

AN ANALYSIS OF THE BENEFITS OF THE STUDENT SUCCESS INITIATIVE IN THE
3rd AND 5th GRADES IN A DISTRICT IN TEXAS

Pamela S. Neblett, M.Ed.

Dissertation Prepared for the Degree of

DOCTOR OF EDUCATION

UNIVERSITY OF NORTH TEXAS

May 2007

APPROVED:

Jane B. Huffman, Major Professor
Carolyn W. Kern, Minor Professor
Johnetta Hudson, Committee Member
Mary McDonnell Harris, Interim Chair of the
Department of Teacher Education and
Administration
M. Jean Keller, Dean of the College of
Education
Sandra L. Terrell, Dean of the Robert B.
Toulouse School of Graduate Studies

Neblett, Pamela S. *An analysis of the benefits of the Student Success Initiative in the 3rd and 5th grades in a district in Texas*. Doctor of Education (Educational Administration), May 2007, 124 pp., 28 tables, references, 58 titles.

The state of Texas passed the Student Success Initiative (SSI) in 1999 which requires all 3rd graders to pass the reading portion of the Texas Assessment of Knowledge and Skills (TAKS) test to be promoted to the 4th grade, and for 5th graders to pass the reading and math portions of the TAKS test to be promoted to the 6th grade. Beginning in spring 2008, 8th graders will also need to pass the reading and math portions of the TAKS test to be promoted to the 9th grade.

The purpose of this study was to examine the academic performance of 3rd and 5th grade students who did not meet the passing standard on the TAKS test and were retained during the 2005-2006 school year. The population of this study included 33 3rd graders and 49 5th graders who were retained during the 2005-2006 school year due to not meeting the promotion requirements of the SSI. There was also a second population of 49 5th graders who were retained in 3rd grade during the 2003-2004 school year due to not meeting the promotion requirements of the SSI. These students were enrolled in the 5th grade for the first time during the 2005-2006 school year. Their TAKS scores were examined to see whether students were still benefiting from the year of retention in 3rd grade. Results for all populations were broken down by ethnicity and program codes.

The results of the study showed a statistically significant gain in 3rd grade reading and 5th grade math scores. The 5th grade reading scores did have a statistically significant improvement even though the reading mean score was still below the

minimum passing score even after a year of retention. A cross tabulation done on students who had been retained in 3rd grade due to SSI requirements and were enrolled in the 5th grade during the study showed a greater significant growth in math than in reading. A strong correlation between the ITBS and TAKS tests were found in both 3rd grade reading and 5th grade math. A weak correlation between the tests was found in 5th grade reading.

Copyright 2007

by

Pamela S. Neblett

ACKNOWLEDGEMENTS

My sincere appreciation goes to the faculty of UNT that helped me get to this point. Especially to Dr. Huffman, who when I had not submitted anything in a while, would always send a little email asking how things were going. Those little emails kept me writing.

A special thank you to my husband, Randy, for all of his loving support throughout the entire process. He has encouraged and helped me throughout the taking of my classes all the way to the writing of my dissertation.

A big thank you to my family, my mother, Joanne Bergey, and my parents-in-law, Anne and Bill Neblett, who have continually been there giving me encouragement and support.

A thank you also to those at my work place, Betty Foley, Candy Rommell, and Diana Goodloe who always helped push me out the door on days that I had to drive to campus, especially on bad weather days. Also a thanks for their moral support throughout the whole process.

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	iii
LIST OF TABLES	vii
Chapter	
I. INTRODUCTION	1
Background of the Study	1
Purpose of the Study	10
Statement of the Problem	10
Research Questions	11
Hypothesis	11
Limitations of the Study	12
Delimitations of the Study	12
Definition of Terms	13
Significance of the Study	14
Organization of the Study	15
II. REVIEW OF RELATED LITERATURE	17
Introduction	17
High Stakes Testing	18
Perceptions of High Stakes Tests	23
National Implications of High Stakes Testing	28
Studies Related to Retention	30
Costs Regarding High Stakes Testing and Retention	39
History of High Stakes Testing in Texas	41
Texas Statistics Related to Retention	44
Summary	68
III. METHODOLOGY	69
Introduction	69
Population	69

Setting.....	71
Instruments	72
Variables	79
Data Collection.....	80
Data Analysis	80
Summary.....	81
IV. ANALYSIS OF DATA.....	83
Introduction	83
Results	84
Research Question 1	85
Research Question 2.....	89
Research Question 3.....	95
Research Question 4.....	100
Research Question 5.....	102
Summary.....	103
V. DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS.....	105
Introduction	105
Discussion.....	107
Research Question 1	107
Research Question 2.....	108
Research Question 3.....	108
Research Question 4.....	109
Research Question 5.....	109
Conclusions	110
Recommendations	111
Practitioner Recommendation 1	111
Research Recommendation 1	112
Research Recommendation 2	112
Research Recommendation 3	112
Research Recommendation 4	113
Summary.....	113

Appendix

A.	TEXAS EDUCATION CODE CHAPTER 28.0211.....	115
B.	TEXAS EDUCATION AGENCY COPYRIGHT PERMISSION	117
	REFERENCES.....	120

LIST OF TABLES

		Page
1.	Grade-Level Retention by Student Characteristic, Texas Public Schools, 2002-03 and 2003-04	46
2.	Grade-Level Retention by Grade, Grades 3 and 5, Texas Public Schools, 1994-95 through 2003-04	47
3.1	Grade-Level Retention by Grade and Ethnicity, Grade 3, Texas Public Schools 1994-95 through 2003-04	49
3.2	Grade-Level Retention by Grade and Ethnicity, Grade 5, Texas Public Schools, 1994-95 through 2003-04	50
4.1	Grade-Level Retention by Grade and Socioeconomic Status, Grade 3, Texas Public Schools, 1994-95 through 2003-04.....	52
4.2	Grade-Level Retention by Grade and Socioeconomic Status, Grade 5, Texas Public Schools, 1994-95 through 2003-04.....	53
5.	Grade-Level Retention by Grade and Gender, Grades 3 and 5, Texas Public Schools, 2003-04.....	54
6.1	Grade-Level Retention by Grade, Limited English Proficiency (LEP) Status and Service Received, Grade 3, Texas Public Schools, 1994-95 through 2003-04 .	55
6.2	Grade-Level Retention by Grade, Limited English Proficiency (LEP) Status and Service Received, Grade 5, Texas Public Schools, 1994-95 through 2003-04 .	56
7.1	Grade-Level Retention by Grade and Limited English Proficiency (LEP) Status, Grade 3, Texas Public Schools, 1994-95 through 2003-04	57
7.2	Grade-Level Retention by Grade and Limited English Proficiency (LEP) Status, Grade 5, Texas Public Schools, 1994-95 through 2003-04	58
8.1	Grade-Level Retention by Grade and Special Education Status, Grade 3, Texas Public Schools, 1994-95 through 2003-04.....	59
8.2	Grade-Level Retention by Grade and Special Education Status, Grade 5, Texas Public Schools, 1994-95 through 2003-04.....	60
9.1	Grade-Level Retention by Grade and by At-Risk, Immigrant, Migrant, and Over Age Student Characteristics, Grade 3, Texas Public Schools, 1994-95 through 2003-04	62

9.2	Grade-Level Retention by Grade and by At-Risk Immigrant, Migrant, and Over Age Student Characteristics, Grade 5, Texas Public Schools, 1994-95 through 2003-04	63
10.1	Texas Assessment of Knowledge and Skills (TAKS) Average Scale Scores 2004 and 2005 by Grade and Promotion Status 2003-04, Grade 3, Texas Public Schools.....	67
10.2	Texas Assessment of Knowledge and Skills (TAKS) Average Scale Scores 2004 and 2005 by Grade and Promotion Status 2003-04, Grade 5, Texas Public Schools.....	67
11.	Spring 2005 TAKS Percentage Pass Rates for Grades 3 and 5 by Gender, Ethnicity, At-Risk, Economically Disadvantaged and LEP Status.....	71
12.	Reliability Coefficients, SEM, SS, and SD for Spring 2005 TAKS Tests.....	76
13.	Student Population of Study by Gender, Ethnicity, and Program Codes	84
14.1	Mean Scores, Standard Deviations, Correlation, and Significance for 3 rd Graders by Sex and Ethnicity Retained during the 2005-2006 School Year	88
14.2	Mean Scores, Standard Deviations, Correlation, and Significance for 3 rd Graders by Program Code Retained during the 2005-06 School Year.....	89
15.1	Reading Mean Scores, Standard Deviations, Correlation, and Significance for 5 th Graders by Sex Retained during the 2005-2006 School Year	93
15.2	Reading Mean Scores, Standard Deviations, Correlation, and Significance for 5 th Graders by Ethnicity Retained during the 2005-06 School Year.....	94
15.3	Reading Mean Scores, Standard Deviations, Correlation, and Significance for 5 th Graders by Program Code Retained during the 2005-06 School Year.....	95
16.1	Math Mean Scores, Standard Deviations, Correlation, and Significance for 5 th Graders by Sex Retained during the 2005-2006 School Year	98
16.2	Math Mean Scores, Standard Deviations, Correlation, and Significance for 5 th Graders by Ethnicity Retained during the 2005-06 School Year.....	99
16.3	Math Mean Scores, Standard Deviations, Correlation, and Significance for 5 th Graders by Program Code Retained during the 2005-06 School Year.....	100

CHAPTER I

INTRODUCTION

Background of the Study

The Student Success Initiative, an education policy in Texas that establishes promotional gates at certain grade levels, states that all children will be reading and computing on grade level in order to be promoted. While this may be desirable, sometimes it may not be possible. Not all students enter school at the same level of readiness to learn, and skills are acquired at different times by different students. Legislatures promote policies that try to help school children succeed and achieve at a high level by establishing these promotional gates at particular grade levels. The Student Success Initiative outlines the end of social promotion and the beginning of passing high stakes tests to advance to the next grade level in the state of Texas (Texas Classroom Teachers Association, n.d.).

Although no national or regional agencies monitor social promotion and in-grade retentions, data through research studies are available (Shepard & Smith, 1989). It is estimated that 30%-50% of all students in American schools are retained at least once before the 9th grade (Dawson, 1998; NAASP, n.d.) and the majority of these students do not catch up to their same-grade nonretained peers (Meisels & Liaw, 1993). When discussing the major issues in education, in-grade retention represents one of the clearest noncommunications between research and practice (Meisels & Liaw, 1993). According to Shepard and Smith (1989), in-grade retentions are expected to improve student achievement in two

ways: by students perceiving a greater need to learn since negative consequences will happen if learning does not occur; and students who do fail will not continue to go unnoticed without additional opportunities to acquire missing skills. It is also believed that by removing students who do not deserve promotion, those who are promoted may move at a more accelerated pace.

The Student Success Initiative (SSI) was enacted by the 76th Texas Legislature in 1999. This policy puts in place advancement requirements for grades 3 and 5, and will be phasing in grade 8 advancement requirements beginning in the 2007-2008 school year. For the purpose of this dissertation, the requirements of grades 3 and 5 will be addressed. In order for a Grade 3 student to be promoted under the SSI, they must perform satisfactorily on the reading portion of the Texas Assessment of Knowledge and Skills (TAKS) test. In order for a Grade 5 student to be promoted under the SSI, they must perform satisfactorily on the reading and math portions of the TAKS test. The SSI states that if a student does not advance to the next grade level by performing satisfactorily on the necessary TAKS tests, they may be advanced to the next grade by a unanimous decision of the grade placement committee (GPC). By a unanimous decision, the GPC is agreeing that the student is likely to perform at grade level with additional accelerated instruction if promoted. (Texas Education Agency, Grade Placement Committee Manual, n.d.)

According to the Texas Education Agency (TEA) Website, "The goal of the SSI is to ensure that all students receive the instruction and support they need to be academically successful in reading and mathematics" (Texas Education

Agency, n.d., ¶ 2). The achievement of this goal is dependent upon schools, parents, and community members partnering together for the well being of the student.

The writing and enactment of the SSI has a very interesting relationship to the national policy of No Child Left Behind (NCLB). The SSI is an early statewide component of No Child Left Behind. The SSI was a significant portion of George Bush's educational policy while he was governor of the state of Texas before his presidency. Legislation during the 1990s focused on ending social promotion and instituting the idea that all students needed to perform satisfactorily on rigorous state exams to be promoted to the next grade level. The legislature agreed, and enacted the SSI during the 76th Texas Legislature in 1999 (Texas Education Agency, Grade Placement Committee Manual, n.d.). The policy was disseminated through the Texas Education Code (TEC) in Chapter 29.0211.

The Texas Education Code in Chapter 28.0211 discusses the aspects of the SSI in regards to the number of times a test can be administered and what happens each time if a student does not reach a satisfactory score (see Appendix A). Students are given three chances to perform satisfactorily on the assessment instrument. Accelerated instruction is given to the student after each assessment try when a satisfactory score has not been achieved. After a second try with an unsatisfactory score, a grade placement committee is established to help the student be successful on the third try through more intense accelerated instruction in a small group setting.

If a student does not pass the required exam in grades 3 or 5, and is in danger of being retained, the SSI gives parents the option to appeal the student's retention (Chapter 28 Subchapter B section (e)).

...The school district shall give the parent or guardian written notice of the opportunity to appeal. The grade placement committee may decide in favor of a student's promotion only if the committee concludes, using standards adopted by the board of trustees, that if promoted and given accelerated instruction, the student is likely to perform at grade level. A student may not be promoted on the basis of the grade placement committee's decision unless that decision is unanimous... (Grade Placement Committee Manual, p. 72)

Chapter 28 Subchapter B section (k) of the SSI also provides a 'loophole' for students to avoid retention under the SSI.

A student who has been promoted upon completion of a school year in a school other than a Texas public school may be enrolled in that grade without regard to whether the student has successfully completed an assessment required under TEC, §28.0211... (Texas Education Agency, n.d.)

This 'loophole' allows a student to either attend a public school in another state or a private school within the state of Texas and to not be affected by the SSI.

When looking at academic implications of the SSI, it becomes imperative to examine which students are most likely to get caught in the grasp of retention. It is estimated that between 5-10% or 2.4 million students in American schools

are retained each year (Anderson, Whipple, & Jimerson, 2002). The number of retained students has risen over the last 25 years. The mid 1960s saw that approximately 24% of boys and 16% of girls were at least one year below grade level by the 6th grade. The 1990s saw retention percentages ranging from a low of 24% for White females to a high of 47% for Hispanic males at the same 6th grade level (Dawson, 1998). Ninth grade statistics in 1992 showed that 40% of 14 year-old males and 20% of 14 year-old females were older than grade level peers (Dawson, 1998). What characteristics do these retainees have?

According to the National Association of School Psychologists (NASP, n.d.), certain student characteristics have the potential to impact student retention decisions. Some of these characteristics may bring about stereotyping of particular students. These characteristics may include students who are:

1. Male
2. Have a late birthday
3. Delayed development and/or attention problems
4. Live in poverty or in a single-parent household
5. Have parents with low educational attainment
6. Have parent that are less involved in their education
7. Have changed schools frequently
8. Have an unstable home life
9. Have behavior problems
10. Display aggression or immaturity
11. Have reading problems, including English language learners

Since retained students have little or no control over many of these warning signs, is the SSI discriminating against these students? Some students who are retained may not possess any of the previous characteristics while others who are not retained may possess more than one of these characteristics (NASP, n.d.). School success, or lack of, can also be attributed to the kinds of schools that students may attend, the length of time a student may spend in school, the curriculum and pedagogy that a student is exposed to, and community beliefs (Nieto, 2000).

What are the academic ramifications of retention? A meta-analysis by Holmes (1989) found that 54 out of 63 studies measured a negative effect on retained students. These retained students did worse on subsequent measures of academic achievement, especially in reading, when compared to students who had been promoted. This meta-analysis found that retained students performed the best in the year in which they were being retained, but their performance declined over time. Within two to three years, the student's achievement level had declined to where they were doing no better and were potentially scoring lower than students who were promoted. When examining these findings, one can question whether retention successfully helped these students academically throughout their academic careers.

According to the NASP (n.d.), grade-level retention significantly impacts students during the year of retention and beyond. Most students, at least at the elementary level, are retained due to a deficit in reading. The impact of in-grade retentions at the elementary level reports several consequences. First, students

who delay entry into school or attend readiness classes may not have harmful consequences in the short run but there is also little evidence of a positive effect in school achievement in higher grades. These early retention practices are predictive of health and emotional risk factors. Second, initial achievement gains may occur during the year of retention, however, the research shows that these achievement gains decline after the retention. These retained students, after two to three years of the retention, do no better or perform lower than similar groups of promoted students. This is true whether children are compared to same-grade peers or comparable students who were promoted. Third, students with greater academic, emotional, and behavioral problems are more likely to experience negative consequences from the year of in-grade retention, and due to this may suffer from subsequent in-grade retentions. Fifth, in-grade retention does not appear to have a positive impact on student self-esteem or overall school adjustment. In-grade retention is associated with significant increases in student behavior problems and these may become more pronounced as the student reaches adolescence (National Association of School Psychologists, n.d.).

In-grade retentions at the secondary level also have an impact on students (NASP, n.d.). Students who were retained or had delayed kindergarten entry are more likely to drop out of school when compared to students who were never retained. The probability of dropping out of school increases with multiple retentions. According to the research, in-grade retentions are one of the most powerful predictors of high school dropout. Students of in-grade retentions have increased risks of health-compromising behaviors such as emotional distress,

cigarette use, alcohol use, drug abuse, driving while drinking, use of alcohol during sexual activity, early onset of sexual activity, suicidal intentions, and violent behaviors.

The impact of in-grade retentions may follow students on into late adolescence and early adulthood (NASP, n.d.). In-grade retained students have a greater probability of poorer educational and employment outcomes during late adolescence and early adulthood. Retained students are less likely to receive a high school diploma by age 20, and in fact, have a greater likelihood of dropping out of high school by age 19. Retained students are less likely to be enrolled in a post-secondary education program and more likely to receive lower education/employment status ratings, be paid less per hour, and receive poorer employment competence ratings at age 20 in comparison to low achieving, promoted students. As adults, retained students are more likely to be unemployed, living on public assistance or in prison than adults who did not repeat a grade. In short, in-grade retention of students, according to the research, may not be the best answer for student success.

Nationally no records of in-grade retention are kept. Data on in-grade retention is available for some states but is sparse. Retention rates must be inferred by looking at the number of over age students in a given grade. Due to this, the comparability of this data is unknown (Shepard & Smith, 1989). *High Stakes Testing for Tracking, Promotion, and Graduation* (1999) reports on the retention rates in 22 states plus the District of Columbia. Thirteen states do not collect any data on in-grade retention, while the remainder of the states did not

respond at all to requests by the committee that accumulated the data for the book *High Stakes Testing for Tracking, Promotion, and Graduation*. Of those that did report in-grade retention data, there is little consistency between grades and years reported from state to state. For example, North Carolina reported all retention rates for kinder – grade 12 from the 1979-80 school year thru the 1996-97 school year, whereas Louisiana only reported in-grade retentions for grades kinder – grade 3 for the 1995-96 school year. The states that did report at least some in-grade retention data include: Alabama, Arizona, California, Delaware, District of Columbia, Florida, Georgia, Hawaii, Indiana, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Mississippi, New Hampshire, New Mexico, New York, North Carolina, Ohio, South Carolina, Tennessee, Texas, Vermont, Virginia, West Virginia, and Wisconsin. The following states do not collect these data: Colorado, Connecticut, Illinois, Kansas, Missouri, Montana, Nebraska, New Jersey, North Dakota, Nevada, Pennsylvania, Utah, and Wyoming.

The implementation of promotional gates where students have to meet a standard in order to be promoted on to the next grade is part of the wave of greater accountability of schools. These promotional gates do raise the question: Is in-grade retention the best solution for students who have not mastered grade level curriculum?

Purpose of the Study

The purpose of this study is to examine the academic performance of 3rd and 5th grade students who did not meet the passing standard on the TAKS test and were retained during the 2005-2006 school year. Year after year, many students are retained, the findings of this study will have the potential to affect students when in regards to future GPC decisions to retain a student or place the student on to the next grade level with accelerated instruction, and also affect state legislatures when examining whether laws they enact are beneficial to the student population they serve.

Statement of the Problem

Under the SSI, Texas students in grades 3 and 5 must perform satisfactorily on the TAKS test on the reading and/or math portions to be promoted to the next grade level or face the possibility of retention. Previous studies have suggested that retention can have a negative impact on students. The problem that this study addresses is to determine the effectiveness of retention, based on the SSI, through academic performance of retained students in grades 3 and 5 in a district in Texas. The study will determine whether these students will show statistically improved reading and/or math scores on the TAKS between their first year of 3rd or 5th grade and the repeated year of 3rd or 5th grade. Due to the importance of students' results on the 3rd and 5th grade TAKS test, the Iowa Test of Basic Skills (ITBS), which is given in the fall previous to the

spring TAKS test, will also be examined to see whether scores on the ITBS can predict a passing score on the TAKS test.

Research Questions

1. Do retained students show statistically improved reading scores on TAKS between their first year of 3rd grade and the repeated year of 3rd grade?
2. Do retained students show statistically improved reading scores on the TAKS between their first year of 5th grade and the repeated year of 5th grade?
3. Do retained students show statistically improved math scores on the TAKS between their first year of 5th grade and the repeated year of 5th grade?
4. Are students who were retained in 3rd grade due to not meeting the passing standard of the SSI successful in passing the TAKS in their first year of 5th grade?
5. Can a student's ITBS score predict TAKS mastery?

Hypotheses

1. Reading TAKS scores in 3rd grade will significantly improve from the first year in grade 3 to the second year in grade 3.

2. Reading TAKS scores in 5th grade will significantly improve from the first year in grade 5 to the second year in grade 5.
3. Math TAKS scores in 5th grade will significantly improve from the first year in grade 5 to the second year in grade 5.
4. Students who were retained in 3rd grade due to the Student Success Initiative will not be successful on the 5th grade level TAKS on their first year in 5th grade.
5. ITBS scores will predict TAKS mastery.

Limitations of the Study

Students selected to participate in the study will be those who were retained in grades 3 or 5 for the 2005-2006 school year due to failure on the TAKS test. Data collection from the fall 2004 and 2005 ITBS scores and the spring 2005 TAKS scores will be completed during the month of school prior to the 2006 summer holiday. TAKS data from spring 2006 will be collected fall of 2006. The study only addresses satisfactory reading performance in grade 3 and reading and math performance in grade 5. The demographic and program data is based on codes from spring 2006. Therefore, students may have had different codes during previous school years.

Delimitations of the Study

Student test scores used in this study will only yield the results found in this study. Test scores of other 3rd and/or 5th grade students in another school

district may not yield the same results. This would be due to the use of a different student sample and different student demographics.

Definitions of Terms

The following terms are defined for consistency and clarity throughout the study.

Grade placement committee (GPC) is comprised of the parent, administrator, and teacher. This committee decides whether or not to retain a student who has not performed satisfactorily on a predetermined TAKS test after the second and third tries or to promote the student with accelerated instruction.

High stakes testing is a standardized achievement test used as direct measures of accountability for students, educators, schools, or school districts, with significant sanctions or rewards attached to test results (Gordon & Reese, 1997, p. 345).

Iowa Test of Basic Skills (ITBS) is a norm-referenced test that measures student achievement in reading, language, and math.

Retention refers to the practice of requiring a student who has been in a given grade level for a full school year to remain at that level for a subsequent school year (Anderson, Whipple, & Jimerson, 2002, p. 1)

Social promotion refers to the practice of passing students who have failed to master part or all of the grade-level curriculum on to the next grade with their age-grade peers (McCollum, Cortez, Maroney, & Montes, 1999, p. 3).

Student Success Initiative (SSI) is a piece of state legislation which requires students in grades 3, 5, and 8 to pass predetermined TAKS Tests in order to be promoted to the next grade level. Grade 3 students must pass the reading portion of the test. Grade 5 and 8 students must pass both reading and math portions of the test.

Texas Assessment of Knowledge and Skills (TAKS) is a criterion-referenced test administered to students in grades 3 through 11 in the area of reading, ELA, math, writing, science, and social studies. Students in grade 3 are tested in reading and math only and students in grade 5 are tested in reading, math, and science only. This term will be used interchangeably with the term high-stakes testing.

Texas Education Agency (TEA) is the governing body in the state of Texas that oversees all aspects of education in the public schools.

Texas Education Code (TEC) is the written guidelines and laws that educators within the state of Texas must comply with to be an accredited school or district.

Significance of the Study

The results of this study will provide information regarding retention for students who have not mastered a grade level curriculum. Research shows that in-grade retention of students is not an effective way of helping students catch up to their grade level peers. Student's academic growth during the actual year of retention will be examined as well as the academic levels of a sample of students

who were retained in 3rd grade and are presently in 5th grade. Student TAKS scores in reading and/or math will be examined as well as ITBS scores to see whether a prediction can be made. This prediction is to examine whether a student's score on the ITBS in the fall correlates with a passing TAKS score in the spring of the same academic year.

This study will help to resolve the debate on whether students should be retained due to not meeting standards on state mandated testing. Student academic growth concerning the effectiveness of the SSI can provide meaningful data for the legislature and educators when deciding on future policy and reforms. Long-term academic growth of students who have been retained may also add information when the grade placement committee convenes to determine the outcomes for the students.

Organization of the Study

This study is organized into five chapters. Chapter I presents an introduction to the study and includes the background information, purpose of the study, statement of the problem, research questions, significance of the study, limitations and delimitations of the study, and definitions of terms. Chapter II reviews related literature focusing on data, reports, and articles on retention and high-stakes testing. Chapter III presents methodology to be used in this study, which will include the research design, participants, instrumentation, procedures, and the plan for data analysis. Chapter IV presents the data and analysis of the

data. Chapter V includes a discussion of the findings and recommendations for future studies.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

Introduction

Nationally, retention has been a recurring theme for the last 30 years. The pendulum swings back and forth between retention and social promotion as one decade's legislatures and policy makers are in favor of retention and the next decade, legislatures are in favor of social promotion (McCollum, Cortez, Maroney, Montes, 1999). This is because retention has been seen by legislatures as the only alternative to social promotion. Student retention is seen as the answer by politicians who are calling for higher educational standards and an end to poor academic performance of students (McCollum, Cortez, Maroney, Montes, 1999). The highest retention rates are found among poor, minority, and inner-city students (Goldberg, 2004). Owings and Kaplan (2001) agree with this in stating that retained students are typically minority, male, and from the lowest quartile of socio-economic rank. These students are typically at-risk of failing in school. Failure at school, according to Frymier and Gansneder (1989), includes failing a course, being retained in a grade, or dropping out.

This literature review focuses on articles and studies of high stakes testing, student retention in the elementary grades, and the Student Success Initiative. This chapter also includes the history of high stakes testing and social promotion, the cost of retention, and the perceptions of high stakes testing throughout the United States. The effectiveness of high stakes testing as the basis for student promotion or retention is also explored. Many of the source

materials centered in on high stakes testing, student retention, and social promotion. The Internet was searched as well as current journal articles and books.

High Stakes Testing

The use of standardized tests has grown in the United States during the last century as a way of determining high school graduation and student promotion/retention. This testing trend has developed, in part, from a desire to centralize, at least at the state level, one of the most decentralized systems of education in the world (Natriello & Pallas, 1999). High stakes testing programs originated from state policy makers as a way to control local school boards and districts, where the process of education occurs, and to monitor student academic growth in certain subjects. The use of high stakes tests to monitor student academic growth has shown to be very efficient, because they are based on “severely limited samples of performance under restricted contexts” (Natriello & Pallas, 1999, p. 3). Given other options that may be available to gain academic information on students, high stakes tests gives a better ‘bang for the buck’ than most other options (Natriello & Pallas, 1999). According to Hauser (2000), a system of retention/promotion based on performance on high stakes tests would need to:

...include well-designed and carefully aligned curricular standards, performance standards, and assessments. Teachers would be well trained to meet high standards in their classrooms, and students would

have ample notice of what they are expected to know and be able to do. Students with learning difficulties would be identified years in advance of high-stakes deadlines, and they and their parents and teachers would have ample opportunities to catch up before deadlines occur. Accountability for student performance would not rest solely or even primarily on individual students, but also, collectively, on educators and parents (Hauser, 2000, pp. 3-4).

Higher academic standards must be adapted to the local needs of districts. These needs must be flexible, situational, and multicultural, rather than national, mandated, and standardized (Darling-Hammond, 1991).

High stakes standardized testing to assess student performance and to determine the effectiveness of schools is becoming more common (Achieve, 2002). The educational focus has been moving towards high-stakes standardized tests as a measurement of student achievement, as well as student placements, teacher competence, and school quality (Darling-Hammond, 1991). More attention has been given to these tests as accountability tools and to sort and classify students then to shape what actually goes on in classrooms (Olson, 2005, October 19).

What places students at jeopardy is the fact that they may be labeled, grouped, and tracked, sometimes for the length of their schooling, because of their score on an ethnocentric and biased test. In this case, it is institutions—schools and the testing industry—that have the major

negative impact on students from culturally dominated groups (Nieto, 2000, p. 37).

In 1989, President George H. W. Bush and the 50 governors had a conference on educational goals. They set broad goals for the nation's educational system from early childhood through adult learning. They determined that similar goals across states were a necessity and that standards had to be established (Achieve, 2002). Shortly after this conference, the 23rd Annual Phi Delta Kappa Gallup Poll of the general public was conducted. The results of the Gallup Poll supported the ideas of this conference with 77% of respondents supporting the idea of requiring public schools in their community to use standardized tests. In addition, 68% of respondents favored the use of a standardized national curriculum as well (Elam, Rose, & Gallup, 1991).

Another national conference, with governors and business executives, was held in 1996 to examine the nation's educational system. As a result of this conference, this group stated a commitment to "establish clear, challenging expectations for what students should know and be able to do in elementary and secondary school; regular measurement of student and school performance; and public accountability for results" (Achieve, 2002, p. 13). The next conference in 1999 brought together governors, CEO's and education leaders. During this conference, there was a focus on "concrete actions needed to make these ideas a reality in classrooms; improving the quality of teaching, strengthening accountability and putting in place the supports needed to help all students achieve high standards (Achieve, 2002, p. 13). President Bill Clinton, along with

the 1999 conference, was promoting the end of social promotion and advocating in-grade retention. President Clinton felt that in-grade retention would be a responsible decision based on a student's age, health, maturity, how the child reacts in testing situations, previous academic performance, parental attitudes, and what opportunities of remedial assistance the student will have if retained (Olson, C., 1999).

The most recent conference, attended by governors, corporate leaders, state education leaders, and educators was held in 2001 and resulted in increased refinement of the nation's educational system. The participants of this conference agreed upon three principles to enhance student achievement and to close achievement gaps between ethnicities. First, they agreed to the need for states to improve assessment systems and to direct resources and to give school districts support where it is needed. Second, they agreed to develop a firm, fair, and balanced accountability system that guarantees students an equal opportunity to achieve the set standards; and last, to create an education workforce that is world class and to inject accountability into the profession (Achieve, 2002).

The number of high stakes standardized tests that students take is staggering. According to Neill and Medina (1989) during the 1986-87 school year, 105 million standardized tests were administered to a total of 39.8 million students. That is an average of two and a half tests per student per year. If this rate continues, by the time a student is ready to graduate from high school, that student will have taken 30 high-stakes standardized tests. Of these 105 million

tests: 55 million were achievement tests that were administered to fulfill local and state mandates; 30 to 40 million tests were administered to students in compensatory and special education programs; two million were administered to screen kindergarten and prekindergarten students; and the remaining six to seven million tests were administered by the General Education Development (GED) program and as admissions requirements of colleges and secondary schools. According to Haney and Madaus (1989), the volume of standardized testing in the schools has been increasing between 10% and 20% annually over the last 40 years.

According to Heubert and Hauser (1999), high stakes standardized tests must follow three criteria to determine whether it is appropriate for its intended use: measurement validity, attribution of cause, and effectiveness of treatment. Measurement validity refers to whether the test is valid for its intended purpose and whether it measures the test takers knowledge in the content being tested. Attribution of cause refers to whether a student's performance on a test can be attributed to good teaching or poor teaching or can it be attributed to factors such as a language barrier or disability in the subject being tested. Effectiveness of treatment refers to whether or not the test scores lead to an educational placement or other consequences within the educational setting. It is also important that a high stakes test have reliability and fairness. Reliability refers to whether a student taking the test on more than one occasion would achieve two very similar scores to show consistency within the test. Fairness refers to

whether the test yields valid and reliable scores from person to person, group to group, and setting to setting.

What kinds of students are typically successful on these high-stakes tests? Students who have what is known as 'test think'. These are students that can spot a correct multiple-choice answer quickly and can effectively think about which answer choice the makers of the test would like them to choose. Students with 'test think' also understand that collaboration with others during the test is out of the question that that they must utilize test-taking techniques that they have acquired to help them answer the questions correctly. Students with 'test think' are well aware of helpful test-taking strategies that are separate of the knowledge and mastery of skills that are being tested. These testers spend time thinking about which answer choice the test makers would want them to choose (Maylone, 2004).

Perceptions of High Stakes Tests

Educational researchers throughout the country have varying opinions about high stakes testing. According to Walker (2000), proponents of high-stakes testing believe that these tests set clear student expectations and allow for students to work hard to achieve these expectations. Proponents also believe that through a high stakes testing program, schools will have the ability to identify academic weaknesses of students and be able to address those early on in the student's educational career. Thus, schools are given a chance to address areas of need and focus resources and teacher training to eliminate those areas. With

a statewide high stakes testing program, there is consistency within a given state between school districts and between campuses within a district. Proponents of high stakes testing also agree, that through such a program, the public is better able to monitor the academic growth of their own school and to compare that to other schools across the state. Critics of high stakes testing argue that these tests can sometimes be too difficult for students, lead teachers “to teach to the test,” take valuable time away from instruction, and be very expensive (Walker, 2000).

Gordon and Reese (1997) believe high stakes testing invariably leads to narrowing of curriculum and “teaching to the test.” By “teaching to the test,” important skills from the curriculum that are not on the test may be eliminated from classroom instruction altogether. Gordon and Reese (1997) suggest high stakes testing may negatively affect teacher creativity, teaching innovation, and use of variety in teaching strategies to meeting individual students’ needs, and that tests are biased against minority and low-income students.

Phelps (1999) also points out criticism to high stakes testing by saying these tests interfere with teaching and learning instead of leading to stronger academic achievement. High stakes testing may interfere with good teaching and learning due to a variety of reasons. The first are test score inflation and narrowing of the curriculum. By narrowing curriculum and only teaching what will be tested, test scores will inflate for those skills but not necessarily for the curriculum in its entirety. High stakes tests also emphasize lower-order thinking skills by only asking multiple choice instead of open-ended questions. Therefore,

these high-stakes tests have a negative effect on overall student achievement. Phelps also believes these high stakes tests hurt minorities and women and are too costly. He points out other countries do not test as much as the U.S. does and that parents, teachers, and students are opposed to such testing.

Phelps (1999) also points out some benefits to the high stakes testing movement, especially in the state of Texas. When examining Texas in relation to other states, Phelps believes Texas has a greater focus on academic learning and the state has a culture of high expectations and enthusiasm toward reaching those standards. Texas also has immediate remediation efforts for those students who are performing poorly. This is due to a system that is in place that identifies potential problems early on and students are not just passed on to the next grade level where these problems may be compounded. Teachers in Texas, according to Phelps, have a greater interest in academic strategies and cooperate more with one another about which ones work better and why. There is also a regular system of statewide assessment, which gives quick feedback to teachers on which instructional strategies work best. Texas has also developed a school-specific system on the World Wide Web for parents to access and help them understand their schools better.

Haney and Madaus (1989) point out four disadvantages of high stakes tests. First, these tests give false information about status of learning in schools. Second, these tests are unfair to specific kinds of students. Mainly, minority students, students with limited proficiency in English, females, and students from low socio-economic families. Third, these tests have the ability to interfere with

the process of teaching and learning and may reduce a class to nothing more than test preparation. Fourth, these tests focus much class time and energy on lower-order thinking skills at the sacrifice of higher-order thinking skills and creativity.

Madaus (1991) also points to advantages and disadvantages of high stakes tests. He warns since high stakes testing is becoming common in our schools

...we must be clear about why we will test, what we will test, and whom we will test, as well as about the form of the tests, the use of the results, the fiscal and educational costs of testing, and the nature of the infrastructure that must be created to develop and administer the tests and to control the testing program (Madaus, 1991, p. 227).

Madaus also warns high stakes testing is often a two-sided coin with different students being affected in different ways. He points out both advantages and disadvantages to high stakes testing. One advantage of high stakes tests is they are objective and impartial when distributing educational benefits and allow for homogeneity in educational standards and practices. These tests also proved to be incentives for students when they meet the standard and give teachers a sense of purpose to what they are doing in the classroom. When curriculum and high stakes tests are aligned, conflict between what is taught and what will be tested is diminished. These tests are widely accepted by society and create an accepted educational standard that allows for comprehensiveness, equal access, and a shared experience for everyone that goes through the school system.

Disadvantages to high stakes tests as described by Madaus (1991) are that tests can encourage narrowing of curriculum by only focusing on those subjects and skills covered by the test. These tests in upper grades can also have an undesirable 'backwash' or 'trickle-down' effect in lower grades by affecting what is taught. Tests may not be appropriate for all students and can cause much anxiety and a lower self-esteem with some students. Scores from high stakes tests can be seen by parents and students as the only objective of education, and can be viewed as unfair by some students. Especially when doing poorly on a test can wipe out a year or more of hard work and result in an in-grade retention.

There are additional concerns by Madaus (1991). First, these tests are often carried out under artificial conditions and in a very limited time frame. Second, tests often lack alignment between what is taught and what is tested. There may also be a degree of teaching to the test, which allows students to perform better without engaging in higher levels of cognition since much preparation to the tests overemphasizes rote memorization and drill-and-practice as a teaching method. High stakes tests can force students to leave school before they have to take the examination-or after failing it. This may result in a greater number of students attending private school or being home schooled in the younger grades and simply dropping out of school in upper grades. The last disadvantage is results from high stakes tests may often be used for purposes in which results were never intended. When examining these advantages and disadvantages to high stakes testing it becomes imperative these ideas be

examined when looking at different kinds of students at different grades and ages and different kinds of educational settings. These should all be assessed for positive and negative impacts on students before a high stakes testing program is implemented.

Goldberg (2004) points out most high stakes tests do not measure the full range of materials any good teacher would teach. Instead it drives teaching of specific skills that will enable a student to be successful in passing the test. Teachers, who are pressured for students to perform well on these high stakes tests, teach the narrow curriculum of what will be tested which is necessary for student success. This narrowly tested curriculum allows for ease of scoring and cost effectiveness. Teachers, according to Goldberg (2005), often feel that due to this narrowing of curriculum important life skill traits necessary for adult jobs are not being taught such as creativity, perseverance, ability to work in groups, initiative, integrity, discipline, and flexibility. With the threat of in-grade retention for students who do not pass these high stakes tests, Goldberg (2004) asks the question of whether it is the right thing to do to fail students who do everything asked of them throughout the school year except pass a single test.

National Implications of High-Stakes Testing

Throughout the country, states that have high stakes testing policies are changing them under pressure for educators and parents. Baltimore, Maryland changed their 'no exception' policy, which refers to students who would be held back if they did not meet the performance standards. In 2003, Maryland

promoted more than 2,700 failing students. Likewise in New York, high school seniors who had passed their math courses but had not passed a high-stakes math exam were being denied their high school diplomas. The State Education Commissioner, Richard Mills, allowed school authorities to issue high school diplomas to these students after much pressure. Another similar situation occurred in Florida in 2003 when 6,000 students were required to repeat the third grade after failing to meet the state's performance standards. Governor Jeb Bush eventually informed the group of parents that their school officials must have 'neglected' to tell them about the option where test scores can be overridden after considering the student's work and other factors (Goldberg, 2004).

Casbarro (2005) introduces three foci on high stakes standardized tests: politics of coercion, politics of performance, and politics of perception. Politics of coercion is widely used in education reform movements of today. This belief is school reform is most effective when positive and/or negative coercion is in place. This can be seen throughout the Student Success Initiative in Texas and the federal No Child Left Behind Act with negative sanctions imposed upon those schools and districts who do not meet the standard. Politics of performance is when passing standards are set and data is analyzed by subgroups (ethnicity, disability, or language). This passing standard can be different each year of the test as higher standards are put into place. Politics of perception is largely done through political campaigns that focus on the theme that school success is measured through test scores. The public is made to think test scores are the

only way to measure school effectiveness through the continual flood of political rhetoric.

Legislatures and parents support the accountability movement to higher standards. High stakes tests assure parents that their children are learning and they can also see their tax dollars at work. The accountability movement specifies what students need to know at each grade level and holds students and educators accountable for reaching those standards. Teachers report the curriculum has become more demanding and students are working harder to learn material (Owings & Kaplan, 2001).

Kohn (2004) looks at what governmental agencies that set passing standards do to these high stakes tests when student scores increase. Instead of congratulating students and their schools, tests are made to be harder with a higher passing standard so more students subsequently fail.

Throughout the research, experts agree that there are positive and negative influences on students with the usage of high stakes tests. Experts on high stakes testing can agree when the right test is used in the right way, in conjunction with other measurements, it can be an effective way to assess student learning (Walker, 2000). However, when used negatively or ineffectively, students may face tough consequences.

Studies Related to Retention

The rationale behind in-grade retentions is to allow students more time to master grade level content and skills. Although the idea and intent is good, the

effects of retention can be harmful to students. According to Owings and Kaplan (2001), four consistent findings of retention appear throughout research. First, retention does not have a positive impact on student achievement. Second, when matching students who were retained with similar students who were promoted, promoted students show higher achievement gains than those who had been retained. Third, retained students have a greater tendency to drop out of school in the later years. Fourth, retained students tend to experience more discipline problems than students who have not been retained. Taking into account similar poor academic achievement, Grissom and Shepard (1989) state retained students are typically male, small for their age, young for their grade, immature, or members of a school culture that practices retention at a greater rate.

According to Denton (2004) public schools have been retaining hundreds of thousands of students every year. This has typically meant doing the same thing over again during the year of in-grade retention and hoping what did not work the first time somehow will work the second time which research tells us rarely does. Instead, it greatly increases the chance a student eventually will drop out of school. On the other side of the fence, Denton (2004) discusses how social promotion, the other seen legislative alternative, is unfair to students and detrimental to society. "These students typically fall further and further behind their classmates and ultimately leave school-often by 'social graduation'-without the basic skills and knowledge every adult needs to be a productive member of society" (p. 1).

Several studies have been conducted on student retention. Holmes (1989) examined effects on academic achievement of retained students versus promoted students. He did a meta-analysis of 63 controlled studies of grade retention in elementary and junior high school through the mid-1980s. He found retained students' average level of academic achievement, from one to three years after the year of retention, were at least 0.4 standard deviations below those of promoted students. For this comparison, retained and promoted students were the same age. The only difference being promoted students had one additional year of schooling completed. Holmes (1989) also found any initial positive effects of retention were completely gone after three or more grades. "On average, retained students are worse off than their promoted counterparts on both personal adjustment and academic outcomes" (p. 27).

Karweit (1999) followed a cohort of 10,000 first grade students for three years and examined academic achievement at the end of second grade. By following these students for three years, it allowed some students to be retained in 1st grade and then go on to complete 2nd grade. Karweit found the retained students in 1st grade had substantial gains over the previous year in 1st grade. However, by the end of 2nd grade, gains had decreased. Retained students academic achievement in 2nd grade was not as high as the promoted group however, the gap in achievement was smaller than it had been at the end of the first 1st grade year.

When examining kindergarten retention, a study conducted by Mossburg (1987) shows negative effects between students retained in

kindergarten and placed in a readiness room and those who were promoted on to 1st grade at the completion of the first year of kindergarten. The sample used, 149 students from each group, were matched on sex, socioeconomic level, age when first entering kindergarten (within four months), and kindergarten readiness. Results of the study showed at the end of 1st grade, readiness room students were ahead, though not significantly. However, by the end of 2nd, 3rd, and 4th grades, students who were originally promoted to 1st grade without the readiness room were ahead and scored significantly higher on reading, math, and composite standardized achievement test scores. Also of interest, the immature students who had refused the readiness room placement and had gone on to 1st grade, were also significantly higher than readiness room students on social, emotional, and academic readiness for middle school as judged by their teachers.

In Meisels' and Liaw's (1993) study, they examined the difference between an early retention (kindergarten through 3rd grade) with a late retention (4th grade through 8th grade). The results showed that 19.3% of the 16,623 student sample was retained at least once between kindergarten and 8th grade. Minority students (29.9% African American and 25.2% Hispanic) were retained at a higher rate than Whites (17.2%). Boys significantly outnumbered girls, 24% and 15.3% respectively, and students from low socioeconomic families were retained at a rate of 33.9% as compared to high socioeconomic families, 8.6%. The largest numbers of retentions occurred during kindergarten through 3rd grade years. In comparison with later retained students who tend to be male, minority,

and low socioeconomic, this study found early retainees were more likely to be White and female. There was no difference in socioeconomic status between early and late retained students. Early retentions were more likely a result of parent request or in cooperation with the school than later retentions which were more initiated by the school alone. When looking at academic achievement, early-retained students had significantly higher grades than did later retained students and were less likely to have emotional or behavioral problems. Early retainees, however, were more likely to have parent reported learning problems and be in special education due to these learning problems.

Byrnes' (1989) study is one of the only studies done on retention where retained students are interviewed about their perceptions of their retention. Seventy-one students, who were currently repeating a grade, were interviewed. Only 73% of those interviewed admitted that they were retained and had to repeat the grade: 57% of girls and 81% of boys admitted to being retained. When asked about how they felt about being retained, 84% reported feelings of sad, bad, and upset; 3% reported feeling embarrassed; and 6% reported feeling happy about the retention. When asked why they were being retained: 25% reported that retention was due to bad grades; 14% reported behavior problems; and 13% reported work habits. Nineteen percent of respondents could not be typified for this question. When compared with school records about why students were being retained, younger students (1st graders) were accurate 50% of the time whereas 3rd and 6th graders were accurate 66% of the time.

In Powell's (2005) study, adults who had been retained as students were interviewed. The sample for this study included ten adults who had been retained as students, three parents, and four siblings of those who had been retained. Participants were of varying ages, ethnicities, and genders. While most respondents reported negative consequences during the year of retention, they reported positive effects as adults. Sixty percent of the respondents reported a positive overall effect. Fifty percent indicated that they would retain their own child if necessary.

Dworkin, Lorence, Toenjes, Hill, Perez, and Thomas (1999) examined retentions based on the Texas Assessment of Academic Skills (TAAS). They compared students that failed TAAS and had been retained with students that had failed TAAS but had been promoted on to the next grade level. Only about 3% of TAAS failures were retained. Over several years of examining TAAS scores, they found retained students frequently out-performed those who had been promoted. This is one of the few in-grade retention studies that showed a positive impact by the year of retention.

A study completed by Viersen (2005) examined the multi-year achievement of retained and non-retained African American males. The study was composed of African American males from low SES who were in the 3rd, 4th, or 5th grade. Findings showed that students who were retained did outscore those students who had not been retained in each grade level in both reading and math.

Other studies have examined the relationship between in-grade retention with dropping out of school. According to Nieto (2000), many students drop out of school due to disciplinary policies that they perceive to be unfair and ineffective. One such study was done by Anderson (1994) where he analyzed data from the National Longitudinal Study of Youth for more than 5,500 students. School attendance for these students was followed from the 1978-1979 school year to the 1985-1986 school year. What he found, after statistical control for sex, race/ethnicity, social background, cognitive ability, adolescent deviance, early transitions to adult status, and several school-related measures, was that students who were currently repeating a grade were 70% more likely to drop out of high school than students who were not currently repeating a grade.

Rumberger and Larson (1998) did a study on retention and dropping out of school. They examined longitudinal data from the National Educational Longitudinal Study of 1988 and controlled data for social and family background, school characteristics, student engagement, and academic achievement in the 8th grade (test scores and grades). They found an in-grade retention before 8th grade increased the rate of dropout by the 12th grade. "Students who were held back before the eighth grade were more than four times as likely as students who were not held back to not complete high school or receive a GED by 1994" (p. 27). The threat of retention to a student if he or she does not meet the standard is not seen as a motivating force by these students. In fact, these retained students, with a lower self-esteem, view the year of retention as a punishment and a stigma, not as something positive to help them out academically.

Retained students are at a higher risk of dropping out of school later in life, and a second retention along the way, makes dropping out of school almost a certainty (Rumberger & Larson, 1998). According to Kenneady (2004), students who have been retained once are 50 percent more likely to drop out of school than non-retained students. Two retentions increase the drop out probability to 90 percent.

Grissom and Shepard (1989) examined the correlation between in-grade retention and dropping out of school. They found repeating a grade during the elementary school years was the strongest predictor of dropping out of high school. A student who fails either of the first two grades of elementary school has only a 20% chance of graduating from high school.

On average, the dropout rate of overage students is 13 per cent higher than the dropout rate of normal-age students with equivalent reading achievement scores. Read the other way, overage students must have reading scores approximately 2.25 grade levels higher than normal-age students to have the same chance of graduating. (p. 40)

These dropouts have several similar characteristics: low socioeconomic backgrounds, little support for school from home, poor self-esteem, history of poor school attendance, and perform poorly on academic tasks. Academic achievement, according to Grissom and Shepard (1989), is only causally related to dropping out of school. This is due to one of two things: poor achievers are unable to complete work required of high school graduation, or low achievement typically causes poor self-esteem and an overall dissatisfaction with school.

A student's ethnicity and socioeconomic status also play a very important role in retention. Nationally, African American and Hispanic students are retained at a rate twice that of White students. More retained students (40%) come from the lowest socio-economic quartile compared to only 8.5% from the highest quartile. Retention is also a costly endeavor for taxpayers. The nation pays out, on average, \$10 billion a year to have students repeat a grade (McCollum, Cortez, Maroney, Montes, 1999). For these at-risk students, a variety of interventions may be tried to prevent in-grade retention. These interventions include but are not limited to smaller classes, lower-track courses, individualized instruction, flexible scheduling, tutors, extra homework, parent involvement, instruction in basic skills, special instructional materials, special teachers, and referrals to special education. A study of students at risk done by Phi Delta Kappa showed 71% of principals regularly retained students in-grade but only 26% of these principals found retention to be effective (Frymier & Gansneder, 1989).

In-grade retention of students, under some circumstances, can yield less negative effects if certain circumstances are in place. However, no study has been able to accurately predict which students will benefit from in-grade retention. The National Association of School Psychologists (NASP, 1998) suggests four such circumstances in which in-grade retentions may not have such a negative affect on students. Students who have a positive self-concept, good peer relationships, and have adequate skills to catch up easily are less likely to experience negatively from in-grade retention. Another circumstance

that may be helped by retention is when students have difficulty in school due to a lack of opportunity for instruction rather than a lack of ability as long as the retained student is no more than one year older than classmates. This also takes into consideration the lack of opportunity related to attendance, health, or mobility problems that have been resolved for the year of retention. Students who score within one standard deviation of the mean on achievement tests also have a chance to benefit from in-grade retention. Another circumstance when in-grade retention may be helpful is when students have no serious social, emotional, or behavioral problems. This particular type of student, however, is less likely to be retained since their academic needs can be met with minor modifications in instruction. Lastly, retained students are less likely to have negative affects if during the year of retention they receive specific remediation to address the skills or behavioral deficits that caused the retention to begin with (NASP, 1998).

Costs Regarding High Stakes Testing and Retention

A study conducted in 2003 by the investigative arm of Congress placed a dollar amount to the high stakes testing movement. It was estimated that it will cost states \$1.9 billion to meet testing requirements over the next six years. This would only be if tests relied solely on multiple-choice answers and could be machine-scored. The cost increased to \$3.9 billion when a combination of multiple choice question and open-ended questions where used. The price

further increased to \$5.3 billion when hand-scored written responses were used (Olson, 2005, November 30).

Nieto (2000) gives a conservative estimate of about 100 million standardized tests being given yearly to 40 million students. This is an average of 2.5 tests per year per student. The annual costs for developing and scoring so many tests can run between 70 and 107 million dollars.

The cost of retention to taxpayers is likewise a concern especially when considering returns for such an investment. Nationally for the 2000-01 school year, the most recent year that data is available, the average cost to educate was \$7,268 per student. This cost ranges from educating in a large city (\$7,892 per student) down to educating in a large town (\$6,477 per student) (National Center for Education Statistics, n.d.). According to Shepard and Smith (1989), no accurate national records are kept on the numbers of students being retained on a yearly basis. These records are kept by some states but not all.

When looking specifically at in-grade retentions within the state of Texas, a dollar amount can be placed on in-grade retention. According to the Grade-Level Retention in Texas Public Schools (2005) manual, 65,796 kinder through 6th grade students were retained for the 2003-04 school year. When taking the average cost of \$7,268 per student to educate and multiplying by the number of students that were retained (65,796), it will cost taxpayers approximately \$478 million for students to repeat the grade. More specifically with the SSI, 8,196 3rd graders were retained for an approximate cost of \$60 million and 3,225 5th graders were retained for an approximate cost of 24 million.

History of High Stakes Testing in Texas

High stakes testing in Texas has a long history dating back to the 1980s. The first such reform was in 1984 with the passing of House Bill 72. This bill was among one of the first state laws in the nation that raised high school graduation requirements and put into place the very controversial “no pass, no play.” This “no pass, no play” piece of the legislation began the higher standards trend by requiring extra-curricular participants to be passing all classes. House Bill 72 also made Texas one of the first states to test on an annual basis and to report results by socioeconomic status and ethnic groups (Achieve, 2002). House Bill 72 was also the first piece of legislation in Texas that officially ended social promotion and required students to be promoted on to the next grade on the basis of academic achievement. The bill did go on to specify that, even though social promotion would not be allowed, students could not repeat the same grade more than one time and could not be retained more than two times within the elementary grades (Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005).

Throughout the educational reforms over the past 25 years, Texas has done an adequate job of testing students academically and increasing standards incrementally, thus allowing schools and students to be successful before raising the standards (Achieve, 2002). The first high stakes standardized test in Texas was the Texas Assessment of Basic Skills (TABS). This test only looked at the very basic minimum skills necessary for high school graduation. The year 1985 saw the first incremental jump in standards by having students be required to

take the Texas Educational Assessment of Minimal Skills (TEAMS). Again, this test only looked at the basic minimum skills necessary for high school graduation, although these minimum skills were at a higher level than those tested by TABS.

The year 1990 saw the next incremental jump in standards with the introduction of the Texas Assessment of Academic Skills (TAAS). This test was the first state test to be criterion referenced and linked to a statewide curriculum (Essential Elements) (Jerald, 2001). The year 1991 saw an update to TEC §21.721, which disallowed students to be promoted to the next grade level unless an end of year grade point average of 70 was attained. Specific policies for grade promotion was a responsibility for each local school district, however, these local policies had to incorporate a variety of factors. These factors included: 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 judgments of parents and teachers (Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005).

Beginning in 1993 with the TAAS test, TEA began a rating scale and consequences for schools and districts based on numbers of students who did not meet passing standard for the tests. This rating scale was based on rating students within a school on both socioeconomic status and ethnicity groups (Jerald, 2001). The TEC was again reviewed in 1995 and disallowing social promotion was again a focus. Provisions within the TEC concerning grade

promotion were changed slightly to say students could be promoted to the next grade level only on the basis of academic achievement or demonstrated proficiency in the subject matter of the course or grade level (Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005).

The 76th Texas Legislature in 1999 approved the Student Success Initiative, which brought in the most recent incremental jump in standards. Beginning in the spring of 2003, students were to begin taking the Texas Assessment of Knowledge and Skills (TAKS) and in certain grade levels pass specific portions of the test in order to be promoted on to the next grade level. This installed certain checkpoints along the way within the public schools (Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005). This test is also criterion referenced and is linked to a more rigorous statewide curriculum, the Texas Essential Knowledge and Skills (TEKS). Beginning in the spring of 2003, students in 3rd grade had to pass the reading portion of this test in order to be promoted to the 4th grade.

In spring 2005 students had to pass the reading and math portions of this test in order to be promoted to 6th grade (Jerald, 2001). Students will be given three testing opportunities to establish a passing score of the required tests. If a student fails the first administration of the required test, the district must provide an accelerated instruction program to help the student become successful on the second administration of the required test. If a student fails a required test on the second administration, the district is then required to establish a grade placement committee (GPC) for the student. This GPC is comprised of a campus

administrator, the teacher of record for the subject in question, and the parent of the student. The purpose of the GPC is to determine what kind of accelerated instruction the student will receive before the third administration of the required test. Any student who fails the third administration of a required test is to be retained in that grade. The GPC, however, may decide unanimously to promote the student on to the next grade level if it is determined that with accelerated instruction the following year the student can perform on grade level (Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005).

Texas Statistics Related to Retention

Texas public schools are a growing entity both in numbers as well as in diversity. During the 17-year stretch from 1987-88 to 2003-04, the number of students being served by public schools grew from 3,224,916 to 4,328,028. This enrollment increase of 1,103,112 is a 34.2% jump. All ethnic groups increased during this same time period except for White students who declined by 4.2%. Hispanic students experienced the greatest increase. The number of enrolled Hispanic students increased by 546,495 students or 40.6%. Hispanic students, during the 2003-04 school year, were the largest ethnicity enrolled at 43.8% of the total statewide enrollment. This can be compared with the total White enrollment during the same year at 38.7% and the total African American enrollment at 14.2% (Texas Education Agency, Enrollment in Texas Public Schools, 2005).

The *Grade-Level Retention in Texas Public Schools Manual* (2005) reports the most recent data available for the retention of students (2003-2004 school year) and TAKS scores (2004-2005 school year). Scores of mastery are reported as a scale score, which is a statistic that allows for comparison of scores with a standard and adjusts for differences in difficulty of the test form used. TAKS scale scores do have limitations in that they cannot be used to measure student progress across grade levels. Instead, scale score comparisons can be made within grade level and subject area across test administrations (Texas Education Agency, *Grade Level Retention in Texas Public Schools*, 2005).

When looking overall at the state of Texas for the 2003-2004 (the latest year in which data is available) in regard to retentions, the rate of retention for all grades, K-12, is 4.7%, which is the same as the previous year. This equals 187,037 students across the state being retained. When broken down to elementary and secondary the numbers are 65,796 and 121,241 respectively or 2.9% and 6.8%. Males (5.6%) are more likely than females (3.7%) to be retained across the grades. African Americans and Hispanics carried the same rate of retention, 6.0%. When looking at this percentage in terms of numbers, for African Americans, 34,015 out of 567,654 were retained, and when looking at Hispanics, 104,855 out of 1,735,014 were retained. The economically disadvantaged also had a higher rate of retention of 5.7% or 115,980 out of 2,020,902 students (Texas Education Agency, *Grade Level Retention in Texas Public Schools*, 2005). Table 1 contains data for all students enrolled in the

Texas public schools for the 2002-03 and 2003-04 school years in regard to the number of retentions broken down by ethnicity, socioeconomic status, gender, and level of schooling.

Table 1

Grade Level Retention by Student Characteristic, Texas Public Schools, 2002-03 and 2003-04

	2002-03			2003-04		
	All Students	Retained	Rate (%)	All Students	Retained	Rate (%)
African American	559,949	33,681	6.0	567,654	34,015	6.0
Asian/Pacific Islander	113,253	2,097	1.9	118,338	2,073	1.8
Hispanic	1,668,099	102,416	6.1	1,735,014	104,855	6.0
Native American	12,085	538	4.5	12,672	532	4.2
White	1,601,578	45,482	2.8	1,586,744	45,562	2.9
Economically Disadvantaged	1,950,154	112,605	5.8	2,020,902	15,980	5.7
Female	1,928,841	70,944	3.7	1,960,049	72,345	3.7
Male	2,026,123	13,270	5.6	2,060,373	14,692	5.6
Grades K-6	2,205,518	63,852	2.9	2,236,355	65,796	2.9
Grades 7-12	1,749,446	120,362	6.9	1,784,067	121,241	6.8
State	3,954,964	184,214	4.7	4,020,422	187,037	4.7

Note: Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005, p. 13

When looking at the retention data by grade level, 3rd grade has steadily increased while 5th grade has remained constant. Third grade had a retention rate that decreased by 0.2% between the 2002-2003 and the 2003-2004 school years. This happened despite implementation of the Student Success Initiative

with mandatory passing of the reading portion of the TAKS test for promotion to 4th grade. Fifth grade retention rate has been consistent between 0.8% and 1.0% since the 1994-1995 school year to the 2003-2004 school year. Mandatory retentions for 5th grade due to the Student Success Initiative do not begin until the 2005-2006 school year (Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005). Table 2 shows retention rates for students in the state of Texas in grades 3 and 5 from the 1994-95 through 2003-04 school years.

Table 2

Grade-Level Retention by Grade, Grades 3 and 5, Texas Public Schools, 1994-95 through 2003-04

Year	Grade 3 Retained	Grade 3 Rate (%)	Grade 5 Retained	Grade 5 Rate (%)
1994-95	3,453	1.3	2,223	0.9
1995-96	4,251	1.5	2,355	0.8
1996-97	4,400	1.6	2,272	0.8
1997-98	5,373	1.9	2,587	0.9
1998-99	7,129	2.4	2,502	0.9
1999-00	6,862	2.3	2,938	1.0
2000-01	7,659	2.5	2,789	0.9
2001-02	7,636	2.4	2,591	0.8
2002-03	8,924	2.8	3,109	1.0
2003-04	8,196	2.6	3,225	1.0

Note: Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005, p. 15

Grade Level Retention in Texas Public Schools 2003-2004 (2005) also showed data for grade-level retentions by ethnicity. “In 2003-04, African American and Hispanic students had higher retention rates than their White counterparts in all grade levels except kindergarten...retention rates for African American and Hispanic students in Grades 2-6 were almost always more than double those for White student” (Texas Education Agency, p. 18). Looking specifically at 3rd grade 2003-04 data, African American and Hispanic retentions were more than triple of White students even though the number of African American and Hispanic rates of retention declined from the previous year. Despite this achievement gap, the 3rd grade retention numbers by ethnicity decreased from the previous school year in spite of the requirements of the Student Success Initiative and the first year for the TAKS test. The 5th grade retention rates by ethnicity appear more consistent during the 1994-95 to 2003-04 time frame. An achievement gap is still evident with African American retention rate being more than double of White students and the Hispanic retention rate just under double of White students (Texas Education Agency, *Grade Level Retention in Texas Public Schools, 2005*). Tables 3.1 and 3.2 show retention rates for grades 3 and 5 by ethnicity from 1994-95 through 2003-04 school years.

Table 3.1

Grade-Level Retention by Grade and Ethnicity, Grade 3, Texas Public Schools, 1994-95 through 2003-04

Year	African American		Asian/ Pacific Islander		Hispanic		Native American		White	
	Ret.	Rate (%)	Ret.	Rate (%)	Ret.	Rate (%)	Ret.	Rate (%)	Ret.	Rate (%)
1994-95	753	2.1	43	0.8	1,689	1.7	11	1.7	957	0.8
1995-96	906	2.2	44	0.7	2,166	2.1	8	1.1	1,127	0.9
1996-97	870	2.1	54	0.8	2,289	2.1	16	2.0	1,171	0.9
1997-98	1,138	2.8	50	0.7	2,899	2.7	14	1.7	1,272	1.0
1998-99	1,680	4.0	88	1.3	3,964	3.4	14	1.6	1,383	1.1
1999-00	1,497	3.4	75	1.0	3,902	3.1	11	1.3	1,377	1.1
2000-01	1,662	3.7	88	1.1	4,450	3.4	18	2.0	1,441	1.2
2001-02	1,694	3.7	88	1.0	4,473	3.3	17	1.8	1,264	1.1
2002-03	1,891	4.2	127	1.4	5,494	3.9	17	1.8	1,395	1.2
2003-04	1,680	4.8	97	1.0	5,160	3.5	12	1.2	1,247	1.1

Note: Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005, pp. 19-21

Table 3.2

Grade-Level Retention by Grade and Ethnicity, Grade 5, Texas Public Schools, 1994-95 through 2003-04

Year	African American		Asian/ Pacific Islander		Hispanic		Native American		White	
	Ret.	Rate (%)	Ret.	Rate (%)	Ret.	Rate (%)	Ret.	Rate (%)	Ret.	Rate (%)
1994-95	448	1.3	--	0.5	1,017	1.1	--	0.8	728	0.6
1995-96	424	1.1	36	0.6	1,062	1.1	6	0.9	827	0.6
1996-97	339	0.9	23	0.4	1,081	1.0	9	1.3	820	0.6
1997-98	443	1.1	36	0.6	1,261	1.2	8	1.1	839	0.7
1998-99	445	1.1	--	0.6	1,211	1.1	--	0.5	797	0.6
1999-00	612	1.5	37	0.5	1,445	1.3	8	1.0	836	0.7
2000-01	539	1.2	41	0.5	1,358	1.1	7	0.8	844	0.7
2001-02	473	1.0	41	0.5	1,323	1.0	9	1.0	745	0.6
2002-03	610	1.3	37	0.4	1,604	1.2	14	1.4	844	0.7
2003-04	677	1.5	50	0.6	1,636	1.2	12	1.2	850	0.7

Note: Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005, pp. 19-21

Students who are identified as economically disadvantaged also have a higher rate of retention. A student is identified economically disadvantaged if they meet certain criteria. This criteria includes: 1. the parent or guardian documenting their eligibility for the free or reduced lunch program under the National School Lunch and Child Nutrition Program, or 2. the parent or guardian can document another means of economic disadvantage such as annual incomes below or at the federal poverty guidelines, eligibility for public assistance, or eligibility for food stamps. The percentage of Texas students meeting these criteria has grown over the last 10 years. In the 1994-95 school year, there were 1,700,709 (46.3%) enrolled students identified as economically disadvantaged. By 2003-04 that number had risen to 2,281,195 or 52.7% of enrolled students (Texas Education Agency, Enrollment in Texas Public Schools 2003-04, 2005). For the 2003-04 school year in 3rd grade, students who were identified as economically disadvantaged were almost three times more likely to be retained than their non-economically disadvantaged counterparts. The number of economically disadvantaged students who were retained was 6,395 or 3.6%. The non-economically disadvantaged numbers were 1,801 retained students or 1.3%. For 5th grade in the same year, the number of economically disadvantaged students who were retained was almost double that of non-economically disadvantaged students. Economically disadvantaged students carried retention numbers of 2,280 students or 1.3% while non-economically disadvantaged students carried retention numbers of 954 or 0.7% (Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005).

Tables 4.1 and 4.2 show grade-level retentions for grades 3 and 5 by socioeconomic status from 1994-95 through 2003-04 school years.

Table 4.1

Grade-Level Retention by Grade and Socioeconomic Status, Grade 3, Texas Public Schools, 1994-95 through 2003-04

Year	Economically Disadvantaged		Not Economically Disadvantaged	
	Retained	Rate (%)	Retained	Rate (%)
1994-95	2,314	1.7	1,139	0.9
1995-96	3,048	2.1	1,203	0.9
1996-97	3,108	2.1	1,292	1.0
1997-98	4,057	2.7	1,316	1.0
1998-99	5,388	3.5	1,741	1.2
1999-00	5,113	3.1	1,749	1.3
2000-01	5,656	3.4	2,003	1.4
2001-02	5,859	3.4	1,777	1.3
2002-03	7,009	4.0	1,915	1.4
2003-04	6,395	3.6	1,801	1.3

Note: Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005, pp. 29-31

Table 4.2

Grade-Level Retention by Grade and Socioeconomic Status, Grade 5, Texas Public Schools, 1994-95 through 2003-04

Year	Economically Disadvantaged		Not Economically Disadvantaged	
	Retained	Rate (%)	Retained	Rate (%)
1994-95	1,467	1.2	756	0.6
1995-96	1,542	1.1	813	0.6
1996-97	1,486	1.0	786	0.6
1997-98	1,785	1.3	802	0.6
1998-99	1,632	1.1	870	0.6
1999-00	1,993	1.3	945	0.7
2000-01	1,827	1.2	962	0.7
2001-02	1,790	1.1	801	0.6
2002-03	2,197	1.3	912	0.6
2003-04	2,280	1.3	945	0.7

Note: Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005, pp. 29-31

The gender of a student also has implications for retention. Data from the 2003-04 school year showed how males have a higher retention rate than females. In grade 3 female students had a retention rate of 2.3% or 3,557 students while males had a retention rate of 2.9% or 4,639 students. Grade 5 numbers also showed males with a higher retention rate than females. Fifth grade males were retained at a rate of 1.9% or 3,204 students compared to the female rate of 1.0% or 1,591 students (Texas Education Agency, Grade Level

Retention, 2005). Table 5 shows grade-level retentions for grades 3 and 5 by gender for the 2003-04 school year.

Table 5

Grade-Level Retention by Grade and Gender, Grades 3 and 5, Texas Public Schools, 2003-04

	Grade 3		Grade 5	
	Retained	Rate (%)	Retained	Rate (%)
Female	3,557	2.3	1,189	0.8
Male	4,639	2.9	2,036	1.3

Note: Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005, p. 26

Students with Limited English Proficiency (LEP) have a higher rate of retention than their non-LEP counterparts. LEP students are identified as those students who speak a language other than English in the home and are learning English at the same time that they are learning reading and other language arts skills. Most LEP students were enrolled in either a bilingual program or an English as a Second Language (ESL) program, however, a parent could deny these services and the student would be classified as LEP receiving no services. When comparing LEP students in a bilingual or ESL program with LEP students not receiving services, the first had a lower retention rate. When comparing all LEP students regardless of whether or not services are received to non-LEP students, LEP students had higher retention rates in all grades except in Kindergarten (Texas Education Agency, Grade Level Retention, 2005). Tables 6.1 and 6.2 show grade-level retention for grades 3 and 5, Limited English Proficiency status, and services received from the 1994-95 through 2003-04

school years. Tables 7.1 and 7.2 show the differences in retention rates of LEP students as compared to non-LEP students.

Table 6.1

Grade-Level Retention by Grade, Limited English Proficiency (LEP) Status, and Service Received, Grade 3, Texas Public Schools, 1994-95 through 2003-04

Year	Bilingual		ESL		Special Education		No Services	
	Retained	Rate (%)	Retained	Rate (%)	Retained	Rate (%)	Retained	Rate (%)
1994-95	575	2.1	167	2.0	18	2.1	44	1.3
1995-96	693	2.3	213	2.2	24	2.9	62	1.9
1996-97	738	2.3	223	2.1	21	2.5	66	1.8
1997-98	961	3.0	323	2.9	27	3.0	78	2.2
1998-99	1,420	4.2	427	3.6	29	3.9	101	2.9
1999-00	1,393	3.8	409	3.2	21	2.5	96	2.5
2000-01	1,551	4.1	457	3.2	30	3.2	136	3.0
2001-02	1,685	4.1	525	3.3	30	3.0	122	2.6
2002-03	2,173	5.0	713	4.1	19	2.0	153	3.3
2003-04	1,880	4.4	759	4.3	56	3.6	122	3.0

Note: Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005, pp. 37-39

Table 6.2

Grade-Level Retention by Grade, Limited English Proficiency (LEP) Status, and Service Received, Grade 5, Texas Public Schools, 1994-95 through 2003-04

Year	Bilingual		ESL		Special Education		No Services	
	Retained	Rate (%)	Retained	Rate (%)	Retained	Rate (%)	Retained	Rate (%)
1994-95	187	1.1	85	1.0	40	3.6	24	0.9
1995-96	179	1.0	101	1.2	42	4.3	21	0.8
1996-97	197	1.0	88	0.9	44	4.1	26	0.8
1997-98	220	1.1	146	1.4	43	4.1	30	1.2
1998-99	237	1.2	143	1.3	33	3.6	12	0.5
1999-00	298	1.6	203	1.8	38	3.6	29	1.0
2000-01	285	1.5	177	1.7	45	4.3	28	1.0
2001-02	301	1.5	152	1.5	29	2.5	23	0.9
2002-03	360	1.7	218	2.0	18	1.5	37	1.5
2003-04	357	1.6	242	2.0	33	2.0	26	1.1

Note: Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005, pp. 37-39

Table 7.1

Grade-Level Retention by Grade and Limited English Proficiency (LEP) Status,
Grade 3, Texas Public Schools, 1994-95 through 2003-04

Year	LEP Students		Other Students	
	Retained	Rate (%)	Retained	Rate (%)
1994-95	804	2.0	2,649	1.2
1995-96	992	2.2	3,259	1.4
1996-97	1,048	2.2	3,352	1.4
1997-98	1,389	2.9	3,984	1.7
1998-99	1,977	4.0	5,152	2.1
1999-00	1,919	3.6	4,943	2.0
2000-01	2,174	3.8	5,485	2.2
2001-02	2,362	3.8	5,274	2.1
2002-03	3,058	4.6	5,866	2.4
2003-04	3,400	4.6	4,796	2.0

Note: Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005, pp. 37-39

Table 7.2

Grade-Level Retention by Grade, and Limited English Proficiency (LEP) Status, Grade 5, Texas Public Schools, 1994-95 through 2003-04

Year	LEP Students		Other Students	
	Retained	Rate (%)	Retained	Rate (%)
1994-95	336	1.2	1,887	0.8
1995-96	343	1.1	2,012	0.8
1996-97	355	1.1	1,917	0.8
1997-98	439	1.3	2,148	0.9
1998-99	425	1.3	2,077	0.8
1999-00	568	1.7	2,370	0.9
2000-01	535	1.6	2,254	0.8
2001-02	505	1.5	2,086	0.8
2002-03	633	1.8	2,476	0.9
2003-04	828	1.9	2,397	0.9

Note: Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005, pp. 37-39

Data for students receiving special education services revealed students receiving these services have a higher retention rate than those students not receiving special education services. This is true until the 2001-02 school year when grades 3 and 4 students receiving special education services had a retention rate the same or lower than those students not receiving special education services. Third grade special education students for the 2003-04 school year had a retention rate of 2.0% or 917 students compared with non-special education students with a retention rate of 2.7% or 7,279 students. Fifth

grade special education students in the same year had a retention rate of 1.5% or 718 students compared with a retention rate of non-special education students of 0.9% or 2,507 students. All special education students have an Individualized Education Program (IEP) that specifies goals and objectives for that school year. Retention and promotion policies for students with disabling conditions varied across the state between districts (Texas Education Agency, Grade Level Retention, 2005). Table 8.1 and 8.2 show grade-level retention for grades 3 and 5 by special education status from 1994-05 through 2003-04 school years.

Table 8.1

Grade-Level Retention by Grade and Special Education Status, Grade 3, Texas Public Schools, 1994-95 through 2003-04

Year	Special Education		Not Special Education	
	Retained	Rate (%)	Retained	Rate (%)
1994-95	806	2.0	2,647	1.2
1995-96	937	2.2	3,314	1.4
1996-97	972	2.2	3,428	1.4
1997-98	1,142	2.6	4,231	1.8
1998-99	1,307	3.0	5,822	2.3
1999-00	1,154	2.7	5,708	2.2
2000-01	1,106	2.6	6,553	2.5
2001-02	936	2.1	6,700	2.5
2002-03	988	2.2	7,936	2.9
2003-04	917	2.0	7,279	2.7

Note: Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005, pp. 45-47

Table 8.2

Grade-Level Retention by Grade and Special Education Status, Grade 5, Texas Public Schools, 1994-95 through 2003-04

Year	Special Education		Not Special Education	
	Retained	Rate (%)	Retained	Rate (%)
1994-95	847	2.1	1,376	0.6
1995-96	848	1.9	1,507	0.6
1996-97	911	2.0	1,361	0.6
1997-98	913	2.0	1,674	0.7
1998-99	915	1.9	1,587	0.7
1999-00	939	2.0	1,999	0.8
2000-01	866	1.9	1,923	0.8
2001-02	723	1.6	1,868	0.7
2002-03	645	1.4	2,464	0.9
2003-04	718	1.5	2,507	0.9

Note: Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005, pp. 45-47

Data concerning at-risk, immigrant, migrant, and over age students reflects a higher retention rate. At-risk students are defined as a student who is under the age of 21 who is at risk of dropping out of school based on 1 of 13 categories as defined by the TEC §29.081. Two of these categories may include unsatisfactory scores on readiness tests or assessment instruments and grade-level retention in a previous year. Immigrant students are those that were not born in the United States and have not attended more than three years of school in the US. Migrant students are those between the ages of 3 and 21 who have

changed school districts at least once in the preceding 36 months due to seasonal or temporary farm or fishing work. Over age students are those who by September 1 have an age that is higher than the grade level plus five years. At-risk (3.8%), immigrant (3.0%) and migrant students (4.5%) in grade 3 for the 2003-04 school year had a higher rate of retention than the state (2.6%) as a whole. Over age students (2.4%) had a slightly lower retention rate than the state. For the same year, 5th grade at-risk (1.6%), immigrant (1.6%), migrant (1.4%), and overage (1.2%) students all had a higher rate of retention than the state (1.0%) (Texas Education Agency, Grade Level Retention, 2005). Tables 9.1 and 9.2 show grade-level retention for grades 3 and 5 by at-risk, immigrant, migrant, and over age student characteristics from 1994-95 through 2003-04 school years.

Table 9.1

Grade-Level Retention by Grade and by At-Risk, Immigrant, Migrant, and Over Age Student Characteristics, Grade 3, Texas Public Schools, 1994-95 through 2003-04

Year	At-Risk		Immigrant		Migrant		Over Age	
	Retained	Rate (%)	Retained	Rate (%)	Retained	Rate (%)	Retained	Rate (%)
1994-95	1,511	1.7	n/a	n/a	131	2.1	340	0.8
1995-96	1,779	2.0	n/a	n/a	74	1.6	370	0.8
1996-97	1,916	2.1	n/a	n/a	98	2.2	375	0.9
1997-98	2,653	2.9	n/a	n/a	131	2.9	523	1.3
1998-99	3,414	3.6	n/a	n/a	154	3.2	1,074	2.6
1999-00	3,630	3.5	n/a	n/a	170	3.3	1,055	2.4
2000-01	3,995	3.7	277	4.3	179	3.3	1,101	2.3
2001-02	4,218	3.5	273	3.6	262	3.5	1,154	2.2
2002-03	5,723	4.3	296	3.6	344	4.6	1,574	3.0
2003-04	5,182	3.8	236	3.0	319	4.5	1,331	2.4

Note: Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005, pp. 53-55

Table 9.2

Grade-Level Retention by Grade and by At-Risk, Immigrant, Migrant, and Over Age Student Characteristics, Grade 5, Texas Public Schools, 1994-95 through 2003-04

Year	At-Risk		Immigrant		Migrant		Over Age	
	Retained	Rate (%)	Retained	Rate (%)	Retained	Rate (%)	Retained	Rate (%)
1994-95	1,231	1.0	n/a	n/a	55	0.9	607	1.0
1995-96	1,197	1.0	n/a	n/a	54	1.2	618	1.1
1996-97	1,150	1.0	n/a	n/a	45	1.0	582	1.1
1997-98	1,450	1.4	n/a	n/a	37	0.9	638	1.4
1998-99	1,270	1.3	n/a	n/a	40	0.9	554	1.2
1999-00	1,513	1.5	n/a	n/a	57	1.2	710	1.5
2000-01	1,392	1.4	107	2.0	60	1.2	588	1.2
2001-02	1,282	1.3	111	1.7	86	1.3	620	1.2
2002-03	1,626	1.7	129	1.9	82	1.1	695	1.3
2003-04	1,782	1.6	103	1.6	100	1.4	690	1.2

Note: Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005, pp. 53-55

As discussed previously, the 76th Texas Legislature in 1999 enacted the Student Success Initiative which requires students in grade 3, beginning in 2002-

03, to pass the reading portion of the TAKS test in order to be promoted to grade 4 and requires students in grade 5, beginning in 2004-05, to pass the reading and math portions of the TAKS test to be promoted to grade 6 (Texas Education Agency, Grade Placement Manual). Therefore, when looking at student retentions in these grades, it is imperative that TAKS scores be examined. The Texas Education Agency 2005 Comprehensive Annual Report on Texas Public Schools (2005) looked at TAKS scores from the 2004-05 school year for these students. Of the 270,771 3rd graders statewide who took the first administration of the reading TAKS test in English, 89% met the passing standard. Of that 89%, 37% met the Commended Performance standard. The 2004-05 school year was the first year in which 5th grades had to meet the passing standard on both the reading and math portions of the TAKS test in order to be promoted to the 6th grade. Statewide 276,878 5th grade students took the reading TAKS test. Of those students, 75% met the passing standard. In math, 79% of students met the passing standard (Texas Education Agency, 2005 Comprehensive Annual Report on Texas Public Schools, 2005).

Student numbers from the *2005 Comprehensive Annual Report on Texas Public Schools* may not match exactly those from the *Grade Level Retention in Texas Public Schools Manual*. The *Comprehensive Annual Report on Texas Public Schools* must report on all students regardless of whether or not that student can be found in the Texas public schools the following year. For students to be reported in the *Grade Level Retention in Texas Public Schools Manual*, a student must be enrolled in a Texas public school the following year, in

other words, a match must be found (Texas Education Agency, 2005 Comprehensive Annual Report on Texas Public Schools, 2005).

When examining scale scores of students, increases are apparent, however, scores of retained students are lower than those of retained students even after the year of retention. The 3rd grade reading TAKS for the 2004 and 2005 administrations had a passing standard of 2100. Of those students taking the test in English, promoted students from spring of 2004 received an average scale score of 2297 while students who were retained based on the spring 2004 TAKS administrations, received an average scale score of 2045. These same students, in spring 2005 after the year of retention, received a scale score of 2196, a difference of 101 points when compared to students that had been not been retained the year before. Retained students scores did increase, however, they did not increase to the level of previously promoted students. Spanish 3rd grade reading scores were similar to those in English. The passing standard was also 2100. Promoted students from spring of 2004 received an average scale score of 2254 while students who were retained based on the spring 2004 TAKS administrations, received an average scale score of 2014. The following spring, 2005, the group of retained students received an average scale score of 2164 (Texas Education Agency, 2005 Comprehensive Annual Report on Texas Public Schools, 2005).

Fifth grade TAKS also had a passing standard of 2100 for both reading and math for spring 2004 and 2005 test administrations in English or Spanish. When looking at English reading scores, promoted students, based on spring

2004 TAKS administration, had an average scale score of 2214. Students to be retained due to their spring 2004 TAKS scores received an average scale score of 1944. The following spring, these retained students received an average scale score of 2122, still lower than non-retained students from spring 2004. When examining math scores, promoted students, based on spring 2004 TAKS administration, had an average scale score of 2232. Students to be retained due to their spring 2004 TAKS scores received an average scale score of 1956. The following spring, these retained students received an average score of 2145, still lower than the non-retained students from the spring 2004 (Texas Education Agency, 2005 Comprehensive Annual Report on Texas Public Schools, 2005).

Spanish scores in both reading and math were lower than English scores. Students promoted based on spring 2004 TAKS scores received an average scale score of 2137, whereas students to be retained received an average scale score of 1920. The following spring, 2005, this group of retained students received an average scale score of 2083, still below the passing standard of 2100. Spanish math did not fare much better. Students promoted based on the spring 2004 TAKS scores received an average score of 2082 while retained students received an average scale score of 1854. Both of these score were below the 2100 passing standard for the test. The following spring, 2005, retained students received an average scale score of 2050. Again, below the passing standard of 2100 and below the average score of those students promoted the previous spring. Tables 10.1 and 10.2 show the TAKS average scale score for 2004 and 2005 by grade and promotion status for grades 3 and 5

(Texas Education Agency, 2005 Comprehensive Annual Report on Texas Public Schools, 2005).

Table 10.1

Texas Assessment of Knowledge and Skills (TAKS) Average Scale Scores 2004 and 2005 by Grade and Promotion Status 2003-04, Grade 3, Texas Public Schools

	English-version scale score				Spanish-version scale score			
	Reading		Math		Reading		Math	
Status	2004	2005	2004	2005	2004	2005	2004	2005
Passing Standard	2100	2100	2100	2100	2100	2100	2100	2100
Promoted	2297	--	2254	--	2254	--	2172	--
Retained	2045	2196	2001	2136	2014	2164	1983	2134

Note: Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005, p. 71

Table 10.2

Texas Assessment of Knowledge and Skills (TAKS) Average Scale Scores 2004 and 2005 by Grade and Promotion Status 2003-04, Grade 5, Texas Public Schools

	English-version scale score				Spanish-version scale score			
	Reading		Math		Reading		Math	
Status	2004	2005	2004	2005	2004	2005	2004	2005
Passing Standard	2100	2100	2100	2100	2100	2100	2100	2100
Promoted	2214	--	2232	--	2137	--	2082	--
Retained	1944	2122	1956	2145	1920	2083	1854	2050

Note: Texas Education Agency, Grade Level Retention in Texas Public Schools, 2005, p. 71

Summary

This chapter reviewed literature related to high stakes tests and perceptions of those tests by educational researchers. The chapter also examined studies related to in-grade retention. Throughout the research on in-grade retention, the negative impact on students retained continues to appear. Research indicated the usage of high stakes tests need not be the sole source of determining a student's placement for the following year. Research indicated in-grade retention does not work for many students due to lowering of self-esteem and retention being a quick fix with little effect lasting beyond the year of retention. In fact, in-grade retention for many students increases chance of dropping out of school at the secondary level. The high cost of high stakes testing was also examined. The history of high stakes testing in Texas from TABS to TAKS along with retention statistics for the state of Texas was examined. Is the Student Success Initiative doing the correct thing for students by mandating they be retained in a grade until they master the curriculum? This study will resolve the debate and examine effects of the year of retention based on academic growth and then further look at 5th graders who were retained in 3rd grade due to the SSI. Important issues around the question "Are these students succeeding on TAKS two years after their retention?" are presented and research reviewed to gain understanding.

CHAPTER III

METHODOLOGY

Introduction

This study investigated the academic performance of retained students in grades 3 and 5 based on the Student Success Initiative (SSI) and their Texas Assessment of Knowledge and Skills (TAKS) scores. TAKS scores from spring 2005 were compared with spring 2006 scores to measure student achievement. Scores from the reading and math components of the Iowa Test of Basic Skills (ITBS) from the fall 2005 will also be used as a predictor of TAKS success. This study will examine two questions: 1) whether the year of in-grade retention benefited students academically and, 2) whether or not any benefit gained by that year of retention is still evident two years later with 5th graders who had been retained in 3rd grade.

Population

The population of this study was composed of students in grades 3 and 5 who were enrolled in a district in north central Texas who were retained based on the SSI for the 2005-2006 school year. In order to be retained in a grade based on the SSI, students had to fail to meet the passing standard (Scale score = 2100) on certain portions of the TAKS test. Third grade students had to meet the passing standard in reading, while 5th grade students had to meet the passing standard in both reading and math. Students were given three tries with accelerated instruction between each try in order to meet the passing standard.

The number of students in the 3rd grade included in this study was 33 students. The 5th grade sample for this study included 49 students. The 2005-06 school year saw the first time where a group of students who had been retained in the 3rd grade for the 2003-2004 school year had progressed to the next promotional gate. Therefore, an additional sample of 49 students was also examined comprised of students who had been retained in 3rd grade during the 2003-04 school year due to not meeting the passing standards as set forth by the SSI. According to data from the Academic Excellence Indicator System (AEIS), the grade 3 reading and the grade 5 reading and math pass percentage rates for the spring 2005 TAKS by gender, ethnicity, at-risk, socioeconomic status, and limited English proficiency is shown on Table 11. These pass rates are based on all students across the state of Texas who took the TAKS test.

Table 11

Spring 2005 TAKS Percentage Pass Rates for Grades 3 and 5 by Gender, Ethnicity, At-Risk, Economically Disadvantaged, and LEP Status

	Grade 3 Rdg.	Grade 5 Rdg.	Grade 5 Math
Male	96%	89%	92%
Female	96%	91%	91%
African American	96%	86%	85%
Hispanic	93%	85%	88%
Anglo	99%	96%	96%
At-Risk	92%	74%	79%
Economically Disadvantaged	93%	85%	88%
Limited English Proficient (LEP)	91%	74%	82%

Note: Texas Education Agency, Academic Excellence Indicator System

Setting

The students in this study were enrolled in a large suburban school district. The district is located in north Texas and serves three growing communities. The total district enrollment for the fall 2004 was 55,781 and 55,656 for the fall 2005. Students were enrolled in one of 44 elementary schools in the district. Students were repeating either grade 3 or 5 based on not meeting the passing standard on the TAKS test in the spring of 2005. Third graders had to meet the standard on the reading portion of the TAKS test while 5th graders had to meet the standard on the reading and math portions of the TAKS test.

Instruments

The instruments used to measure student achievement in reading and/or math in grade 3 or 5 was the Texas Assessment of Knowledge and Skills (TAKS) and the Iowa Test of Basic Skills (ITBS). The TAKS was administered in the spring and the ITBS was administered in September. Students are given three tries on the TAKS test to demonstrate mastery beginning in February of each year and continuing to the end of June during summer school. The ITBS test was used as an indicator of academic growth standard scores and national percentile rank.

The first instrument used to determine academic achievement was the TAKS test. The spring 2005 administration was used as a baseline and then compared with the spring 2006 for any academic growth in achievement. The development of the TAKS test utilized as many stakeholders in the fields of education and business as possible in order to ensure the assessment to be an equitable and accurate measurement of learning for all students enrolled in Texas public schools. Input for the development of the TAKS test was taken from Texas teachers, administrators, parents, member of the business community, professional education organizations, faculty and staff at Texas colleges and universities, and national content-area experts (Texas Education Agency, TAKS Information Booklet Reading Grade 3, 2004).

The TAKS test went through a three-year test development process beginning in the summer of 1999. First, Texas educators identified which student expectations of the state curriculum (Texas Essential Knowledge and Skills –

TEKS) should be tested on a statewide assessment. A survey was developed by the Texas Education Agency (TEA) Student Assessment and Curriculum division which highlighted the chosen TEKS for each subject by the Texas educators for their review. This was done to ensure that the TAKS testing program was vertically aligned with the TEKS curriculum and that each grade level had a more rigorous test than the grade level before it. In the fall 2000, TEA distributed a second draft of the objectives and TEKS student expectations to be reviewed at the campus level. These documents were also posted on the TEA Website to encourage parent responses. Campus and parent responses along with feedback from national experts were used to finalize the TAKS objectives and student expectations. Field-testing of the items was followed by analysis of the data for reliability, validity, and bias (Texas Education Agency, TAKS Information Booklet Reading Grade 3, 2004).

The reading portion of the TAKS test is a criterion-referenced test that measures student performance on four objectives: (1) the student will demonstrate a basic understanding of culturally diverse written text; (2) the student will apply knowledge of literary elements to understand culturally diverse written tests; (3) the student will use a variety of strategies to analyze culturally diverse written test; (4) the student will apply critical-thinking skills to analyze culturally diverse written texts. Four kinds of reading selections have been developed for students to demonstrate mastery on TAKS: (1) narrative selections – fictional stories presented with a clear progression of events; (2) expository (informative) selections – provides information about noteworthy people and/or

events or explain topics related to specific content areas; (3) mixed selections – combines two types of writing into a single passage; (4) paired selections – two selections designed to be read together. The 3rd grade TAKS reading test does not contain any paired selections since not all 3rd graders have independent mastery of this skill (Texas Education Agency, TAKS Information Booklet Reading Grade 3, 2004).

Third grade reading passages are approximately 500-700 words in length. The spring 2005 and spring 2006 3rd grade reading tests each contained 36 questions with results being reported as scale scores with 2100 being the minimum passing score. To meet this score, students had to answer 24 out of the 36 questions correctly. Fifth grade reading passages are approximately 600-900 words in length (Texas Education Agency, 3rd Grade Reading TAKS Information Booklet, 2004). The spring 2005 and spring 2006 5th grade reading tests each contained 42 questions with results being reported as scale scores with 2100 being the minimum passing score. To meet this score, students had to answer 30 out of 42 questions correctly (Texas Education Agency, TAKS Information Booklet Reading Grade 5, 2004).

The math portion of the TAKS test is a criterion-referenced test that measures student performance on six objectives: (1) numbers, operations, and quantitative reasoning; (2) patterns, relationships, and algebraic reasoning; (3) geometry and spatial reasoning; (4) measurement; (5) probability and statistics; (6) mathematical processes and tools. The spring 2005 and spring 2006 5th grade math test contained 44 items with results being reported as scale scores

with 2100 being the minimum passing score. To meet this score, students had to answer 30 out of the 44 questions correctly (Texas Education Agency, TAKS Information Booklet Mathematics Grade 5, 2004).

Summary statistics for TAKS tests are not released until approximately a year following test administration. Therefore, the reliability coefficients for the spring 2006 TAKS tests are not available at this time. However, the *Texas Student Assessment Program Technical Digest for the Academic Year 2004-2005* reported the reliability coefficients for the TAKS tests administered in the spring of 2005, the baseline year for this study. The reliability coefficient for the 3rd grade reading test was .892 with a standard error of measurement of 1.953. The mean standard score was 30.195 with a standard deviation of 5.944. The reliability coefficient for the 5th grade reading test was .870 with a standard error of measurement of 2.378. The mean standard score was 33.101 with a standard deviation of 6.596. The reliability coefficient of the 5th grade math test was .878 with a standard error of measurement of 2.390. The mean standard score was 34.757 with a standard deviation of 6.843. Table 12 shows the reliability coefficients for 3rd and 5th grade reading TAKS test and 5th grade math TAKS test for the spring 2005 along with the standard error of measurement (*SEM*), mean standard score (*SS*), and standard deviation (*SD*). The reliability coefficients are based on the Kuder-Richardson Formula 20 procedure.

Table 12

Reliability Coefficients, SEM, SS, and SD for Spring 2005 TAKS Tests

	Grade 3 Reading	Grade 5 Reading	Grade 5 Math
Reliability Coefficients	.892	.870	.878
<i>SEM</i>	1.953	2.378	2.390
SS	30.195	33.101	34.757
<i>SD</i>	5.944	6.596	6.843

Note: Texas Education Agency, Texas Student Assessment Program Technical Digest for the Academic Year 2004-2005, 2005

The second instrument that used to indicate academic growth was the Iowa Test of Basic Skills (ITBS). The test scores used were administered in September 2005. According to *The Iowa Tests Interpretive Guide for Teachers and Counselors* (2003), the ITBS is a standardized norm-referenced achievement test that fulfills three main purposes: to give teachers information to aid with instructional decisions, to monitor student growth from grade to grade, and to examine the yearly progress of students as they move through the curriculum. According to *The Iowa Tests Norms and Score Conversions: Student Norms and School Average Norms*, the benefits of a norm-referenced assessment is its attention to standardization. All of the tests have been administered under uniform conditions at each grade level. The norms are a representative sample of students enrolled in public and private schools and provide basis for interpreting student performance. For public schools, these

norms are stratified by geographic region, district enrollment, and socioeconomic status of the school district.

Students in this study took Form B in the fall 2005. The norms for this test were established in 2000 through a national standardization program. This standardization included the testing of 149,831 students enrolled in public schools. Of this total, 51,414 were 3rd graders and 52,277 were 5th graders (The University of Iowa, 2003).

Students in 3rd grade took level 9 of the test while 5th graders took level 11. These tests were administered in September of the 3rd or 5th grade year. According to *The Iowa Tests Interpretive Guide for Teachers and Counselors* (2003), the survey battery consisted of three sections: reading, language, and math. Reading achievement was measured through a 30 minute timed test of vocabulary and comprehension. The vocabulary test for level 9 of Form B measured students' understanding of 10 general vocabulary words. To demonstrate comprehension, students read passages and answered 17 questions measuring skills related to factual understanding, inference and interpretation, and analysis and generalization. Math achievement was measured through a 30 minute timed test of concepts and problems, estimation, and computation. To demonstrate mastery of math skills, students had to answer 37 questions measuring skills related to number properties and operations, algebra, geometry, measurement, probability and statistics, estimations, and basic addition, subtraction, multiplication, and division computational skills.

The reliability of the ITBS is reported in terms of the reliability coefficient and the standard error of measurement (*SEM*). The reliability coefficient is based on the Kuder-Richardson Formula 20 procedures. The 3rd grade Form B survey battery reading test which was given in the fall 2005 had a reliability coefficient of .863 with a *SEM* of 7.4. The mean standard score for the national standardization sample was 176.5 with a standard deviation of 20.1 (The University of Iowa, 2003).

The 5th grade survey battery reading and math tests were examined on the ITBS. Form B was given to 5th graders in the fall 2005. The fall 2005 ITBS had a reliability coefficient of .862 with a *SEM* of 9.4. The mean standard score for the national standardization sample was 206.1 with a standard deviation of 25.4 (The University of Iowa, 2003). The Form B math survey battery given in fall 2005 had a reliability coefficient of .867 with a *SEM* of 8.1. The mean standard score was 205.9 with a standard deviation of 22.3 (The University of Iowa, 2003).

According to *The Iowa Tests Interpretive Guide of Teachers and Counselors* (2003), there are several types of scores reported for the ITBS. The first is the raw score. The raw score is simply the number of questions a student answers correctly which has little overall meaning. The raw score is converted into a developmental standard score which represents a student's place on a continuum. Lower scores are on one end of the continuum while higher scores are at the other end. Standard scores can then be converted into grade equivalent scores and national percentile ranks. For example, a student may

have a reading total grade equivalent score of 5.2. This grade equivalent score means that the student's score is like that of an average student at the end of the second month of the 5th grade. The national percentile rank expresses a student's achievement relative to the national representative sample. If a student has a national percentile rank of 80, then 80 percent of the representative sample scored at or below that student's score.

Variables

The dependent variable in the study was the scale scores for the TAKS tests. The spring 2005 and spring 2006 reading TAKS tests have a minimum passing scale score of 2100 for both 3rd and 5th grades. For 3rd grade, students have to correctly answer 24 out of 36 questions correctly, and for 5th grade, students have to correctly answer 30 out of 42 questions correctly. The 5th grade math TAKS test also has a minimum passing scale score of 2100 for the spring 2005 and spring 2006 tests. Thirty out of forty-four questions have to be answered correctly for students to meet standard. The second dependent variable was the standard score of Form B, Level 9 ITBS reading test for 3rd graders or the standard score of Form B, Level 11 ITBS reading or math test for 5th graders.

The independent variable was the year of retention for those students who had failed to meet promotion standards as based on the SSI. Students in the study were stratified by grade, gender, socioeconomic status, at-risk status, and English proficiency status.

Data Collection

This study examined the academic achievement of students who repeated either the 3rd or 5th grade during the 2005-06 school year based on not meeting the requirements of the SSI for promotion. Third grade students must pass the reading portion of the TAKS test for promotion to 4th grade and 5th grade students must pass the reading and math portions of the TAKS test for promotion to 6th grade. In order to assess academic achievement between the 2004-05 and 2005-06 school years, the spring 2005 and spring 2006 TAKS test scores were used as well as the fall 2005 ITBS scores. The spring 2005 first administration TAKS scores were used as a baseline and were compared to the spring 2006 first administration of TAKS scores to show any growth in academic achievement. The fall 2005 ITBS scores was used to predict student success on the TAKS Test.

Data was obtained through contacting the Planning, Research, and Evaluation department of a school district in north central Texas. Data was given in spreadsheet format and was later transferred into the SPSS statistical software for data analysis.

Data Analysis

To determine growth in academic achievement, the first administration of the reading (3rd and 5th grade) and math (5th grade only) TAKS test scale scores were used. This analysis was chosen this way because all students participate in the first testing administration. As students pass the test, they are not present

for the second or third testing administrations. ITBS scores were used to predict student success on the TAKS Test. The ITBS was given in the fall prior to the spring that the TAKS Test is given. If a correlation between the two tests is found, classroom teachers may find it useful to give students the ITBS prior to the TAKS Test to determine if any academic intervention would need to be done.

For the year-to-year comparison on the TAKS tests, descriptive statistics was utilized to get the mean as well as paired sample *t*-tests. A correlational analysis was utilized to determine if there is a relationship between scores from the base year (2005) with the scores during the year of in-grade retention (2006). For example, a correlational analysis between the spring 2005 and spring 2006 TAKS scores were run to determine if there is a relationship between these scores.

A bivariate analysis (Pearson's *r*) was utilized to determine if TAKS scores could be predicted based upon the ITBS scores. That is, do students with higher ITBS scores in the fall score higher on TAKS in the spring than those with lower ITBS scores in the fall.

Summary

This chapter examined the population and setting of the study. Methods were described for analysis of the reading and math achievement for 3rd and 5th graders who were retained for the 2005-2006 school year due to not meeting the passing requirements of the SSI. Background information on the instruments to be used was also provided: for grade 3, the TAKS reading test and form B of the

ITBS reading tests, and for grade 5, the TAKS reading and math tests and form B of the ITBS reading and math tests.

CHAPTER IV

ANALYSIS OF DATA

Introduction

The purpose of this study was to examine the effectiveness of the year of retention in 3rd or 5th grade when a student does not meet the passing requirements as set forth by the Student Success Initiative (SSI). In order for a 3rd grader to pass to the 4th grade, they must pass the reading section of the Texas Assessment of Knowledge and Skills (TAKS) Test. In order for a 5th grader to pass to the 6th grade, they must pass both the reading and math sections of the TAKS Test. Each student is given three tries in order to meet the passing standard. The reading test is given in February, April, and June of each year. The math test is given in April, May, and June.

This study consisted of two different populations. The first population (A) was students who were retained during the 2005-2006 school year in either 3rd or 5th grades. The second population (B) was students who were initially in 3rd grade during the 2002-2003 school year. They were retained in the 3rd grade during the 2003-2004 school year. This population completed the 5th grade during the 2005-2006 school year. TAKS mastery was examined two years after their year of in-grade retention. Population A consisted of 33 3rd graders and 49 5th graders. Population B consisted of 49 5th graders. Table 13 shows the distribution of the student population of the study by gender, ethnicity, and by program codes.

Table 13

Student Population of Study by Gender, Ethnicity, and Program Codes

	Population A		Population B
	3 rd Graders (33 Students)	5 th Graders (49 Students)	5 th Graders (49 Students)
Female	16 (48.5%)	27 (55.1%)	22 (44.9%)
Male	17 (51.5%)	22 (44.9%)	27 (55.1%)
Native American	0	2 (4.1%)	0
Asian	1 (3.0%)	3 (6.1%)	4 (8.2%)
African American	10 (30.3%)	14 (28.6%)	11 (22.4%)
Hispanic	17 (51.5%)	18 (36.7%)	27 (55.1%)
White	5 (15.2%)	12 (24.5%)	7 (14.3%)
Economically Disadvantaged	22 (66.6%)	32 (65.3%)	37 (75.5%)
Limited English Proficient	16 (48.5%)	18 (36.7%)	22 (44.9%)
At-Risk	26 (78.8%)	40 (81.6%)	37 (75.5%)

Results

The students in this study were administered the Iowa Test of Basic Skills (ITBS) at the beginning of the school year and the TAKS test at the end of the school year. The scores from the first administration of the TAKS test in February were used for this study. The national percentile rank on the ITBS and scale scores on the TAKS were used to compare scores from the first year to the second year in the same grade to see if a statistical significant improvement in

achievement was present. For most students in population A, a statistical significance for improvement in achievement was found. Students in population B did not show the same statistical significance in achievement two years after their in-grade retention.

Research Question 1

Do retained students show statistically improved reading scores on TAKS between their first year of 3rd grade and the repeated year of 3rd grade?

Third graders in population A showed statistical significance in academic achievement in reading between the first year and second year in 3rd grade. These students had a mean TAKS score of 1996.91 with a standard deviation of 118.113 on the first year in 3rd grade. The second year in 3rd grade had a mean TAKS score of 2192.67 with a standard deviation of 154.811. After using a paired sample *t*-test to compare the reading scores, a statistical significance was found at a .001 level. It is interesting to note that even after the year of retention, six of the thirty-three students had still not met the passing standard of 2100.

Both genders also showed statistical significance when examining reading achievement on TAKS. The first time in 3rd grade, females had a mean score of 1990.69 with a standard deviation of 78.696. The second time in 3rd grade, females had a mean score of 2199.63 with a standard deviation of 134.838. Males had a higher mean score (2002.76) than females the first year in 3rd grade with a much wider standard deviation (148.393). The second year in 3rd grade saw males scoring lower than females (2186.12) with again a much wider

standard deviation (175.481). Both females and males did show statistically significant improvement at a .001 level.

Ethnicity scores also showed statistically significant improvement in reading scores except for White students. Not all ethnicities were able to produce data with SPSS due to a small sample size. The sample of the Asian student fell into this category. Therefore, some of the data yielded from this study may not be generalizable to the general population. African American students had a mean score of 1937.30 with a standard deviation of 78.531 the first time in 3rd grade. The second year in 3rd grade yielded a mean score of 2106.70 with a standard deviation of 119.091. Hispanic students had a mean score of 1977.18 with a standard deviation of 65.918 the first year in 3rd grade. The second year in 3rd grade yielded a mean score of 2196.82 with a standard deviation of 117.626. White students had a mean score of 2199.80 with a standard deviation of 128.985 the first year in 3rd grade and a mean score of 2347.00 with a standard deviation of 236.808 the second year. The mean score of 2199.80 the first year in 3rd grade revealed that some of these students were retained due to a reason other than the passing requirements of the SSI. African American and Hispanic students scored statistically significantly higher the second year in 3rd grade at a .001 level. White students, on the other hand, did not reveal score that were statistically significant higher (.104).

Students carrying codes for economically disadvantaged, limited English proficient (LEP), and at-risk also showed statistically significant higher scores. Economically disadvantaged students the first year in 3rd grade had a mean

score of 1967.95 with a standard deviation of 72.135. These same students a year later after repeating 3rd grade, had a mean score of 2162.45 with a standard deviation of 135.293. LEP student had a mean score of 1968.06 with a standard deviation of 67.164 the first year in 3rd grade and a mean score of 2189.69 with a standard deviation of 107.611 the second year in 3rd grade. At-risk students had a mean score of 1985.42 with a standard deviation of 92.344 the first year in 3rd grade and a mean score of 2189.92 with a standard deviation of 123.953 the second year in 3rd grade. All three of these groups did reveal scores that were statistically significantly higher at a .001 level. Tables 14.1 and 14.2 illustrate the mean scores, standard deviations, correlation, and significance for the 3rd graders who were retained during the 2005-2006 school year.

Table 14.1

Mean Scores, Standard Deviations, Correlation, and Significance for 3rd Graders by Sex and Ethnicity Retained during the 2005-2006 School Year

	Mean	Standard Deviation	Correlation	Significance
Females (2004-2005)	1990.69	78.696		
Females (2005-2006)	2199.63	134.838	.315	.001
Male (2004-2005)	2002.76	148.393		
Male (2005-2006)	2186.12	175.487	.784	.001
Af. Am. (2004-2005)	1937.30	78.531		
Af. Am. (2005-2006)	2106.70	119.091	.463	.001
Hispanic (2004-2005)	1977.18	65.918		
Hispanic (2005-2006)	2196.82	117.626	.284	.001
White (2004-2005)	2199.80	128.985		
White (2005-2006)	2347.00	236.808	.788	.104

Table 14.2

Mean Scores, Standard Deviations, Correlation, and Significance for 3rd Graders by Code Retained during the 2005-2006 School Year

	Mean	Standard Deviation	Correlation	Significance
Ec Dis (2004-2005)	1967.95	72.135		
Ec. Dis. (2005-2006)	2162.45	135.293	.389	.001
LEP (2004-2005)	1968.06	67.164		
LEP (2005-2006)	2189.69	107.611	.319	.001
At-Risk (2004-2005)	1985.42	92.344		
At-Risk (2005-2006)	2189.92	123.953	.383	.001

Research Question 2

Do retained students show statistically improved reading scores on the TAKS between their first year of 5th grade and the repeated year of 5th grade?

Fifth graders in population A showed statistical significance in academic achievement in reading between the first year and second year in 5th grade.

These students had a reading mean TAKS score of 1949.07 with a standard deviation of 116.751 on the first year in 5th grade. The second year in 5th grade had a reading mean TAKS score of 2081.57 with a standard deviation of 116.982. After using a paired sample *t*-test to compare the reading scores, a statistical significance was found at a .001 level. It is interesting to note that even

after the year of in-grade retention for these 49 students, 21 of the students did not meet the reading passing standard on the first try and the mean reading TAKS score (2081.57) was still lower than the required passing score of 2100.

Females and males did show statistical significant improvement in reading even though in some instances the mean scores the second year in 5th grade were still below the minimum passing standard of 2100. Females had a reading mean TAKS score of 1924.70 with a standard deviation of 124.612 the first year in 5th grade and a reading mean TAKS score of 2085.22 with a standard deviation of 96.942. Males had a reading mean TAKS score of 1978.58 with a standard deviation of 101.935 the first year in 5th grade and a reading mean TAKS score of 2077.16 with a standard deviation of 140.168 the second year in 5th grade. Despite the mean scores being lower than the minimum passing standard, both females and males did show statistically significant improvement on reading at a .001 level.

The data by ethnicity revealed a mixture of statistically significant and not significant. As in the 3rd grade sample, some of the 5th grade samples by ethnicity are small and may not be generalizable to the population at large. Native American students had a reading mean TAKS score of 1953.00 with a standard deviation of 24.042 the first year in 5th grade and a reading mean TAKS score of 1995.50 with a standard deviation of 50.205 the second year in 5th grade. Both of these mean scores are below the minimum passing standard of 2100. Native American students in this study did not show statistically significant improvement in reading (.567). Asian students had a reading mean TAKS score

of 2051.67 with a standard deviation of 180.669 the first year in 5th grade and a reading mean TAKS score of 2140.67 with a standard deviation of 79.758 the second year in 5th grade. Asian students did not show statistically significant scores in reading (.313). African American students had a reading mean TAKS score of 1913.85 with a standard deviation of 105.227 the first year in 5th grade and a reading mean TAKS score of 2080.38 with a standard deviation of 97.191 the second year in 5th grade. Again, both mean scores were below the minimum passing standard of 2100. Reading scores for African American students did reveal statistically significant improvement at a .001 level.

Hispanic students had a reading mean TAKS score of 1953.35 with a standard deviation of 129.522 the first year in 5th grade and a reading mean TAKS score of 2076.06 with a standard deviation of 131.851 the second year in 5th grade. Even with the year of in-grade retention, the mean reading TAKS score for Hispanic students still fell below the minimum passing standard. Reading scores for Hispanic students did reveal statistically significant improvement at a .001 level despite having a mean reading TAKS score below the minimum passing standard after the year of retention.

White students had a reading mean TAKS score of 1959.00 with a standard deviation of 84.633 the first year in 5th grade and a reading mean TAKS score of 2096.43 with a standard deviation of 145.458 the second year in 5th grade. Again, even after the year of in-grade retention, the mean reading TAKS score is still below the minimum passing standard. White students did have scores that were statistically significant at the .023 level for reading.

Students carrying codes for being economically disadvantaged, limited English proficient, and at-risk also showed statistically significant higher scores. Economically disadvantaged students had a mean reading score of 1936.89 with a standard deviation of 105.672 the first year in 5th grade and a mean reading score of 2071.43 with a standard deviation of 122.579 the second year in 5th grade. Economically disadvantaged students did show statistically significant improvement in reading at a .001 level.

Limited English proficient students also showed scores that were statistically significant even though they too did not reach the minimum passing standard for reading after a year of in-grade retention. In reading, LEP students had a mean score of 1932.88 with a standard deviation of 117.254 the first year and a mean score of 2054.71 with a standard deviation of 112.571 the second year.

At-risk students had a very similar outcome as the economically disadvantaged and LEP students when looking at the reading mean scores. At-risk students after the year of in-grade retention did not have a mean score that surpassed the minimum passing standard. In reading, at-risk students had a mean TAKS score of 1951.24 with a standard deviation of 116.292 the first year in 5th grade and a mean TAKS score of 2078.13 with a standard deviation of 115.251 the second year in 5th grade.

Tables 15.1, 15.2, and 15.3 illustrate the reading mean scores, standard deviations, correlation, and significance for 5th graders who were retained during the 2005-2006 school year.

Table 15.1

Reading Mean Scores, Standard Deviations, Correlation, and Significance for 5th Graders by Sex Retained during the 2005-2006 School Year

	Mean	Standard Deviation	Correlation	Significance
Females (2004-2005)	1924.70	124.612		
Females (2005-2006)	2085.22	96.942	.594	.001
Male (2004-2005)	1978.58	101.935		
Males (2005-2006)	2077.16	140.168	.682	.001

Table 15.2

Reading Mean Scores, Standard Deviations, Correlation, and Significance for 5th Graders by Ethnicity Retained during the 2005-2006 School Year

	Mean	Standard Deviation	Correlation	Significance
Nat. Am. (2004-2005)	1953.00	24.042		
Nat Am (2005-2006)	1995.50	50.205	-1.000	.567
Asian (2004-2005)	2051.67	180.669		
Asian (2005-2006)	2140.67	79.758	.893	.313
Af. Am. (2004-2005)	1913.85	105.227		
Af Am (2005-2006)	2080.38	97.191	.613	.001
Hispanic (2004-2005)	1953.35	129.522		
Hispanic (2005-2006)	2076.06	131.851	.618	.001
White (2004-2005)	1959.00	84.633		
White (2005-2006)	2096.43	145.458	.562	.023

Table 15.3

Reading Mean Scores, Standard Deviations, Correlation, and Significance for 5th Graders by Code Retained during the 2005-2006 School Year

	Mean	Standard Deviation	Correlation	Significance
Ec. Dis. (2004-2005)	1936.89	105.672		
Ec. Dis. (2005-2006)	2071.43	122.579	.518	.001
LEP (2004-2005)	1932.88	117.254		
LEP (2005-2006)	2054.71	112.571	.480	.001
At-Risk (2004-2005)	1951.24	116.292		
At-Risk (2005-2006)	2078.13	115.251	.573	.001

Research Question 3

Do retained students show statistically improved math scores on the TAKS between their first year of 5th grade and the repeated year of 5th grade?

Fifth graders in population A showed statistical significance in academic achievement in math between the first year and second year in 5th grade. The math mean score the first time in 5th grade was 1963.55 with a standard deviation of 145.465. The second year in 5th grade had a math mean TAKS score of 2139.45 with a standard deviation of 164.126. It is interesting to note that even after the year of in-grade retention for these 49 students, 14 of the students did not meet the math passing standard on the first try.

Females and males did show statistical significant improvement in math even though in some instances the mean scores the second year in 5th grade were still below the minimum passing standard of 2100. Females had a math mean TAKS score of 1914.13 with a standard deviation of 145.450 the first year in 5th grade and a math mean TAKS score of 2079.96 with a standard deviation of 148.583. Males had a math mean TAKS score of 2023.37 with a standard deviation of 124.272 the first year in 5th grade and a math mean TAKS score of 2211.47 with a standard deviation of 156.128 the second year in 5th grade. Despite the female mean scores being lower than the minimum passing standard even after the year of retention, both females and males did show statistically significant improvement on math at a .001 level.

The data by ethnicity revealed a mixture of statistically significant and not significant. As in the 3rd grade sample, some of the 5th grade samples by ethnicity are small and may not be generalizable to the population at large. Native American students had a math mean TAKS score of 1886.50 with a standard deviation of 26.163 the first year in 5th grade and a math mean TAKS score of 2024.00 with a standard deviation of 124.451 the second year in 5th grade. Both of these mean scores were below the minimum passing standard of 2100. Native American students in this study did not show statistically significant improvement in math (.298). Asian students had a math mean TAKS score of 1994.67 with a standard deviation of 202.624 the first year in 5th grade and a math mean TAKS score of 2152.00 with a standard deviation of 173.009 the second year of 5th grade. Asian students did show statistically significant scores

in math (.038). African American students scored a math mean score of 1930.38 with a standard deviation of 135.281 the first year in 5th grade and a mean score of 2101.62 with a standard deviation of 135.095 the second year in 5th grade. Math scores for African American students did reveal statistically significant improvement at a .001 level.

Hispanic students had a math mean score of 1965.94 with a standard deviation of 143.876 the first year in 5th grade and a mean score of 2145.24 with a standard deviation of 188.017 the second year in 5th grade. Math scores for Hispanic students did reveal statistically significant improvement at a .001 level. White students had a math mean score of 2028.00 with a standard deviation of 171.125 the first year in 5th grade and a mean score of 2223.29 with a standard deviation of 157.561 the second year in 5th grade. White students did have scores that were statistically significant at the .015 level for math.

Students carrying codes for being economically disadvantaged, limited English proficient, and at-risk also showed statistically significant higher scores. Economically disadvantaged students had a mean score of 1966.75 with a standard deviation of 150.894 the first year in 5th grade and a mean score of 2128.75 with a standard deviation of 171.072 the second year. Economically disadvantaged students did show statistically significant improvement in math at a .001 level. Limited English proficient students also showed scores that were statistically significant. LEP students had a mean score of 1954.12 with a standard deviation of 155.060 the first year and a mean score of 2116.82 with a standard deviation of 177.720 the second year. At-risk students had a mean

TAKS score of 1966.08 with a standard deviation of 140.154 the first year in 5th grade and a mean TAKS score of 2150.58 with a standard deviation of 164.313 the second year in 5th grade.

Tables 16.1, 16.2, and 16.3 illustrate the math mean scores, standard deviations, correlation, and significance for 5th graders who were retained during the 2005-2006 school year.

Table 16.1

Math Mean Scores, Standard Deviations, Correlation, and Significance for 5th Graders by Sex Retained during the 2005-2006 School Year

	Mean	Standard Deviation	Correlation	Significance
Females (2004-2005)	1914.13	145.450		
Females (2005-2006)	2079.96	148.583	.698	.001
Male (2004-2005)	2023.37	124.272		
Male (2004-2005)	2211.47	156.128	.727	.001

Table 16.2

Math Mean Scores, Standard Deviations, Correlation, and Significance for 5th Graders by Ethnicity Retained during the 2005-2006 School Year

	Mean	Standard Deviation	Correlation	Significance
Nat. Am. (2004-2005)	1886.50	26.163		
Nat. Am. (2005-2006)	2024.00	124.451	1.000	.298
Asian (2004-2005)	1994.67	202.624		
Asian (2005-2006)	2152.00	173.009	.893	.038
Af. Am. (2004-2005)	1930.38	135.281		
Af. Am. (2005-2006)	2101.62	135.095	.693	.001
Hispanic (2004-2005)	1965.94	143.876		
Hispanic (2005-2006)	2145.24	188.017	.799	.001
White (2004-2005)	2028.00	171.125		
White (2005-2006)	2223.29	157.561	.575	.015

Table 16.3

Reading Mean Scores, Standard Deviations, Correlation, and Significance for 5th Graders by Code Retained during the 2005-2006 School Year

	Mean	Standard Deviation	Correlation	Significance
Ec. Dis. (2004-2005)	1966.75	150.894		
Ec. Dis. (2005-2006)	2128.75	171.072	.787	.001
LEP (2004-2005)	1954.12	155.060		
LEP (2005-2006)	2116.82	177.720	.846	.001
At-Risk (2004-2005)	1966.08	140.154		
At-Risk (2005-2006)	2150.58	164.313	.752	.001

Research Question 4

Are students who were retained in 3rd grade due to not meeting the passing standard of the SSI successful in passing the TAKS in their first year of 5th grade?

The 2005-2006 school year saw the first group of 5th graders that had been retained in 3rd grade due to the passing requirements of the SSI. These students had been enrolled in the 3rd grade for the 2002-2003 school year, failed the reading portion of the TAKS Test and were retained for the 2003-2004 school year. The 2005-2006 school year saw these students in the 5th grade for the first time. Much of the research states how several years after the retention, any

gains from the retention are no longer present. This population of the study numbered 49 students. Of this 49, 22 were females and 27 were male, 33 were economically disadvantaged, 22 limited English proficient, and 37 were considered at-risk. Disaggregated by ethnicity, 4 were Asian, 11 African American, 27 Hispanic, and 7 White. The mean score for all students on the reading portion of the 5th grade TAKS was 2063.16 with a standard deviation of 89.813 and the math mean score was 2150.97 with a standard deviation of 186.987. The mean reading score was below the minimum passing standard.

When examining a cross tabulation for reading between the second year in 3rd grade (2003-2004) and the first year in 5th grade (2005-2006), six students had still not met the passing standard after the year of retention in 3rd grade and still did not meet the passing standard in 5th grade. Thirteen students (41.9%) who did meet the passing requirements on the TAKS after the year of in-grade retention in 3rd grade did not meet the passing standard on the 5th grade level. Eighteen students (58.1%) who were successful on the 3rd grade TAKS after the year of in-grade retention met the passing standard on the 5th grade level. No students who failed to meet the passing requirements after the year of in-grade retention in 3rd grade were successful in meeting the passing standard in 5th grade.

The cross tabulation for math between the second year in 3rd grade (2003-2004) and the first year of 5th grade (2005-2006) revealed much similar data as the reading. Three students who did not meet the passing standard after two years in 3rd grade, still did not meet the passing standard at the 5th grade level.

One student who did not meet the passing standard after two years in 3rd grade, did meet the passing standard in 5th grade. Twelve students (34.3%) who met the passing standard after the year of in-grade retention in 3rd grade did not meet the 5th passing standard compared to 23 students (65.7%) who were able to meet the passing standard both in the second year of 3rd grade and the first year of 5th grade.

Research Question 5

Can a student's ITBS score predict TAKS mastery?

The Iowa Test of Basic Skills (ITBS), which students took in the fall previous to the spring of the TAKS test, was examined to see if the ITBS could be an early predictor of TAKS success. Students retained in the 3rd grade for the 2005-2006 school year on reading, when referring to the national percentile rank, received a mean score of 41.5200 with a standard deviation of 23.179. When comparing to see if a correlation exists between the ITBS and TAKS, a Pearson's r was done. The Pearson's r is .532. This score indicates a strong correlation between the ITBS taken in the fall as a predictor for TAKS success the following spring.

Students retained in the 5th grade for the 2005-2006 school year on reading, when referring to the national percentile rank, received a mean score of 33.37 with a standard deviation of 21.531. The math mean score was a 41.51 with a standard deviation of 22.789. When comparing to see if a correlation exists between the ITBS and TAKS scores, a Pearson's r was done. The Pearson's r between the reading ITBS and TAKS was .257. This score

indicated a correlation, but not a strong one. The Pearson's r between the math ITBS and TAKS is .637 which indicates a strong correlation between the outcome of the ITBS being able to predict the outcome of the TAKS test.

Summary

This chapter presented an analysis of the data, which showed statistical significance in improvement from the first year in 3rd or 5th grade to the second year in 3rd or 5th grade. T -tests were run to determine whether the improvements seen were of statistical significance. Students retained in 3rd grade did show statistical improvement from the first to the second year with the mean score the second year being above the minimum passing standard score of 2100. Fifth graders also showed statistical improvement, however, the reading mean score was still below the minimum passing standard score of 2100 even after a year of retention.

A cross tabulation was done for 5th graders who had been retained as 3rd graders during the 2003-2004 school year. Reading results showed that 19 students or 51.4% did not meet the passing standard in 5th grade compared to 18 students or 48.6% who did meet the passing standard. Math results showed that 15 students or 38.5% did not meet the passing standard in 5th grade compared to 24 or 61.5% who did meet the passing standard. Math results showed a more significant gain than did the reading.

The Pearson's r was able to predict a correlation between the fall ITBS and spring TAKS scores. The 3rd grade reading and 5th grade math had a strong

correlation with .532 and .637 respectively. The 5th grade reading had a correlation of .257.

CHAPTER V

DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

The purpose of this study was to examine the year of retention in 3rd or 5th grades. The Student Success Initiative (SSI) requires students to pass the reading portion of the Texas Assessment of Knowledge and Skills (TAKS) test in the 3rd grade to be promoted to the 4th grade. Students in the 5th grade are required to pass both the reading and math portions of the TAKS Test. Students are given three tries; two of the tries are given in the spring semester with the third try during summer school. If a student does not advance to the next grade level by performing satisfactorily on the necessary TAKS Tests, they may be advanced to the next grade by a unanimous decision of the grade placement committee (GPC). The SSI was enacted by the 76th Texas Legislature in 1999 and was originally created to ensure that all students receive a quality education in both reading and math (Texas Education Agency, Grade Placement Committee Manual, n.d.).

Educational researchers have differing opinions about the use of high stakes tests. According to Walker (2000), proponents of high stakes testing believe that the public is better able to monitor their own school in regards to student academic growth and to compare their school with others across the state. These tests can also give quick feedback to teachers and allow for immediate remediation of identified problem areas (Phelps, 1999). Critics believe that these tests may be too difficult for all students and that they lead to a

narrowing of the curriculum and teaching to the test (Walker, 2000). Haney and Madaus (1989) point out that students with limited English proficiency, females, and students from low socio-economic families tend to score lower on high stakes tests.

Throughout the literature, the use of high-stakes testing and in-grade retention is seen as being a negative consequence with very few if any positive ramifications coming from it. Some negative consequences of high stakes testing include the narrowing of the curriculum, student anxiety and low self-esteem, and teaching to the test (Madaus, 1991). A positive aspect of high stakes testing is parents and community members are better able to monitor the academic growth of their own school and are able to compare their school with others across the state (Walker, 2000). Many studies have tried to find what kinds of students benefit from in-grade retention and when is the most beneficial time for the year of in-grade retention. According to Grissom and Shepard (1989), retained students are typically male, small for their age, young for their grade, immature, or members of a school culture that practices retention at a greater rate. Studies, such as the one done by Holmes (1989), found that retained student had initial positive aspects of the year of retention, but these were erased after three or more grades. A study done by Mossburg (1987), showed students that were placed in a readiness room, a form of retention, between kindergarten and 1st grade were not scoring significantly higher on reading or math than those who were not placed in the readiness room but were also recommended.

In some instances retention does help. The study done by Dworkin, Lorence, Toenjes, Hill, Perez, and Thomas (1999) found that retained students outscored those who had been promoted. This was based on student scores from the Texas Assessment of Academic Skills (TAAS). A study done by Viersen (2005) found that retained African American males in the 3rd, 4th, and 5th grades outscored non-retained African American males in both reading and math.

Discussion

In this study, reading and math achievement were measured with the Iowa Test of Basic Skills (ITBS) and the TAKS test. The ITBS is given in the fall semester and the TAKS is given in the following spring.

Research Question 1

Do retained students show statistically improved reading scores on TAKS between their first year of 3rd grade and the repeated year of 3rd grade?

Yes, students showed statistically improved scores in reading between the first and second years in 3rd grade. A *t*-test comparing student scores from the first year to the second year in the 3rd grade showed a statistical significance at the .001 level for all students as well as by gender, economically disadvantaged, LEP, and at-risk students. African American and Hispanic students also showed statistical significance at the .001 level. White students were the only population which did not show a statistical significance (.104) in their scores between the first and second years in 3rd grade.

Research Question 2

Do retained students show statistically improved reading scores on the TAKS between their first year of 5th grade and the repeated year of 5th grade?

Yes, students did show statistically improved scores in reading between the first and second years in 5th grade even though only one of the mean scores was higher than the minimum passing standard. All scores were significantly higher except for those by Native American and Asian. These two scores may not be generalizable to the entire population due to a small sample size. The largest increase in score was the score of the African Americans from a mean score of 1913.85 in the first year of 5th grade to 2080.38, still below the minimum passing score, the second year for an increase of 166.53 points.

Research Question 3

Do retained students show statistically improved math scores on the TAKS between their first year of 5th grade and the repeated year of 5th grade?

Yes, students showed statistically improved scores in math between the first and second years in 5th grade. A *t*-test comparing student scores from the first year to the second year in the 5th grade did show a statistical significance at the .001 level for all students as well as by gender, economically disadvantaged, LEP, and at-risk students. African American and Hispanic students also showed statistical significance at the .001 level. White students showed statistical significance at a .015 level and Asian students showed statistical significance at a .038 level. Native American students were the only population which did not show a statistical significance (.298) in their scores between the first and second

years in 5th grade. The Asian and Native American scores may not be generalizable to the entire population due to a small sample size.

Research Question 4

Are students who were retained in 3rd grade due to not meeting the passing standard of the SSI successful in passing the TAKS in their first year of 5th grade?

Students who were retained in 3rd grade were successful on TAKS math their first year in 5th grade. The reading scores were inconclusive. A cross tabulation was conducted between the student scores on the TAKS test the second year in 3rd grade (2003-2004) with the first year in 5th grade (2005-2006). The reading cross tabulation shows that 51.4% (19 students) were not successful on the 5th grade reading TAKS compared to 48.6% (18 students) were successful on the test. While the percentage of students who were not successful is larger than the percentage of those who were successful, when looking at the actual number of students, one is not able to draw a conclusive finding. The math cross tabulation shows that 38.5% (15 students) were not successful on the 5th grade math TAKS compared to 61.5% (24 students) who were successful on the test.

Research Question 5

Can a student's ITBS score predict TAKS mastery?

Yes, a student's ITBS score can predict TAKS mastery. The Pearson's r was utilized to determine if TAKS success could be predicted by a student's ITBS score. The ITBS was given the fall preceding the TAKS test in the spring. The 3rd grade reading score had Pearson's r of .532 which does show a strong

correlation between the two tests. The 5th grade reading score showed a lower Pearson's *r* of .257. While this does still show a correlation, it is not as strong. Fifth grade math score had the strongest correlation between the ITBS and the TAKS with a Pearson's *r* of .637.

Conclusions

The high stakes testing movement has developed from a need to centralize one of the most decentralized education systems in the world. The use of these high stakes tests to monitor student achievement has shown to be very effective (Natriello & Pallas, 1999). Statewide testing programs are able to give a consistency between school districts within the state and between campuses within a district (Walker, 2000). By the time a student is ready to graduate from high school, that student will have taken approximately 30 high stakes standardized tests (Neill & Medina, 1989).

Several states have in place a program, similar to the Student Success Initiative, involving high stakes testing used in specific grades as promotional gates. Some of these programs have had to be altered to meet the demands of parents and extenuating circumstances that some children face (Goldberg, 2004). The grade placement committee acts as a safeguard in the Texas system to alleviate any potential negative public ramifications of the system. Also the requirement of the SSI of accelerated instruction between each testing sessions helps parents and students understand requirements and to meet them (Texas Education Agency, Grade Placement Committee Manual, n.d.).

This study looked at achievement of students who were retained in either the 3rd or 5th grade due to not meeting the passing standard on the TAKS test as set forth by the SSI. The conclusion is that retention is effective in increasing student test scores after repeating the grade in 3rd grade reading and 5th grade math. When examining 5th grade reading, even though scores increased, there were a significant number of children who did not meet the passing standard. Therefore, I conclude that retention by itself did not work. Retained students must not have more of the same the second year through a grade. There must be some part of the academic program that is different the second time. If a student can be involved in a more improved program the second time through a grade, retention may be the answer for that student.

Recommendations

Based on the findings of this study, one recommendation for practitioners and three recommendations for further research can be made.

Practitioner Recommendation 1

This study showed that some students demonstrated statistical significance in their academic growth, while other students did not. Before a state initiates a high stakes testing program, parameters need to be in place to consider varying circumstances for students. The grade placement committee in the state of Texas is such a parameter. This committee examines each student individually and has the ability to make the decision of promotion or retention on

a student-by-student basis by examining any extenuating circumstances and the academic levels of the student.

Research Recommendation 1

Since the sample population of this study was small, an effort to find students in other districts to expand the study would be recommended. This study included 33 students who had been retained in 3rd grade and 49 5th graders who had been retained. There was also a population of 49 5th graders who had previously been retained in the 3rd grade due to not meeting passing standards on the TAKS as set forth by the SSI. Findings in a larger study would either support or not support the use of retention at promotional gates and the use of high stakes tests to make such student decisions.

Research Recommendation 2

Much of the research states that academic gains made by students during a year of retention are many times no longer present several years after the retention (Holmes, 1989). Therefore, beginning in the 2007-2008 school year, students in the state of Texas will have to pass the reading and math portions of the TAKS test in 8th grade in order to be promoted to the 9th grade. Following a cohort of students who were retained in 3rd grade due to not meeting the passing standards as set forth by the SSI all the way through the 9th grade might yield valuable information in this area of research.

Research Recommendation 3

The predictive ability of TAKS also needs to be examined. The TAKS test is considered by the state of Texas as a minimum skills test. Therefore, a study

could be conducted examining students' success in a subsequent grade who had met the minimum TAKS passing standard in the previous grade. A further study could also examine students who have met minimum-passing standards on the TAKS exit level on their success at the college level or in the job market.

Research Recommendation 4

A case study from the teacher's perspective involving retained students would be useful. Teacher expectations, instructional strategies, learning styles, student home life, parent involvement, and media stimulation could be examined to determine if retention is successful. Student counseling issues could also be addressed to help determine the effectiveness of the year of in-grade retention.

Summary

The findings of this study suggest that student retention as set forth by the Student Success Initiative does benefit student achievement. Third grade students who were retained in the 2005-2006 school year did show statistical significance in reading scores from the first to the second year. Fifth grade math scores also showed statistical significance from the first to the second year. These, therefore, demonstrate that retention of these students was beneficial. Students retained due to reading scores, while scores did significantly increase, many of them did not meet the passing requirement even after a year of retention.

The conclusion, therefore, is that student retention as set forth by the SSI is beneficial for students. However, student retention in and of itself, and without considering extenuating circumstances, may not be the answer for all students.

APPENDIX A
TEXAS EDUCATION CODE CHAPTER 28.0211

Texas Education Code

Chapter 28.0211

Each time a student fails to perform satisfactorily on an assessment instrument specified under Subsection (a), the school district in which the student attends school shall provide to the student accelerated instruction in the applicable subject area, including reading instruction for a student who fails to perform satisfactorily on a reading assessment instrument. After a student fails to perform satisfactorily on an assessment instrument a second time, a grade placement committee shall be established to prescribe the accelerated instruction the district shall provide to the student before the student is administered the assessment instrument the third time. The grade placement committee shall be composed of the principal or the principal's designee, the student's parent or guardian, and the teacher of the subject of an assessment instrument on which the student failed to perform satisfactorily. The district shall notify the parent or guardian of the time and place for convening the grade placement committee and the purpose of the committee. An accelerated instruction group administered by a school district under this section may not have a ratio of more than 10 students for each teacher. (Grade Placement Committee Manual, Texas Education Code, Chapter 28.0211, p. 71)

APPENDIX B

TEXAS EDUCATION AGENCY COPYRIGHT PERMISSION

Dear Pam Neblett

Home: 3487 Courtyard Circle
Farmers Branch, TX 75234
972-484-7825
randyneblett@comcast.net

Work: Hickman Elementary
3114 Pinewood
Garland, TX 75044
972-675-3150
psneblet@garlandisd.net

Congratulations to you on your accomplishment !!!

You have requested Permission to use data from the Grade-Level Retention in Texas Public Schools 2003-04 manual from www.tea.state.tx.us/research/pdfs/retention_2003-04.pdf. You also desire to download and are looking at the Enrollment in Texas Public Schools 2003-04 from www.tea.state.tx.us/research/pdfs/enrollment_2003-04.pdf and the 2005 Comprehensive Annual Report on Texas Public Schools from www.tea.state.tx.us/research/pdfs/2005_comp_annual.pdf.

The website also takes you to the "The Use of TEA Copyrighted Material" <http://www.tea.state.tx.us/student.assessment/resources/release/copyright.html>. When you click on "The Use of TEA Copyrighted Material" you will find the copyright restrictions.

Service to Be Performed Description: Exactly as described in the below "original message" and attached hereto and made a part of this License Agreement/Permission Granted. The use of the appropriate Copyright Notice shall appear with the use of and or printing of any use of the ESC map by you. You may not change any wording within the TAKS used. Use *"Copyright © Texas Education Agency. All rights reserved."*

Your use as described immediately above and below is covered by TEA's Copyright and Terms of Service Policy discussed above and reprinted below; and, you are granted the right to utilize the TAKS Materials with the further terms and conditions stated within this document. You may not market nor sell your materials or TEA's copyrighted materials without a License Agreement from TEA.

If you perform your activity exactly as described in the below "original message" and attached hereto, then you have agreed to the terms and conditions listed within this communication. Any future exact replication of this activity described in the Service to Be Performed Description section above does not require further communication with TEA. Any future changes that modify the terms and conditions or Service to Be Performed Description above and below stated will require you to contact TEA at Copyrights@tea.state.tx.us .

Please acknowledge receipt of this email by return email. Thank you for your future and past work with teachers and school children!

"Copyright and Terms of Service

Copyright © Texas Education Agency, 2002. The materials found on this website are copyrighted © and trademarked TM as the property of the Texas Education Agency and may not be reproduced without the express written permission of the Texas Education Agency, except under the following conditions:

- 1) Texas public school districts, charter schools, and Education Service Centers may reproduce and use copies of the Materials and Related Materials for the districts' and schools' educational use without obtaining permission from the Texas Education Agency;*
- 2) Residents of the state of Texas may reproduce and use copies of the Materials and Related Materials for individual personal use only without obtaining written permission of the Texas Education Agency;*
- 3) Any portion reproduced must be reproduced in its entirety and remain unedited, unaltered and unchanged in any way;*
- 4) No monetary charge can be made for the reproduced materials or any document containing them; however, a reasonable charge to cover only the cost of reproduction and distribution may be charged.*

Private entities or persons located in Texas that are not Texas public school districts or Texas charter schools or any entity, whether public or private, educational or non-educational, located outside the state of Texas MUST obtain written approval from the Texas Education Agency and will be required to enter into a license agreement that may involve the payment of a licensing fee or a royalty fee."

Contact [TEA Copyrights](#) with any questions you may have.

Dick Jarrell

*Copyrights, Trademarks,
License Agreements, and Royalties
Texas Education Agency
1st (512)463-9270 or 2nd (512)936-6060
Richard.Jarrell@tea.state.tx.us or
Copyrights@tea.state.tx.us*

This email and any attachments are intended only for the confidential use of the designated recipients, and may constitute a privileged communication. If you have received this message in error, please notify me immediately by telephone at the above phone number or by return email. Thank you.

REFERENCES

- Achieve, Inc. (2002). *Aiming higher: Meeting the challenges of education reform in Texas*. (ERIC Document Reproduction Service No. ED468071).
- Anderson, D. (1994). Paths through secondary education: Race/Ethnic and gender differences. *Digital Dissertations (AAT 9430138)*.
- Anderson, G., Whipple, A., & Jimerson, S. (2002). *Grade retention: Achievement and mental health outcomes*. National Association of School Psychologists. Retrieved December 4, 2005, from <http://www.nasponline.org/pdf/graderetention/pdf>
- Byrnes, D. (1989). Attitudes of students, parents and educators toward repeating a grade. *Flunking grades: Research and policies on retention* (pp. 108-131). L.A. Shepard & M.L. Smith, eds. London: Falmer Press.
- Casbarro, J. (2005). The politics of high-stakes testing. *Education Digest*, 70(6), 20-23.
- Darling-Hammond, L. (1991). The implications of testing policy for quality and equality. *Phi Delta Kappan*, 73(3), 220-225.
- Dawson, P. (1998). A primer on student grade retention: What the research says [Electronic version]. *NASP Communique*, 26
- Denton, D. (2004). *Finding alternatives to failure: Can states end social promotion and reduce retention rates?* (ERIC Document Reproduction Service No. ED451268)
- Dworkin, A., Lorence, J., Toenjes, L., Hill, A., Perez, N., & Thomas, M. (1999) Elementary school retention and social promotion in Texas: An assessment of students who failed the reading section of the TAAS. Sociology of Education Research Group. The University of Houston.
- Elam, S., Rose, L., & Gallup, A. (1991). The 23rd annual Gallup Poll of the public's attitudes toward the public schools. *Phi Delta Kappan*, 73(1), 41-56.
- Frymier, J. & Gansneder B. (1989). The phi delta kappa study of students at risk. *Phi Delta Kappan*, 71(2), 142-146.
- Goldberg, M. (2004). The high-stakes test mess. *Education Digest*, 69(8), 8-15.
- Goldberg, M. (2005). Losing students to high-stakes testing. *Education Digest*, 70(7), 10-19.

- Gordon, S., & Reese, M. (1997). High stakes testing: Worth the price? *Journal of School Leadership, 7*, 345-368.
- Grissom, J., & Shepard, L. (1989). Repeating and dropping out of school. *Flunking grades: Research and policies on retention* (34-63). L.A Shepard and M.L. Smith, eds. London: Falmer Press.
- Haney, W., & Madaus, G. (1989). Searching for alternatives to standardized tests: Whys, whats, and whithers. *Phi Delta Kappan, 70*(9), 683-687.
- Hauser, R. (2000). Should we end social promotion? Truth and consequences. (ERIC Document Reproduction Service No. ED445015).
- Heubert, J., & Hauser, R. (Eds.). (1999). *High stakes testing for tracking, promotion, and graduation*. Washington D.C.: National Academy Press.
- Holmes, C. (1989). Grade level retention effects: A meta-analysis of research studies. *Flunking Grades: Research and Policies on Retention* (pp.16-33). L.A. Shepard and M.L. Smith, eds. London: Falmer Press.
- Jerald, C. (2001). Real results, remaining challenges: The story of Texas education reform. (ERIC Document Reproduction Service No. ED459191)
- Karweit, N. (1999). *Grade retention: Prevalence, timing, and effects*. John Hopkins University Center for Social Organization of Schools. CRESPAR Report No. 33. March.
- Kennedy, L. (2004). Good for nothing: In-grade retention. *Intercultural Development Research Association Newsletter June-July 2004*. Retrieved January 2, 2006, from <http://www.idra.org/Newsltr/2004/jun/Lisa.htm>.
- Kohn, A. (2004). Test today, privatize tomorrow. *Phi Delta Kappan, 85*(8), 568-577.
- Madaus, G. (1991). The effect of important tests on students: Implications for a national examination system. *Phi Delta Kappan, 73*(3), 226-231.
- Maylone, N. (2004). Do tests show more than "test think"? *Phi Delta Kappan, 85*(5), 383-386.
- McCollum, P., Cortez, A., Maroney, O., & Montes, F. (1999). *Failing our children: Finding alternatives to in-grade retention*. (ERIC Document Reproduction Service No. ED434962)
- Meisels, S., & Liaw, F. (1993). Failure in grade: Do retained students catch up? *Journal of Educational Research, 87*(2), 69-77.

- Mossburg, J. (1987). The effects of transition room placement on selected achievement variables and readiness for middle school. *Digital Dissertations (AAT 8801927)*.
- National Association of School Psychologists (1998). *Position statement: Student grade retention and social promotion*. Retrieved January 2, 2006 from <http://www.naspoline.org/publications/cq268retainpos.html>.
- National Association of School Psychologists. (n.d.). *Position statement on student grade retention and social promotion*. Retrieved March 23, 2005, from http://www.nasponline.org/information/pospaper_graderetent.html
- National Center for Education Statistics. (n.d.). *Public elementary and secondary expenditures*. Retrieved January 2, 2006 from <http://nces.ed.gov/programs/coe/2004/section6/table.asp?tableID=91>.
- Natriello G., & Pallas, A. (1999). *The development and impact of high stakes testing*. (ERIC Document Reproduction Service No. ED443871).
- Neill, M., & Medina, N. (1989). Standardized testing: Harmful to educational health. *Phi Delta Kappan*, 70 (9), 688-697.
- Nieto, S. (3rd ed.). (2000). *Affirming diversity-The sociopolitical context of multicultural education*. New York: Longman Publishers.
- Olson, C. (1999). Is a ban on social promotion necessary? *The School Administrator*, 48.
- Olson, L. (2005, October 19). Purpose of testing needs to shift, experts say. *Education Week*, 7.
- Olson, L. (2005, November 30). State test programs mushrooms as NCLB mandates kicks in. *Education Week*, 10-12.
- Owings, W., & Kaplan, L. (2001). Standards, retention, and social promotion. *NASSP Bulletin*, 85(629), 57-66.
- Phelps, R. (1999). *Why testing experts hate testing*. (ERIC Document Reproduction Service No. ED429089).
- Powell, P. (2005). The effects of grade retention: Life histories of adults who were retained as children. *Digital Dissertations (3189068)*.
- Rumberger, R., & Larson, K. (1998). Student mobility and the increased risk of high school dropout. *American Journal of Education* 107: 1-35.
- Shepard, L., & Smith M. (Eds.). (1989). *Flunking grades: Research and policies on retention*. London: Falmer Press.

- Texas Classroom Teachers Association. (n.d.). *TAKS key to advancement with student success initiative*. Retrieved March 23, 2005 from <http://www.tcta.org/edmatters/curric/taksssi.htm>
- Texas Education Agency. (2006). *2004-05 academic excellence indicator system*. Retrieved June 14, 2006 from <http://www.tea.state.tx.us/perfreport/aeis/2005/index.html>
- Texas Education Agency. (2004). *TAKS information booklet mathematics grade 5*. Austin, TX.
- Texas Education Agency. (2004). *TAKS information booklet reading grade 3*. Austin, TX.
- Texas Education Agency. (2004). *TAKS information booklet reading grade 5*. Austin, TX.
- Texas Education Agency. (2005). *2005 comprehensive annual report on Texas public schools: A report to the 79th Legislature*. Austin, TX.
- Texas Education Agency, (2005). *Enrollment in Texas public school, 2003-04*. Austin, TX.
- Texas Education Agency. (2005). *Grade-level retention in Texas public schools, 2003-04*. Austin, TX.
- Texas Education Agency. (2005). *The grade placement committee manual*. Austin, TX.
- Texas Education Agency. (2006). *Technical digest 2004-2005*. Austin, TX.
- Texas Education Agency. (n.d.). *Student success initiative*. Retrieved March 23, 2005, from, <http://www.tea.state.tx.us/student.assessment/resources/ssi/>
- University of Iowa. (2001). *Iowa tests of basic skills survey battery fall/spring norms and score conversions with technical information*. Itasca, IL: Riverside Publishing.
- University of Iowa. (2003). *Iowa tests interpretive guide for teachers and counselors*. Itasca, IL: Riverside Publishing.
- University of Iowa. (2003). *Iowa tests of basic skills survey battery norms and score conversions*. Itasca, IL: Riverside Publishing.
- Viersen, R. (2005). A multi-year study of the impact of retention on elementary African American males' achievement in math and reading in one North Carolina school district. *Digital Dissertations (3200633)*.

Walker, S. (2000). *High-stakes testing: Too much? Too soon?* (ERIC Document Reproduction Service No. ED452219).