2017).

Grade Placement Committee (GPC)

A committee encompassing the building principal, teacher, and parent or guardian. This committee decides the most effective way to support a student's academic growth on an individual student basis (Texas Education Agency, 2017).

Developmental Reading Assessment (DRA)

Developmental Reading Assessment is a resource used to identify a child's Independent Reading level. The Independent Reading level is the level at which a child can engage with the text independently. The independent level does not allow for teacher prompting or support regarding the text. Oral fluency and Comprehension are the two criteria that impact the independent reading level (Fountas, 2016).

Benchmark Assessment System (BAS)

The Benchmark Assessment System is a resource developed by Fountas and Pinnell to help identify a child's Independent Reading level. The Fountas and Pinnell reading kit uses the following criteria to determine a child's independent reading level: Oral fluency, reading behaviors, and Comprehension (Fountas, 2016)

Theoretical Framework

One of the most common discussions in the school setting with kindergarten teachers revolves around students being developmentally ready for the curriculum (Pickren, Dewsbury, & Wertheimer, 2012). The answer to this question can be better understood by examining the Stage Theory of Cognitive Development. Basic understanding, a child's age, and their ability to process incoming information, are all influences on how a child accesses the world around them (Irby, Brown, Lara-Alecio, Jackson, 2013). Piaget believed there were four stages of development including: (a) sensorimotor, (b) preoperational, (c) concrete operational, and (d) formal operational (Wood, Smith, & Grossniklaus, 2001). Piaget believed that at each different stage of learning, a child required specific experiences to gain the understanding (Wood, et. al, 2001).

During the sensorimotor stage (birth to 2 years of age), it is believed that children are in the process of learning that even if they cannot see an object, the object still exists. The child explores their world and learns through different trials using their senses to direct their thinking. Their age appropriate problem solving is completed by using their senses as well (Slavin, 2000).

Beginning at age 2 and until the age of 7 years old, children are in the Preoperational stage of learning according to Piaget. During this stage, children use their concepts of symbols to delineate between objects. Children begin to acquire language, which stimulates the child's cognitive development. The preoperational stage is when the child believes everyone in the world thinks the same way that they child thinks (Slavin, 2000).

Children typically enter school during the Concrete Operational Stage. During this time, children are typically 7 to 11 years old and is developing their sense of reversibility and problem solving. Children can think logically, but not abstractly. Additionally, children begin to develop an imagination and spend less time focusing only on themselves. The child's world revolves around school, social interactions, as well as, determining patterns in their thinking (Slavin, 2000).

Finally, the Formal Operational Stage focuses on a child moving past the need for concrete objects to be used to understand the world around them. Abstract thinking influences problem-solving and decision making during this stage (Slavin, 2000).

Piaget knew that explaining these stages to educators would help them understand the best ways for a child to access the curriculum they are expected to learn, as well as, determine the best timing to introduce new concepts to the child (Wood, et. al., 2001). Educators and parents who operate under the Stage Theory of Cognitive Development often view students with summer birthdays as not developmentally ready for first grade curriculum with only one year of Kindergarten (Dougan & Pijanowski, 2011). Educators and parents often refer to this delay in schooling as the gift of time and choose to retain the student in kindergarten or refrain from enrollment of public school an additional year prior to starting kindergarten (Dougan & Pijanowski, 2011).

Research Question

The following research question guided my study: What is the relationship between the retention rate of kindergarten students and the third grade passing rate of Meets Expectation on the state assessments for reading?

Limitations, Delimitations, and Assumptions

The limitations, delimitations, and assumptions for this study are identified and listed as noted.

Limitations

One of the limitations to this study was the mobility rate of the students. The district only reports STAAR assessment scores for students who are enrolled on the snapshot date for the state of Texas. If the student moves in or out of the state during the school year and is not enrolled on the snapshot date, the child's scores are not reported. In addition, students had to be enrolled in Kindergarten in the case study taking a deeper look at an Other Central City district in order to gain access to their Developmental Reading Assessment (DRA) level or Benchmark Assessment System (BAS) level.

Data for this study were reviewed from the 2015-2016, 2016-2017, 2017-2018 and the 2018-2019 school year based on four years of the most current tests at the time of the research. Generalizations to other districts or the national population may be limited. In addition, generalization to retentions in grade levels other than Kindergarten may be limited. Elementary schools that are reviewed did not include private, charter or alternative behavior schools.

Delimitations

A delimitation to this study is that only quantitative data were analyzed. The research findings were gathered from the state of Texas and one Other Central City District that reported Grade 3 STAAR Reading test scores. Moreover, only Grade 3 student performance on the STAAR Reading exams were compared to the students' Kindergarten Developmental Reading Level (DRA) or Benchmark Assessment System (BAS) Level.

Assumptions

It was assumed that throughout this study that the Kindergarten students have (a) studied in districts that are similar across the state based on the required TEKS, and (b) good attendance at school. It is also assumed that the Kindergarten teachers are (a) knowledgeable of the state standards that the students are expected to master; (b) have received training on how to best implement the Kindergarten curriculum; (c) willing to provide extra interventions to ensure struggling students master the curriculum; and (d) official records maintained by The Texas Education Agency and the school district are accurate and complete.

Summary

Over the past several years, the number of students being retained in Kindergarten has increased. Former-President Obama implemented the Race to the Top initiative in 2009 urging educators to prepare all students for a career after high school. With this increase in curriculum expectations, it is important that educators find interventions that will have the greatest impact. Often time, parents consider retention in Kindergarten to be an intervention that will have a substantial effect on the child's success in the future. As educators, it is our responsibility to determine if Kindergarten retention truly does have an influence on students in their future. In this empirical investigation, the focus was on Kindergarten retention and the impact on the third grade reading STAAR exam in 2015-2016, 2016-2017, 2017-2018, and 2018-2019. In addition, the case study focused on the influence of retention in Kindergarten of students with a Developmental Reading Level (DRA) below a 4 or Benchmark Assessment System (BAS) level below a D on Grade 3 student STAAR Reading performance.

Organization of Record of Study

The Record of Study consists of five chapters. Chapter one includes the background of the study, statement of the problem and significance, the purpose of the study, definitions, the conceptual framework, research questions, limitations, delimitations, and assumptions. Chapter two includes a critique of literature on Kindergarten retention and the long-term effects on the third grade Texas state assessment in Reading and builds a theoretical framework. Chapter three is used to outline the methodology which includes the participants, instrumentation, data collection, data analysis, reliability, and validity. Chapter four encompasses a discussion of the findings of the study. Finally, chapter five contains a summary of the study, implications for district personnel to consider when writing policy regarding retention, and recommendations for future research.

CHAPTER II

CRITIQUE OF LITERATURE

The purpose of this study was to determine the relationship of Kindergarten retention on Grade 3 student performance on the STAAR Reading exams in the State of Texas. This chapter consists of a comprehensive critique of literature encompassing Kindergarten retention and the influence of retention on the students' results on the statemandated Grade 3 Reading assessments. A thorough review of the following databases was conducted to ensure inclusion of all related research: ERIC-EBSCO, APA PsycINFO, Education Source, and Proquest Dissertation and Theses Global.

Search Process

On numerous occasions, consultation with a research librarian was conducted to ensure a full search of related research was achieved. The search began by using the following key words: retention, standardized tests, Elementary Education, and policy. The results of this search included 96 studies. Several of the studies that were found were conducted between 1900 and 1999. Knowing that education requirements have changed dramatically since these dates, studies from the search that were conducted prior to 2000 were eliminated, leaving only 10 studies to review.

The second search using the four previously mentioned databases, however the key words included: retention, standardized tests, and Elementary. Using these words allowed for additional studies to be found. In addition to the key words, a timeline of studies included were those studies ranging from 2000 to 2020. This timeframe was used, because the Student Success Initiative was implemented in 1999 by the 76th Texas

legislature and therefore, the stakes became higher for students to pass the Third Grade STAAR exam (Texas Education Agency, 2017). The total number of studies produced from this search was 206 studies.

A final search was conducted in ERIC, Academic Search Ultimate, Education Full Text, Education Source, and Educational Administration Abstracts using the key words: retention (Kindergarten or preschool or early childhood education) and third grade and standardized test (state assessment). This search generated a total of 7 studies between all of the databases.

Inclusion Criteria

After retrieving these articles, inclusionary and exclusionary boundaries were established. The following inclusionary criteria for this study were identified:

- Published research which was included in journals, reports and dissertations.
- Studies focused on Elementary Retention.
- Studies that included standardized testing outcomes.
- Studies published between 2000 and 2020.
- Studies that included students in The United States.
- Studies focus on Reading.

Data Analysis

The three searches that were completed found a total of 309 studies. After eliminating the articles that were written prior to 2000, a total of 210 studies remained. A total of 15 studies were found in APA PsycINFO, 135 studies were found using ERIC- EBSCO, 25 studies were found using in Education Source, and 35 dissertations were found in the ProQuest Dissertations and Theses Global. 20 Studies were removed, because they were duplicates, leaving a total of 190 studies.

Abstract screening. I began the review by screening the abstracts of the studies. The abstract of 190 studies were reviewed and compared to the inclusionary criteria. After eliminating studies that did not meet the criteria, 27 remained from ERIC-EBSCO, 1 remained from APA PsycINFO, 3 remained from Education Source, and 4 remained from ProQuest Dissertations and Theses Global. A total of 35 studies remained to complete a full-text screening.

Full-text screening. Garrard's (2011) matrix method was used to organize the literature into key concepts. According to Klopper, Lubbe, and Rugbeer (2007), this method gives a global view of the research found in a literature review that helps the researcher remain unbiased in choosing which articles to include. Garrard (2011) stated that a review matrix is the primary tool for organizing, analyzing, comparing, and writing a synthesis for a critique of literature. Garrard (2011) listed the following as key elements necessary to complete a matrix method literature review: (a) Title and author of the journal; (b) Date the article was published; and (c) Key points from the article. A sample of the matrix review that was used is shown in Figure 1.

Title and Author	Date Published	Key Points from the Article
Effects of teacher efficacy on student academic and socioemotional achievements as reported on Georgia kindergarten inventory of developing skills Brown, T.J.	2012	Teachers' perception of self-efficacy and how it impacts student success. Education; Academic Achievement; classroom management; Emotional achievement; Georgia Kindergarten inventory of Developing Skills; Kindergarten; Social achievement; Teacher efficacy
The effects of attending full- day kindergarten on English learner students Cannon, Lipscomb, & Public Policy Institute	2008	Research study focusing on the impact of full-day kindergarten on academic achievement, retention, and English learners fluency. Results indicate English learners that attended full day kindergarten are 5 point less likely to be retained before second grade.
Early grade retention and student success: Evidence from los angeles Lipscomb & Public Policy Institute	2011	Research study focusing on who is retained in the Los Angeles Unified School District. The lack of policy has caused for discrepancy amongst schools and student groups.
The effects of academic redshirting and relative age on student achievement. Dougan & Pijanowski	2011	Academic redshirting is the act of keeping a child out of school for an additional year before kindergarten. Retention does not work to give students the same benefit as redshirting because there are negative emotional impacts on a child that affect school achievement.
Kindergarten entrance age and children's achievement: Impacts of state policies, family background, and peers. Elden & Lubotsky	2009	Children who are relatively older when entering kindergarten score higher on achievement tests. The relationship between entrance age and outcomes does not reflect a heightened ability to learn.

Figure 1. Sample of the matrix method used to organize critique of literature.

Introduction

Retaining students due to lack of academic performance has been in practice for many decades. Both supporters and critics of retention see the value in children having the necessary foundational skills required to be successful in the classroom. For example, Martorell and Mariano (2018) found that grade retention had a positive impact on behavior outcomes and foundational skills, but they were short lived. Robinson-Cimpian (2015) found that retaining students in third grade helped students out perform their peers that were promoted to fourth grade when they took the fourth grade state assessment due to the extra time available to grasp the concepts. On the other hand, Gottfried (2012) found that students who were retained had lower test scores than their peers that were promoted. Although this belief is common, there is still a large discrepancy of belief between retention and social promotion amongst stakeholders (Squires, 2015). Most educators choose to retain students during the primary grades evidenced by the growth over the past several years (Squires, 2015).

In the 2015-2016 school year, the grade level retention report for the state of Texas indicated that 2.8% (140,451) of the students enrolled in the Texas public School system were retained in K-12 for the school year. Although the retention rate decreased by 0.2% from the 2014-2015 school year, 140,451 students is a significant number of students who did not have their needs met by the public-school system. Of the 2.8% of students retained in the State of Texas, 1.7% were retained in elementary school in 2015-2016 (Texas Education Agency, 2017). Of the elementary students retained in Texas, 2.3% were retained in Kindergarten (Texas Education Agency, 2017). 2.5% of elementary retentions represented multiracial followed by 2.2% Hispanic (Texas Education Agency, 2017). According to Jimerson (2011) past research shows inconsistent outcomes, therefore, it is important that educators use current data from student test scores to help determine if retention in does help students become more successful. Additionally, a lack of research on the impact kindergarten retention has on the state exams is evident.

Enrolling and starting Kindergarten is a big step for most students and their families. McClelland (2001) stated the act of sending a child to kindergarten signaled change in most families, caused them to worry in new ways, elicited feelings that they were letting go of their child, and created mixed feelings about themselves and their child. Once a child enters the kindergarten classroom, there is a sense of fear from the parent that they can no longer shield their child from the dangers of the world (McClelland, 2001). Because of this fear, some parents do not feel their child is socially or academically prepared to begin school or to move into first grade with only one year of Kindergarten (McClelland, 2001). Therefore, parents begin thinking about retention in the first few years of their life (McClelland, 2001).

Previously, it was standard practice for students in the United States to be required to turn five years old by December or January of the year they entered school (U.S. Department of Education, 2018). Now, it is common practice for schools to require the child turn five by September 1st (U.S. Department of Education, 2018). The U.S. Department of Education (2018) stated raising the age of eligibility had not eliminated the levels of difference in readiness for school, therefore, parents and teachers have used retention as a strategy to accommodate for these variations. This practice amongst parents triggers the question, does kindergarten retention impact a child's overall academic success.

According to the Texas Education Agency (2018), kindergarten is not mandatory for children, however, once the parent enrolls their child in Kindergarten, the child is subject to state compulsory attendance requirements. With the parents having the ability to determine when to enroll their child, Kindergarten teachers have reported that over 45% of students in kindergarten lack the social and academic skills necessary to adjust during the school year without difficulty (Rimm-Kauffman, Pianta, & Cox, 2000). If students have inadequate social skills, they have a higher risk of retention due to the lack of adjustment to the school setting (McClelland, 2001). These social skills impact the child's ability to focus on foundational reading skills in the classroom and therefore can impact the child's educational future.

Donald Hernandez (2011) focused on the importance a child's ability to successfully read in third grade had on their overall educational success. His research indicated that students "shift from learning to read to reading to learn" during the third grade school year (Hernandez, 2011, p. 4). In addition, he discovered that early interventions in Kindergarten through Second grade had the most impact on student growth in reading, because teachers no longer teach students how to read, they teach students how to apply their reading to learn a new skill (Hernandez, 2011). Hernandez's focus was ensuring all student's had access to resources, not whether Kindergarten retention would impact a child's overall reading ability. This ability to read can influence a child's overall academic success, however, Hernandez's study states that children in poverty typically lack the resources such as housing, food, clothing, health care, books, and opportunities to go to high performing schools. Additionally, Hernandez (2011) stated parents are a child's first teacher, and therefore, knowing what to look for prior to kindergarten and seeking medical help without insurance can cause a strain on a child's academic ability.

Communities and families that provide quality preschool or childcare opportunities to their child increase their pre-academic competencies and strengthen social skills leading to a higher chance of a positive kindergarten experience (Rimm-Kauffman et. al, 2000). Unfortunately, these resources are not evenly distributed across demographics and location and can influence educational performance (Rimm-Kauffman et. al, 2000). Due to the lack of resources, often times, parents and educators will choose to retain their child in kindergarten to allow for additional time and exposure to the foundational curriculum. Jimerson (2001) indicated that many factors should be considered prior to determining if a child should be retained in their current grade level. Some factors include socioeconomic status, behaviors displayed, dropout rates, student perceptions, teacher perceptions/policy, and academic achievement scores on the grade level assessments (Ferguson, Jimerson, & Daulton, 2001). Additionally, policies regarding retention should be considered when making the decision on retention.

Throughout the past 50 years, there have been national policies that have affected the front lines of education and have attempted to minimize the achievement gap between students. The Elementary and Secondary Education Act (ESEA) was signed into law in 1965, by President Lyndon B. Johnson (U.S. Department of Education, 2018). This act brought a focus on the lack of equity in education. President Bush put measures into place under the No Child Left Behind Act (NCLB) in 2001 to expose the inconsistency in the education systems for all students (U.S. Department of Education, 2018). In 2009, President Obama introduced the Race to The Top initiative. This initiative offered unprecedented resources to states that took on the challenge of reshaping their educational programs to ensure all students in public schools would graduate from college and be prepared for a career (Chism, 2016). Although Race to the Top and NCLB have been a focus for our nation, there is still a high percent of students being retained each school year. There is very limited research that focuses on kindergarten retention and the long-term impact it has on student outcomes on the state exams. With these laws in place, it is important to understand which interventions yield the highest success rate for children. Jimerson (2001) stated there is contradicting research on retention, meaning that some researchers such as Jacob and Lefgren (2004) have found short term benefits for students who are retained, while others such as Hong and Yu (2008) have found that retention does not help a child become successful. Although these studies provide insight to retention, none of these studies focus on kindergarten retention. Further research is needed to determine if retention in Kindergarten impacts a child's ability to read at a proficient level by the time they reach the end of third grade when these policies become part of the decision.

Although retention in kindergarten is not recommended by many districts, there are still several students that are being retained or delayed in Kindergarten across the country. During the 2017-2018 school year, 9% of parents who had children that are eligible to begin kindergarten were delayed in order to allow their child additional time in preschool (National Center for Educational Statistics, 2019). On the contrary, some parents do not have the option of delaying start to kindergarten due to the financial burden of the cost of childcare (National Center for Educational Statistics, 2019). The National Center of Education Statistics (2019) indicated the cost of enrollment in a

quality preschool has increased 72% since 2001. Higher income families tend to rely on delaying their child's entry to Kindergarten, making their child older for the grade level (Raffaele Mendez, et. al., 2014). This practice causes a disadvantage for lower income families that are unable to afford the extra year of childcare (Raffaele Mendez, et. al., 2014).

Economic Status

A review of a child's economic status can help predict the path that the parents will choose when their child is approaching the Kindergarten age (Hernandez, 2011). According to the Texas Education Agency guidelines, students who qualify for free or reduced lunch priced meals under the guidelines of the National School Lunch and Child Nutrition Program are identified as economically disadvantaged (Texas Education Agency, 2017). Delaying entry to kindergarten tends to be used more prominent with children from higher income families, and retention tends to be used more frequently with children from lower income families (Raffaele Mendez, et. al., 2014). Students in a lower income household enter school with considerably more risk factors, such as lack of exposure to educational experiences, than other children (Raffaele Mendez et al., 2014). The financial burden that private kindergarten has on a family causes some families no choice but to enroll their child in public Kindergarten even if they feel their child has some developmental delays (Raffaele Mendez et al., 2014).

The Grade-Level Retention report for 2015-2016 indicated that in every grade level K-6, economically disadvantaged students had a higher probability of being retained than students who are not identified as economically disadvantaged. Two and a half percent of the elementary students that were retained were identified as economically challenged and held back in kindergarten versus the 2.0% that were not identified and retained in kindergarten (Texas Education Agency, 2017). Davoudzadeh et.al. (2015) found that no matter the demographic background, students are most likely to be retained by grade 3 due to the high stakes testing that begins in this grade level, however their focus was on timing of the retention, not on the outcome of the state exams and therefore, there is still a gap in the literature.

On the contrary, students who come from a more affluent background are less likely to be retained (Rimm-Kauffman et. al, 2000). The gap in achievement between retained and typically progressive children was larger among those who received free or reduced priced lunch. This gap suggests that retention is relatively more detrimental to children whose families pay for their child's lunch versus those individuals who receive free or reduced priced lunch (Raffaele Mendez et al., 2014). Educators report that parents in a higher socioeconomic community have a higher expectation for their child's performance (Meisels & Liaw, 1993). Meisels and Liaw (1993) stated that retention that occurs in higher income families tends to be based on the expectations of the parents. Due to this high expectation, it is assumed, the parent would request their child be retained so the student could be at the top of the class the following school year. Although this sounds like a good decision to the parents, there is a lack of research on how kindergarten retention impacts the child's academic skills in 3rd grade. Meisels and Law (1993) focused on how the decision influences the student causing emotional problems (Meisels & Liaw, 1993). Moser, West, and Hughes (2012) stated students who were showing signs of academic struggle are at a greater risk of being placed in special education classes than their same age peers previously promoted to the next grade level (Moser, West, & Hughes, 2012).

No matter the circumstance, when a student fails to master the grade-level curriculum by the end of the school year, stakeholders must determine if retention will be beneficial for the child (Moser, West, & Hughes, 2012). The parents or educators may determine another year of exposure to the grade level content and time to mature may help the student get back on track for future success in school. Alternatively, they may determine placing the student to the next grade level will give the student hope the barriers that are holding the child back will eventually fade (Moser, West, & Hughes, 2012). Rodriguez, Amador, and Tarango (2016) found that retention was not appropriate for students who were Latino. They determined that additional time immersed in the language allowed for students to gain the foundational language skills and then outperform their English speaking peers (Rodriguez, et. al., 2016).

English Learners

English learners are not only challenged to learn the grade level content, they must also learn the English language, culture, and social nuances. In some cases, parents request that their child not receive special language support (Texas Education Agency, 2017). However, in the 2015-2016 school year, 95% of students identified as English Learners received services through bilingual or English as a Second Language instruction (Texas Education Agency, 2017). Even though students are receiving instruction to learn the English language, educators and parents may have a difficult time determining if they have mastered enough curriculum due to the lack of exposure to the English language to move to the next grade level. During the 2015-2016 school year, the retention rate for English Learners was 2.3%, compared to 1.7% for non-English Learners (Texas Education Agency, 2017). Among the English Learners, the retention rate for students served in bilingual programs was 2.3%, and the rate for students served in the English as a Second Language programs were 1.7% (Texas Education Agency, 2017).

Behaviors/Transitions

Student behaviors can influence the proposal for retention from parents or teachers. Vandecandelaere, Schmitt, Vanlaar, De Fraine, and Damme's research included (2014) controversial benefits and concerns that went along with retention. The reputation children earn in the primary grades of schooling, often times become their labeled identity among peers/teachers. This identity can impact the students' engagement and overall performance in the classroom (Alexander & Entwisle, 1988). The transition to first grade is crucial in setting the foundation for student long term success (Vandecandelaere et al., 2014).

Consistently, when retention occurs for a Kindergarten student, behavior is a key factor teachers and parents consider when making the decision. The perception from the adults is these children lack the social maturity to be exposed to the first grade environment (Hong & Yu, 2008). Many parents and teachers refer to this retention as the gift of time and hope that over the next year, the child will gain the maturation levels required for students to be successful. In reviewing current research on long term effects

of retention, Hong and Yu (2008) stated that although the negative effects of retention on the retained students' reading and mathematics achievement seemed to diminish over the years, no evidence was present that kindergarten retention brought a general advantage to the retained students' cognitive learning two to four years after retention (Hong & Yu, 2008). Hong and Yu (2007) stated the act of retention is selective. They found students who were promoted typically out performed students who were retained.

Some of the benefits researchers have determined to be present for retention were that repeating Kindergarten did signify an increase in independent behaviors, comfort, confidence, attentiveness and desire to work compared to being promoted to first grade and applying the retention at the end of the first grade year (Vandecandelaere et al., 2014). These retained children also developed better peer relationships and displayed lower levels of asocial behavior, but the differences are not long lasting (Vandecandelaere et al., 2014).

Another benefit was a lack of evidence to support concerns associated with social-emotional delays by retaining a child in Kindergarten. Evidence was present of raising self-confidence in school work and lowering problematic behaviors for these children (Hong & Yu, 2008). Confidence can assist in a student's overall academic achievement or failure. Hong and Yu (2008) have determined that during the retention year, students not only gained a second chance at learning the academic content, but they are among children who have not been exposed to formal education causing them to be the leader in the classroom. Having some prior knowledge of curriculum will ensure the

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retained child has an opportunity to feel more competent in the learning environment as opposed to his/her classmates (Hong & Yu, 2008).

Hong and Raudenbush (2005; 2006) indicated that retention in Kindergarten does not warrant the same positive outcomes for the children. Hong and Raudenbush (2005; 2006) analyzed children during their first two years of schooling on a national level. In their research, they found students would have reached higher levels of achievement in both reading and math had they been placed in the first grade classroom (Hong & Yu, 2007). On the contrary, it is important to note if the student was promoted to 1st grade with the same academic ability, frustration, internalizing behavior problems, anxiety, shame, and depression were all common areas of concern (Hong & Yu, 2007). A nationally-representative sample of children between the ages of 7 to 17 showed that being older than the child's peers – whether because of being retained or held out – was also correlated with increased rates of behavior problems (National Institute for Early Education Research, 2005).

An additional piece to consider is the child's attention span when being exposed to the curriculum for the second time. Silverstein, Guppy, Young, and Augustyn (2009) assessed the child's attention span during their study and indicated that students who remained in Kindergarten may illustrate signs of boredom while their same age at-risk peers are being exposed to more challenging content while building the foundation that they lack. For this reason, it may be that kindergarten retention is not the right decision for the average at-risk student. In the United States, Kindergarten is not mandatory, and therefore, states write the curriculum to scaffold so students continually are exposed to not only the first grade curriculum, but the Kindergarten curriculum as well (Silverstein, Guppy, Young, & Augustyn, 2009). Alternatives such as small group instruction within the first grade classroom, tutoring, etc. may be more important for these children as long as it is tailored to their specific need (Vandecandelaere et al., 2014).

Dropout Rates

An important factor in determining if Kindergarten retention is appropriate for a child should be the future risk of dropping out when they enter middle or high school. Hong and Yu (2007) indicated parents believe the earlier retention takes place, the less effective it will be on the child. Contrary to belief, Roderick (1994) stated that an important finding is that the outcomes of a student being retained did not differ dramatically by whether students repeated grades from Kindergarten to third grade or from fourth grade to sixth grade (Roderick, 1994). With regards to kindergarten retention, Hong and Raudenbush (2005) determined that although this second exposure to the curriculum may have positive results early on, it does raise the likelihood that the student will drop out from secondary schools. The risk of retention and dropout is high. Although short-term gains may have been present, an increase in absences and a drop in social emotional ranking is evident compared to the student who were not retained (Jimerson, Carlson, Rotert, Egeland, & Sroufe, 1997). Additionally, Jimerson, Anderson, and Whipple (2002) state grade retention has been linked to a higher risk of a student dropping out of school due to their lack of engagement. These decisions made in the early years can be a significant influence on the child's future and should not be taken lightly.

Student Perception

Student perception is crucial when making decisions regarding children. Often times in middle and high school, these perceptions become the child's reality. In making decisions regarding retention, one must take the child's perception into account. In one of the articles reviewed, the importance of being over the age for the grade level made a huge influence on the child. Her thoughts were recorded below:

I wanted to get in my right grade 'cause every class I'm in I'm older than all the kids 'cause I was held back in fifth. So that's what really put me down, being older than the others. I said if I'm older than all the kids in fifth, imagine how I will feel in sixth! (Roderick, 1994).

This child struggled to understand how she would get past this feeling of always being older than her peers. Hong and Yu (2008) indicated that while interviewing retained students, a large percentage of the children denied ever being retained in a grade previously. When children were asked their feeling regarding retention, students expressed that they felt that this was a "sad", "bad", and "upsetting" experience, even if they had never been retained prior (Hong & Yu, 2008). Once a child has been retained, often times s/he felt alienated from their peers (Hong & Yu, 2008). It is the role of the adults to navigate this transition for the children by allowing time with the counselors or adults that the children trust (Hong & Yu, 2008).

The word retention often comes with stigmatizations (Hong & Yu, 2008). Inferring from the labeling theory, retaining a child can influence a child's self-esteem and self-confidence (Hong & Yu, 2008). These stereotypes cause students to undergo the sense of rejection by their teachers and peers which leads to lack of success and discouragement in ability (Hong & Yu, 2008). This negative outlook on retention can be detrimental to a child's success.

Policy/Teacher Influence

Policies that are created in schools and teacher perception on retention can influence the decisions that are made for children who are struggling. The proportion of youths who are promoted from one year to the next is largely determined by a school's system's promotional policies and by the attitudes of teachers and principals regarding the benefits of retention (Roderick, 1994). Often times, teachers work with children who are identified as at-risk. Mantzicopoulos and Morrison (1992) highlighted in their research, the teacher was bias in the data sources on how to implement the policy. They stated it is not unreasonable to expect that kindergarten teachers who believe in retention for unready children may be more predisposed to rating normal behaviors as highly immature. If this were the case, the drop in attention problems at first grade may be a reflection of a change in teacher judgment (Mantzicopoulos & Morrison, 1992).

Although misleading, the initial improvement students may exhibit in their retained year compared to their new younger classmates may be the cause in the educator making the recommendation to retain a student. It is imperative that teachers not only examine the child in the retained year, but also observe the student's performance two to five years later (Moser, Wet, & Hughes, 2012). This observation can have an impact on the way educators influence parental decisions regarding retention when the policy indicates that parents are part of the decision (Moser, Wet, & Hughes, 2012). According to Moser, West, and Hughes (2012), students who are retained and students who are promoted do not differ in their achievement in math and reading. Due to these results, it is important to assess the advantages and disadvantages kindergarten retention has on third grade state exam scores for students.

One of the most crucial components to retention is that which the teacher does with the child after they are retained. Raffaele Mendez et al. (2014) state that retention is more reactive than proactive and has been used to ensure that children are not being advanced through school without mastering the required curriculum. If educators are going to increase achievement of students, they must ensure instruction involves strong research-based practices (O'Connor, 2016). If children are being exposed to the grade level curriculum for the second time, the classroom teacher and the administrator need to develop a plan to ensure the child's needs are being met in the manner they learn best. The outcome of these decisions will determine if the interventions and the retention are a success for the student on their Third Grade STAAR exam.

Achievement Scores

As stated previously, controversy exists regarding retention and the long term benefits it has on the child. In the review of literature, if children are socially promoted, they typically score lower on their first and third grade tests in comparison to children who were exposed to the kindergarten curriculum for a second year (Dong 2006). On the contrary, Vandecandelaere, Schmitt, Vanlaar, DeFraine, and Van Damme (2014) stated that children retained in Kindergarten did not demonstrate any lasting academic gains in reading and mathematics. Because this advantage was not sustained, it can be concluded that retained children obtained inflated achievement scores the second time around because they were tested with the same test at the end of their second year of kindergarten and/or were a year older at the time of the test (Mantzicopoulos & Morrison, 1992).

Retaining a child does not allow for the student to be exposed to new content, therefore hindering their learning potential (Hong & Raudenbush, 2005). Hong and Raudenbush (2005) indicated kindergarten retention leaves most retainees even further behind, and, therefore, impeded these students' cognitive development over the repetition year. In general, at-risk children promoted to the next grade level seemed to have a better chance of growth acceleration (Hong & Raudenbush, 2005). Reforming instruction would ensure a better chance for success versus repeating the same pattern of curriculum presentation they received the previous year (Vandecandelaere et al., 2014). It is what the teacher does with the child to ensure their success that has the greatest influence on the child's achievement scores within the accountability system.

In 2012, the state of Texas implemented a new accountability system for students in grades 3-12 (Texas Education Agency, 2017). This accountability system not only measures districts, schools, and classroom teachers on the percent of students who pass the standardized test, but also how many students showed growth in each subject they were tested (Texas Education Agency, 2017). The system was designed to avoid having students fall through the cracks and has led teachers to look at interventions that work for all students. Currently, empirical data is lacking regarding the efficacy of retention in Kindergarten on Grade 3 student reading test performance on the STAAR exam. Although many previous studies have examined the impact grade retention has on state assessment scores, very few focus specifically on Kindergarten retention. Of those studies that focused on kindergarten retention, the studies such as Morris (1997), Lipsey, Farran, and Durkin (2018), and Mioller and Bassok (2005), aim at determining how preschool attendance impacts a child's retention rate in Kindergarten. Additionally, researchers such as Mantzicopoulos, Morrison, Hinshaw, and Carte (1989) focused on characteristics of children that are retained in Kindergarten.

What is currently lacking in the research is the understanding of how Kindergarten retention impacts reading in the state of Texas. One of the ways that the state of Texas measures academic success is through the State of Texas Assessments of Academic Readiness (STAAR) exam. This exam is given in grades 3-12 for Reading. If grade 3 is the grade level that students shift to reading to learn, then further information is needed to determine if kindergarten retention does impact a child's ability to pass the third grade STAAR test. To my knowledge, no studies to date have examined the impact kindergarten retention has on the third Grade STAAR Reading exam.

Summary

Educators take on the challenge each year to make academic gains with all students. Since the implementation of accountability under Elementary and Secondary Education Act in 1965, educators across the United States continue to feel the pressure to ensure the success of every student under their supervision. The level of rigor that students are expected to master has relentlessly increased each year, causing teachers and school administrators to look at the interventions they are using with students and the long-term impact these interventions have on the student's future educational experiences (National Assessment of Educational Progress, 2017).

Many factors should be considered when determining the placement of a struggling learner. These factors include, but are not limited to: economic status, English Learners, behaviors/transitions, dropout rates, student perceptions, teacher perception/policy, and academic achievement scores on the grade level assessments (Ferguson, Jimerson, and Daulton, 2001). Gaining an understanding of the impact kindergarten retention has on the third grade reading state exam will help educators make an informed decision regarding the student's education.

CHAPTER III

METHODS

Introduction

Investigated in this quantitative study were the effects of kindergarten retention on the Grade 3 STAAR Reading exam. The Texas Education Agency provided the results of the 2015-2016, 2016-2017, 2017-2018, and 2018-2019 Grade 3 STAAR Reading test performance, along with demographic information for Grade 3 students in those cohorts. To take a deeper look, one large, Texas school district provided the results of the 2015-2016, 2016-2017, 2017-2018, and 2018-2019 Grade 3 STAAR Reading test scores, along with the students' kindergarten DRA or BAS level and demographic information. In addition, this school district provided a list of students who were retained in kindergarten. To protect the identity of all of the students, the data provided were masked.

Addressed in this study was the following research question: What is the relationship between the retention rate of kindergarten students and the Grade 3 passing rate of Meets Expectation on the STAAR Reading exam? This research question was repeated for four years of school data: 2015-2016, 2016-2017, 2017-2018, and 2018-2019. Moreover, this research question was repeated separately for the following samples of students: all students; the four major ethnic/racial groups of students in Texas; by economic status; and by English Learner status. As such, the extent to which trends are present, not only in the overall student performance but in the performance of subgroups of students was investigated.

The State of Texas has increased the level of rigor on the STAAR Reading exam (Texas Education Agency, 2017). Student performance is not measured by only a pass/fail standard, but also by the amount of growth the student demonstrates from one school year to the next (Texas Education Agency, 2017). As the National Statistics regarding the number of students that have been retained continues to rise, it is important to clearly understand the long-term impact the retention has on the student's academic performance. Included in this chapter will be the research design, participants, instrumentation, data collection, and data analysis.

Population

The State of Texas served 5,431,910 students in the 2018-2019 school year. This number is an increase of 14.4% since the 2008-2009 school year (Texas Education Agency, 2019). According to the Texas Education Agency (2019), the State of Texas public school enrollment increased 17.1% in the last 10 years, which is six times the growth rate in the United States at 2.7%. With the numbers increasing in student enrollment in Texas public schools, it is important to understand which interventions will help children be successful in their educational career.

Understanding the district demographic groups will help in interpreting the degree to which retention in Kindergarten will impact other states. The demographics for the State of Texas as listed in Table 3.

Table 3

Demographic	Percentage
African American	12.6%
Hispanic	52.6%
White	27.4%
Asian	4.5%
Two or More Races	2.4%
Economically Challenged	60.6%
English Learners	19.4%
At-risk	50%

Student Demographics for Texas Public Schools

*Note: Demographic information from the 2018-2019 school year.

The 5,431,910 students span from Early Education all the way through 12th grade. Table 4 shows a breakdown of the students served in the state of Texas by grade level.

Table 4

Grade	Number of students
Early Education	24,764
Prekindergarten	239,646
Kindergarten	374,020
Grade 1	286,900
Grade 2	387,736
Grade 3	395,889
Grade 4	412,016
Grade 5	417,719
Grade 6	417,719
Grade 7	406,834
Grade 8	405,048
Grade 9	436,686
Grade 10	400,836
Grade 11	373,213
Grade 12	353,039

Student Enrollment by Grade Level

*Note: Enrollment information from the 2018-2019 school year.

In the 2018-2019 school year, 374,020 students were enrolled in Kindergarten.

The Kindergarten student demographics are listed below in Table 5.

Table 5

Demographic	Percentage
African American	12.0%
Hispanic	51.4%
White	28.5%
Asian	4.7%
Two or More Races	2.9%
Economically Challenged	62.5%

Kindergarten Student Demographics for Texas Public Schools

*Note: Demographic information from the 2018-2019 school year.

The school district used for this study was identified by the Texas Education Agency as an Other Central City district. The Texas Education Agency defines a district as an Other Central City District as a district if "(a) it does not meet the criteria for classification a major urban or major suburban district; (b) it is not contiguous to a major urban district; (c) it is located in a county with a population of between 100,000 and 949,999; and (d) its enrollment is the largest in the county or at least 75% of the largest district enrollment in the county" (Texas Education Agency, 2017). This school district is very diverse and has a student population of approximately 63,000 students as of the 2019-2020 school year. The school district used for this study is one of the fastest growing districts in the state of Texas. The average enrollment growth is approximately 1,500 students per school year (Texas Education Agency, 2017). This district was selected, because it was ranked number 2 by the Education Research Group (ERG) as
the second most productive school district in the State of Texas (Education Research Group, 2018). In addition, the school district received an accountability rating of B for the 2017-2018 school year and Met Requirements for the Special Education Determination Status (Texas Education Agency, 2018).

The district serves students beginning at the age of three years old throughout high school. Using a district with a diverse population will allow for the research to be compared over different demographic groups. The demographics for the district are listed in Table 6.

Table 6

Student Demographics and Mobility Rate for the District

Demographic	Percentage
African American	6.7%
Hispanic	35.9%
White	50%
American Indian	0.5%
Asian	3.9%
Pacific Islander	0.2%
Two or More Races	2.9%
Economically Challenged	35.8%
English Learners	13.8%
At-risk	33.1%
Mobility Rate	13.1%

*Note: Demographic information from 2017-2018 school year.

Texas Education Code 25.112 states districts must submit a waiver for a class size exception in grades Kindergarten through fourth grade if the class exceeds the 22 student class size limit (Texas Education Agency, 2018). The average class sizes for the district are listed in Table 7.

Table 7

Class	Size	for	the	District	
Ciubb	DILC	JUI	inc	District	

Grade/Subject	Average class size
Kindergarten	19.3
First Grade	19.6
Grade/Subject	Average class size
Second Grade	20.4
Third Grade	19.8
Fourth Grade	19.7
Fifth Grade	25.0
Sixth Grade	25.7
English/Language Arts in Secondary	19.7
Foreign Languages in Secondary	23.1
Mathematics in Secondary	21.5
Science in Secondary	22.4
Social Studies in Secondary	23.7

*Note: Class sizes are from the 2017-2018 school year (Texas Education Agency, 2018).

During the 2017-2018 school year, the district employed approximately 8,000 people and was ranked the largest employer in the area (Texas Education Agency, 2018). Of those 8,000 employees, 50.1% are teachers, 10.3% are support staff, 2.5% are campus administrators, and 0.4% are central administration. The demographic breakdown of teachers are listed in Table 8.

Table 8

Demographic	Percentage
African American	5.1
Hispanic	12.1
Demographic	Percentage
White	81.0
American Indian	0.2
Asian	0.9
Two or More Races	0.8
Male	19.7
Female	80.3

Demographic Breakdown of Teachers for the District

*Note: Demographics are from the 2017-2018 school year (Texas Education Agency, 2018).

Teachers in the district hold Bachelors, Masters, and Doctoral Degrees. Currently, 0.6% hold no degree, 73.5% hold a Bachelor's Degree, 25% hold Masters Degrees, and 0.9% hold doctoral Degrees. The teachers range in years of experience. 5.3% are beginning teachers, 24.2% have one to five years of experience, 25.8% have six to 10 years of experience, 29.6% have 11 to 20 years of experience, and 15.0% have over 20 years of experience. The turnover rate is 13.7 versus the states 16.5. The average beginning salary for teachers is \$51,500 per school year (Texas Education Agency, 2017).

The teachers in this district serve in many different capacities. Seven percent of teachers serve the Bilingual/English as a Second Language, 3.8% serve Career and Technology Education, 1.6% serve Compensatory Education, 66.7% serve regular education, 13.1% serve Special Education, and 7.1% serve other. The district's focus was to become a professional learning community over the past 5 years (Texas Education Agency, 2017).

Academically, the district has always performed at the met expectations rating or higher on the state assessment (Texas Education Agency, 2016). In 2016, the district received a Met Standard rating from the state for their performance on the state assessment. In addition, the Special Education Determination Status was "Meets Requirements". In 2016, 85% of all students in all subject areas tested met the Level II standards versus the state's 75%. Thirty percent of all students tested in all subject areas scored in the Advanced Standard range versus the 18% of the state. Sixty-four percent of all students tested met or exceeded progress in Reading and 68% in math. Forty-nine percent of all students tested in all subject areas met Level II in Special Education vs. the states 39%. Seventy-three percent of students who were identified as Economically Challenged met Level II and 13% were at Advanced Academic Performance versus the state at 67% Level II and 11% Advanced Academic Performance (Texas Education Agency, 2017). The school district was performing above the state in many areas; therefore, examining the number of students that are retained in Kindergarten and how they performed on the third grade STAAR exam will determine if retention is beneficial for students.

During the 2017-2018 school year, the attendance rate was 96.2%, however, like any other district, it varied over time. In 2011, the attendance rate was 95.7%. In 2012, the attendance rate was 95.9%. In 2013, the rate was 95.8%, which was the first time in the five years that the district met the state attendance rate. In 2014, the attendance rate exceeded the state average and was at 96.3%. In 2015, the rate dropped down to 96.2%, but remained higher that the state average of 95.7%. In 2016, the attendance rate climbed to 96.4% (Texas Education Agency, 2018). Student attendance has a direct link to students not gaining the academic foundational skills necessary to become proficient readers by the end of third grade (Attendance Works, 2014). Few parents recognize the correlation between lost instructional time and student academic progress (Attendance Works, 2014).

The district's annual dropout rate was 0.1% in Grades 7-8 and 0.5% in Grades 9-12. The students in the 2015 four year cohort made great gains. The completion rate was as follows: 95.7% graduated, 0.8% received their GED, 2.1% continued, and 1.4% dropped out. In 2015, 88.7% of students graduating completed their degree on the recommended or distinguished achievement program. There were 36.2% of the students who took the AP test. Sixty-six percent of AP tests taken were scored above criterion. The SAT/ACT exam was taken by 67.9% of students, and 48.1% of those students scored above the criterion on the exam (Texas Education Agency, 2017). Investigating the impact retention in Kindergarten has on a student's academic performance in third grade at a high performing district allows for educators to determine if holding the child back in Kindergarten is worth the risk of the student dropping out in high school.

In addition, the district was one of three districts in the state of Texas earning a five star rating from the Texas Smart Schools. This award was the top award given to school districts by Texas Smart Schools. In order to determine who will get a five star rating, academic performance, financial status, and demographic data were analyzed to identify school districts and campuses that produce high academic achievement while maintaining cost-effective operations (Texas Smart Schools, 2019). The operating expenditures for all funds were as follows: 60.42% on instruction, 1.12% instructional resources, 1.51% on curriculum/staff development, 0.81% instructional leadership, 6.11% school leadership, 3.94% guidance and counseling, 1.08% health services, 4.51% transportation, 3.86% food service, 2.20% extracurricular, 1.60% general administration, and 1.23% security (Texas Education Agency, 2017).

Research Design

The purpose of this study was to determine the relationship of kindergarten retention on the performance of Grade 3 students on the STAAR Reading exam at the Meets expectations standard. This study was conducted using data on students who were enrolled in Grade 3 in the 2015-2016, 2016-2017, 2017-2018, and the 2018-2019 school year and who were also retained in kindergarten. The data set was requested through the Texas Education Agency and also through an Other Central City District's central office.

I conducted a quantitative study for this research. Quantitative research is defined by Cohen as "explaining phenomena by collecting numerical data that are analyzed by using mathematically based methods (in particular statistics)" (Aliaga & Gunderson, 2000, p.1). Using a Pearson chi square model allowed me to analyze the categorical data. This data analysis method will be discussed further in the data analysis section below.

Data were obtained from Grade 3 students who took the STAAR exam in May 2016, May 2017, May 2018, and May 2019. The number of participants chosen for this study was determined by the number of students in the state of Texas that met the inclusionary criteria.

Research Question

What is the relationship between the retention rate of kindergarten students and the third grade passing rate of Meets Expectation on the state assessments for reading?

Methods

Data Collection Procedures

The data collected for this study were obtained from the Texas Education Agency through a Public Information Request form. Each year schools must submit information on students in the Public Education Information Management System (PEIMS) report. In this system, schools input information regarding student demographics, academic results, economic status, personnel information, and organizational information (Texas Education Agency, 2017). To obtain this information, a report was created on students who were in Grade 3 in the 2015-2016, 2016-2017, 2017-2018, and the 2018-2019 school year and who completed the Grade 3 STAAR Reading exam. These four school years of data were used because they are the most recent years to when the research was conducted. In addition, the report indicated if the student were retained in Kindergarten or not retained in Kindergarten, as well as, the students' demographic information. The data were be masked to protect the identity of the students.

Data collected from the Other Central City District were obtained through the Technology department. The electronic systems used by the district are Eduphoria Aware, and an internal system called View-it to collect individual student information. The information requested from the district were the 2015-2016, 2016-2017, 2017-2018, and 2018-2019 Third grade STAAR scores. In addition, student demographic information, economic status, and the students' Kindergarten End of Year reading level were obtained. The district identified which students were retained in Kindergarten as well. Students who are identified as scoring a Developmental Reading Assessment (DRA) level 3, 2, 1 or A or a Benchmark Assessment System (BAS) level C, B, or A in 2012-2013, 2013-2014, 2014-2015, and 2015-2016 in Kindergarten were included in the study. These levels were used because students receiving these scores would have been eligible for retention during their Kindergarten year. The information from the district were masked to protect the identity of the students.

Students who scored above the districts' required reading level were eliminated due to the student meeting or exceeding the district expectation at the end of the Kindergarten school year. Students that meet the district reading level standard would not be retained for academic reasons and therefore would not be comparable to a student who were retained for academic deficits. For example, if the child is a twin and the sibling were struggling, the parent may determine to retain both children to keep the siblings in the same grade level. Any students left in the spreadsheet after the abovementioned exclusions were the students whose data were analyzed in this study.

No direct contact with the students were necessary for this research. Due to the specificity of the study, approval were secured from the Institutional Review Board (IRB) at Texas A&M University. In addition, approval were sought from the Other Central City school district to use the students' records.

Measures

The variables for this study were obtained by submitting a Public Information Request to the Texas Education Agency, as well as the technology department of the district. The variables used in this study were located by the technology department of the district by accessing and searching the district PEIMS report, Eduphoria, as well as, the View-it system. The variables that were included were student achievement on the Grade 3 STAAR Reading test, Developmental Reading Assessment (DRA) level or the Benchmark Assessment System (BAS) level, English Learners, economic status, and demographic status.

Variables

Kindergarten retention was the predictor variable in this study. Students fell into one of two categories – retained or not retained. The outcome variable was the Grade 3 STAAR Reading test performance. The students fell into one of two categories – Pass STAAR at the Meets Expectation Level or Does Not Pass STAAR at the Meets Expectation Level. To pass the STAAR exam at the Meets Expectations Level in the 2015-2016, 2016-2017, 2017-2018, and 2018-2019 school year the scale score was 1468 which converted to a score of 76% to pass the reading exam (Knezeck, 2018).

Student economic status. The district's percent of students who were economically challenged were determined by the percentage of students who qualified for free or reduced lunch (Texas Education Agency, 2016).

Percent of students identified as English learners. The percentage of English Learners for the district were determined by the PEIMS report.

Data Analysis: Pearson Chi-Square

According to Coolidge (2013), Pearson Chi Square statistics are used to determine if an observed number differs from what were expected or chance. In this research, the following hypothesis were used:

 $H_o =$ Kindergarten retention does help a child pass the Grade 3 STAAR Reading STAAR exam.

The alternate hypothesis for this set of data were as follows:

 H_1 = Kindergarten retention does not help a child pass the Grade 3 STAAR Reading exam. I used the standard level of significance used in education research, *p* of .05.

Once the hypothesis were determined, the state data were input into the SPSS system for inferential statistical procedures to be conducted. In the data that were analyzed, the Grade 3 STAAR Reading test performance of students who were retained in kindergarten were compared to the Grade 3 STAAR Reading test performance of students who were not retained in kindergarten. The STAAR Reading performance measure used as the outcome or dependent variable were the Meets Expectations level.

Once the Texas statewide data were analyzed, data from the one school district previously discussed were examined. The same independent variable of retention status in kindergarten and the same dependent variable of Meets Expectations were analyzed for the school district, as were addressed in the Texas statewide analysis. The process were repeated multiple times for each demographic set of data across the four school years. Looking at the four years of data allowed for analysis of trends in each demographic set.

Coolidge (2012) stated that the following is the form of the model:

$$x2 = \sum_{i=1}^{k} \frac{(Observed \ Cell \ Frequency \ i - Expected \ Cell \ Frequency \ i)2}{Expected \ Cell \ Frequency \ i}$$

It is important to note that discriminant analysis were considered as well, however according to Howell (1997), discriminant analysis can produce a probability of success that lies outside the range of 0 and 1. A probability lying outside of this range is impossible and therefore, this analysis were not appropriate (Howell, 1997). The data from this study were entered into the SPSS database. Due to the number of students included in the study, a Pearson Chi square provided additional insight to outcomes of retention across different subgroups.

Summary

Reviewed in this chapter were the purpose of the study and the research question. The participants were Grade 3 students in the State of Texas in the 2015-2016, 2016-2017, 2017-2018, and 2018-2019 school years. In addition the case study included students from an Other Central City District who were in third grade during the 2015-2016, 2016-2017, 2017-2018, or 2018-2019 school year. Reports were collected to determine the students' Developmental Reading Level (DRA) or Benchmark Assessment System (BAS) level at the end of the kindergarten year. Students that scored a DRA level 3 or below or a BAS level of C, B, or A were categorized by students retained in Kindergarten or students who were not retained in Kindergarten. A Pearson Chi-Square procedure were used to determine the relationship between kindergarten retention and the student's third grade reading STAAR scores. It is my goal that this research will impact the districts who are trying to implement a districtwide kindergarten retention policy. The results of the data analysis are presented in the following chapter.

CHAPTER IV

RESEARCH FINDINGS

Introduction

The purpose of this study was to determine what the relationship is between the retention rate of kindergarten students and the third grade passing rate of Meets Expectation on the state assessments for reading. The goal of this research was to provide school districts with data to support or negate the implementation of a Kindergarten retention policy and therefore bring some consistency amongst schools when determining if a child should be retained in Kindergarten. In this chapter, I discuss the findings of the study at the state level, and also take a closer look by completing a case study of an Other Central City district in the state of Texas for each of the four school years. The results of this analysis will be reported in this manner. To begin, the state data provided by the Texas Education Agency through a Public Education Information Management System were converted from an excel document to the SPSS system for analysis. Once coding and labeling the variables in the data set were complete, a Pearson Chi-square procedure were run for all third grade students that were retained in Kindergarten in the state of Texas. This same inferential statistical procedure were conducted with regards to subpopulations of students by their economic status (i.e., Not Economically Disadvantaged, Economically Disadvantaged), ethnicity (Hispanic/non-Hispanic), race (i.e, White, Black, and Other), and English Learner status (i.e., Not an English Learner, English Learner). PEIMS coding in the state of Texas requests parents to choose either Hispanic or Non-Hispanic as an ethnicity, and then for

parents to choose a race for their child. Some example outcomes are Hispanic and Black, Hispanic and White, Non-Hispanic and Other. This is important to note when reading the data as students may be counted in more than one area of the outcome data.

Results for All Students by School Year

During the 2015-2016 school year, the results of the Pearson Chi-square procedure were statistically significant, $\chi^2(1) = 212.10$, p < .001, with regards to all Grade 3 students being in the statistical analysis. The effect size for this finding, Cramer's V, were below small, .06 (Cohen, 1988). An effect size reflects the practical relevance of a statistically significant result. In my research, the Cramer's V represents the percent of variance in the dependent variable (the passing rates on the STAAR Reading Meets Expectation standard) in which the independent variable (Kindergarten retention or not retained in Kindergarten) explains. Therefore, the results indicate retention in Kindergarten explained 6% of the variance in the passing rate.

Table 9 below indicates less than half of the students that were retained in Kindergarten met the Meets Expectations Standard on the Third Grade Reading exam. On the contrary, nearly three-fourths of the students that went onto First grade even though they were eligible for the Kindergarten retention, met the Meets Expectations Standard on the Third Grade Reading exam. The percentage of students who were retained in Kindergarten and Did Not Meet the Meets Expectations Standard were more than double the percentage of students who were not retained and who met the standard.

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Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for All Grade 3 Students in the 2015-2016 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 275) 54.0%	(<i>n</i> = 234) 46.0%
Not Retained in Kindergarten	(<i>n</i> = 15,184) 25.6%	(<i>n</i> = 44,048) 74.4%

Data from the 2016-2017 school year with respect to all Grade 3 students in the statistical analysis indicated the results were statistically significant, $\chi^2(1) = 203.96$, p < .001. The effect size for the findings, Cramer's V, were below small, .058 (Cohen, 1988). Six percent of the variance in passing rates for all Grade 3 students on the STAAR Reading Meets Expectations standard were explained by the Kindergarten retention in this analysis.

Table 10 indicates less than one fifth of the students that were retained in Kindergarten met the STAAR Reading Meets Expectations standard in Grade 3. Almost half of the students who were not retained in Kindergarten met the STAAR Reading Meets Expectations standard in Grade 3. The percentage of students who were not retained in Kindergarten and who met the Grade 3 Meets Expectation standard were more than two and a half times the percent of students who were retained in Kindergarten and who met the standard.

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for All Grade 3 Students in the 2016-2017 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 526) 81.7%	(<i>n</i> = 118) 18.3%
Not Retained in Kindergarten	(<i>n</i> = 32,252) 53.5%	(<i>n</i> = 28,067) 46.5%

With regards to the 2017-2018 school year, with respect to all Grade 3 students being in the statistical analysis, the result were statistically significant, $\chi^2(1) = 160.64$, *p* < .001. Cramer's V indicates that the effect size for this finding were below small, .052 (Cohen, 1988). This analysis indicated that 5.2% of the variance in passing rate for all Grade 3 students on the STAAR Reading Meets expectation standard is explained by the Kindergarten retention.

As depicted in Table 11, less than one fifth of students who were retained in Kindergarten met the STAAR Reading Meets Expectations standard in Grade 3. When examining the students who were not retained in Kindergarten, more than two fifths of them met the Meets Expectations standard in Grade 3 for Reading. The percent of students who were not retained in Kindergarten and met the Grade 3 Meets Expectation standard were more than two and a half times the percentage of students who were retained in Kindergarten and did not meet the standard.

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for All Grade 3 Students in the 2017-2018 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 474) 82.6%	(<i>n</i> = 100) 17.4%
Not Retained in Kindergarten	(<i>n</i> = 33,541) 56.2%	(<i>n</i> = 26,115) 43.8%

The 2018-2019 results for all Grade 3 students were statistically significant, $\chi^2(1) = 233.44$, p < .001. The effect size for the findings, Cramer's V, were below small, .063 (Cohen, 1988). Retention in Kindergarten explained 6.3% of the variance in the passing rates for all Grade 3 students on the STAAR Reading Meets expectation standard during the 2018-2019 school year.

Table 12 shows less than one fifth of students who were retained in Kindergarten in the year 2018-2019 met the STAAR Reading Meets Expectations standard in Grade 3. Almost half of the students who were not retained in Kindergarten met the standard for Reading in Grade 3. The percentage of students who were retained in Kindergarten who did not meet the Meets expectations standard were more than one and a half times the percentage of students who were not retained in Kindergarten and met the Meets Expectations standard on the Grade 3 Reading STAAR exam.

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for All Grade 3 Students in the 2018-2019 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 526) 84.8%	(<i>n</i> = 94) 15.2%
Not Retained in Kindergarten	(<i>n</i> = 31,165) 54.1%	(<i>n</i> = 26,425) 45.9%

Results by School Year Based on Their Economic Status

Subsequently, the data were analyzed for specific subgroups of students. The first subgroup focused on two sets of students, those that receive free and reduced lunch or those that do not qualify for free and reduced lunch. The state of Texas identifies these groups as economically disadvantaged or non-economically disadvantaged. In the 2015-2016 school year, the results of the analysis were statistically significant for students grade 3 that were economically disadvantaged, $\chi^2(1) = 128.40$, p < .001. The effect size for this finding, Cramer's V, were below small, .06 (Cohen, 1988). Kindergarten retention for Grade 3 students who were identified as Economically Disadvantaged explained 6% of their passing rates on the STAAR Reading exam at the Meets Expectations standard.

Revealed below in Table 13, almost two-thirds of students who were retained in Kindergarten and who were identified as economically disadvantaged did not meet the Meets Expectations Standard on the Third Grade Reading exam. When looking at the students who were not retained in Kindergarten and who were identified as economically disadvantaged, it is evident that slightly more than one third of these students did not meet the Meets Expectations Standard on the Third grade Reading exam. It is important to note that the percent of students who did not meet this standard on the Third grade exam were almost twice as high for students identified as economically disadvantaged and retained in Kindergarten than their peers who were not retained in Kindergarten. Table 13

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Students Who Were Economically Disadvantaged in the 2015-2016 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 248) 61.2%	(<i>n</i> = 157) 38.80%
Not Retained in Kindergarten	(<i>n</i> = 12,271) 34.3%	(<i>n</i> = 23,506) 65.7%

Data from the students identified as Economically Disadvantaged in the 2016-2017 school year were statistically significant, $\chi^2(1) = 125.94$, p < .001. The effect size for this finding, Cramer's V, were below small, .058 (Cohen, 1988). Kindergarten students who were retained and identified as Economically Disadvantaged explained almost 6% of their passing rates on the STAAR Reading Meets Expectations standard. Table 14 indicates 11.8% of students who were retained in Kindergarten and who were identified as economically disadvantaged met the Meets Expectations standard in Grade 3 Reading. More than a third of the students who were not retained in Kindergarten and identified as Economically Disadvantaged met the Meets Expectations standard on the Grade 3 Reading exam. The percent of students identified as Economically Disadvantaged and were not retained in Kindergarten who met the Meets Expectations standard in Reading were more than three times the percent of students meeting the standard who were retained in Kindergarten and identified as Economically Disadvantaged. It is important to note the high percentage of students identified as Economically Disadvantaged who did not meet the Grade 3 Meets Expectations Reading standard.

Table 14

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Students Who Were Economically Disadvantaged in the 2016-2017 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 463) 88.2%	(<i>n</i> = 62) 11.8%
Not Retained in Kindergarten	(<i>n</i> = 23,893) 64.7%	(<i>n</i> = 13,057) 35.3%

The 2017-2018 school year results were statistically significant for Grade 3 students who were economically disadvantaged, $\chi^2(1) = 94.96$, p < .001. The effect size

for this finding, Cramer's V, were below small, .05 (Cohen, 1988). Five percent of the passing rate on the Grade 3 STAAR Reading exam at the Meets expectations standard for students identified as Economically Disadvantaged can be attributed to the Kindergarten retention. As outlined in Table 15, only slightly more than a tenth of the students who were identified as Economically Disadvantaged and retained in Kindergarten met the Grade 3 Reading Meets Expectations standard. One third of students who were not retained in Kindergarten and identified as Economically Disadvantaged met the standard. It is important to note the percent of students who met the standard in Grade 3 were almost three times as high for students identified as Economically Disadvantaged that were not retained in Kindergarten than their peers who were retained in Kindergarten.

Table 15

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Students Who Were Economically Disadvantaged in the 2017-2018 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	$(n = 405) \ 88.0\%$	(<i>n</i> = 55) 12.0%
Not Retained in Kindergarten	(<i>n</i> = 24,520) 66.5%	(<i>n</i> = 12,347) 33.5%

The 2018-2019 results of the Grade 3 students who were economically disadvantaged were statistically significant, $\chi^2(1) = 141.00$, p < .001. The effect size for

this finding, Cramer's V, were below small, .063 (Cohen, 1988). Kindergarten retention impacted Grade 3 students identified Economically Disadvantaged on their passing rate to the STAAR Reading Meets Expectation standard by 6.3%. Table 16 shows almost nine tenths of students who were retained in Kindergarten and who were identified as Economically Disadvantaged did not meet the Grade 3 Meets Expectations standard. Almost two thirds of the students identified as Economically Disadvantaged, but not retained in Kindergarten did not meet the Meets Expectations standard in Grade 3. The high percentage of students that did not meet the Grade 3 Meets expectations standard during the 2018-2019 school year and were identified as Economically Disadvantaged should be noted.

Table 16

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Students Who Were Economically Disadvantaged in the 2018-2019 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 482) 89.1%	(<i>n</i> = 59) 10.9%
Not Retained in Kindergarten	(<i>n</i> = 22,240) 64.5%	(<i>n</i> = 12,219) 35.5%

The results for the students who were not identified as economically disadvantaged on the Third grade Reading exam were statistically significant, $\chi^2(1) =$ 17.41, p < .001. The effect size for this finding, Cramer's V, were below small, .027 (Cohen, 1988). Nearly 3% of the variance in the STAAR Reading Meets Expectations standard were attributed to the retention in Kindergarten. Almost two thirds of the students who were retained in Kindergarten and were not identified as economically disadvantaged did not meet the Meets Expectations Standard on the Third grade STAAR exam. One Fourth of the students who were not retained in Kindergarten and were not identified as economically disadvantaged did not meet the Meets Expectation Standard on the Third Grade STAAR exam compared to slightly over a tenth of students who were not retained in Kindergarten and who did not meet this standard in Grade 3. The percentage of students who did not meet the standard and were retained were twice the percentage of students who did not meet the standard and who had not been retained in Kindergarten. Table 17 contains the Frequencies and Percentages of this analysis. Table 17

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Students Who Were Not Economically Disadvantaged in the 2015-2016 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 27) 26.0%	(<i>n</i> = 77) 74.0%
Not Retained in Kindergarten	(<i>n</i> = 2,911) 12.4%	(<i>n</i> = 20,539) 87.6%

The results of the 2016-2017 school year Grade 3 students who were not Economically Disadvantaged yielded a statistically significant result, $\chi^2(1) = 15.18$, p <.001. The effect size for this finding, Cramer's V, were below small, .025 (Cohen, 1988). Retention in Kindergarten explained approximately 3% of the variance in the STAAR Reading Meets Expectations standard for these students. Over half of the students who were retained in Kindergarten that were not identified as Economically Disadvantaged did not meet the standard. Of the students who were not Economically Disadvantaged and were not retained in Kindergarten, more than a third of these students did not meet the Meets Expectations standard in Grade 3. The percent of students who had been retained and did not meet the standard were one and a half times the percent of students who did not meet the standard and had not been retained in Kindergarten. The frequencies and percentages for the 2016-2017 school year are contained in Table 18. Table 18

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Students Who Were Not Economically Disadvantaged in the 2016-2017 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 63) 52.9%	(<i>n</i> = 56) 47.1%
Not Retained in Kindergarten	(<i>n</i> = 8,359) 35.8%	(<i>n</i> = 15,010) 64.2%

The 2017-2018 school year Grade 3 Non-Economically Disadvantaged student data yielded a statistically significant difference, $\chi^2(1) = 20.80$, p < .001. The effect size for this finding, Cramer's V, were below small, .03 (Cohen, 1988). Three percent of the variance in the Grade 3 STAAR Reading Meets Expectation standard for students not identified as economically disadvantaged can be explained by their retention in Kindergarten. As outlined in Table 19, nearly two thirds of students who were retained in Kindergarten and not identified as Economically Disadvantaged did not meet the Meets Expectations standard in Grade 3. Almost four tenths of the students did not meet the Meets Expectations standard in Reading that were not retained in Kindergarten and who were not identified as Economically Disadvantaged. The percent of students who were not retained and met the standard in Third Grade were almost one and a half times the percent of student who were retained in Kindergarten and met the standard. Table 19

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Students Who Were Not Economically Disadvantaged in the 2017-2018 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 69) 60.5%	(<i>n</i> = 45) 39.5%
Not Retained in Kindergarten	(<i>n</i> = 9,014) 39.6%	(<i>n</i> = 13,763) 60.4%

Concerning the 2018-2019 school year and the Grade 3 students not identified as Economically Disadvantaged, a statistically significant result were yielded, $\chi^2(1) = 9.74$, p = .002. The effect size for this finding, Cramer's V, were below small, .02 (Cohen, 1988). Two percent of the variance in the STAAR Reading Meets Expectation standard can be explained by retention in Kindergarten for these students. Table 20 contains data signifying over half of the students who were retained in Kindergarten and who were not identified as Economically Disadvantaged did not meet the Grade 3 Meets Expectations standard. More than one third of the students who were not retained in Kindergarten and who were not Economically Disadvantaged did not meet the Grade 3 Meets Expectations standard in the 2018-2019 school year. The percentage of students who did not meet the standard in Grade 3 and who were retained in Kindergarten were more than one and a half times the percent of students who did not meet the standard and were not retained in Kindergarten.

Table 20

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Students Who Were Not Economically Disadvantaged in the 2018-2019 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 44) 55.7%	(<i>n</i> = 35) 44.3%
Not Retained in Kindergarten	(<i>n</i> = 8,920) 38.6%	(<i>n</i> = 14,206) 61.4%

Results by School Year of Students by Race/Ethnicity

The 2015-2016 results of White students in Grade 3 being included in the statistical analysis showed a statistical significance, $\chi^2(1) = 26.74$, p < .001. The effect size for this finding, Cramer's V, were below small, .04 (Cohen, 1988). The analysis showed retention of students in Kindergarten had a 4% variance to the passing rate. Table 21 contains data indicating almost one third of White students who were retained in Kindergarten did not meet the Grade 3 Reading Meets Expectations standard. Students who were not retained only displayed a 15% rate of not meeting the standard. The percent of White students who were retained in Kindergarten and did not meet the standard were more than twice the percent of White students who weren't retained and met the standard on the Grade 3 Reading STAAR exam at the Meets Expectations level. Table 21

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 White Students in the 2015-2016 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 38) 30.6%	(n = 86) 69.4%
Not Retained in Kindergarten	(<i>n</i> = 2,373) 14.3%	(<i>n</i> = 14,244) 85.7%

Data were also run for the 2016-2017 school year for White students. The data indicated a statistically significant results $\chi^2(1) = 51.22$, p < .001. The effect size for this finding, Cramer's V, were below small, .055 (Cohen, 1988). Retention in Kindergarten explained nearly 6% of the variance in the Grade 3 White students' scores on the Reading exam. Table 22 shows just over one third of the White students who were retained in Kindergarten met the standard, compared to two thirds of White students who were not retained in Kindergarten and met the standard. White students who were not retained in Kindergarten and met the Grade 3 Reading Meets Expectations standard were twice the percentage of White students who were retained in Kindergarten who met the standard.

Table 22

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 White Students in the 2016-2017 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 118) 65.9%	(<i>n</i> = 61) 34.1%
Not Retained in Kindergarten	(<i>n</i> = 6,627) 39.6%	(<i>n</i> = 10,112) 60.4%

Data were also analyzed for White students in Grade 3 for the 2017-2018 school year. A statistically significant difference were obtained, $\chi^2(1) = 35.26$, p < .001. The effect size for this finding, Cramer's V, were below small, .046 (Cohen, 1988). There were nearly a 5% variance due to Kindergarten retention in the passing rate for Grade 3

White students. Table 23 outlines over two thirds of White students who were retained in Kindergarten did not meet the Grade 3 Reading Meets Expectations standard, compared to slightly more than four tenths of White students who were not retained and did not meet the same standard. The White students who were not retained but met the Grade 3 standard nearly doubled the percent of White students retained in Kindergarten and met the standard.

Table 23

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 White Students in the 2017-2018 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 93) 67.4%	(<i>n</i> = 45) 32.6%
Not Retained in Kindergarten	(<i>n</i> = 6,960) 42.3%	(<i>n</i> = 9,494) 57.7%

During the 2018-2019 school year, a statistically significant difference were discovered, $\chi^2(1) = 37.09$, p < .001 for the White students in Grade 3. The effect size for this finding, Cramer's V, were below small, .048 (Cohen, 1988). Kindergarten retention had a 4.8% variance for White students passing the Grade 3 Reading exam in the 2018-2019 school year. Table 24 gives the overview of the data showing over two thirds of White students who were retained in Kindergarten did not meet the STAAR Reading Meets Expectations standard in Grade 3, compared to slightly more than a third of the

White students who were not retained and who did not meet the standard. Students who were retained in Kindergarten and did not meet the STAAR Reading Meets Expectation standard were one and a quarter the percent of White students who were not retained in Kindergarten and met the standard on the Grade 3 Reading exam at the Meets Expectations standard.

Table 24

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 White Students in the 2018-2019 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 85) 69.7%	(<i>n</i> = 37) 30.3%
Not Retained in Kindergarten	(<i>n</i> = 6,733) 42.3%	(<i>n</i> = 9,181) 57.7%

Data regarding the Hispanic Students during the 2015-2016 school year were analyzed and found to be statistically significant, $\chi^2(1) = 133.66$, p < .001. The effect size for this finding, Cramer's V, were below small, .064 (Cohen, 1988). This indicates that Kindergarten retention had a 6.4% variance on the Grade 3 Reading exam at the Meets Expectations standard for Grade 3 Hispanic students. Table 25 reveals, over half of the Hispanic students who were retained in Kindergarten did not meet the STAAR Reading Meets Expectations standard in Grade 3, compared to the under a third of Hispanic students who were retained in Kindergarten and did not meet the Grade 3 standard. A noticeable difference can be seen by comparing the percent of Hispanic students who were retained in Kindergarten and did not meet the standard versus the almost twice as large of a percent of Hispanic students who were not retained in Kindergarten and met the standard.

Table 25

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Hispanic Students in the 2015-2016 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 204) 59.0%	(<i>n</i> = 142) 41.0%
Not Retained in Kindergarten	(<i>n</i> = 9,872) 30.2%	(<i>n</i> = 22,823) 69.8%

A statistically significant difference were revealed for the 2016-2017 school year, regarding Grade 3 Hispanic students, $\chi^2(1) = 126.84$, p < .001. The effect size for this finding, Cramer's V, were below small, .062 (Cohen, 1988). Kindergarten retention accounted for 6.2% of the variance in pasting rates for Grade 3 Hispanic students. Table 26 outlines slightly over a tenth of the Hispanic students who were retained in Kindergarten met the Grade 3 Reading Meets Expectations standard, compared to more than a third of the Hispanic students who were not retained and met the standard. The percent of Hispanic students who were not retained and met the standard were more than

three times the percent of Hispanic students who were retained in Kindergarten and met the Grade 3 Reading standard at the Meets Expectations level.

Table 26

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Hispanic Students in the 2016-2017 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 354) 87.4%	(<i>n</i> = 51) 12.6%
Not Retained in Kindergarten	(<i>n</i> = 19,764) 59.8%	(<i>n</i> = 13,262) 40.2%

A statistically significant difference were revealed with regards to the 2017-2018 Grade 3 Hispanic students, $\chi^2(1) = 92.74$, p < .001. The effect size for this finding, Cramer's V, were below small, .053 (Cohen, 1988). Kindergarten retention accounted for 5.3% of the variance in passing rates for Grade 3 Hispanic students. Table 27 explains, slightly over one tenth of the Hispanic students retained in Kindergarten met the Grade 3 STAAR Reading Meets expectations standard, compared to over a third of the Hispanic students who were not retained who met the same standard. The percent of Hispanic students who were not retained in Kindergarten and met the STAAR Grade 3 Reading Meets Expectations standard were almost three times the percent of Hispanic students who were retained in Kindergarten and met the standard.

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Hispanic Students in the 2017-2018 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 331) 86.2%	(<i>n</i> = 53) 13.8%
Not Retained in Kindergarten	(<i>n</i> = 20,356) 62.3%	(<i>n</i> = 12,332) 37.7%

The 2018-2019 school year data were analyzed for Grade 3 Hispanic students. The results indicated a statistically significant result, $\chi^2(1) = 128.75$, p < .001. The effect size for this finding, Cramer's V, were below small, .064 (Cohen, 1988). Kindergarten retention impacted 6.4% of the variance in Hispanic Grade 3 students on the STAAR Reading exam at the Meets Expectations standard. Table 28 reveals almost nine tenths of the Hispanic students who were retained in Kindergarten did not meet the STAAR Reading Meets Expectations standard in Grade 3, compared to more than half of the Hispanic students who were not retained and did not meet the Meets Expectations standard. After analyzing the data, it is important to note Hispanic students who met the standard and were not retained were more than three times the percent of Hispanic students who were retained in Kindergarten and met the Grade 3 Reading STAAR standard at the Meets Expectations level.

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Hispanic Students in the 2018-2019 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 355) 87.0%	(<i>n</i> = 53) 13.0%
Not Retained in Kindergarten	(<i>n</i> = 18,371) 59.3%	(<i>n</i> = 12,626) 40.7%

The 2015-2016 school year data were also analyzed for Black students. The data revealed a statistically significant difference, $\chi^2(1) = 34.16$, p < .001. The effect size for this finding, Cramer's V, were below small, .07 (Cohen, 1988). Seven percent of the variance in STAAR Reading Grade 3 Meets Expectations level for Black students were influenced by Kindergarten retention. Table 29 reveals a large difference in the percent of students who were retained in Kindergarten that did not meet the standard (84.6%) versus the students who were not retained and did not meet the standard (38.8%). It is important to note in Table 4.21, the high percentage of Black students who did not meet the standard regardless of whether they were retained in Kindergarten or not.

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Black Students in the 2015-2016 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 33) 84.6%	(<i>n</i> = 6) 15.4%
Not Retained in Kindergarten	(<i>n</i> = 2,441) 38.8%	(<i>n</i> = 3,849) 61.2%

A statistically significant difference were yielded when analyzing the data for Grade 3 Black students during the 2016-2017 school year, $\chi^2(1) = 12.30$, p < .001. The effect size for this finding, Cramer's V, were below small, .043 (Cohen, 1988). Kindergarten retention accounted for 4.3% of the variance in the Grade 3 Reading STAAR passing rate at the Meets expectations level. Table 30 outlines only one tenth of Black students who were retained in Kindergarten met the Grade 3 Reading standard compared to almost one third of the Black students who were not retained and met the Grade 3 standard. The percent of Black students meeting the standard and were not retained were more than three times the percent of Black students who were retained in Kindergarten and met the Grade 3 Reading standard at the Meets Expectations level. Similar to the previous year, it is important to note that regardless of the Kindergarten retention status, there were a high percent of Black students who did not meet the standard for the Grade 3 STAAR Reading exam at the Meets Expectations level.

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Black Students in the 2016-2017 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 54) 90.0%	(<i>n</i> = 6) 10.0%
Not Retained in Kindergarten	(<i>n</i> = 4,472) 69.0%	(<i>n</i> = 2,009) 31.0%

The 2017-2018 school year data were analyzed pertaining to the Grade 3 Black students. The results indicated a statistically significant difference, $\chi^2(1) = 14.22$, p <.001. The effect size for this finding, Cramer's V, were below small, .047 (Cohen, 1988). Kindergarten retention played a 5% variance in the passing rate for Black students in Grade 3 in Reading. Table 31 outlines less than 5% of Black students who were retained in Kindergarten met the Grade 3 Reading STAAR Meets Expectations standard, compared to over a fourth of the Black students who were not retained and met the Grade 3 STAAR Reading standard. The percent of Black students who were not retained in Kindergarten and met the standard were nearly 7 times the percent of Black students who were retained and met the standard. It is important to note that again in the 2017-2018 school year, Black students had a high percent of Did not Meet Standard outcomes in both the retained in Kindergarten data and the not retained in Kindergarten data.
Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Black Students in the 2017-2018 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 50) 96.2%	(n = 2) 3.8%
Not Retained in Kindergarten	(<i>n</i> = 4,705) 72.9%	(<i>n</i> = 1,753) 27.1%

A statistically significant difference were yielded when analyzing the 2018-2019 school year data for Black students in Grade 3, $\chi^2(1) = 26.29$, p < .001. The effect size for this finding, Cramer's V, were below small, .064(Cohen, 1988). Kindergarten retention accounted for 6.4% of the variance in the passing rate for Grade 3 Reading STAAR at the Meets Expectations level. Table 32 displays less than 5% of Black students who were retained in Kindergarten met the Grade 3 Reading STAAR Meets Expectations standard. In comparison, almost one third of the Black students who were not retained met this standard. It is important to note that regardless of the Kindergarten retention status, there were a high percent of Black students who did not meet the Grade 3 STAAR Reading standard at the Meets Expectations level.

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Black Students in the 2018-2019 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 85) 95.5%	(<i>n</i> = 4) 4.5%
Not Retained in Kindergarten	(<i>n</i> = 4,476) 70.7%	(<i>n</i> = 1,857) 29.3%

The next group of students that were analyzed were Other. Students that fall in the Other category include Asian students and students identified as Two or More Races. Based on the data that were provided by the state, a Pearson Chi-square could not be calculated for the 2015-2016 school year, because no students identified as Other were retained in Kindergarten. Table 33 displays the frequencies and percentages for this group of students.

Table 33

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Other Students in the 2015-2016 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(n = 0) 0%	(n = 0) 0%
Not Retained in Kindergarten	(<i>n</i> = 498) 13.7%	(<i>n</i> = 3,132) 86.3%

The same scenario occurred when looking at the 2016-2017 school year in regard to students who fell into the Other students group. All students in the group moved into First grade after completing Kindergarten. Frequencies and percentages are shown in Table 34 for the 2016-2017 school year.

Table 34

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Other Students in the 2016-2017 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(n = 0) 0%	(n = 0) 0%
Not Retained in Kindergarten	(<i>n</i> = 1,389) 34.17%	(<i>n</i> = 2,684) 65.9%

Again, Grade 3 Other students in 2017-2018 school year were all moved into First grade after completing Kindergarten and therefore, a Pearson Chi-square could not be run for this group of students. Table 35 presents the percentages from the Other student group.

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Other Students in the 2017-2018 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(n = 0) 0%	(n = 0) 0%
Not Retained in Kindergarten	(<i>n</i> = 1,520) 37.5%	(<i>n</i> = 2,536) 62.5%

Concerning the Grade 3 Other students in the 2018-2019 school year, the Pearson Chi-square procedure could not be calculated, because only one student identified in the Other student group had been retained in Kindergarten. Frequencies and percentages for this group of students is presented in Table 36.

Table 36

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Other Students in the 2018-2019 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 1) 100.0%	(n = 0) 0%
Not Retained in Kindergarten	(<i>n</i> = 1,585) 36.5%	(<i>n</i> = 2,761) 63.5%

Results for Students Based on English Learners Status by School Year

Data were run separately for Grade 3 students identified as English Learners and non-English Learners for each school year. The results of the Grade 3 English Learners were statistically significant, $\chi^2(1) = 13.14$, p < .001. The effect size for this finding, Cramer's V, were below small, .03 (Cohen, 1988). Retention in Kindergarten for English learners represented 3% of the variance in their passing rate for Grade 3 STAAR Reading Meets Expectations standard.

Table 37 indicates that less than half of the English Learners who were retained in Kindergarten met the STAAR Reading Meet Expectations standard in Grade 3. Almost two thirds of the English Learners who were not retained in Kindergarten met the Meets Expectations standard in Grade 3 Reading. The percent of students who are English Learners who were retained in Kindergarten and did not meet the Meets Expectations standard were approximately one and a half times the percent of English Learners who were retained in Kindergarten and met the Grade 3 Reading Standard. Table 37

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 English Learners in the 2015-2016 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 52) 53.1%	(<i>n</i> = 46) 46.9%
Not Retained in Kindergarten	(<i>n</i> = 4,838) 35.5%	(<i>n</i> = 8,803) 64.5%

The 2016-2017 data regarding Grade 3 English Learners yielded a statistically significant outcome, $\chi^2(1) = 25.46$, p < .001. The effect size for this finding, Cramer's V, were below small, .044 (Cohen, 1988). Kindergarten retention accounted for 4.4% of the variance in the passing rate for English Learners on the Grade 3 Reading STAAR exam at the Meets Expectations level. Table 38 presents slightly more than one tenth of English Learners who were retained in Kindergarten met the Grade 3 STAAR Reading standard. If the English Learners who were not retained in Kindergarten, one third of them met the Grade 3 Meets Expectations standard. The percent of English Learners who were over two and a half times the percent of English Learners who were retained in Kindergarten and met the Grade 3 Reading Meets Expectations standard.

Table 38

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 English Learners in the 2016-2017 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 125) 86.8%	(<i>n</i> = 19) 13.2%
Not Retained in Kindergarten	(<i>n</i> = 8,765) 66.9%	(<i>n</i> = 4,327) 33.1%

Regarding the 2017-2018 school year, the results of the English Learners analysis were statistically significant, $\chi^2(1) = 30.02$, p < .001. The effect size for this finding, Cramer's V, were below small, .048 (Cohen, 1988). The Kindergarten retention accounted for 4.8% of the variance in the English Learners passing rate on the Grade 3 Reading STAAR exam at the Meets Expectations standard. Table 39 reveals less than a tenth of the English Learners who were retained in Kindergarten met the Grade 3 STAAR Reading Meets Expectations standard compared to nearly a third of the English Learners who had not been retained and met the standard. The percent of English Learners who were not retained in Kindergarten and met the Meets Expectation standard were virtually four times the percent of English Learners who were retained in Kindergarten and met the Grade 3 Reading Standard at the Meets Expectations level. Table 39

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 English Learners in the 2017-2018 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 110) 91.7%	(<i>n</i> = 10) 8.3%
Not Retained in Kindergarten	(<i>n</i> = 8,724) 68.3%	(<i>n</i> = 4,043) 31.7%

Concerning the 2018-2019 school year for Grade 3 English Learners, the results were statistically significant, $\chi^2(1) = 16.32$, p < .001. The effect size for this finding, Cramer's V, were below small, .036 (Cohen, 1988). Kindergarten retention accounted

for 3.6% of the variance for English Learners passing rate on the Grade 3 STAAR Reading Meets Expectations level. Table 40 reveals less than one fifth of the English Learners who were retained in Kindergarten met the Grade 3 STAAR Reading Meets Expectations Standard. One Third of the English Learners who were not retained in Kindergarten met the Grade 3 Meets Expectations standard. The percent of English Learners who were retained in Kindergarten and met the Grade 3 standard were half the percent of English Learners who were not retained in Kindergarten and met the Grade 3 Reading Meets Expectations standard.

Table 40

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 English Learners in the 2018-2019 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 95) 81.9%	(<i>n</i> = 21) 18.1%
Not Retained in Kindergarten	(<i>n</i> = 7,865) 63.8%	(<i>n</i> = 4,461) 36.2%

In shifting to the students who were not English Learners, the 2015-2016 school year data yields a statistically significant result, $\chi^2(1) = 229.37$, p < .001. The effect size for this finding, Cramer's V, were below small, .07 (Cohen, 1988). Kindergarten retention accounted for 7% of the variance in in the passing rate on the Grade 3 Reading STAAR at the Meets Expectations level for students not identified as English Learners.

Table 41 presents less than half of the non-English Learners who were retained in Kindergarten met the STAAR Reading Meets Expectations standard in Grade 3. Three fourths of the non-English Learners who were not retained in Kindergarten met the Meets Expectations standard. The percent of non-English Learners who were retained in Kindergarten and who did not meet the Meets Expectation standard were more than two times the percent of non-English Learners who were not retained in Kindergarten and met the Grade 3 Reading Meets Expectation level.

Table 41

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 non-English Learners in the 2015-2016 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 223) 54.3%	(<i>n</i> = 188) 45.7%
Not Retained in Kindergarten	(<i>n</i> = 10,344) 22.7%	(<i>n</i> = 35,242) 77.3%

The 2016-2017 Grade 3 data regarding non-English Learners yielded a statistically significant result, $\chi^2(1) = 183.71$, p < .001. The effect size for this finding, Cramer's V, were below small, .062 (Cohen, 1988). Kindergarten retention accounted for 6.2% of the variance in the non-English Learner passing rates on the Grade 3 Reading Meets Expectations Standard. Table 42 outlines less than one fifth of the non-English Learners who were retained in Kindergarten met the Grade 3 STAAR Reading Meets Expectations standard. Of the non-English Learners who were not retained in

Kindergarten, half of these students met the Meets Expectations standard in Grade 3. The percent of non-English Learners who were not retained in Kindergarten who met this standard were two and a half times the percent of non-English Learners who were retained in Kindergarten and met the Grade 3 Reading Meets Expectations standard.

Table 42

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 non-English Learners in the 2016-2017 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 401) 80.2%	(<i>n</i> = 99) 19.8%
Not Retained in Kindergarten	(<i>n</i> = 23,487) 49.7%	(<i>n</i> = 23,740) 50.3%

Concerning the 2017-2018 school year regarding the non-English Learners, a statistically significant difference were yielded, $\chi^2(1) = 134.10$, p < .001. The effect size for this finding, Cramer's V, were below small, .053(Cohen, 1988). Kindergarten retention for non-English Learners accounted for the 5.3% variance in their passing rates on the Grade 3 STAAR Reading Meets Expectations standard. As defined in Table 43, less than one fifth of non-English Learners that were retained in Kindergarten met the Grade 3 STAAR Reading Meets Expectations standard. Of the non-English Learners who were not retained, nearly one half met the Meets Expectations standard in Grade 3. The percent of non-English Learners who were not retained in Kindergarten and met the

Grade 3 standard were more than two times the percent of retained non-English Learners who met the Grade 3 STAAR Reading standard.

Table 43

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 non-English Learners in the 2017-2018 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 364) 80.2%	(<i>n</i> = 90) 19.8%
Not Retained in Kindergarten	(<i>n</i> = 24,810) 52.9%	(<i>n</i> = 22,067) 47.1%

The data for the non-English Learners in the 2018-2019 school year, resulted in a statistically significant outcome, $\chi^2(1) = 231.42$, p < .001. The effect size for this finding, Cramer's V, were below small, .07 (Cohen, 1988). Kindergarten retention accounted for 7% of the variance in the passing rates on the Grade 3 Reading Meets Expectations standard for Non-English Learners. Table 44 depicts less than 15% of non-English Learners who were retained in Kindergarten met the Grade 3 STAAR Reading Meets Expectations standard. Nearly half of the non-English Learners that were not retained in Kindergarten met the Grade 3 STAAR Reading Meets 3. The percent of non-English Learners who were not retained in kindergarten and who met the Grade 3 Meets Expectation standard were more than three times the percent of Non-English Learners who were retained in Kindergarten and who met this standard. It is important to note the high percent of students who did not meet the Grade 3 Meets Expectations Standard in both the retained and not retained categories.

Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 non-English Learners in the 2018-2019 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 431) 85.5%	(<i>n</i> = 73) 14.5%
Not Retained in Kindergarten	(<i>n</i> = 23,295) 51.5%	(<i>n</i> = 21,964) 48.5%

Other Central City School District Results for All Students by Year

Results of the Other Central City School District should be carefully considered due to the small sample size of the students who were eligible to participate in the study. Pair-wise matching was unable to be performed due to the small sample size.

The 2015-2016 school year statistical analysis for all Grade 3 students in the Other Central City District indicated the results were not statistically significant, $\chi^2(1) = 0.06$, p = .81. As presented in Table 45, students in this district that were retained in kindergarten had similar passing rates on the Grade 3 Reading STAAR exam at the Meets Expectations standard (17.4%) as their peers who were not retained in Kindergarten (18.8%).

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for All Grade 3 Students in the 2015-2016 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 8) 17.4%	(<i>n</i> = 38) 82.6%
Not Retained in Kindergarten	(<i>n</i> = 850) 18.8%	(<i>n</i> = 3,681) 81.2%

The 2016-2017 school year statistical analysis for all Grade 3 students in the Other Central City District indicated the results were statistically significant, $\chi^2(1) = 13.32$, p < .001. The effect size for this finding, Cramer's V, were below small, .053 (Cohen, 1988). Retention in kindergarten explained 5.3% of the variance in passing rates for all Grade 3 students on the STAAR Reading exam at the Meets Expectations standard.

Table 46 shows only about two fifths of the students retained in kindergarten met the STAAR Reading Meets Expectations standard in Grade 3 versus the three fourths of the students who were not retained in kindergarten that met the Meets Expectations standard on the Reading exam in Grade 3. The percent of students who were retained in kindergarten and did not meet the standard were twice the percent of students who were not retained in kindergarten and who did not meet the standard in the Other Central City district.

Table 46

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for All Grade 3 Students in the 2016-2017 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 20) 41.7%	(<i>n</i> = 28) 58.3%
Not Retained in Kindergarten	(<i>n</i> = 956) 20.3%	(<i>n</i> = 3,755) 79.7%

The statistical analysis for the 2017-2018 school year involving all Grade 3 students were statistically significant, $\chi^2(1) = 21.74$, p < .001. The effect size for this finding, Cramer's V, were below small, .067 (Cohen, 1988). When looking at the impact kindergarten retention had on the Grade 3 STAAR Reading scores at the Meets Expectations standard, kindergarten retention accounted for 6.7% of the variance in passing rates. Table 47 indicates more than half of the students retained in kindergarten met the STAAR Reading Meets Expectations standard in Grade 3 versus the more than four fifths of the students who were not retained in kindergarten. The percent of students who were retained in kindergarten and who did not meet the standard were more than two and a half times the percent of students who were not retained in kindergarten and did not meet the standard at the Meets Expectations level.

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for All Grade 3 Students in the 2017-2018 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 21) 41.2%	(<i>n</i> = 30) 58.8%
Not Retained in Kindergarten	(<i>n</i> = 797) 16.6%	(<i>n</i> = 4,003) 83.4%

The results of the statistical analysis of all Grade 3 students during the 2018-2019 school year approached, but did not reach, the conventional level of statistical significance, $\chi^2(1) = 2.86$, p = .09. The effect size for this finding, Cramer's V, were below small, .025 (Cohen, 1988). Kindergarten retention explained 2.5% of the variance in the passing rates for all Grade 3 students on the STAAR Reading Meets Expectations standard. Table 48 indicates more than a third of the students who were retained in Kindergarten did not meet the STAAR Reading Meets Expectations standard in Grade 3 versus the less than two fifths of the students who were not retained. The percent of students who were not retained in kindergarten and who did not meet the standard were almost twice the percent of students who were not retained in kindergarten and did not meet the standard.

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for All Grade 3 Students in the 2018-2019 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(n = 7) 35.0%	(<i>n</i> = 13) 65.0%
Not Retained in Kindergarten	(<i>n</i> = 943) 19.9%	(<i>n</i> = 3,806) 80.1%

Other Central City School District Results for Students by Economic Status by School Year

Next, a statistical analysis were conducted using the same research question, however, focusing on specific subgroups. The first two samples focused on students based on their economic status. Students in these groups were identified as economically disadvantaged if they qualified for free or reduced lunch program and non-economically disadvantaged if they did not qualify for the free or reduced lunch program.

During the 2015-2016 school year, focusing on students in Grade 3 that were identified as economically disadvantaged, the results approached, but did not reach the conventional level of statistically significant, $\chi^2(1) = 3.09$, p = .079. The effect size for this finding, Cramer's V, were below small, .04 (Cohen, 1988). Kindergarten retention explained 4% of the variance in passing rates on the STAAR Reading Meets Expectations standard for students in grade 3 that are identified as economically

disadvantaged. Table 49 presents almost two thirds of students retained in kindergarten and who were identified as economically disadvantaged did not meet the Meets Expectations standard in Grade 3. One third of the students that were identified as economically disadvantaged that were not retained in kindergarten did not meet the standard. It should be noted that the percent of students identified as economically disadvantaged and who were retained in kindergarten accounted for nearly double the students that were not retained in kindergarten.

Table 49

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Students Who Were Economically Disadvantaged in the 2015-2016 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 5) 62.5%	(<i>n</i> = 3) 37.5%
Not Retained in Kindergarten	(<i>n</i> = 619) 33.2%	(<i>n</i> = 1,248) 66.8%

Regarding the Grade 3 students who were identified as economically disadvantaged in the 2016-2017 school year, the results were statistically significant, $\chi^2(1) = 5.66$, p = .017. The effect size for this finding, Cramer's V, were below small, .053 (Cohen, 1988). Kindergarten retention explained 5.3% of the variance in the passing rate on the Reading Grade 3 STAAR exam at the Meets Expectations level.

Table 50 shows slightly more than one tenth of students retained in kindergarten who were identified as economically disadvantaged met the Meets Expectations level on the Grade 3 Reading exam. Of the students who were retained in kindergarten and who were identified economically disadvantaged, almost six tenths of these students did not meet the Meets Expectations standard. Over one third of the students identified as economically disadvantaged and not retained in kindergarten did not meet the standard. The percent of students identified as economically disadvantaged who were retained and did not meet the standard were almost twice the percent of students identified as economically disadvantaged who were not retained and did not meet the standard on the Grade 3 Reading exam.

Table 50

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Students Who Were Economically Disadvantaged in the 2016-2017 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 13) 59.1%	(<i>n</i> = 9) 40.9%
Not Retained in Kindergarten	(<i>n</i> = 700) 34.8%	(<i>n</i> = 1,314) 65.2%

Economically disadvantaged students in Grade 3 regarding the 2017-2018 school year showed statistically significant results, $\chi^2(1) = 3.96$, p = .047. The effect size for this finding, Cramer's V, were below small, .043 (Cohen, 1988). Kindergarten retention

explained 4.3% of the passing rate for students at the STAAR Reading Meets Expectations level. Table 51 presents half of the students who were retained in kindergarten and who were identified economically disadvantaged met the Meets Expectations standard in Grade 3. Of the economically disadvantaged students, three fourths of the students who were not retained met the Meets Expectations standard. It is important to note that students identified as economically disadvantaged that were retained and did not meet the standard were almost twice as high as the percent of students identified economically disadvantaged who were not retained and did not meet the standard.

Table 51

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Students Who Were Economically Disadvantaged in the 2017-2018 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 8) 50.0%	(<i>n</i> = 8) 50.0%
Not Retained in Kindergarten	(<i>n</i> = 576) 27.6%	(<i>n</i> = 1,509) 72.4%

Grade 3 students who were identified as economically disadvantaged in the 2018-2019 school year were analyzed. These results showed a statistically significant difference, $\chi^2(1) = 5.07$, p = .024. The effect size for this finding, Cramer's V, were

below small, .05 (Cohen, 1988). Kindergarten retention accounted for 5% of the variance in passing rate on the STAAR Reading Meets Expectations standard. Table 52 shows almost four fifths of students who were retained in kindergarten and were identified economically disadvantaged did not meet the Grade 3 standard. Of the students who were not retained in kindergarten and identified economically disadvantaged almost a third of these students did not meet the Meets Expectations standard in Grade 3. The percent of students who were identified economically disadvantaged, who were retained and who did not meet the standard were more than two and a half times the percent of students who were identified economically disadvantaged and did not meet the standard for Grade 3 Reading.

Table 52

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Students Who Were Economically Disadvantaged in the 2018-2019 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 4) 80.0%	(<i>n</i> = 1) 20.0%
Not Retained in Kindergarten	(<i>n</i> = 668) 32.7%	(<i>n</i> = 1,377) 67.3%

For the 2015-2016 school year concerning students in Grade 3 that were not identified as economically disadvantaged, the results were not statistically significant,

 $\chi^2(1) = 0.029$, p = .866. Over 90% of the retained and not retained students met the Grade 3 STAAR Reading Meets Expectations standard. Table 53 presents the frequencies and percent of the analysis.

Table 53

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Students Who Were Not Economically Disadvantaged in the 2015-2016 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 3) 7.9%	(<i>n</i> = 35) 92.1%
Not Retained in Kindergarten	(<i>n</i> = 231) 8.7%	(<i>n</i> = 2,433) 91.3%

During the 2016-2017 school year, Grade 3 students who were not identified as economically disadvantaged were analyzed and the results were statistically significant, $\chi^2(1) = 8.97$, p = .003. The effect size for this finding, Cramer's V, were below small, .057 (Cohen, 1988). Kindergarten retention accounted for 5.7% of the variance in the passing rate for this group of students. Over one fourth of the students that were retained in kindergarten and who were not identified as economically disadvantaged did not meet the Meets Expectations standard in Grade 3. Of the students who were not retained in Kindergarten, were not identified as economically disadvantaged, less than a tenth of them did not meet the Meets Expectations standard in Grade 3. The percent of students

who did not meet the standard and who were retained were almost three times the percent of students who did not meet the standard and who were retained. Table 54 presents the frequencies and percentages for this group of students.

Table 54 Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Students Who Were Not Economically Disadvantaged in the 2016-2017 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 7) 26.9%	(<i>n</i> = 19) 73.1%
Not Retained in Kindergarten	(<i>n</i> = 256) 9.5%	(<i>n</i> = 2,441) 90.5%

With regards to the 2017-2018 school year for Grade 3 students who were not identified as economically disadvantaged, a statistically significant difference were yielded, $\chi^2(1) = 37.34$, p < .001. The effect size for this finding, Cramer's V, were small, .12 (Cohen, 1988). Kindergarten retention explained 12% of the variance in the Grade 3 STAAR Reading Meets Expectation standard for students in this group. Over one third of students who were retained in Kindergarten and who were not identified as economically disadvantaged did not meet the Meets Expectations standard on the Grade 3 Reading exam. Of the students who were not retained in kindergarten and who were not identified as economically disadvantaged, less than one tenth of them did not meet the Meets Expectations standard. The percent of students who had been retained and who did not meet the standard were more than four and a half times higher than the 109

percent of students who were not retained in kindergarten and did not meet the standard. Table 55 presents the frequencies and percentages for the 2017-2018 school year. Table 55

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Students Who Were Not Economically Disadvantaged in the 2017-2018 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 13) 37.1%	(<i>n</i> = 22) 62.9%
Not Retained in Kindergarten	(<i>n</i> = 221) 8.1%	(<i>n</i> = 2,494) 91.9%

The 2018-2019 analysis for students in Grade 3 that were not identified as economically disadvantaged did not yield a statistically significant result, $\chi^2(1) = 1.57$, p = .21. Table 56 presents the frequencies and percentages indicating a fifth of the students who were retained in kindergarten and who were not economically disadvantaged did not meet the Grade 3 Meets Expectations standard as compared to the tenth of students who were retained in kindergarten. The percent of students who did not meet this standard in Grade 3 and had been retained were almost twice the percent of students who did not meet this standard and who had not been retained in kindergarten.

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Students Who Were Not Economically Disadvantaged in the 2018-2019 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 3) 20.0%	(<i>n</i> = 12) 80.0%
Not Retained in Kindergarten	(<i>n</i> = 275) 10.2%	(n = 2,429) 89.8%

Other Central City School District Results for Students by Their Ethnicity/Race by School Year

The analysis for Grade 3 White students in the 2015-2016 school year did not yield a statistically significant outcome, $\chi^2(1) = 1.06$, p = .30. The results of the White students' scores were similar regardless of their retention status in kindergarten. Table 57 presents the frequencies and percentages for this group of students.

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 White Students in the 2015-2016 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 4) 10.3%	(<i>n</i> = 35) 89.7%
Not Retained in Kindergarten	(<i>n</i> = 570) 16.4%	(<i>n</i> = 2,909) 83.6%

Regarding the 2016-2017 school year, with respect to the Grade 3 White students being included in the analysis, the results were statistically significant, $\chi^2(1) = 7.11$, p = .008. The effect size for this finding, Cramer's V, were below small, .044 (Cohen, 1988). Kindergarten retention accounted for 4.4% of the variance in the passing rate for Grade 3 White students. Table 58 presents that over one third of White students who were retained in kindergarten did not meet the Grade 3 STAAR Reading Meets Expectations standard, compared to less than two tenths of the White students who were retained and who did not meet the Grade 3 STAAR Reading Meets Expectation standard were twice the percent of White students who were not retained in kindergarten and did not meet the Grade 3 STAAR Reading Meets Expectation standard were twice the percent of White students who were not retained in kindergarten and did not meet the Grade 3 STAAR Reading Meets Expectation standard were twice the percent of White students who were not retained in kindergarten and did not meet the Grade 3 STAAR Reading Meets Expectation standard were twice the percent of White students who were not retained in kindergarten and did not meet the Grade 3 STAAR Reading Meets Expectation standard were twice the percent of White students who were not retained in kindergarten and did not meet the Standard.

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 White Students in the 2016-2017 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 12) 36.4%	(<i>n</i> = 21) 63.6%
Not Retained in Kindergarten	(<i>n</i> = 660) 18.3%	(<i>n</i> = 2,951) 81.7%

Regarding the White students in Grade 3 in the 2017-2018 school year, a statistically significant difference were yielded, $\chi^2(1) = 19.26$, p < .001. The effect size for this finding, Cramer's V, were below small, .072 (Cohen, 1988). Kindergarten retention explained 7.2% of the variance in passing rates for Grade 3 White students. Table 59 presents over a third of the White students who were retained in kindergarten did not meet the Grade 3 STAAR Reading Meets Expectations standard, compared to the more than a tenth of the White students who were retained in kindergarten and who did not meet the Grade 3 STAAR Reading Meets Expectations standard, compared to the more than a tenth of the White students who were retained in kindergarten and who did not meet the Grade 3 STAAR Reading Meet Expectations standard were more than two and a half times the percent of White students who were not retained in kindergarten and who did not meet the standard in Grade 3.

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 White Students in the 2017-2018 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 17) 38.6%	(<i>n</i> = 27) 61.4%
Not Retained in Kindergarten	(<i>n</i> = 547) 14.8%	(<i>n</i> = 3,146) 85.2%

Regarding the Grade 3 White students in the 2018-2019 school year, a statistically significant difference were not revealed, $\chi^2(1) = 1.04$, p = .307. As presented in Table 60, similar percentages of White students, whether retained or not retained in kindergarten, did not meet the Grade 3 STAAR Reading Meets Expectations standard. Table 60

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 White Students in the 2018-2019 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 5) 27.8%	(<i>n</i> = 13) 72.2%
Not Retained in Kindergarten	(<i>n</i> = 681) 18.4%	(<i>n</i> = 3,018) 81.6%

The 2015-2016 school year data with regards to the Grade 3 Hispanic students did not yield a statistically significant outcome, $\chi^2(1) = 0.267$, p = .60. Table 61 shows a similar percent of Hispanic students Meeting the Grade 3 STAAR Reading Meets Expectations standard regardless if they were retained or not retained in Kindergarten. Table 61

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Hispanic Students in the 2015-2016 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 4) 33.3%	(<i>n</i> = 8) 66.7%
Not Retained in Kindergarten	(<i>n</i> = 447) 26.7%	(<i>n</i> = 1,227) 73.3%

Regarding the 2016-2017 school year for the Grade 3 Hispanic Students, a statistically significant difference were yielded, $\chi^2(1) = 5.69$, p = .017. The effect size for this finding, Cramer's V, were below small, .057 (Cohen, 1988). Kindergarten retention accounted for 5.7% of the variance in the passing rate for these students. Table 62 reveals over half of the Hispanic students who were retained in kindergarten did not meet the Grade 3 STAAR Reading Meets Expectations standard, compared to more than a fourth of the Hispanic students who were not retained in kindergarten and who did not meet the Grade 3 STAAR Reading Meets Expectation standard. The percent of Hispanic students who were retained in kindergarten and who did not meet the standard were

almost twice the percent of Hispanic students who were not retained in kindergarten and who did not meet the standard.

Table 62

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Hispanic Students in the 2016-2017 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 9) 56.3%	(n = 7) 43.8%
Not Retained in Kindergarten	(<i>n</i> = 508) 29.0%	(<i>n</i> = 1,244) 71.0%

The 2017-2018 data for Grade 3 Hispanic Students revealed a statistically significant difference in the outcome, $\chi^2(1) = 6.68$, p = .01. The effect size for this finding, Cramer's V, were below small, .06 (Cohen, 1988). Kindergarten retention explained a 6% variance in the passing rate for Grade 3 Hispanic Students. Table 63 presents the outcome that almost one half of the Hispanic students that were retained in kindergarten did not meet the Grade 3 STAAR Reading Meets Expectations standard, compared to less than a fourth of the Hispanic students who were not retained in kindergarten who did not meet the Grade 3 STAAR Reading Meets Expectations standard in kindergarten who did not meet the Grade 3 STAAR Reading Meets Expectations standard. The percent of Hispanic students who were retained in kindergarten and did not meet the standard were more than twice the percent of Hispanic students who were not retained in kindergarten and who did not meet the Grade 3 Reading Standard.

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Hispanic Students in the 2017-2018 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 10) 47.6%	(<i>n</i> = 11) 52.4%
Not Retained in Kindergarten	(<i>n</i> = 416) 23.5%	(<i>n</i> = 1,356) 76.5%

Regarding the 2018-2019 Grade 3 Hispanic students in the analysis, the results approached the statistical significance level, however, did not meet the level to be considered statistically significant, $\chi^2(1) = 2.96$, p = .085. The effect size for this finding, Cramer's V, were below small, .04 (Cohen, 1988). Kindergarten retention explained 4% of the variance in the passing rate for Grade 3 Hispanic students. As Table 64 presents, three fifths of the Hispanic students who were retained in kindergarten did not meet the STAAR Reading Meets Expectations standard in Grade 3, compared to a fourth of the Hispanic students who were not retained and who did not meet the standard. It is important to note that the percent of Grade 3 Hispanic students who were retained and who did not meet this standard were more than twice the percent of Hispanic students who were not retained in kindergarten and who did not meet the Grade 3 Reading Meets Expectations standard.

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Hispanic Students in the 2018-2019 School Year

	Did Not Meet	Met Standard
	Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 3) 60.0%	(<i>n</i> = 2) 40.0%
Not Retained in Kindergarten	(<i>n</i> = 462) 26.1%	(<i>n</i> = 1,307) 73.9%

With respect to the 2015-2016 school year for Black students, a statistically significant difference were yielded, $\chi^2(1) = 4.20$, p = .04. The effect size for this finding, Cramer's V, were small, .10 (Cohen, 1988). Kindergarten retention explained 10% of the variance in the passing rate for this group of students. As explained in Table 65, no Black student who were retained in kindergarten met the Grade 3 STAAR Reading standard at the Meets Expectations level. Nearly one third of Black students who were retained did not meet the standard.

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Black Students in the 2015-2016 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 2) 100.0%	$(n = 0) \ 0.0\%$
Not Retained in Kindergarten	(<i>n</i> = 132) 32.0%	(<i>n</i> = 280) 68.0%

With regards to the 2016-2017 school year for Black students, a statistically significant difference were not yielded, $\chi^2(1) = 0.39$, p = .53. Table 66 presents the frequencies and percentages for this group of students showing only 6 Black students were retained in the 2016-2017 school year.

Table 66

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Black Students in the 2016-2017 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 1) 16.7%	(<i>n</i> = 5) 83.3%
Not Retained in Kindergarten	(<i>n</i> = 141) 28.2%	(<i>n</i> = 359) 71.8%

With regards to the 2017-2018 school year for Black students, a statistically significant difference were not yielded, $\chi^2(1) = 0.62$, p = .43. Table 67 presents only 2 Black students were retained for the 2017-2018 school year. It is important to note that over one fourth of Black students who were not retained in kindergarten did not meet the Grade 3 STAAR Reading Meets Expectations standard.

Table 67

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Black Students in the 2017-2018 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 1) 50.0%	(<i>n</i> = 1) 50.0%
Not Retained in Kindergarten	(<i>n</i> = 134) 25.6%	(<i>n</i> = 389) 74.4%

With regards to the 2018-2019 school year for Black students, a statistically significant difference were not yielded, $\chi^2(1) = 2.28$, p = .13. Table 68 presents the sample size of Black students who had been retained in kindergarten and had Grade 3 STAAR Reading scores were only 1 student. It is important to note 30.4% of Black students who were not retained in Kindergarten did not meet the Grade 3 Reading standard at the Meets Expectations level.

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Black Students in the 2018-2019 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 1) 100.0%	$(n = 0) \ 0.0\%$
Not Retained in Kindergarten	(<i>n</i> = 145) 30.4%	(<i>n</i> = 332) 69.6%

The results for the Asian students were the next group of student data that were analyzed. In contrast to the lack of specific information about Asian students at the state level, the Other Central School District provided data specifically for the performance of Asian students.

During the 2015-2016 school year regarding the Grade 3 Asian students, a statistically significant difference were not yielded, $\chi^2(1) = 2.56$, p = .11. Table 69 presents the findings that three fourths of the Asian students who were retained in kindergarten and more than nine tenths of the Asian students who were not retained in kindergarten met the Grade 3 STAAR Reading standard at the Meets Expectations level.

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Asian Students in the 2015-2016 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 1) 25.0%	(<i>n</i> = 3) 75.0%
Not Retained in Kindergarten	(<i>n</i> = 16) 5.8%	(<i>n</i> = 261) 94.2%

With regards to the 2016-2017 school year specifically the Grade 3 Asian students, a statistically significant difference were yielded, $\chi^2(1) = 5.01$, p = .025. The effect size for this finding, Cramer's V, were small, .13 (Cohen, 1988). Kindergarten retention explained 13% of the variance in the passing rates. It should be noted that data were only available for 2 Asian students who had been retained in kindergarten. Table 70 presents the frequencies and percentages below.

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Asian Students in the 2016-2017 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 1) 50.0%	(<i>n</i> = 1) 50.0%
Not Retained in Kindergarten	(<i>n</i> = 22) 7.5%	(<i>n</i> = 272) 92.5%

With regards to the 2017-2018 school year, specifically the Asian students in Grade 3, a statistically significant difference were yielded, $\chi^2(1) = 9.02$, p = .005. The effect size for this finding, Cramer's V, were small, .176(Cohen, 1988). Kindergarten retention explained 17.6% of the variance in passing rates for this group of students. Again, it is important to note that only 2 Asian students were retained in this school year. Of the two students, one did not meet the Grade 3 standard and one did meet the standard. Table 71 below shows the frequencies and percentages for this group of students.
Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Asian Students in the 2017-2018 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 1) 50.0%	(<i>n</i> = 1) 50.0%
Not Retained in Kindergarten	(<i>n</i> = 13) 4.5%	(<i>n</i> = 277) 95.5%

With regards to the 2018-2019 school year, specifically the Asian students in Grade 3, the results approached, but did not reach the conventional level of statistical significance, $\chi^2(1) = 3.61$, p = .058. The effect size for this finding, Cramer's V, were small, .10 (Cohen, 1988). Kindergarten retention explained 10% of the variance in the passing rate for this group of students. It is important to note that only 2 Asian students were retained in kindergarten in the 2018-2019 school year. Of these two students, one did not meet the standard, and one did meet the standard. Table 72 shows the frequencies and percent for this group of students.

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 Asian Students in the 2018-2019 School Year

	Did Not Meet Standard	Met Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total	
Retained in Kindergarten	(<i>n</i> = 1) 50.0%	(<i>n</i> = 1) 50%	
Not Retained in Kindergarten	(<i>n</i> = 32) 9.7%	(<i>n</i> = 298) 90.3%	

Other Central City School District Results for Students by English Learner Status by School Year

With regards to the 2015-2016 school year, specifically the English Learners in Grade 3 and Non-English Learners in Grade 3 data were run separately. A Pearson Chi procedure could not be calculated for the English Learners, because no students identified as an English Learner with Grade 3 Reading test results were retained in Kindergarten. Table 73 shows the frequencies and percentages for this group of students.

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 English Learners in the 2015-2016 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	$(n = 0) \ 0.0\%$	(n = 0) 0.0%
Not Retained in Kindergarten	(<i>n</i> = 77) 31.0%	(<i>n</i> = 171) 69.0%

With regards to the 2016-2017 school year, specifically the English Learners in Grade 3, the results were not statistically significant, $\chi^2(1) = 0.91$, p = .34. It is important to note the small number of students retained (5) in the 2016-2017 school year. Table 74 reveals the frequencies and percentages for this group of students.

2016-2017 School Year

Not Retained in Kindergarten

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 English Learners in the

Did Not MeetMet StandardStandardStandardRetention Statusn and % age of Totaln and % age of TotalRetained in Kindergarten(n = 3) 60.0%(n = 2) 40.0%

With regards to the English Learners in the 2017-2018 school year in Grade 3, the results were not statistically significant, $\chi^2(1) = 2.18$, p = .14. Table 75 indicates only one English Learner had results for the Grade 3 Reading Exam available. It is important to note that almost one third of the English Learners did not meet the Grade 3 Reading STAAR standard at the Meets Expectations level.

(n = 95) 38.9%

(n = 149) 61.1%

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 English Learners in the 2017-2018 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 1) 100.0%	(n = 0) 0.0%
Not Retained in Kindergarten	(<i>n</i> = 77) 31.3%	(<i>n</i> = 169) 68.7%

With regards to the English Learners in the 2018-2019 school year in Grade 3, the results were not statistically significant, $\chi^2(1) = 0.32$, p = .57. Table 76 reveals data were only available on two students who were retained in kindergarten. One student met the standard on the Grade 3 Reading exam, and one student did not meet the standard. Table 76

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 English Learners in the 2018-2019 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 1) 50.0%	(<i>n</i> = 1) 50.0%
Not Retained in Kindergarten	(<i>n</i> = 88) 31.4%	(<i>n</i> = 192) 68.6%

Next, the non-English Learners were examined. With respect to the Grade 3 students during the 2015-2016 school year, the results were not statistically significant, $\chi^2(1) = 0.013$, p = .91. Both retained and non-retained non-English Learners passed at a very similar percentage. Table 77 presents the frequencies and percentages for this group of students.

Table 77

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 non-English Learners in the 2015-2016 School Year

	Did Not Meet	Met Standard	
	Standard		
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total	
Retained in Kindergarten	(<i>n</i> = 8) 17.4%	(<i>n</i> = 38) 82.6%	
Not Retained in Kindergarten	(<i>n</i> = 773) 18.0%	(<i>n</i> = 3,510) 82.0%	

With regards to the 2016-2017 school year for Grade 3 students who were non-English Learners, the results were statistically significant, $\chi^2(1) = 11.15$, p = .001. The effect size for this finding, Cramer's V, were below small, .05 (Cohen, 1988). Kindergarten retention explained 5% of the variance for the non-English Learners passing rate. Table 78 shows almost two fifths of the non-English Learners who were retained in kindergarten did not meet the standard compared to almost a fifth of the non-English Learners who were not retained in kindergarten. The percent of non-English Learners who were retained in kindergarten who did not meet the standard were twice the percent of non-English Learners who were note retained in kindergarten and who did not meet the standard on the Grade 3 Reading exam.

Table 78

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 non-English Learners in the 2016-2017 School Year

	Did Not Meet Standard	Met Standard	
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total	
Retained in Kindergarten	(<i>n</i> = 17) 39.5%	(<i>n</i> = 26) 60.5%	
Not Retained in Kindergarten	(<i>n</i> = 861) 19.3%	(<i>n</i> = 3,606) 80.7%	

With regards to the 2017-2018 school year and the grade 3 non-English Learners, a statistically significant difference were yielded, $\chi^2(1) = 21.43$, p < .001. The effect size for this finding, Cramer's V, were below small, .068(Cohen, 1988). Kindergarten retention explained 6.8% of the passing rate for this group of students. Table 79 indicates that two fifths of the non-English Learners who were retained in kindergarten did not meet the Grade 3 standard at the Meets Expectations level. The percent of non-English Learners who were retained in kindergarten and who did not meet the Meets Expectations standard were more than two and a half times the percent of non-English Learners who were not retained in kindergarten and did not meet the Grade 3 standard for Reading.

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 non-English Learners in the 2017-2018 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 20) 40.0%	(<i>n</i> = 30) 60.0%
Not Retained in Kindergarten	(<i>n</i> = 720) 15.8%	(<i>n</i> = 3,832) 84.2%

With regards to the 2018-2019 school year, specifically the non-English Learners, the results were not statistically significant, $\chi^2(1) = 2.33$, p = .127. Table 80 reveals a third of the non-English Learners who were retained in kindergarten did not meet the Grade 3 Standard for Reading, compared to about one fifth of the non-English Learners who were not retained in kindergarten. It should be noted that Grade 3 Reading data were only available for 18 non-English Learner students who had been retained in kindergarten.

Other Central City School District Frequencies and Percentages of Meets Expectations Performance by Kindergarten Retention Status for Grade 3 non-English Language Learners in the 2018-2019 School Year

	Did Not Meet Standard	Met Standard
Retention Status	<i>n</i> and %age of Total	<i>n</i> and %age of Total
Retained in Kindergarten	(<i>n</i> = 6) 33.3%	(<i>n</i> = 12) 66.7%
Not Retained in Kindergarten	(<i>n</i> = 855) 19.1%	(<i>n</i> = 3,614) 80.9%

Summary

In this chapter, an introduction was given regarding the analysis that were completed on Kindergarten retention and the impact the retention has on the student's Grade 3 Reading STAAR exam at the Meets Expectations Level. First, a Pearson Chi Square were used to analyze state data for All Grade 3 students in the 2015-2016, 2016-2017, 2017-2018, and the 2018-2019 school years. Following this, a Pearson Chi Square analysis were completed for the same school year, however, the focus were on White, Hispanic, Black, English Learners, non-English Learners, Economically Disadvantaged, and non-Economically Disadvantaged students in Grade 3.

Next a Pearson Chi Square were used to analyze the Other Central School District data for all Grade 3 students on the STAAR Reading exam at the Meets Expectations level for the 2015-2016, 2016-2017, 2017-2018, and 2018-2019 school year. Additionally, a Pearson Chi Square were used to analyze the different subgroups including: White, Hispanic, Black, English Learners, non-English Learners, Economically Disadvantaged, and non-Economically Disadvantaged students for the same school years.

The results of the study indicated students that were retained in Kindergarten did not perform as well as the students that were placed in First grade. This quantitative study confirms the research that states that retention in Grades 1 - 12 does not benefit students academically compared to their peers. Additionally, this study answers the question that to the best of my knowledge is not currently found in research indicating that students that are retained in kindergarten do not score as well as their same age peers who were promoted to First grade on the Grade 3 Reading STAAR exam at the Meets Expectations Level.

Chapter V will summarize the study, discuss the findings, review the implications of practice and recommend further research opportunities.

CHAPTER V

SUMMARY, DISCUSSION AND IMPLICATIONS

Introduction

Chapter I - IV of this study focus on the presentation and the analysis of data regarding Kindergarten retention and the long-term impact it has on the Grade 3 Reading STAAR scores at the Meets Expectations Level at both the state and at an Other Central City District level. Chapter V consists of a summary of the study, discussion of the findings, implications for practice, and recommendations for future research and conclusion. Additionally, I will discuss how the results of this study could potentially influence current retention policies for school districts in the state of Texas.

Summary of the Study

The research study began by reviewing the current laws that are in place to try to help educators close the achievement gap. The Every Student Succeeds Act was put into place in the 2017-2018 school year (Texas Education Agency, 2018). Although this law puts power back in the hands of the state, each state must monitor the progress of each district to ensure all students are proficient on state assessments, they increase the English-language proficiency levels, and graduation rates continue to rise (U.S. Department of Education, 2018). With the state increasing the level of rigor and the expectations high, it was important to determine which interventions help close the achievement gap for all children (Texas Education Agency, 2018).

The problem and significance of the study were then established by looking at current retention data for the United States. The state of Texas has implemented several different plans regarding promotion and retention over the years, however, in 1984, the Texas Education Code 21.721 began requiring the basis of retention to be the student's academic achievement (Texas Education Agency, 2007). Although districts began making changes to their retention policies, it is evident that retention is still on the rise. The National Center for Educational Statistics (2019) stated the retention rates have gone from 1.9% in 2013 to 2.3% in 2015 nationally. Additionally, the National Association of School Psychologists (2003) indicated that approximately 30-50% of American students will experience a grade level retention by the time they are in 9th grade and 15% of all American students are retained each year.

Finding the right intervention for each student is important to a child's long term educational success. I was able to cite studies such as Wanzek, Vaughan, Scammacca, Gatlin, Walker, and Capin (2016) that found the best time to provide interventions or accelerate instruction begins as young as kindergarten. Donald Hernandez (2011) concluded that Grade 3 reading proficiency plays a big role in the student's future success. To my knowledge, the available research did not include the impact kindergarten retention has on a child's Grade 3 Reading STAAR exam scores at the Meets Expectations level.

With percentages of retention on the rise, the following research question was the focus of the study: What is the relationship between the retention rate of kindergarten students and the third grade passing rate of Meets Expectation on the state assessments for reading?

In Chapter II, I review the current research using Gerrard's (2011) matrix method to organize the literature into key concepts. The following concepts were discussed in further detail: Economic Status, English Learners, Behaviors/Transitions, Dropout Rates, Student Perceptions, Policy/Teacher Influence, and Achievement Scores. Although there were several studies available on retention, there were a lack of studies focused on kindergarten retention and the long-term effect it has on the Grade 3 Reading STAAR exam at the Meets Expectations Level.

In Chapter III, I explain the research methods for the study. First, I began by seeking IRB approval. Once approval was granted, I began by completing a Public Records Request through the Texas Education Agency for the data from the 2015-2016, 2016-2017, 2017-2018, 2018-2019 school year for students in Grade 3. The request asked for demographic information, economic status, English Learner status, the student's Grade 3 Reading STAAR scores, as well as the students who were retained in kindergarten were requested. All of the data were masked to protect the identity of the students.

Next, approval for research were sought and granted from an Other Central City School district in the state of Texas. The following information were requested through the district technology department: Grade 3 Reading STAAR scores for students during the 2015-2016, 2016-2017, 2017-2018, 2018-2019 school year. In addition, demographic information, economic status, English Learner status, student reading levels at the end of kindergarten, and a list of the student who were retained in kindergarten. All of the data were masked to protect the identity of the students. The data that was collected were analyzed using a Pearson's Chi Square at the state level for all Grade 3 students, White students, Black students, Hispanic Students, Other students, Economically Disadvantaged students, non-Economically Disadvantaged students, English Learners, and non-English Learners. Next, the data from the Other Central City School District were analyzed using a Pearson Chi Square. The following groups of students' data were analyzed: All students, White Students, Black Students, Hispanic Students, Asian Students, Economically Disadvantaged students, non-Economically Disadvantaged Students, English Learners, and non-English Learners. The results of the data analysis were discussed in Chapter IV.

Discussion of the Findings

Summary of Texas Statewide Results across the Four School Years

The results across the 2015-2016, 2016-2017, 2017-2018, and 2018-2019 school years will be discussed below. In Table 81, it is evident that statistically significant differences were present for all Grade 3 students by their retention status. In all four school years, the students that were retained in kindergarten did not score as well as the students who were not retained in kindergarten on the Grade 3 Reading STAAR exam at the Meets Expectations Level. The percentage point difference for the Grade 3 Reading STAAR exam for all students ranged from 26.4% in 2017-2018 to 30.7% in the 2018-2019 school year.

Table 81 also presents the findings for the statistical analysis with regards to the student economic status. Both the students who were identified as economically disadvantaged and their peers who were not identified as economically disadvantaged

had data that yielded a statistically significant outcome for Grade 3 students. Across the four school years, children who were identified as economically disadvantaged and were retained in kindergarten had a lower success rate on the Grade 3 Reading STAAR exam at the Meets Expectations level than their peers who were also identified as economically disadvantaged, but were not retained in kindergarten. The percentage point difference in the Meets Expectations Standard ranged from 21.5% in the 2017-2018 school year to 26.9% in the 2015-2016 school year.

With regards to the students who were not identified as economically disadvantaged, across all four school years, students who had been retained in kindergarten had a lower success rate on the Grade 3 Reading STAAR exam at the Meets Expectations level than their peers who were not economically disadvantaged and who were not retained in Kindergarten. The percent point difference in the Meets Expectations level ranged from 13.6% in the 2015-2016 school year to 20.9% in the 2017-2018 school year.

Table 81

Summary of Results for Texas Statewide Analyses across All Four School Years for All Students and by Economic Status

Comparison and School Year	Statistically	Lowest	How Much
	Significant	Performing Group	Lower
All Students			
2015-2016	Yes	Retained	28.4%
2016-2017	Yes	Retained	28.2%

Table 81 Continued

Summary of Results for Texas Statewide Analyses across All Four School Years for

All Students	and b	y Econ	omic	Status
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Comparison and School Year	Statistically	Lowest	How Much	
	Significant	Performing Group	Lower	
2017-2018	Yes	Retained	26.4%	
2018-2019	Yes	Retained	30.7%	
Economically Disadvantaged Students				
2015-2016	Yes	Retained	26.9%	
2016-2017	Yes	Retained	23.5%	
2017-2018	Yes	Retained	21.5%	
2018-2019	Yes	Retained	24.6%	
Non-Economically Disadvantaged				
Students				
2015-2016	Yes	Retained	13.6%	
2016-2017	Yes	Retained	17.1%	
2017-2018	Yes	Retained	20.9%	
2018-2019	Yes	Retained	17.1%	

The next analysis completed focused on results by student ethnicity and race. Table 82 displays the statistically significant differences that were present for Grade 3 White students by their retention status. In all four school year, Grade 3 White students who had been retained in kindergarten had a lower success rate on the STAAR Reading exam at the Meets Expectations level than Grade 3 White students who were not retained in kindergarten. The percent point differences in the Meets Expectations Level ranged from 16.3% in the 2015-2016 school year to 26.3% in the 2016-2017 school year.

Also present in Table 82 are the results of the statistical analysis for Hispanic Students in Grade 3. Statistically significant results were yielded for the Hispanic students in grade 3 by their retention status. Across all four years included in the study, Hispanic students who had been retained in kindergarten had a lower success rate on the Grade 3 Reading STAAR at the Meets Expectations level compared to the Hispanic students who were not retained in kindergarten. The percent point differences in the Meets Expectations level for the Hispanic students ranged from 23.9% in the 2017-2018 school year to 28.8% in the 2015-2016 school year.

Grade 3 Black students who had been retained in kindergarten had a lower success rate on the Grade 3 Reading STAAR exam at the Meets Expectation level than the Black students who were not retained in kindergarten across all four grade levels. The percentage point difference in the Meets Expectations level ranged from 21.0% in the 2016-2017 school year to 45.8% in the 2015-2016 school year.

Summary of Results for Texas Statewide Analyses across All Four School Years by

Ethnicity/Race

Comparison and School Year	Statistically	Lowest	How Much
	Significant	Performing Group	Lower
White Students			
2015-2016	Yes	Retained	16.3%
2016-2017	Yes	Retained	26.3%
2017-2018	Yes	Retained	25.1%
2018-2019	Yes	Retained	27.4%
Hispanic Students			
2015-2016	Yes	Retained	28.8%
2016-2017	Yes	Retained	27.6%
2017-2018	Yes	Retained	23.9%
2018-2019	Yes	Retained	27.7%
Black Students			
2015-2016	Yes	Retained	45.8%
2016-2017	Yes	Retained	21.0%
2017-2018	Yes	Retained	23.3%
2018-2019	Yes	Retained	24.8%

Note. Due to the very small sample sizes of Other students, which included Asian students, analysis could not be conducted.

The next data to be analyzed focused on students who were identified as an English Learner. In Table 83, statistically significant differences were present for Grade 3 English Learners by their retention status. In all four school years, English Learners who had been retained in kindergarten had a lower success rate than English Learners who were not retained in kindergarten on the Grade 3 Reading STAAR exam at the Meets Expectations level. The percentage point difference in the Meets Expectations level ranged from 17.6% in the 2015-2016 school year to 23.4% in the 2017-2018 school year.

Table 83 also presents the statistical findings for non-English Learners. Statistically significant differences were present for non-English Learners by their retention status. Across all four school years, non-English Learners who had been retained scored lower on their Grade 3 STAAR Reading exam at the Meets Expectations Level that their peers who were not retained. The percent point difference in the Meets Expectations level ranged from 27.3% in the 2017-2018 school year to 34.0% in the 2018-2019 school year.

Summary of Results for Texas Statewide Analyses across All Four School Years by

Comparison and School Year	Statistically	Lowest Performing	How Much
	Significant	Group	Lower
English Learners			
2015-2016	Yes	Retained	17.6%
2016-2017	Yes	Retained	19.9%
2017-2018	Yes	Retained	23.4%
2018-2019	Yes	Retained	18.1%
Non-English Learners			
2015-2016	Yes	Retained	31.6%
2016-2017	Yes	Retained	30.5%
2017-2018	Yes	Retained	27.3%
2018-2019	Yes	Retained	34.0%

English Learner Status

Examining the statistical analysis for the statewide data from Texas indicates students who had been retained in kindergarten had a lower success rate on the Grade 3 Reading STAAR exam at the Meets Expectations level than their peers who were not retained in kindergarten.

Summary of the Other Central City District Results across the Four Years

The following section takes a closer look at the results from the Other Central City School District across the four school years included in the study. Table 84 shows the statistically significant difference that were yielded for all Grade 3 students by their retention status in two of the four school years. In the 2016-2017 school year and the 2017-2018 school year, students who had been retained in kindergarten had a lower success rate on the Grade 3 Reading STAAR exam at the Meets Expectations level than their peers who were not retained in kindergarten. The percent point difference in the Meets Expectations level ranged from 21.4% to 24.6%.

Also presented in Table 84 are the statistical analysis results broken down by economic status. Statistically significant differences were present for Grade 3 students who were identified as economically disadvantaged in three out of the four school years. In these three years, students who were identified as economically disadvantaged that had been retained in kindergarten had a lower success rate than their peer that were also identified as economically disadvantaged, but had not been retained on the Grade 3 Reading STAAR exam at the Meets Expectations level. The percent point difference in the Meets Expectations level ranged from 22.4% in the 2017-2018 school year to 47.3% in the 2018-2019 school year. The findings for this group of students is in alignment with Raffaele Mendez et. al (2014) who found the gap in achievement between retained and typically progressive children were larger among those who received free and reduced priced lunch. With regards to students who were not identified as economically disadvantaged, students who had been retained in kindergarten had a lower success rate on the Grade 3 STAAR Reading exam at the Meets Expectations level than their peers who were not identified as economically disadvantaged who were not retained in two out of the four school years. The percent point difference in the Meets Expectations level ranged from 17.4% to 29.0%.

Table 84

Other Central City School District Summary of Results across All Four School Years for All Students and by Economic Status

Comparison and School Year	Statistically	Lowest	How Much
	Significant	Performing Group	Lower
All Students			
2015-2016	No		
2016-2017	Yes	Retained	21.4%
2017-2018	Yes	Retained	24.6%
2018-2019	No		
Students in Poverty			
2015-2016	No		
2016-2017	Yes	Retained	24.3%
2017-2018	Yes	Retained	22.4%
2018-2019	Yes	Retained	47.3%

Table 84 Continued

Other Central City School District Summary of Results across All Four School Years for All Students and by Economic Status

Students Not in Poverty			
2015-2016	No		
2016-2017	Yes	Retained	17.4%
2017-2018	Yes	Retained	29.0%
2018-2019	No		

With regards to the results for the students by ethnicity/race in the Other Central School District, Table 85 presents the findings. Statistically significant differences were presented for Grade 3 White students by their retention status in two out of the four school years. In these two school years, White students who had been retained in kindergarten had a lower success rate than their peers who had not been retained in kindergarten on the Grade 3 Reading STAAR exam at the Meets Expectations level. The percent point differences in the Meets Expectations level ranged from 18.1% in the 2016-2017 school year to 23.8% in the 2017-2018 school year.

Table 85 also presents the statistical analysis for Hispanic students in Grade 3 for the Other Central City School district. Statistically significant differences were present for Grade 3 Hispanic students by their retention status in two of the four school years. In these two years, Hispanic students who had been retained in kindergarten had a lower success rate than their peers who had not been retained in kindergarten on the Grade 3 Reading STAAR exam at the Meets Expectations level. The differences in the Meets Expectations level ranges from 24.1% in the 2017-2018 school year to 27.3% in 2016-2017 school year.

Additionally the statistical analysis for Black students in Grade 3 can be seen in Table 85. In the 2015-2016 school year, Black students who had been retained in kindergarten had a lower success rate on the Grade 3 STAAR Reading exam at the Meets Expectations level than Black students who were not retained. This was the only year to produce a statistically significant outcome for Black students.

Other Central City School District Summary of Results across All Four School Years by Ethnicity/Race

Comparison and School Year	Statistically	Lowest	How Much
	Significant	Performing Group	Lower
White Students			
2015-2016	No		
2016-2017	Yes	Retained	18.1%
2017-2018	Yes	Retained	23.8%
2018-2019	No		
Hispanic Students			
2015-2016	No		
2016-2017	Yes	Retained	27.3%
2017-2018	Yes	Retained	24.1%
2018-2019	No		
Black Students			
2015-2016	Yes	Retained	68.0%
2016-2017	No		
2017-2018	No		
2018-2019	No		

Note. Due to the very small sample sizes of Other students, which included Asian students, analysis could not be conducted.

With regards to the results by English Learner status in the Other Central City School district, Table 86 presents the data. There were no statistically significant differences present for the Grade 3 English Learners by their retention status. This lack of statistically significant results may be due to the small sample size that were included in the study. Across all four school years, data were only available on 8 students who were identified as English Learners who had been retained in kindergarten.

Additionally, Table 86 outlines the statistical analysis for non-English Learners. Statistically significant differences were present for non-English Learners by their retention status in two of the four school years available in the study. In these two school years, non-English Learners who had been retained in kindergarten had a lower success rate on their Grade 3 Reading STAAR exam at the Meets Expectations level compared to their peers who were not retained. The percent point difference in the Meets Expectations level ranged from 20.2% to 24.2% in the 2017-2018 school year to 2016-2017 school year.

Table 86

Other Central City School District Summary of Results across All Four School Years by English Language Status

Comparison and School Year	Statistically	Lowest	How Much
	Significant	Performing Group	Lower
English Learners			
2015-2016	No		
2016-2017	No		

Table 86 Continued

Other Central City School District Summary of Results across All Four School

Years	by Engl	lish Lan	guage	Status
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Comparison and School Year	Statistically	Lowest	How Much
	Significant	Performing Group	Lower
2017-2018	No		
2018-2019	No		
Non-English Learners			
2015-2016	No		
2016-2017	Yes	Retained	20.2%
2017-2018	Yes	Retained	24.2%
2018-2019	No		

In the analysis that yielded a statistically significant result, it is apparent that students who were retained in kindergarten had a lower success rate on the Grade 3 Reading STAAR exam at the Meets Expectations level than their peers who had not been retained in kindergarten. The results of this study mirrored Hong and Yu (2007) and Hong and Raudenbush (2005; 2006) that found students who were retained in kindergarten did not perform as well as their peers who were placed in First grade.

Finally, when examining the Stage Theory of Cognitive Development, this study confirms that children in the Preoperational stage or age 2 to 7 year old, begin to acquire language which stimulates the child's cognitive development. The children that were

retained in kindergarten lacked the opportunity to be exposed to the same level of vocabulary as their same age peers. Additionally, they lacked the opportunity to be exposed to the content of the books that were provided to the students that were not retained. Based on the Stage Theory of Cognitive Development, this lack of exposure to more advanced vocabulary holds a child back in their cognitive development.

Implications for Practice

Many parents, educators, administrators, and community members believe that retention in early grades is best for students due to the child's inability to know the difference in schooling compared to their same aged peers. The retention rates in the United States continue to increase each school year (National Center for Educational Statistics, 2019). The findings of this study have far-reaching implications for the future of retention in kindergarten.

For school district, this study offers insight when writing district policies regarding retention. As stated previously, there are several states that do not have a retention policy in place for kindergarten. As district personnel review this study, they will find that kindergarten retention did not produce a positive long-term effect for Grade 3 students on the STAAR Reading exam.

For campus administrators in districts that leave the retention decision to a campus level decision. This study offers insight to share with parents and teachers who are trying to determine if they should delay entry or hold a child back in kindergarten to make academic gains in the future. Educators do not often have the opportunity to see the long term impact retention has on a student. This research will give the educators evidence of how retention negatively impacts a child in the state of Texas.

Recommendations for Future Research

The purpose of this study was to answer the following research question: What is the relationship between the retention rate of kindergarten students and the third grade passing rate of Meets Expectation on the state assessments for reading? Data were collected regarding the state of Texas, as well as, data from one Other Central City District. The data were analyzed and many statistically significant findings were discovered. Although most of the findings were significant, there were some limitations. One limitation was the way the data were reported for students at the state level did not separate Asian students for students who are identified as Two or More Races. The number of students the state reported that fell into the Other category and were retained in kindergarten were extremely small. Due to the small number of students, the researcher could not determine if retention in kindergarten made a difference for students on the Grade 3 Reading STAAR exam at the Meets Expectations level. If the study were repeated, a National database for this particular group of students' scores and retention status may need to be the data collected. Similarly, Grade 3 Reading data were only available for 18 non-English Learner students who had been retained in kindergarten in the Other Central City School district. Future researchers should think about expanding to multiple districts to increase the number of students included in the study.

The results of the study indicate a high percentage of students that did not meet the Grade 3 Meets expectations standard during the 2018-2019 school year and were identified as Economically Disadvantaged. These results were for both retained and nonretained students. Further investigation as to what attributed to this lack of success from the Economically Disadvantaged students would be beneficial for educators.

Conclusion

The findings of this research expanded the current research by focusing on the impact kindergarten retention has on Grade 3 STAAR Reading scores. After analyzing state data and an Other Central City District's data, the results of this study indicated students that were retained in kindergarten did not score as well on the Grade 3 Reading exam as their same aged peers that were not retained. Additionally, data were analyzed by the following subgroups: White, Hispanic, Black, English Learners, non-English Learners, Economically Disadvantaged, and non-Economically Disadvantaged students. The consistent theme throughout the analysis were that retention in kindergarten does not increase the outcome on the Grade 3 STAAR Reading exam.

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