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Repetition of retention practices: Does retention improve academic achievement?

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REPETITION OF RETENTION PRACTICES: DOES RETENTION IMPROVE ACADEMIC ACHIEVEMENT?

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ABSTRACT

In 1996, the Chicago Board of Education adopted a new promotion policy to address the issue of low academic achievement and to hold schools accountable for the progress of its students. This policy led to many students being retained in grade, some are retained multiple times. Retention was supposed to offer remediation and bring students up to grade level criteria. This has not happened. Thus, the major purpose of this study was to determine if retention had a statistically significant effect on the reading and mathematics achievement scores of third grade students as measured by the Iowa Test of Basic Skills. Additionally, the study explored the effects of retention on gender and differences in achievement for reading and mathematics after each year of retention. The results of the ANOVA showed a statistically significant difference in the Iowa Test of Basic Skills scores for reading and mathematics after one-and two-years of retention. These differences were in direct contrast to the expected outcomes. The one-sample t-test compared the mean scores of students to the Iowa Test of Basic Skills grade level criteria of 3.8. The results showed a statistically significantly difference between the mean score of the students and the grade level criteria of 3.8. The calculation of achievement gains for each student indicated that the majority of this sample did not reach the grade level criteria of 3.8 as measured by the Iowa Test of Basic Skills.

TABLE OF CONTENTS

LIST OF TABLES

Table

DEDICATION

I wish to dedicate this book to my parents, Virgil Dayton DeMar and Lillie Mae Epps, and my granddaughter, Mahalia Lauryn McNair.

To all students who have suffered as a result of remaining in the same grade for more than one academic school year and identified as a failure within the walls of any school system.

ACKNOWLEDGEMENTS

Above all I would like to thank God, for without Him this study would not have been doable. He gave me the power to "persevere" and He made sure that I had the love and support of family and friends when I needed them the most.

Throughout the course of this study I received direction and assistance from many people. Acknowledgement is extended to members of my committee, Dr. Vera Rhimes, Chair; Dr. Herbert Ellis, and Dr. Layla Suleiman, who provided me with support, guidance, and patience throughout the development of this project.

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A thank you to the Chicago Public School System for allowing me to use the data in this study.

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EPIGRAPH

The glow of satisfaction that comes from the consciousness of work well done sets free the energy that can be concentrated upon the new and more difficult task, thus multiplying the chances for a fresh triumph, and the sickening sense of failure will similarly choke up the channels of energy and multiply the chances for a second defeat. The man who, in the face of this handicap, can pluck success out of failure and victory out of defeat is the rarest of heroes.

W.C. Bagley (1905),
The Educative Process

CHAPTER I

INTRODUCTION

Retaining students in the same grade is a contributing factor to public school systems having many over-aged students who do not achieve grade level standards. The question of social promotion or retention has remained unresolved. The thought is that the practice of retaining a student in the same grade for more than one academic school year will raise his/her level of academic achievement. There is a division between research, however, on whether social promotion or retention will promote academic attainment. This lack of consensus has resulted in the retention of many students in the same grade for one or more academic school years.

Retention has generated large numbers of over-age students at the elementary level, and also interrupts the connection in the program of study by preventing students from making progress to the next grade level. This phenomenon has persisted and grown to the extent that politicians and society at large have insisted on changes that will remedy the lack of academic achievement in the public school system. The Chicago Board of Education adopted a new promotion policy in 1996 to address the issue of social promotion and to hold schools accountable for the progress of its students. The promotion policy targets students in the benchmark third, sixth and eighth grades. Students who are unsuccessful in meeting the specific academic standards in the benchmark grades are retained.

The Board Report 96-0327-P01 states:

> Decisions to promote or retain elementary students should be based upon successful completion of the curriculum and performance on the Iowa Tests of Basic Skills (ITBS). Students at grades three, six, and eight are subject to the special considerations listed below in the Summer School Bridge Program. Retention of students is not recommended unless efforts at remediation of academic deficiencies have been unsuccessful. It is recommended that kindergarten students should not be retained. (1996, p.1)
>
> Special considerations stated in the Summer School Bridge Program were: third, sixth, and eighth grade students will be promoted based on their performance on the Iowa Test of Basic Skills (ITBS) and their grades in reading and mathematics. (p. 1)

Since the conception of this policy, there are students who have been retained one or more times at their current benchmark grade. Many of these students have taken the same test numerous times and have not achieved the required results as defined by the grade level criteria. Roderick, Bryk, Jacob, Easton, and Allensworth (1999) analyzed the effects of the Chicago promotion policy two years after implementation. They found that one-third of third, sixth, and eighth graders did not meet the criteria set by the Chicago Public Schools (CPS) promotion policy during the first two years. "CPS retained 20 percent of eligible third graders and approximately 10 percent of sixth and eighth grade students in 1997 and 1998. Approximately 1,600 students were retained for the second time in 1998" (p. 3). Roderick et al. concluded that the retained students had an average gain of 1.2 relative to the socially promoted students who had an average gain of 1.5. They maintain that: "African-American third graders were more at risk of non-promotion and once tested had poorer passing rates than Latinos... African-American third graders were 1.67 times more likely to be retained in the third grade than their Latino counterparts" (p. 44).

The Chicago school system is focused on "student achievement," however; there is no clear-cut definition of student achievement. The curriculum is geared toward test-taking strategies as a means of helping the students to meet grade level criteria. The CPS system utilizes the ITBS as its tool for measuring when making promotion and retention decisions. These standardized test scores, rather than classroom grades, are the deciding factors in retention and promotion decisions. This practice is in direct contrast to the stated purpose of the ITBS designers. According to the ITBS guide, using the ITBS to make promotion and retention decisions is an inappropriate use of the test (University of Iowa, 1997, p. V-4).

Statement of the Problem

Retaining students in the same grade has plagued public school systems for nearly a century (Ayers, 1909, p.1). It is believed that the practice of retaining a student in the same grade for more than one academic school year will raise the level of academic achievement, as measured by standardized tests. However, research is divided as to whether social promotion or retention will promote academic achievement. This lack of consensus, along with accountability measures, has resulted in the retention of many students in the same grade for one or more academic school years. As early as the first part of the 20th century, critics such as Ayers (1909) spoke out against the practice of retaining students in the same grade.

According to Ayers:

> We have seen that a large part of all the children in our public schools fail to make normal progress. They fail repeatedly. They are thoroughly trained in failure. The effect of such training should be carefully considered, for the problem it presents is a grave one. It does not make much difference what we have to do, whether it is a great thing or a little thing, so long as we feel that it is possible for us and that we can do it if we try. There are few more

> hopeless things in the world than to have it borne upon us that we are driving against a thing that we cannot do. Yet this is the sort of training that we are giving a large part of all our children. (p. 220)

In addition, research shows that minority students are the children who are most often retained. Comer (1988) found that 50 percent of minority students located in large cities drop out of school. If retention has a causal relationship to dropping out of school, then those who are making decisions about children's lives must address the issue of diversity in children and realize that, "Students do not come in standardized frames that passively receive what is delivered" (Comer, 1988, p. 43).

There are many scholars who oppose retention policies (Holmes and Matthews, 1984; Doyle, 1989; Nikalson, 1987; Jackson, 1975) who assert that students who are promoted with low academic skills make better progress than if they were retained. Furthermore, researchers Lecompte and Dworkin (1991), and Natriello (1987), have demonstrated that there is a high correlation between retention and dropping out of school. (Proponents Tanner and Galis, 1997; Alexander, Entwisle and Dauber, 1994; and Raygnor, 1972) argue that retention may not bring students to levels that are acceptable but will help them do better in academic achievement the second year. Acknowledgement of these conditions suggests a need to explore further the outcome of academic decisions made for students by the practitioner.

Purpose

The major purpose of this study was to determine the extent to which retention improves academic achievement. The multiple and conflicting positions regarding promotion and retention suggest a great need for research that will bring theory and practice to common ground when making decisions. Well-informed decision-making will

in turn have a major impact on students' academic development, especially minority students who are currently retained in record numbers.

The researcher's observation of ITBS scores, and student retention based solely on those scores, suggest that this practice must be changed. Practitioners must begin to utilize more than one measure to make decisions about the educational placement of low-achieving students. To better comprehend this phenomenon, reading and mathematics scores were examined to determine if the scores of retained students showed a significant increase after retention.

Significance of Study

This study adds to the existing research by examining the effects of grade retention on ITBS scores of students who have been retained one or more times at the third grade level. An analysis of student achievement across three separate intervals of time provides a better understanding of whether retention has an adverse or positive effect on student achievement in reading and mathematics.

Limitation of Study

This study is constrained by student ethnicity, grade and sample size. The small sample is limited to African-American students, and therefore cannot be generalized to other populations. The study is also limited by the analysis of only one variable, ITBS scores, as the measure to determine if grade retention had a positive effect on student achievement. The examination of other variables for each student such as truancy, mobility, attendance, behavior, and social economic status are beyond the scope of this study. Thus a thorough assessment of individual student performance and growth based on such factors

was not attempted. While these variables were not built into this design, they can be used to expand on the results of this study in subsequent research.

Hypotheses

The following hypotheses were explored:

H_o: There will be no significant difference between year I, II, and III reading grade equivalent scores of retained students, as measured by the ITBS. The significance will be determined at the 0.05 level.

H_o: There will be no significant difference between year I, II, and III mathematics grade equivalent scores of retained students, as measured by the ITBS. The significance will be determined at the 0.05 level.

Other Questions to be Explored

A. Will retention exert a greater effect on ITBS scores in reading or mathematics?

B. Are there gender differences in retention relative to growth in reading and mathematics?

C. After one year of retention, were more girls or boys promoted?

DEFINITION OF TERMS

The following definitions are operationalized for this study unless otherwise noted.

Backward Children - Students who did not progress through school (Ayers, 1909)

Dropout - A student who leaves school before he/she has completed requirements to graduate from high school

Heterogeneous Placement - Assigning students to classrooms based on the skills to be mastered for success at the next grade level

Hold-Over - Classification of students who were retained in grade

Homogeneous Placement - Similar ages and abilities in one classroom

Instrument - A tool that is used to collect data for a study

ITBS - Iowa Test of Basic Skills used in the CPS school system to make promotion and retention decisions

Justifiable – Whether the process is best for the students

Low-income - Students who receive free or reduced priced meals at school due to their low socio-economic status

Mis-fits - Classification of a student who entered school late or made slow progress in school (Ayers, 1909)

Negative effect - An effect on a subject, which causes harm to his/her emotions, behavior or cognitive ability

Promotion - Passing from one grade to the next

Promotion Policy - A guide that sets the criteria for a student to pass from one grade to the next

Retarded - Classification of a student who is older than their grade level (Ayers, 1909)

Researcher - A person who conducts a study on a specific issue

Retention - Holding a student in the same grade for more than one academic school year

DEFINITION OF TERMS, (Cont.)

School Leavers - Term used for dropouts

Significant increase - An increase in ITBS scores, which will place a student in the correct grade for his/her age after retention

Social Promotion - Allowing a student to pass from one grade to the next without meeting academic requirements

Within-subject design - An experimental design that allows the researcher to examine data on the same subject multiple times. This quasi-experimental design is unique because it does not require a control group. Each subject serves as his/her own control

ORGANIZATION OF STUDY

This study will be presented in five chapters and have the following structure:

Chapter I: Introduction
- A. Statement of the Problem
- B. Purpose of the Study
- C. Significance of the Study
- D. Limitations
- E. Hypotheses

Chapter II: Review of Literature

Chapter III: Methodology
- A. Research Design
- B. Research Site
- C. Population
- D. Subject Selection
- E. Data Collection
- F. Instrument
- G. Data Analysis
- H. Hypothesis
- I. Other Questions to be Explored
- J. Significance of Study
- K. Definition of Terms
- L. References

Chapter IV: Findings

Chapter V: General Discussion
- A. Summary
- B. Implications
- C. Recommendations for Further Study

CHAPTER II

REVIEW OF LITERATURE

Introduction

The implementation of The Chicago Public Schools' Promotion Policy in 1996 generated procedural changes that impacted decision-making regarding the promotion of students in third, sixth, and eighth grades. One of the most significant changes was utilizing the ITBS to determine if a student would be promoted to the next grade level. The specific intent of this approach was two-fold. First, its purpose was to make sure that students have specific academic skills before being promoted to the next grade level. Second, it was intended to hold schools accountable for the large numbers of students who were not achieving according to defined grade level standards.

Historical Perspective

The process of non-promotion has 'plagued' school systems for more than a century because the end results are a large number of overage students who have not accomplished grade level standards at the elementary level. Chicago's 1996 promotion policy parallels procedures in the late 1800s in which students were held at a specific grade level until the teacher felt that a student had learned the skills for the next grade level. However, this practice did not correct academic failure, but instead resulted in labeling, early student dropouts, and teacher frustration.

Retaining students was not always the educational practice in American schools. Students were originally grouped heterogeneously. When a student mastered a course of work, they advanced to the next grade level. Before 1850, a student's progress was

designated by the name of the text used for the subject being studied. Students individually went through a text until it was completed and the teacher documented each student's progress throughout the text, with further documentation at the close of the school year. When school reopened the student and teacher knew where to begin (Otto & Estes, 1957). Each student was allowed to progress at his or her own rate.

As schools became more centralized, this practice was viewed as impractical because large numbers of students needed to be educated in a more standardized manner. Henry Barnard presented an address entitled *Gradation of Public Schools, With Special Reference to Cities and Large Villages in 1838* (as cited in Tyack, 1974) that shifted educational thought on heterogeneous classrooms. Barnard believed that "It was inefficient and inhumane to place students of many diverse ages and accomplishments in the same classroom" (p. 44). School activists Horace Mann, Calvin Stowe, and John Pierce advocated that the community change their thoughts on grouping children heterogeneously to a method of gradation (p. 45). As a result, by 1860, most elementary schools were operating on the graded system of student placement, where students of approximate ages were clustered together under the umbrella of a designated grade level (Otto and Estes, p. 5). A uniform curriculum and standardized examinations became an important component of school reform (Tyack, p. 46).

According to Tyack, William Harvey Wells, superintendent of The Chicago Public Schools from 1856 to 1864, separated 14,000 children into ten grades and placed 123 teachers into homogenous classrooms. Tyack noted that in 1856 Wells also published *A Graded Course of Instruction with Instructions to the Teacher.* This booklet was a sketch of what was to be taught and how to teach it (p. 46). With the implementation of these two

components, a uniform curriculum and standardized examinations, all students were expected to complete the curriculum in a specified amount of time. This led to grading standards and student failure as all students did not complete the course of study with a satisfactory grade in the specified time frame.

Grade Standards

Caswell (1933) explained the theory of grade standards of as a means of dividing large groups of students into small homogeneous instructional groups. Caswell's theory set the standard for grade divisions and led to grade retention (p. 27). The premise of the graded system was to divide the curriculum into sections. Each teacher at a specific grade level was responsible for his or her section. The concept of the graded system resulted in student retention in one grade level until the teacher felt that the student had accomplished the standards needed to advance to the next grade level. This process produced many students whose ages increased but whose grade level remained the same (p. 28).

The Chicago Public School System has come full circle. The system tried retention, social promotion, and again is utilizing retention as remediation, but students continued to fail the course of study. The system is filled with many overage students.

Overage Students

In 1904, William J. Maxwell, New York City Superintendent of Schools (as cited in Ayers, 1909) conducted an age-grade progress study that became the standard for schools to report on retention, promotion and dropout rates. Prior to this study, there had been no recorded inquiry into the reasons for over-age students.

According to Ayers, Maxwell found that 39 percent of the students in New York City were older than they should be for their grade level. This study brought awareness to

the plight of retained students. Maxwell's studies aroused the interest of other superintendents and several other studies followed such as Thorndike's study (1907), Witner (1907), Ayers (1909), and Blan (1911), (as cited in Otto & Estes, 1957, p. 4). These researchers utilized Maxwell's study to examine the effects of retention on student achievement (p. 1).

Following Maxwell's research on over-age students, the Russell Sage Foundation (1907), conducted a study to explore children's ages in relation to how they advanced through school. The focus of the study was to determine; "How many of the children in schools fail to make normal progress from grade to grade and why they fail? How many of the children drop out of school before finishing the elementary course and why they drop out" (Ayers, p. 2)? Most importantly, they wanted to ascertain the remedies for student retention.

The study was conducted in several phases which produced different documents that spoke to specific questions needing answers about the school system. The "Sage Foundation Study" (1907), later called the "Backward Children Investigation," looked critically at the personal and academic records of 20,000 Manhattan children, along with their physical examinations, which had mostly been administered by the Board of Health. As the Sage Foundation continued its efforts to determine the cause of student retention, it combined the two studies and divided the problems into three categories: conditions, causes, and remedies (p. 2).

Conditions, Causes, and Remedies

The conditions were defined as students being too old for their grade (p. 3). According to Ayers, these students were called mis-fits and it was determined that they

pose grave problems for the teacher. It was believed that these students made it inconvenient for teachers to teach other students. These students were classified as "over-aged" or "retarded" (p. 3). The study concluded that they needed specific consideration or help if they were to be successful.

The Sage Foundation researchers found that there were variations in the number of over-aged students identified by location. In Medford, Massachusetts, 7% of the children were classified as retarded in contrast to Memphis Tennessee where 75% of the largely African-American student population was classified as retarded. "On average, 33% of children in the public schools were classified as retarded... In 1908, 6,000,000 children in the United States were classified as retarded" (p. 3).

The study also established that students labeled as retarded were a considerable element of the school population and did not finish school. Students would drop out of school on or before the age of 14 to find a job (p. 4).

Ayers (1909) noted that:

> Taking the average of the conditions found in our city schools the figures show that for every child who is making more than normally rapid progress there are from eight to ten children making abnormally slow progress. In the lower grades, before the process of elimination enters to remove the badly retarded children, the average progress of the pupils is at the rate of eight grades in ten years. These conditions mean that our courses of study as at present constituted are fitted not to the slow child or to the average child but to the unusually bright one. (p. 5)

It was difficult for researchers to pinpoint the exact cause for retardation because the issues were multi-layered. Late school entrance and infrequent attendance were considered to be strong elements. Illness was also suggested as a factor in retardation. The study also investigated the consequences of various rates of promotion on the

number of times the average child would fail in school. The researchers reached the conclusion that "We are training our children well in failure" (p. 6).

The school curriculum, at that time, was based on eight or nine years of attendance but the attendance law mandated six years. The researchers recommended that compulsory attendance laws be extended. They also concluded that the curriculum must match the needs or abilities of the students, and might include an alternate method of grading (p. 7).

Labeling of Students and Curriculum Fit

Students who were unable to adapt to a school's curriculum and instruction were labeled as "backward children, mis-fits, retarded, and armies of holdovers," (Ayers, 1915, p. 6), leaving the practitioner baffled as to what to do with them. Julia Richman (1899), a New York district superintendent, described the retained students as "Armies of Holdovers" (p. 24). Richman, like Maxwell in 1904, was concerned about the number of students held at the same grade level for two or more years. To address the issue of non-promotion, Richman designed a program that would meet the child's academic needs. Based on Richman's system, students were classified as "brightest material, medium material, and poorest material" (p. 25). Today, this classification is known as ability grouping.

This division of students by ability was intended to provide slower students with self-confidence by separating them from competition of more able peers. It was also intended to help teachers become more sensitive to the needs of students. The classification of students allowed teachers to focus on a specific group of children. This process was unique because the curriculum was paced for the individual student, whether classified as bright or slow, and once requirements were met, the student was promoted. Richman's

assessment of the program revealed an 88% increase in student promotion (p. 29). She was confident that this individual attention to the students was the best way to meet their needs. Richman affirmed:

> I see my bright children no longer handicapped in their onward march, nor ruthlessly pressed into the hampering mold cast to fit the average child; I see my slow ones eagerly reaching out to grasp the patient, helping hand. I see them all believing in themselves, and at last growing thru self-help and self-development. (p. 29)

Teacher success or accountability was based on the rate of promotion. Richman believed the program to be successful.

Ayers (1915) described mis-fits as children who entered school late or made slow progress and had to repeat a grade one or more times. When these students reached the age of 15, the end of compulsory attendance, without being promoted to the upper grades, they dropped out of school. Ayers notes:

> The presence of such children produces some of the most difficult problems of school administration. They need a different kind of teaching and a different sort of treatment from the other children, and their presence renders the teacher's work harder and its results poorer. (p. 40)

The students Ayers described as mis-fits did not meet success like the students Richman described as armies of holdovers because they were not afforded a curriculum to meet their individual needs. Therefore, they became behavior problems and dropped out of school when old enough.

Promotional Adjustments

It was not until the 1930s, continuing into the 1970s that promotion decisions became more aligned with the needs of students. During this period educational reform created a turn toward social promotion. Rather than retaining students in the same grade, they were promoted and grouped according to ability and given the support of

individualized remedial instruction (Medway, 1985, p. 23). This trend came to an end by the 1980s.

A lack of confidence in public education and the publication of *A Nation at Risk* (National Commission on Excellence in Education, 1983), a governmental report declaring that the educational system was in a state of failure, caused school systems to return to a stricter promotion and retention policy.

Standardized tests became the instrument of evaluation for schools, teaching instruction and student achievement. This phenomenon posed negative implications for teachers, schools and students.

The Standardized Test and Its Implications

Standardized tests are administered and utilized in many cases to establish promotion and retention decisions along with holding schools accountable for student achievement. The focus placed on test scores and the imposition of negative labeling for non-achieving schools have caused apprehension among teachers and administrators. It has led to such things as teaching to the test rather than focusing on students' needs and the curriculum. The pressure to produce 'good' test scores have become so important that Airasian (1987) points out that "Given the important consequences that ensue from policy-oriented testing, not to teach to a test may be a greater disservice to pupils than to teach to it" (p. 408).

According to Darling-Hammond (1991) school systems continue to make use of standardized testing as a valid instrument that determines success or failure of students and schools. She believes this mindset establishes testing policies and guides curriculum. She purports that using standardized tests limits assessments of other knowledge. Hammond

notes: "As schools have begun to 'teach to the test,' the test scores have become ever-poorer measures of students' overall abilities" (p. 221).

Darling-Hammond believes policies on testing feed into negative consequences such as tracking, retention in grade, graduation, rewards, and sanctions for students as well as teachers (p. 222-223). Further, commercial test results are not designed for and are not the answer to school improvement because they do not provide the catalyst, to help students improve cognitive ability, Darling-Hammond concludes. She recommends teachers play a more important role in designing and analyzing student assessment and performance.

Smith and Rottenberg (1991) conducted a study in two Arizona school districts to evaluate the effects of external testing on teaching and learning. The districts utilized the Iowa Test of Basic Skills (ITBS) to assess all students in April (p. 7). The state of Arizona utilizes this test to make decisions about promotion and retention and to contribute data to be used in the selection, and/or merit evaluations (p. 7). The sample for this study was taken from two low-income schools, one in each district, with a mixed ethnic population.

This study's findings showed that external testing impacts classroom instruction. These researchers maintain that for every hour of external testing, teachers spend three hours in test preparation. The researchers stated that teachers felt it necessary to spend this amount of time on test preparation in order for their students to do well on the test and to impress the media and administration (p. 8).

Smith and Rottenberg found that teachers believed external testing negatively impacted students' self-esteem and motivation. This led teachers to bribe students with treats and trips outside of school as motivation to do their best on the test. The researchers

believed that when schools use external testing for making high stakes decisions about promotion and retention, curriculum information that is not on the test, is not taught (p. 9). Smith and Rottenberg's research found that "mandated testing programs also have consequences that are both problematic and contrary to the general goal of improving schools" (p. 11).

Herman and Golan (1993) analyzed the impact of testing on teaching and learning. They used surveys and interviews to correlate schools with increasing scores to those that had decreasing or stable scores in order to evaluate testing and educational practices (p. 20). They established that teachers across schools felt the pressure to improve scores while school administration gave substantial attention to test preparation. They also established that testing affects instructional planning, and that delivery and substantial time was spent preparing students for tests (p. 21-22).

Herman and Golan contend that teachers did not believe testing helped to improve schools; nor was testing a valid measure of student achievement. They expressed concerns that when schools are under pressure to produce high-test scores the focus of teaching and learning is ultimately lost, especially in schools that serve students who are economically disadvantaged because the curriculum is concentrated on preparing for test (p. 24).

The state of Arizona was in the process of reassessing their state-testing program in 1989 for grade 2 through 11. Nolen, Haladyna and Haas (1992) were an integral part of this evaluation process. They developed a survey to examine how test scores were used, how students were prepared for tests, how tests were administered and how the testing program was viewed (p. 9). They surveyed teachers and administrators to evaluate testing effects on them as well as on the students.

The researchers found that pressures from outside sources, as well as from administrators, forced educators to focus more intently on tests than curriculum. Nolen et al. argue, "Rather than raising the level of achievement, educators often seek pragmatic ways to raise test scores. Many of these practices pollute the meaning of the scores, rendering these scores useless for many purposes" (p. 14).

The survey data showed that teachers disagreed with the use of standardized testing instruments to make promotion and retention decisions and to evaluate teaching instruction. They believed the instrument was not designed for these purposes. The state of Arizona utilized data from the survey findings to construct an evaluation system that would use multiple assessments to evaluate instructional performance.

Opponents and Proponents of Grade Retention

Over the course of almost a century since Maxwell's study on the large numbers of over-aged students in the school system today, we still have researchers who weigh in on both sides of the issue; supporting either promotion or retention for students who are not achieving academically or socially. Researchers such as Goodlad (1954), Holmes and Matthews (1984), Abidin, Golladay, and Howerton (1971), Jackson (1975), Doyle (1986), Akbar (1978), and Ogbu (1994), believe that retention negatively impacts students academically, socially, and emotionally, especially African-Americans and minority students who are retained in large numbers. Other researchers such as Raygor (1972), Peterson, DeGracie, and Ayabe (1987), and Tanner and Galis (1997), argue that retention is in the best interest of the student who has low academic achievement.

Opponents of Grade Retention

The question of social promotion vs. retention has remained unresolved. It has been nearly a century since Maxwell, in 1904, conducted the age-grade progress study to determine the number of over-aged students in the school system that resulted from retention practices as a means to correct low academic achievement.

The following research will address the theories presented by researchers who theorize that retention causes negative effects on personal and social adjustments of children, academic achievement. The opposing viewpoint that retention is in the best interest of the low achieving student is also examined.

Social and Personal Adjustments

The social and personal adjustments of retained students were articulated through several studies. Goodlad (1954) utilized research from the early 1900s to help guide his research on retained students and to support his theory on their social and personal adjustments. Goodlad attempted to extend Sandin's 1944 research (as cited in Goodlad, 1954) on the social and personal adjustments of children after non-promotion. Sandin had proposed that the behavior of retained students created problems for the classroom teacher. Sandin used this theory to examine the social and personal adjustments of retained students (p. 302). He found that overall retained students had an apathetic disposition in the area of attitudes and feelings as compared to those who were promoted (p. 302). Sandin did not have a control group nor did he look at other variables that might have caused social and personal problems, other than non-promotion.

To extend Sandin's research, Goodlad wanted to answer the question left by Sandin. According to Goodlad, Sandin was curious to know if "his findings would have

been any different even if his groups of 400 non promoted children had been regularly promoted" (p. 303)?

Goodlad, unlike Sandin, had a control group. His samples were selected from 11 elementary schools. The schools were carefully selected so that there was an even distribution of urban, rural, lower and higher economic status groups. Six of the elementary schools had a high retention rate ranging from 12.8% to 26.6% and five of the school had a low retention rate ranging from 5.1% to 11.2% (p. 304). His sample included 73 retained first grade students, and 150 promoted second grade students whose achievement scores were similar to those of the retained first grade students (p. 304). Goodlad found that non-promoted students had to deal with rejection more than the promoted students and the social and personal adjustment of the retained student deteriorated during the academic school year (p. 325).

Goodlad notes that:

> ...Repeating a grade is detrimental to the social and personal development of boys and girls. The evidence presented, together with evidence from other studies that repetition is not conducive to greater efforts or achievement and that it is associated with undesirable school attitudes and behavior, seriously questions non promotion as a valid educational practice. (p. 327)

The achievements of three different groups of children from two southern rural elementary schools were evaluated by Cuddy (1987) in order to assess the impact of retention on the students' social, academic, and psychological adjustment. This study consisted of 47 second, third and fourth grade subjects. There were 16 subjects in each group of low-achieving retained and average-achieving promoted students. There were 15 subjects in the low-achieving promoted group (p. 3). Cuddy found that retention did not have a positive effect on the social and academic adjustment of retained student as seen

with the low achieving but promoted student. She also concluded that students who were promoted were less likely to be rejected by their peers (p. 8).

Similarly, Holmes and Matthews (1984) conducted a meta-analysis using 44 studies to evaluate the effects of retention on elementary and junior high pupils. The analysis included research data from 1929 to 1981. They analyzed 18 published studies, 14 dissertations, and 12 master's theses. The data incorporated 6,924 non-retained subjects that served as the control for 4,208 retained subjects. They found that retention had a negative effect on academic achievement in 31 of the 44 studies. Similarly, 21 of the 44 studies found negative effects in the area of social adjustment, emotional adjustment and behavior (p. 231). The non-promoted students scored lower in the area of self-concepts than the promoted group in nine studies. Eight studies showed that the retained and non-retained students had similar scores in the area of attitude toward school although the retained group did not like school as much as the promoted group.

Holmes and Matthews determined that the non-promoted students overall made less progress when compared to students who were low-achievers and promoted to the next grade. They argued that retaining a student because of low reading achievement produced the most negative effects in the areas of social, emotional and behavioral problems, self-esteem and academic achievement. Holmes and Matthews maintain: "Those who continue to retain pupils at grade level do so despite cumulative research evidence showing that the potential for negative effects consistently outweighs positive outcomes" (p. 232).

Hagborg and Masella (1991) questioned the correlation between non-promotion at the elementary level and the academic and personal adjustment of students at the secondary

level. They conducted a study using a sample of 1,200 students from a school district in New York State. They concluded that the non-promoted students achievement scores as measured by the Comprehensive Test of Basic Skills (CTBS) were considerably lower when compared to those who were promoted. They also found that achievement and emotional adjustments of students who were retained in the upper grades can be correlated with "lower grades, less positive school attitudes, less time on homework, lower educational expectations and higher levels of discipline problems" (p. 312).

Hagborg and Masella noted that their study offered no conclusive findings on retention. However, there was evidence that high school students who were retained at the elementary level and made initial positive gains showed no evidence of these gains at the high school level. It was difficult for the retained student who made gains to catch up to their classmates because the gains were too small.

Negative Effects of Retention

The continued practice of non-promotion results in negative effects for students. Abidin, Golladay, and Howerton (1971) studied the short-and-long-term effects of retention on students, as well as who was retained. Their six-year study examined socioeconomic status, sex, and race. The data from this investigation indicated that African-Americans were retained more than Caucasians and 70% of the retained students were male relative to 30% female (p. 411).

They found a decline in academic achievement in the first six years for students who had been retained. The results did not hold true for students who were promoted. Abidin et al. commented that low academic achievement was not cited as one of the causes for retention of the retained group. Twenty-four percent of the students who were retained

were retained without a specific reason. They concluded that "Retention is a discriminatory and noxious educational policy that should either be negated or the practice of retention should have severe restrictions" (p. 410).

Abidin's et al. study also found that 90% of parents in the low-income status group did not argue against their child's retention. Based on their findings the authors noted: "Retention is a de facto discriminatory policy against the poor" (p. 415).

In another study, Jackson (1975) examined studies on retention dating back to 1911 to determine if students who were socially maladjusted or doing poor academic work would profit from remaining in the same grade another year versus being promoted. His assessment of 44 studies established that most of the research was not sufficient to support positive results for grade retention over promotion. Jackson separated the studies into three groups according to their design. The first design evaluated students who were retained or promoted according to school policy. The second design assessed students before and after retention. The last design was an experimental design where the retained students were compared to a control group of promoted students (p. 617).

Jackson believed that the first design was flawed because the retained students were compared to a group of promoted students who did not have similar academic problems. He noted that this design appeared to favor promotion. He believed the second design preferred retention because the studies in that design did not control for variables, other than retention, that might have enhanced academic achievement. Likewise, the results of the experimental design were not conclusive because the samples were not representative of the general school populations nor did the designs in this category look

at the long-term effects of retention (p. 625). Jackson also noted that the most recent research using the experimental design was in 1941.

Although he did not state the age and grade of all of the students in each of the studies examined, Jackson did elaborate on several of the studies in which the students ranged from the first through seventh grade. He recommended experimental rather than non-experimental research designs to evaluate the effects of non-promotion on students.

Lloyd (1978) monitored students from sixth grade until they graduated or dropped out of high school to determine if there was a correlation between dropping out of school and early school failure. This study included 788 boys and 744 girls. Of this population, 196 of the boys and 143 of the girls did not graduate from high school (p. 1194). This study did not offer ethnicity, socio-economic status or location from which the sample was drawn.

Third grade data were used to identify the sixth grade students who were subjects for the study. Lloyd found information from third grade data instrumental in identifying students who might drop out of school. He identified seven out of every 10 dropouts from the third grade data (p. 1197). He argues that retention or promotion in the first three grades can be a determinate for later school failure (p. 1201).

Doyle's 1986 research supports Holmes' and Matthews' findings. His research suggests that although retention does not produce the desired results of grade level achievement, practitioners continue to retain students who have academic deficiencies. For his study, Doyle used school records from the Roosevelt School District in Phoenix, Arizona. This study evaluated the 1978 State Board of Education policy as criteria for

eighth grade promotion. Doyle wanted to assess the effect of the district's retention policy on students who were oppressed by poverty and deprived of early childhood experiences.

The Roosevelt District was chosen because of its racial and socio-economic composition. The district was comprised of more than 90% minorities out of which 69.8% were Hispanic, 22.2% were African-American, 1% was Native American and 0.3% was Asian (p. 10). Doyle found that after the graduation policy was put into effect retention escalated from 3.2% in 1977 to 19.8% in 1978 (p. 10).

Therefore, the class of 1986 was chosen for the study because it consisted of students who entered kindergarten in 1978, the year the structure of the eighth grade promotion policy went into effect. One-fourth of the 1986 class was not ready to receive the eighth grade diploma according to the criteria set by the state. One-third of the students were one or more years over-age. If all students who were not on level had been retained, 45% of them would have legitimately been able to leave the school system at the age of 16, before being promoted to high school (p. 13).

Doyle concluded that retention did not help students accomplish grade level achievement. He found that the grade equivalent reading scores for students who had been retained before seventh grade was 5.69, relative to 6.70 for non-retained students; mathematics achievement for the retained students was 6.44 as compared to 7.17 for the non-retained students (p. 13). The results of the data found that retention did not create homogeneous classrooms. Students who were retained were still academically below other students within the same grade.

Niklason (1984) examined the process and outcomes of non-promotion in two Utah school districts with opposing views on retention practices. The suburban school district

with over 40,000 students opposed retention practices, whereas the urban district with over 20,000 students favored retention. Niklason sought answers to three specific questions: (a) what are the actual retention practices in the two districts, (b) how do the children recommended for retention compare with a control group of children in the districts, and (c) what are the effects of retention compared to promotion on these academically similar functioning children (p. 492)?

She found that students in the urban district were seven times more likely to be considered for retention than students in the suburban district. Niklason claims that many of the children slated for retention were in their required stage of achievement as measured by the Wide Range Achievement Test (WRAT) (p. 495) and were still retained. Her study supports Holmes' and Matthews' meta-analysis that promoted students whose academic performance was comparable to that of retained students had more gains in the area of reading than the retained students (p. 495). Niklason concluded that "Retaining students did not serve the intended purpose of increasing the student's growth academically or in personal or social adjustments" (p. 496).

Niklason (1987) reanalyzed her (1984) Utah school study in order to examine more closely the practice of retention and its impact on students. She added three independent variables to address questions regarding subgroups of students. Niklason's three independent variables were: grouped (retained vs. promoted), district (providing remediation vs. no remediation) and ability level (high vs. low) (p. 342).

Her re-analysis found that students who were selected for retention but promoted to the next grade level made more progress than the retained students. She also found that students retained in grades two through six did better academically after being retained

compared to students retained in kindergarten and first grade. Niklason noted that parents and teachers felt that retaining students in early grades would be more beneficial for the student (p. 344). This assumption is not supported by Niklason's research. Additionally, the remediation program was not instrumental in helping the retained students increase academic gains comparable to the increase in gains obtained by the low achieving promoted students.

Niklason's findings are significant because the assumption behind early retention holds that if a child is retained in the first two years, academic deficits will be reduced before the child enters second grade.

Natriello (1987) examined Chicago Public School data on dropouts from the classes of 1982-1984. The report suggests that students who are not promoted during the elementary level are more likely to drop out of high school, especially if they are not reading on level and if they are African-American. African-American males who begin high school at 16 years of age or older have a drop out rate of 77% and a 63% dropout rate if they begin at age 15 (p. 32).

Natriello note that:

> ... Students who are overage when they enter high school are far more likely to drop out than are their classmates of normal entering age. School policies on promotion and retention must be carefully examined for their negative effect on dropout propensity, with their positive educational effects better established and balanced against the negative effects shown in these reports... Nevertheless, the evidence presented here casts doubt on the positive effects of holding students back. (p. 33)

LeCompte and Dworkin (1991) found that middle-class Caucasian suburban students with IQ ranges above 100 and whose standardized test scores are close to national norms are the ones most often helped by being retained; in comparison to children who have been identified as a "slow learner" (p. 79). They maintain that non-promotion is a

definite sign of dropping out of school because students are humiliated and have to repeat the same curriculum (p.79). LeCompte and Dworkin espouse, "Whatever the reason, retention, like ability grouping, is a time-hallowed school practice that is both ineffective and harmful to children" (p. 79).

Roderick (1994) utilized event history analysis to assess the impact of retention on graduation from high school. Data for the 1980-81 school year were collected from transcript records of seventh grade students in an urban school system in Fall River, Massachusetts. The historical data on each student began at the fourth grade and continued until the student either dropped out or graduated from high school.

Roderick found that of all dropouts, 70% had repeated a grade between first and eighth in comparison to 27% for students who were never retained (p. 735). Repetition of two or more grades was a clear sign to dropping out of school. Roderick reports that high school students at age 18 who have been retained were 2.5 times as likely to become a dropout as compared to 2.0 times at age 17 (p. 736).

This study revealed that retention increases the chance of a student dropping out of school and the earlier retention occurs (kindergarten-first) the higher the probability of that student becoming a dropout (p. 749). This finding is disturbing because in other cited studies the findings suggest that early retentions will correct academic deficits before a student is promoted to the next grade level.

Jimerson, Carlson, Rotert, Egeland, and Sroufe (1997) utilized data from the "Minnesota Mother-Child Interaction Project" to conduct a longitudinal study of early grade retention and its consequences. The original multi-year study was comprised of students considered at-risk in the area of socio-emotional growth.

Historical data for these students were examined from kindergarten through third grade utilizing school records from 120 schools. Children's histories, from birth to age 16, were examined, including; demographics parental and family characteristics, the short-and long-term effects of retention, and social and personal adjustment.

Jimerson et al. found that the retained students exhibited short-term positive gains in math achievement immediately after retention, but the gains were not maintained in the following grades following the retention year. Additionally, they found that non-promoted students exhibited extreme behaviors. The behaviors were analyzed with the Child Behavior Checklist. Based on their findings Jimerson et al stated that, "The practice of retention appears to be ill-advised. This research suggests that retention appears to facilitate early academic performance that disappears over time and may prove potentially harmful regarding personal adjustment" (p. 23).

Colby (1998) was concerned with the effects of retention on low-level readers. Colby identified low-level readers as students who scored below the 50th percentile on the Metropolitan Achievement Test (MAT). This test was given to 20 second grade students as a pretest. All students scored below the 50th percentile. Based on their test scores, 17 students were promoted to third grade and three were retained in second grade. All were given the test again the following year. Results showed that although the retained group had a gain of 1.17 points in reading, their reading gain was less significant than the promoted group, who had an increase of 3.61 points in reading achievement (p. 6). This study supports the theory that retained students do not fare as well as low achieving promoted students.

Walker and Madhere (1987) studied the cognitive and effective development of 1,292 students to address multiple retentions of students in grade. The sample students were African-American and Hispanic. Thirty-two percent of the multiple retained students were kept together while 68% were dispersed into regular classrooms (p. 86). Their analysis identified an unfavorable effect on the reading scores of students retained multiple times in grades three through eight unlike first and second grade students who progressed in the area of reading (p. 100). Mathematics performance was favorable for all grades except seven and eight where their performance plummeted.

This study was not conclusive on the benefits of a retention classroom or a regular classroom. The researchers found negative effects for the multiple retained students who were kept together in the area of affective and social maturation but positive effects for reading and mathematics. Walker and Madhere observed students who had similar difficulties in the same classroom (where the curriculum focus was on their needs) while the needs of students who were placed in a regular classroom were not addressed. Walker and Madhere support Cryan's 1985 work by suggesting that educators should stop looking at the child as the problem. They believed "Urban school districts that find themselves with a burgeoning retained population may need to evaluate all facets of their instructional programs critically" (p. 101).

Meisels and Liaw (1993) used data from the 1988 National Education Longitudinal Study to study the effect of retention on 16,623 students. They also compared students who were retained in kindergarten through third grade with students who were retained in fourth through eighth grade. A second comparison looked at students who were retained in kindergarten through eighth grade along with those who had never been retained. Meisels

and Liaw's purpose was to bring an understanding to the retention debate through their large sample.

They were concerned about (a) retained student demographics; (b) whether retention was better for grades kindergarten through third or grades fourth through eighth; and (c) students' response to retention based on gender, race, and social class (p. 70).

They found that 29.9% of African-American students were retained as compared to 25.2% of Hispanic and 17.2% of Caucasian students. Twenty-four percent of the boys were retained relative to 15.3% of the girls. Thirty-three-point-nine percent of the students from the low socio-economic group were retained in comparison to 8.6% from the higher socio-economic group (p. 71). These data show that almost four times as many students from the low socio-economic group were retained as compares to the higher socio-economic group.

This study, as do many others, illustrates that retained students have lower grades and test scores than their promoted peers. According to Meisels and Liaw, the chance of retained students developing learning, emotional, and behavioral problems is five to seven times greater than that of promoted students (p. 74).

Early Primary Retentions

Thomas, Armistead, Kempton, Lynch, Forehand, Nousiainen, Neighbors, and Tannebaum (1992) conducted a study to determine if retention of kindergarten and first grade students had long-term beneficial effects. They compared 31 children who had been retained (19 African-American and 12 Caucasian) with 31 who had not (20 African-American and 11 Caucasian) (p. 343). The dependent measure was grade point average of students in grades 2 through 5. There were four teacher-assessed areas; which were social and cognitive competence along with externalizing and internalizing problems.

This study was conducted in a rural elementary school with a 68% Caucasian and 32% African-American population. The retention rate at the school was 62% for African-American and 38% for Caucasian. The results showed that retention did not produce long-term beneficial effects, but that retention, especially for Caucasian children, produced poorer academic and social functioning. The study did note that "all children were adversely influenced by retention" (p. 346).

There is a body of knowledge that students should be placed in school according to their developmental age. According to May and Welch (1984), Gesell, a child development researcher ascribed to this theory (p. 381). Gesell's philosophy was that a child must be developmentally ready or he or she will not be successful in school (p. 381). His theory offers options for children to become developmentally ready before beginning school.

May and Welch questioned the theory and organized a study to test the Gesell theory. This study included 223 Caucasian middle-class students in grades two through six. The subjects were divided into three groups, which corresponded to the number of options suggested by Gesell to help a child become developmentally prepared for school. Option A. suggested the child spend an extra year in kindergarten and is called Buy a year (BAY). Option B recommended that the child take an extra year in kindergarten but the child did not and is called over placed (OP). Option C is recommended for the developmentally mature student who would be promoted and is called traditional (TR) (p.383).

Their results showed that the BAY children did not do as well on achievement scores as the OP or TR subjects. Although, the BAY children were almost a year older than the other two groups they had the lowest scores on all measures (p. 384). May and Welch noted that the OP students did not show the learning problems that the Gesell

Institute states are typical for developmentally immature students (p. 385). The researchers suggest that the Gesell Theory of an extra year for a student to develop did not show favorable academic results for the BAY subjects (p. 385).

Johnson and Merrell (1990) analyzed the long-term effects of retention on kindergarten and first grade students. Their goal was to see if students in the fourth grade who were retained on the kindergarten and first grade level had better academic achievement than those who were recommended for retention, but were not retained. This study utilized data of 57 fourth grade students selected from four public schools. They separated the students' data into these three groups: 1) Retained (RET), 2) Not Retained but recommended for retention (NRET), and 3) a Normal (NORM) group (p. 335).

Their data were drawn from previous standardized achievement test scores in each student's academic file. They found that there was no significant difference in test scores between the RET and NRET groups. As expected, there was a significant difference when the RET and NRET were compared to the NORM group. The NORM group result was expected. This study suggests that retention was not beneficial for students retained at the kindergarten and first grade level.

Similarly, Mantzicopoulos and Morrison (1992) conducted an investigation on the impact of retention on academic and behavioral outcomes. They tracked retained and promoted kindergarten students through second grade in two school districts in Marin County, California (p.185). The results showed that the students who were retained improved in reading and mathematics, but the gains were not maintained into first grade. Mantzicopoulos and Morrison attributed the improvement to students being tested with the same instrument and to their being older than the retained students who were also older

than the students who were in kindergarten for the first time (p. 195). Examining and analyzing the behavioral outcomes were difficult because a matching control group of students was not obtainable.

Retention and the African-American Student

African-Americans and minority students are the ones who are most often retained. Research in this specific area is concerned about the large numbers of this group of students who are not meeting grade level standards and are then recycled through the same curriculum. Although retention has some affect on all children, the African-American child is disproportionately represented and must endure other obstacles as well before he/she can achieve academic success.

Akbar (1979) notes that educators, along with social scientists have compared the differences between African-American children and Euro-American children. These comparisons have led to the African-American child being labeled as inferior and to a belief that normal behavior is that of a middle-class Caucasian child (p. 2).

Scholars have ignored the notion that although African-Americans and Euro- Americans share the same geographic location; there are distinct cultural differences that play an important role in how a student learns. Akbar points out that, "Despite all kinds of innovative methods to bend the African-American child into the appropriate Euro-American middle class mode, the parade of failures is still led by the child who is poor and African-American" (p. 2).

Reynolds (1992) studied the effects of grade retention from data of 1,255 low-income minority students. The sample was selected from a longitudinal study of children at risk for failing in the Chicago Public Schools (p. 103). Students selected for this study

in fourth grade for the 1989-1990 school year and had been in the CPS schools for three years prior to fourth grade. The sample was comprised of 95% African-American and 5% Hispanic students from 26 schools (p. 103).

Reynolds stated:

> Boys, poor and minority children, children who attend urban metropolitan schools and misbehaving students are more likely to be retained than similarly performing grade-level peers. These findings suggest that retention policies are inconsistently administered and may often work against children from the most disadvantaged homes and schools. (p. 102)

Grade retention data were derived from four outcome measures: (a) reading cognitive achievement, (b) mathematics cognitive achievement, (c) teacher ratings of school adjustments and (d) perceived school competence (p. 104-105).

The results revealed that students who were promoted gained a mean score of seven months in reading achievement whereas retained students only acquired a five-month gain (p. 111). In the area of mathematics achievement the promoted students scored six months higher than the retained students.

They found that teachers rated retained and promoted students comparable in the area of school adjustments (p. 111-112). The study also ascertained that students who were retained in the third grade when tested after a year of retention scored at the level of a second grade student rather than a third grade student. Reynolds concluded this study by suggesting the results indicate that for most students, the effects of grade retention are either "negative and harmful or negligible" (p. 117).

Ogbu (1994) interprets the differences in school performance as the result of Euro-American treatment of African-American students within the educational realm and the African-American students' reaction to it (p. 17). Ogbu notes that society's response to the education of the African-American child is to provide him or her with unequal resources

and segregation as a guarantee that the African-American will not possess an education comparable to that of Caucasians. According to Ogbu, African-Americans do not receive the same status or job security after educational accomplishments. Unequal rewards make the educational process a dispiriting procedure for African-Americans (p. 18).

African-Americans also receive inferior treatment within the educational system through testing, tracking, misclassification, representation or non-representation in textbooks and curricular (p.18). Ogbu (1969) conducted a study in Stockton California. Ogbu's sample was comprised of first grade minority children in one district who were labeled as "not ready to read" (p. 20), and Caucasian middle-class students in another district who were started on the first grade reader in September. He found that students who were labeled as "not ready to read" in September did not begin the first grade reader until March. Both groups were tested in May on the same state mandated test. Ogbu noted "It does not take a great deal of imagination to see how poor African-American and Mexican-American children in my study school would perform on that test" (p. 18). It is evident that minority students did not do as well as Caucasian students due to lack of exposure to the same materials and learning opportunities.

Socio-economics, socio-pathology, genetics and culture were variables described by Irvine (1999) as affecting the school achievement of African-American students. She noted that factors such as income, class and wealth are representative of socio-economics, while socio-pathological factors are labels such as "at-risk", "disadvantaged" or "deprived" that are placed on children who are poor and in most cases are African-American (p. 246). Irvine described cultural variables as beliefs, values and perceptions (p. 247). She did not view culture as a negative element for school achievement. However, she concluded that

within the context of the school environment, the culture of the middle-class Caucasian student is represented, whereas, the culture of the African-American student is not. The lack of African-Americans cultural representation within the school system promotes school failure for students because of conflicts that arise from miscommunication, hostility, alienation, and diminished self-esteem (p. 247).

Alexander, Entwisle and Dauber (1994) conducted the "Beginnings School Study" (BBS), a multi-year study of students in the Baltimore inner-city school system. Their study followed 800 students from first through eighth grade. Although African-Americans comprised a majority of the sample, it also included a large sample of Caucasian students. The BSS sought a representative sample of students who are most often retained in order to evaluate the effects of retention and to have a sample that could be generalized to other urban school systems with a large population of underprivileged students (p. 10). This study covered an eight-year span and was not a study to research the validity of retention but to evaluate what occurs to retained children during their time in school. The study focused on both positive and negative experiences, as well as how the experiences correlate with their socio-emotional and academic development. Alexander et al. found negative effects of retention on first grade students. They also found students retained in grades other than first grade did not perform as well as promoted students, but retention helped them advance faster academically than before being retained (p. 24). Their work supports Niklason's 1987 study.

Retention of Learning Disabled Students

The pros and cons of grade retention are focused on the "normal student." There is another important issue that needs to be addressed when retaining students who are not

capable of grade level standards. Barnett, Harvey and Payette (1996) studied the retention rates of students who had an unknown learning disability. Their analysis was drawn from an intermediate school district in Michigan. They obtained 344 school records from the 1990-1991 school year. One-half of the students attended the urban district while the balance attended the suburban district. Of the total sample, 229 of the subjects had been retained once, 60 had been retained twice, and three had been retained more than three times before they had been designated as needing special help.

Testing conducted to identify a learning disability found 201 (58.4%) had a disability (p. 287). They also claim that there were more learning disabled students retained in the urban area than in the suburban or rural area. Barnett et al. also established from their analysis of measures of intelligence (WISC-R and achievement W-J-R) (p. 290) that learning disabled students who had not been retained scored better than the learning disabled students who had been retained. The authors maintain, "Minority children with learning disabilities, especially African-American children, were more likely to be retained than Caucasian children with learning disabilities. Learning-disabled children residing in urban areas were also more likely to be retained" (p. 291).

Teacher and Student Voice

Byrnes and Yamamoto (1985) were interested in what children and teachers had to say about non-promotional practices. Seventy-one teachers and their students participated in this study. The subjects consisted of retained students in grades one, three and six. The findings indicate that children have emotional scars from not being promoted and that teachers are not meeting the needs of the retained child because the curriculum does not

change during the year or years of retention. According to Byrnes and Yamamoto (1983) in their earlier study on retention:

> Grade repetition seems of dubious effectiveness as an answer to low pupil motivation and achievement. Besides, the messages children internalize about the experience tend to be negative and confusing, and the long-range effects of this procedure do not appear to speak favorably for it. (p. 214)

They concluded, in support of other researchers on the subject, that there is a need for finding other ways to help children achieve academic success.

Proponents of Grade Retention

Proponents assert that the practice of non-promotion is in the best interest of a student in order to correct low academic achievement. They feel that retaining a student in the same grade will help the student to grasp missing academic skills before being promoted to the next grade level.

Raygor (1972) was interested in the best program for low-achieving kindergarten students. She examined a group of suburban district kindergarten students who were recommended for retention to evaluate the long-term effects of retention on student achievement. Sixty-six students were placed into three groups. A special program called the Transition Program was designed for 37 of the retained kindergarten students. Another group of retained kindergarten students was recycled through the same traditional kindergarten program. The third group, which had similar academic deficits, was promoted to first grade (p. 2).

She evaluated the retained kindergarten students at the end of first and third grades and found that they did not differ from the promoted students. The data results suggest that the students who were retained in kindergarten were able to correct their academic deficits

(p. 141). She found at the end of the fourth grade that relative to the students who were predicted to fail but were promoted to the first grade, the retained group showed a positive difference in reading achievement. The data also showed that although the transition group scored higher than the traditional retained group at the end of the third grade, the differences in achievement had disappeared by the end of fourth grade (p. 141). Raygor suggests that since this study was conducted in a middle-income area the findings cannot be used to determine effects on urban, disadvantaged or foreign language populations (p. 144).

Peterson, DeGracie and Ayabe (1987) utilized four years of California Achievement Tests (CAT) data from the Mesa Public Schools to study the effects of retention and promotion on academic achievement for first through third grade students. They confirmed that the first year after retention first and second grade retained students tested better than promoted students. This positive result was not shown the second year after retention, or years after, nor was the result true for the third grade retained students.

Peterson et al. maintain that although their conclusion did not show long-term positive results for retained students, they did not feel students suffer adverse effects from being retained.

Pierson and Connell (1992) felt that it was critical to conduct an experimental investigation to study the effects of grade retention on third through sixth grade students. The setting for their study was a rural district and an urban district. The sample was comprised mostly of Caucasian students with a 12% minority in the rural district, and a 5% minority in the urban district (p. 303). Pierson and Connell showed that students who were retained because of low academic achievement continued to make progress two years after

the retention year in contrast to those who were socially promoted. However, the retained students did not fair as well when compared to randomly promoted students with the same ability level.

Pierson and Connell noted:

> Evidence from this study suggests that retention in the early years of elementary school is not harmful to general self-worth or to perceived relations to peers, and in comparison with social promotion, is beneficial to academic performance. Therefore the findings support the use of retention as a potentially effective remediation for academic difficulty in the early elementary grades. (p. 306)

Pierson and Connell are advocates of retention in the early elementary grades and their thoughts are in line with Tanner and Galis. Both research groups informed the reader that if specific interventions are not in place to help the student with academic difficulties then retention may not be the answer (p. 307).

Tanner and Galis (1997) discussed Alexander, Entwisle, and Dauber's 1994 research for the Beginnings School Study of 800 Baltimore children from first through eighth grade. They reasoned that students should be considered as individuals who develop at different rates. Tanner and Galis felt that because the research was so limited in the area of positive results of retention and there were so many results of negative effects of retention, the information was just enough to confuse the practitioner. Therefore, those who are educational practitioners are left to do what they believe is right. Tanner and Galis concluded that "Retaining the child to do the same thing twice is a bad idea, but retaining the child with a focus and resources to correct well-documented individual problems is a better idea. Alternative intervention may turn out to be much better" (p. 112).

Although proponents believe that retention assists students in mastering academic skills, they cannot specifically conclude that retention is better than promotion to the extent

that the same skills could be mastered in the following grade. They also do not make a credible argument that justifies retention if the small gains made by most retained students could be made at the next grade level. This is important because there is a body of research that views retention as a precursor to dropping out of school, especially in the early grades.

Summary

The practice of retaining students in the same grade for lack of academic achievement has been an educational practice for more than a century. The literature illustrates the number of students who have been affected by this policy. However, after a century of this practice students are still not making the academic gains this method intends. Students unable to achieve academic gains have been labeled as mis-fits, retarded, and backwards, as well as other labels that are degrading. The numerous research studies in the early 1900's such as those of Thorndike, Ayers and Maxwell on the effects of non-promotion did not have an effect on the practitioners' way of addressing the issue.

Cryan (1985) associates retention with the education's system failure to meet the needs of the students, rather than retention as the child's fault.

> Failing, retained, "socially promoted" or inappropriately placed students are symptoms of an educational system that is suffering from serious malfunction. It is a system where retention practices habitually focus on the child as the problem rather than looking at the shortcomings of the system as a possible contributing factor in the problem. (p. 302)

Cryan pointed out that teachers must understand the research on retention and stop retaining students who are not achieving in an attempt to present an appearance that they are maintaining school standards. He maintained that all areas of learning should be taken into consideration when making decisions regarding students' lives (p. 307). When examining the issue of social promotion or retention he concluded that neither social

promotion nor retention is the answer to correcting academic difficulties. To help the student be successful, academic needs must be met on an individual basis.

Comer (1988), Lloyd (1978), and Natriello (1987), argued that school failure is a precursor to dropping out of school. It is reported in the literature that students dropped out of school when schools began the graded system because the students were too old for their assigned grade level. Dropping out of school has a negative impact on students because without an education, they do not hold the tools necessary to become successful in society.

Ogbu (1994), Akbar (1979), and Irvine (1999), hold that not only are testing policies against the African-American student, the system of education is not meeting their needs. They are being assessed and taught based on the Euro-American system and African-American failures are still mounting.

Proponents of retention (Pierson and Connell, 1992; Raygor, 1972; and Tanner and Galis, 1997) do not conclude that it is better to retain students at grade level rather than promote those with low academic skills. The literature also indicates that students who make academic gains after retention are not able to maintain those gains in subsequent years.

While research and practice, a century later, continue to be divided on the issue of retention, it is the child who is caught inside the dilemma and suffers from negative consequences. Many years research has evaluated the treatment (retention) that practice has approved and has not been able to conclude that the desired results (academic achievement) have been accomplished. History shows the substantial number of children who continue to be treated with a method that has not been proven to be the best approach for academic success.

Chicago Public School students, mostly African-American, are not only being retained one or more times, their retention decisions are being based solely on a tool (ITBS) that was not designed for that purpose. Yet, the Chicago public school system continues to apply this method on children. Heubert and Hauser (1999) notes:

> Paul Vallas, the chief executive officer of the Chicago Public Schools ...Agrees with researchers who argue that the ITBS should be replaced with a test directly linked to the city's academic standards. Vallas noted, however, that developing such a test would take three years; in the mean time, the ITBS will continue to be used for accountability. (p. 31)

The review of the literature supports the theory that mandatory testing policies have a negative impact on curriculum. The focus is no longer on cognitive ability, but on the negative consequences for schools, students and teachers, if test scores are not at the level where politics and the media feel they should be.

Herman and Golan (1993) addressed how the disadvantaged students are hurt most often through testing for accountability measures. Testing policies of this nature motivates educators to spend curriculum time on test preparation. Darling-Hammond (1991) supports Herman and Golan and criticized the utilization of an instrument not designed for its purpose. Nolen et al. illustrate the feelings of teachers and students and the negative impact being suffered within the classroom. African-Americans are the ones most often hurt through the testing policies that Herman and Golan, Darling-Hammond, and Nolen et al. (1993) speak about. As a result, Obgu affirms, the African-American is misclassified and labeled as a failure, and that is a predictor to dropping out of school.

Medway (1985) emphasized:

> There is no one approach that is best for all children. One thing, however, is fundamental; all of us must work for the interest of potential retainees, and must attempt to insure that individuals who are thoroughly familiar with the historical, scientific, and legal bases of grade retention make promotion decisions. By doing so, we can greatly enhance the chances for successful academic and social development of students having difficulty in our schools. (p. 25)

More research should be done in the area of retaining students at the same grade level to re-examine the practice of non-promotion, along with alternative, positive strategies, to promote academic achievement. It is also time for the practitioner and policy maker to put together recommendations on fair assessments of students utilizing more than one measure and to recommend alternatives to retention, which will help students, achieve academic success.

CHAPTER III

METHODOLOGY

This study explored the impact of retention on academic achievement. Specifically, the difference in grade level achievement between the year I, year II and year III reading and mathematics ITBS scores after one or more years of retention at the third grade level. The following hypotheses were explored:

H_o: There will be no significant difference between year I, II, and III reading grade equivalent scores of retained students, as measured by the ITBS. The significance will be determined at the 0.05 level.

H_o: There will be no significant difference between year I, II, and III mathematics grade equivalent scores of retained students, as measured by the ITBS. The significance will be determined at the 0.05 level.

Other Research Questions Explored were:

A. Will retention exert a greater effect on ITBS scores in reading or mathematics?

B. Are there differences in retention based on gender relative to growth in reading and mathematics?

C. After one year of retention, were more girls or boys promoted?

Research Design

A repeated measures design (ANOVA) was utilized to incorporate a multi-year study of student achievement in relationship to student retention. This design allowed each subject to serve as his or her own control by comparing the same student from one year to another. Specifically, by using the same student the researcher is reducing the amount of within-subject variability, because the same student is being used at multiple points in time. For example, by having the same group of students, the effect of individual differences (or group differences) is no longer a threat, because the way in which a person performs at time two should be very similar to how he or she performed at time one. This eliminates

the possibility of group differences attributed to individual differences rather than the intervention or treatment. Therefore, the researcher is reducing the amount of error due to random or chance differences between two independent groups. In this way, depending upon the ability of the researcher to control for extraneous variables, differences in performance between time one and time two can be mostly attributed to the intervention or treatment.

Allowing subjects to serve as their own control will help to prevent biases such as the ones Jackson (1975) found when retained students were being compared to promoted students who did not have similar academic problems. Stern and Kalof (1996) note that it is not necessary to assume that different people are the same for the purposes of the study utilizing the within-subjects experiment (p. 39).

This study analyzed the ITBS reading and mathematics scores of retained students for the retention years 1998 and 1999. The intent of this study was to examine the extent to which grade retention practices are justifiable based on increased ITBS scores in reading and mathematics following retention as measured by the ITBS.

Setting

This study was conducted in the Chicago Public School System, District 299 of the State of Illinois. This district is divided into six elementary and high school regions. This study was comprised of third grade students who were in the third grade for the first time during the 1996-1997 academic year.

Subjects

The sample for this study consisted of 105 African-American students who were in the third grade for the first time during the 1996-1997 academic year and were retained for the 1997-1998 academic school year. Twenty-two of the 105 students were retained for the second time in the 1998-1999 academic school year. They were selected from three inner city schools denoted School A, School B, and School C for this study. Only students who remained in the same school for each cycle of third grade were included in this study. Three schools were selected for this study in order to have a sample large enough to answer the research questions. Studying three different schools also made the sample more representative of the general population from which it was drawn.

School A has a 0.4% Caucasian, 81.4% African-American, and an 18.3% Hispanic student population. The School A student population was 95.9% low-income with a student attendance rate of 91.3%, student mobility rate of 27.8%, and a chronic truancy rate of 1.5%.

School B had a 0.0% Caucasian, 93.8% African-American, and a 6.2% Hispanic student population. The School B student population was 96.9% low-income with student attendance rate of 90.4%, student mobility rate of 40.7%, and chronic truancy rate of 0.4%.

School C had a 0.0% Caucasian, 100.0% African-American, and a 0.0% Hispanic student population. The School C student population was 95.6% low-income with a student attendance rate of 89.8%, student mobility rate of 31.9%, and chronic truancy rate of 6.0%.

These schools were selected for this study because they offer a population with a high percentage of low-income African-Americans who were retained, the data were readily available, and research shows that minorities are most often retained. As a result of

this study, there is growing interest among school administrators, teachers and legislators concerning the impact of retention on the academic achievement and educational advancement of minority students.

Data Collection

Data were obtained from centralized records of the Chicago Public School system. The data were generated on a formatted disk, and represented students who were in the third grade. Data related to students who were in the third grade for the first time during the 1996-1997 academic year and retained in the third grade during the 1997-1998 academic school year. If a student was also retained in third grade during the 1998-1999 academic school year, that information was also included. The data collection also includes the birth date, sex, test level and ITBS reading and mathematics grade equivalent scores for each year in third grade. Only students who remained in the same school for each cycle of third grade were included in this study.

Instrument

The Iowa Test of Basic Skills (ITBS) as noted by Buros (1999) is used to provide a comprehensive assessment of student progress in basic skills for grades kindergarten through ninth grade (p. 452). The test, when administered in a group setting, provides norm-reference and national performance standards scores. The Chicago Public School System uses the ITBS to assess student achievement at the end of each academic school year. Students in first through eighth grades are tested but the ITBS is used at benchmark grades of, third, sixth, and eighth to determine if a student will be promoted or retained.

University of Iowa (1997) purports that the norms for the ITBS were derived from a single group of students at each grade level. Through national item tryout, studies for the

1993 forms K and L, and 1996 Form M of the ITBS, the populations of African-Americans, Hispanic Americans and Caucasians, were over-represented. This normalization allows the scores to decide skill areas of strength and weakness across racial groups and individual students (p. V-53).

ITBS-Reading

The complete battery for reading tests three levels of meaning: factual, inferential, and evaluative. The students are given 40 minutes to answer 36 multiple choice questions on a separate answer folder by filling in a circle for each answer. There are six factual, 23 inferential, and seven evaluative questions.

A third grade student who achieves a 3.8 or better on the reading battery is considered to be on grade level. This means that the student has scored at the eighth month of third grade. The scores are given in grade equivalents, which measure student development from year to year. Scores range from k.1 to 8.8, and are interpreted as the amount of growth from kindergarten first month to eighth grade, eight months growth. The grade equivalent is written as a decimal number that relates growth to grade level and months. The number to the left of the decimal point represents the grade level and the number to the right of the decimal point represents month within the specific grade level. See University of Iowa (1997) for the reliability and validity of the ITBS.

ITBS Mathematics

The mathematics battery contains five skill tests: concepts/estimation, math problems/data interpretation and mathematical computation. Each section of a battery is timed. The concepts and estimation section allows thirty minutes to answer 32 questions. The math problems and data interpretation section allows students 30 minutes to answer 24

questions and 20 minutes to compute a variety of 34 addition, subtraction, multiplication, and division problems.

A third grade student who achieves a 3.8 or better on the mathematics battery is considered to be on grade level. This means that the student has scored at the eighth month of third grade. The scores are given in grade equivalents, which measures student growth from year to year. Scores range from k.1 to 8.8 interpreted as, kindergarten first month to eighth grade eight months. See University of Iowa (1997) for the reliability and validity of the ITBS.

Data Analysis

The Software Package for Social Sciences (SPSS) statistical analysis software10.0 was used to execute the repeated measures ANOVA design, and the t-tests. The repeated measures ANOVA was used to evaluate the effect of the independent variable retention on the dependent variable ITBS reading and mathematics scores as stated in hypotheses I and II. This design analyzes multiple outcomes for the same person at different intervals and allows each subject to serve as his or her own control.

The first time students were in third grade (1996-1997) their May ITBS reading and mathematics grade equivalent scores were coded as year I pre-test scores. The second and third time (1998 and 1999), their scores were coded year II and year III post-test scores, respectively. The year I scores were used as a comparison for the year II, and year II scores were used as a comparison for year III scores to determine if there was a statistically significant difference in the grade equivalent scores after each year of retention. Significance was determined at the $p=0.05$ level.

The ANOVA repeated measures was selected to execute the analysis, however, the author found that the ANOVA did not allow for an individual interpretation of scores. The ANOVA output factors in all scores but the results illustrate a total score, not individual ones.

The t-test was used to measure the mean difference between the ITBS grade level score of 3.8 and the mean score of the students. This process compares what it should be to what it actually is. Further explorations calculated percentage of gains by using the following formula: {(98-97)/97} for each individual student so that the researcher would have a descriptive analysis of each subject's individual scores and percentage of gain over time.

The purpose of this study was to evaluate individual scores, but cross-tabs, descriptives, and frequencies were utilized to assess school characteristics, pre-test means and growth as further analysis. These analyses were drawn upon to answer other questions to be explored as stated in the methodology section.

It should be noted that although the ITBS has an established level of attainment for each grade, the Chicago Public School system lowered the set ITBS standards by one year (2.8 from 3.8) for their promotion policy for third grade, one year, five months for the sixth grade (5.3 from 6.8) and one year, eight months (7.0 from 8.8) for the eighth grade (Guidelines for Elementary School Promotion, 1996-1997).

CHAPTER IV

DATA ANALYSIS AND RESULTS OF THE STUDY

The major purpose of this study was to determine if retention had a statistically significant effect on the reading and mathematics achievement scores of third grade students as measured by the Iowa Test of Basic Skills. Additionally, the study explored the effects of retention on gender differences in achievement for reading and mathematics after each year of retention.

The study addressed the following hypotheses and research questions:

Hypothesis I. There will be no significant difference between the year I, II, and III, reading grade equivalent scores of retained students, as measured by the ITBS. Significance was determined at the $p=0.05$ level.

Hypothesis II. There will be no significant difference between the year I, II, and III, mathematics grade equivalent scores of retained students, as measured by the ITBS. Significance was determined at the $p=0.05$ level.

Research Questions

A. Will retention exert a greater effect on ITBS scores in reading or mathematics?

B. Are there differences in retention based on gender relative to growth in reading and mathematics?

C. Were more girls or boys promoted after one year of retention?

To provide the context for the study, subject means and standard deviations are found in tables 1 and 2. There were 326 students in the third grade for the first time in the 1996-1997 school year in three urban elementary schools. Students were tested following their first year in third grade. One-hundred-eleven students were unsuccessful in passing

the criteria established by the CPS promotion policy. Seven students had missing scores so those scores were not used in this study. Scores of the remaining 105 students were used.

The 105 students were retained for the 1997-1998 school year and were retested following their second year in third grade. As a result, 28 of the students met the promotion criteria and went to the fourth grade. Fifty-five of the 105 students went to another school, left the CPS system or were staffed into special education. Twenty-three of the 105 students were retained for a second time in the 1998-1999 school year. One of the twenty-three students had a missing reading score and/or mathematics score. For the reasons above, the sample size declined from the 105 students retained for the first time to the 22 students following the first retention. Table I illustrates the means and standard deviations for reading (1997-1999) and Table 2 illustrates the means and standard deviations for mathematics (1997-1999).

Table 1
Sample Means and Standard Deviations: Reading

	School A	School B	School C
1997 Means	2.204	2.468	2.967
1997 SD	.844	.937	1.098
Number =	111	87	122
1998 Means	2.415	2.414	2.512
1998 SD	.855	.754	.918
Number =	59	29	17
1999 Means	2.170	2.438	2.780
1999 SD	1.152	1.380	.779
Number =	10	8	5

Table 2

Sample Means and Standard Deviations: Mathematics

	School A	School B	School C
1997 Means	2.523	2.915	3.262
1997 SD	.656	.888	.822
Number =	110	87	110
1998 Means	3.068	3.183	3.418
1998 SD	.736	.810	.770
Number =	59	29	17
1999 Means	2.83	3.66	3.16
1999 SD	.79	.85	.54
Number =	10	8	5

The data results from the repeated measures ANOVA for Hypothesis I and II illustrate a statistically significant difference between the year I pre-test scores and the year II and year III post-test scores for both reading and mathematics. The findings of a statistically significant difference were in direct contrast to the expected outcomes.

Although the data analysis results showed a statistically significant difference in scores after retention, the findings did not indicate that the retained students were on grade level as measured by the ITBS. The results of a comparison of student mean scores and ITBS grade level criteria of 3.8 showed a statistically significant difference between the mean score of the students and the ITBS grade level score after each year of retention. The mean score of the students was significantly below grade level.

Individual scores of each student were analyzed to measure the percentage of gain after each year of retention. Some of the students showed increased achievement, some of the students showed decreased achievement, while the scores of some students remained the same after each year of retention. The increase in achievement by some students was not enough to put them at the grade level criteria as measured by the ITBS.

The study results are presented in three sections. The first section addresses Hypothesis I and II, while section II addresses descriptive achievement in ranges. Section III addresses the research questions. Data are presented in tables followed by discussion.

Section I: Hypothesis I

The data analysis for Hypothesis I evaluated the effect of the independent variable retention on the dependent variable ITBS reading scores for the retained students. Individual scores for these 105 students are in appendices A and B. The results of the repeated measures ANOVA after the first retention are presented in Table 3.

Table 3

Comparison of ITBS Year I Pre-test Reading Scores and Year II Post-test Reading Scores

	Reading 97 Pre-test Score	Reading 98 Post-test Score
Mean	1.78	2.430
SD	.633	.832

N=105

Years Compared	SS	f	MS	F	Sig.
Pre-test 97-Post-test 98	23.267	1	23.267	82.337	.0001
Error	29.388	04	.283		

Note. Error = Unexplained variance. SS = Sum of squares. Df = Degrees of freedom. MS = Mean squared. F = Critical value. Sig. = Significance.
*$p<.05$

Data analyses show statistically significant differences between the year I ITBS reading pre-test scores, and the year II ITBS post-test scores. An F value of 82.337, $p<.0001$ was obtained, indicating a significant difference between year I and year II ITBS reading scores. The probability that there were no differences between ITBS scores after each year of retention is less than .05; therefore the null hypothesis was rejected. The data indicated that the ITBS reading scores of the students had increased after one year of retention.

Table 4 represents the data for the sample that were retained twice at third grade level and the results of the repeated measures ANOVA.

Table 4

Comparison of ITBS Year II Post-test Reading Scores and Year III Post-test Reading Scores

	Reading 98 Post-test Score	Reading 99 Post-test Score
Mean	1.864	2.432
SD	.518	1.161

N=22

Years Compared	SS	df	MS	F	Sig.
Post-test 98 Post-test 99	3.551	1	3.551	5.572	.028
Error	13.384	21	.637		

Note. Error = Unexplained variance. SS = Sum of squares. Df = Degrees of freedom. MS = Mean squared. F = Critical value. Sig. = Significance.
**p<.05*

Data in Table 4 shows that there are statistically significant differences between the year II ITBS reading post-test scores, and the year III ITBS post-test scores. An F value of 5.572, $p<.028$ was obtained, indicating a significant difference between the year II and year III ITBS reading scores. The probability that there were no differences between ITBS scores after each year of retention were less than .05, therefore the null hypothesis was rejected. The data indicated that the ITBS reading scores of the students had increased after two years of retention.

Comparison of Student Mean Scores and ITBS Criteria of 3.8

To analyze further the ITBS reading scores of retained students, a one-sample t-test was utilized to compare the group sample means to the grade level criteria of 3.8. The repeated measures ANOVA indicated that the ITBS scores changed significantly over time. However, after retention students were not at ITBS grade level of 3.8 for promotion to fourth grade, and a majority was not at the ITBS grade level of 2.8 that is equivalent to third grade level. After one year of retention the post-test scores of the students (N=105) were still below the expected ITBS criteria of 3.8. Following the second year of retention the students (n=19) were below the ITBS criteria of 3.8. In addition, a number of the students (n=75) were below the CPS criteria of 2.8 after the first retention. Even after the second retention, many of the students (n=14) were below the CPS criteria of 2.8. The data show that after two years of retention the retained students on average were still not scoring at the third grade level, but at the first and second grade level as measured by the ITBS. These data are presented in Table 5.

Table 5

T-test: Comparison of Students Mean Scores and the ITBS criteria of 3.8

Identified Test Value of 3.8	Reading Mean Score	MD	Df	T	Sig.(2-tailed)
Read GE98	2.43	-1.370	104	-16.870	.0001
Read GE99	2.43	-1.368	21	-5.527	.0001

Note. Error = Unexplained variance. SS = Sum of squares. Df = Degrees of freedom. MS = Mean squared. F = Critical value. Sig. = Significance.
**p<.05*

When third graders were tested in 1997 their ITBS scores should have been at 3.8 or above to be considered on grade level as measured by the ITBS. After one year of retention (1998), students should have scored at 4.8, eighth month in fourth grade, and in

1999, the second year after retention; the students should have scored 5.8, eighth month in fifth grade.

Test values presented shows a mean score of 2.43 when tested in reading after the first retention and 2.43 when tested after the second year of retention. The ITBS scores of the students should have been at least 3.8 when tested at the end of the first and second retention. The one -sample t-test results indicate a mean difference of -1.370 after the first retention and -1.368 after the second retention indicating a statistically significant difference between the scores of the students and the ITBS-tested grade level criteria of 3.8. Despite the significant change in mean scores evidenced by the repeated measures ANOVA, the retained students were not achieving at grade level.

Section I: Hypothesis II

The data analysis for Hypothesis II evaluated the effect of the independent variable retention on the dependent variable ITBS mathematics scores for the retained students. Two of the 105 students had missing mathematics scores. The scores for these two students were deleted from the analysis. However, the individual scores for the remaining 103 students are in appendices A and B. Table 6 illustrates the information for the sample and the results of the repeated measures ANOVA after the first retention.

Table 6

Comparison of ITBS Year I Pre-test Mathematics Scores and Year II Post-test Mathematics Scores

	Mathematics 97 Pre-test Score	Mathematics 98 Post-test Score
Mean	2.31	3.15
SD	.531	.765

N=103

Years Compared	SS	f	MS	F	Sig.
Pre-test 97 Post-test 98	36.490	1	36.470	205.347	.0001
Error	18.125	102	.178		

Note. Error = Unexplained variance. SS = Sum of squares. Df = Degrees of freedom. MS = Mean squared. F = Critical value. Sig. = Significance.

*$p<.05$

Data analyses shows statistically significant differences between the year I ITBS mathematics pre-test scores, and the year II ITBS post-test scores. An F value of 205.347, $p< .0001$ was obtained, evidencing a statistically significant difference between year I and year II ITBS mathematics scores. The probability that there was no difference between ITBS scores after each year of retention is less than .05; therefore the null hypothesis was rejected. The data indicate that the ITBS scores of the students had increased after one year of retention.

Data for students retained after two years shows a similar pattern. Table 7 represents the data for the sample that were retained for the second time at the third grade level and the results of the repeated measures ANOVA after the second retention.

Table 7

Comparison of ITBS Year II Post-test Mathematics Scores and Year III Post-test Mathematics Scores

	Mathematics 98 Post-Test Score	Mathematics 99 Post-Test Score
Mean	2.500	3.20
SD	.626	.82

N=22

Years Compared	SS	Df	MS	F	Sig.
Pre-test 97 – Post-test 98	5.390	1	5.390	49.863	.0001
Error	2.270	21	.108		

Note. Error = Unexplained variance. SS = Sum of squares. Df = Degrees of freedom. MS = Mean squared. F = Critical value. Sig. = Significance.

*$p<.05$

Data in Table 7 show statistically significant differences between the year II ITBS mathematics post-test scores and the year III ITBS post-test scores. An F value of 49.863, p<. 0001 was obtained, evidencing a significant difference between the year II and year III ITBS mathematics scores. The probability that there were no differences between ITBS scores after each year of retention was less than .05; therefore the null hypothesis was rejected. The data indicated that the ITBS mathematics scores of the students had increased after two years of retention.

Comparison of Student Mean Scores and ITBS Criteria of 3.8

To further analyze the ITBS mathematics scores of retained students, a one-sample t-test was utilized to compare sample means to grade level criteria. The repeated measures ANOVA indicated that the ITBS scores changed significantly over time. However, the post-test scores of the students (n=89) were still below the expected ITBS criteria of 3.8 after the first retention. Post-test scores of the students (n=18) were below the ITBS criteria after the second retention. In addition, a sizeable number of students (n=57) were below the CPS criteria of 2.8 after the first retention. After the second retention a number of the

students (n=14) were below CPS promotion criteria of 2.8. Mathematics post-test scores (M=3.20) were slightly higher than the post-test reading scores M=2.4). The data showed that after two years of retention the retained students on average were scoring at the first and second month of the third grade level as measured by the ITBS. The data are presented in Table 8.

Table 8

T-test: Comparison of Students Mean Scores and the ITBS Criteria of 3.8

Identified Test Value of 3.8	Mathematics Mean Score	MD	Df	t	Sig.(2tailed)
Mathematics GE98	3.15	.644	102	-8.621	.0001
Mathematics GE99	3.20	.60	21	-3.413	.003

Note. Error = Unexplained variance. SS = Sum of squares. Df = Degrees of freedom. MS = Mean squared. F = Critical value. Sig. = Significance.

*p<.05

When third graders were tested in 1997, their ITBS scores should have been at 3.8 or above to be considered on grade level as measured by the ITBS. After one year of retention (1998), students should have scored 4.8 (eighth month in fourth grade) and in 1999, the second year after retention, the students should have scored 5.8 (eighth month in fifth grade).

Test values presented show a mathematics mean score of 3.15 when tested after the first retention and 3.20 when tested after the second retention. ITBS test scores of the students should have been at least 3.8 when tested at the end of the first and second retention. The t-test results indicate a mean difference of -.644 after the first retention and a -.60 after the second retention. Both t-tests, had a p value less than .05, indicating a statistically significant difference between the scores of the students and the ITBS tested grade level criteria of 3.8.

Section II

Percentage of Reading Gains

Percentage of Gains in the Ranges 2.8-5.7

A descriptive account was performed to capture the essence of the individual percentage of gain each student made in reading and mathematics. Individual calculations were made to determine the gain between the year I, year II and year III ITBS reading and mathematics ITBS scores after each year of retention. Data for this analysis were obtained from the students' pre-test and post-test reading scores (see Appendix C). The students were divided into (a) students meeting at least ITBS grade level criteria of 3.8, (b) students meeting at least ITBS second grade criteria 2.8 and (c) students who scored below the second grade criteria below 2.8. Table 9 presents data for student achievement scores by range for 1998, the first year after retention for the 30 students who met at least the third grade criteria and scored between the range of 2.8 and 5.7.

Table 9

1998 ITBS 2.8 to 5.7 Range of Reading Gains 1st Year After Retention

Range	N	Average % of Gain
2.8-3.0	10	34.42%
3.1-3.4	8	18.14%
3.5-3.7	10	36.44%
4.0-5.7	2	54.39%
Total	30	35.85%

N=30

These 30 students were eligible for promotion to the fourth grade according to the CPS guidelines of 2.8, although 28 of these did not reach the ITBS criteria of 3.8. The 10 students in the 2.8-3.0 ranges had an average gain of 34.42%. These 10 students were eight-months to one-year below grade level of 3.8 as measured by the ITBS. The eight students in the 3.1-3.4 ranges had an average gain of 18.14%. These eight students were

four- to seven-months below grade level as measured by the ITBS. The 10 students in the range of 3.5-3.7 with a 36.44% average gain were one-month to three-months below the ITBS grade level criteria. However, the two students in the range of 4.0-5.7 had an average gain of 54.39% and actually made and surpassed the ITBS grade level criteria.

In addition, one subject showed no growth and one subject had a decrease in score by three months. One student had an increase in reading of 54.39%, scoring at the seventh month of fifth grade. This student's score is an outlier, causing the group average gain to be skewed. These data illustrated that although these 30 students had been retained for one academic school year, their performance on the ITBS still ranged one- to eleven-months below the ITBS criteria of 3.8.

Percentage of Gains in the Ranges 1.9-2.7

Table 10 provides a descriptive account of reading gains by ranges for the first year after retention for those 59 students who have met at least the second grade criteria according to the ITBS and scored between the range of 1.9 and 2.7. (See Appendix D.)

Table 10

1998 ITBS 1.9-2.7 Range of Reading Gains 1st Year after Retention

Range	N	Average % of Gains
1.9-2.1	17	17.26%
2.2-2.4	25	26.06%
2.5-2.7	17	34.67%
Total	59	25.99%

N=59

This group of 59 students did not meet the ITBS criteria of 3.8 or the CPS criteria of 2.8; therefore, they were not eligible for promotion. The 17 students in the range of 1.9-2.1 after one year of retention had an average gain of 17.26%. These 17 students were one-year-seven months to one-year-nine-months below grade level. The 25 students in the

range of 2.2-2.4 had an average gain of 26.06%. These 25 students are also below grade level ranging one-year-four months to one-year-six-months behind the criteria as measured by the ITBS. In addition, the 17 students who scored in the range of 2.5-2.7 with an average gain of 34.67% were one-year-one month to one-year-three months below grade level, as measured by the ITBS.

Following one year of retention, scores for seven students decreased from -4.17% to -36.84% and scores for six others remained the same (see appendix D). In addition, ITBS scores for this group of 59 students ranged one-year-one-month to one-year-nine-months below grade level as measured by the ITBS.

Percentage of Gain in the Ranges 0.4-1.7

A descriptive account of gains in reading by ranges for the first year after retention for the 16 students who scored between the ranges of 0.4-1.7, below second grade criteria according to the ITBS is presented in Table 11. These 16 students were not eligible for promotion (see Appendix E).

Table 11

1998 ITBS 0.4 to 1.7 Range of Reading Gains 1st Year After Retention

Range	N	Average % of Gains
0.4	1	-150.00%
0.8-1.1	6	-60.44%
1.4-1.6	9	23.21%
Total	16	-61.92%

N=16

One student scored 0.4, which is below the first grade level. The average gain of -150.00% was a loss in academic growth, which means that after one year of retention this student was still three-years-four-months below grade level as measured by the ITBS. The six students in the range of 0.8-1.1 had an average gain of -60.44% and scored on the first grade level. This data also showed a loss in academic growth and these six students were

two-years-seven-months to three-years below grade level. The nine students who scored in the range of 1.4-1.6 with an average gain of 23.21%, scored on the first grade level. These nine students were two-years-two-months to two-years-four months below grade level.

The scores for the 16 students in this category ranged two-years-two months to three-years-four-months below grade level as measured by the ITBS. Scores for seven of the students decreased from -11.11% to a -150.00% and scores for one student remained the same (see appendix E).

Collapsed Analysis of Reading Gains for 105 Students

Further data analysis of Tables 9, 10 and 11 shows the percentage of gains in reading scores for 105 students after one year of retention. These data are presented in Table 12.

Table 12

Percentage of Reading Gains after 1st Year of Retention

Measure	N	Percentage
Decline in Scores	15	14%
No Growth in Scores	8	7.6%
Reached ITBS Grade Level	2	1.9%
Did Not Reach ITBS Grade Level	103	99%
Met CPS Promotion Guidelines of 2.8	30	29%
Scored at Second Grade Level	59	56%
Scored at First Grade Level	15	14%
Scored Below First Grade Level	1	0.9%

N=105

Fourteen percent of the students (n=15) had a decline in scores, while 7.6% of the students (n=8) showed no growth in scores. Two students (1.9%) reached grade level

attainment of 3.8 or better. Ninety-eight percent of the students (n=103) did not reach ITBS grade level of 3.8 after one year of retention.

Twenty-nine percent of the students (n=30) met the CPS promotion criteria of 2.8. Fifty-six percent of the students (n=59) scored at the second grade level of 1.8-2.7. Fourteen percent of the students (n=15) scored at the first grade level of 0.8-1.7 and 0.9% of the students (n=1) scored below the first grade level as measured by the ITBS. The one student who scored below the first grade level had a -150.00% decline in score (see Appendix E).

Percentage of Reading Gains Second Year of Retention

Twenty-two of the 105 students were not promoted for the second year. Table 13 shows this data (see Appendix F).

Table 13

1999 ITBS 0.2-4.2 Ranges of Reading Gains 2nd Year after Retention

Range	N	Average % of Gains
0.2-0.4	2	-452.50%
1.1-1.3	4	-38.81%
2.0-2.2	3	44.85%
2.4-2.7	5	50.18%
2.8-3.2	2	46.87%
3.4-3.7	3	66.15%
3.8-4.2	3	49.42%
Total	22	-33.40%

N=22

Table 13 shows the percentage of gain in reading for the 22 double retained students. The average gain of -452.50% shows a decline in reading achievement for the two students who scored in the range of 0.2-0.4. These two students scored below the first grade level and were three-years-four-months to three-years-six-months below grade level

as measured by the ITBS. Similarly, the percentage of gain of -38.81 for the four students who scored in the range of 1.1-1.3 also shows a decline in academic achievement. These four students scored at the first grade level and were two-years-five-months to two-years-seven-months below grade level.

The three students who scored in the range of 2.0-2.2 had an average gain of 44.85%. These three students scored at the first grade level were one-year-six months to one-year-eight-months below grade level as measured by the ITBS. The five students who scored in the range of 2.4-2.7 had an average gain of 50.18%. These five students scoring at the second grade level were one-year-one-month to one-year-four-months below grade level.

Additionally, the two students who scored in the range of 2.8-3.2 had an average gain of 46.87%. These two students scoring at the third grade level were six-months to one-year below grade level as measured by the ITBS. In addition, the three students who scored in the range of 3.4-3.7 had an average gain of 66.15%. These three students also scored at the third grade level were one - to four-months below grade level as measured by the ITBS. Finally, three students scored in the range of the ITBS grade level criteria of 3.8-4.2 with a 49.42% average gain. These three students scored on the fourth grade level as measured by the ITBS.

Following two years of retention the average percentage of gain was -33.40%, a decline of 12.02% from the first retention year. Eighteen percent of the students (n=4) had a decline in reading scores and 4.5% of the students (n=1) showed no growth in scores. Sixty-eight percent of the students (n=15) had some growth in scores while, 9% of the students (n=2) met the ITBS grade level criteria of 3.8 after two years of retention. The

scores for the 22 double retained students ranged one-month to three-years-six months below grade level as measured by the ITBS.

Table 14 describes the reading growth after two years of retention.

Table 14

Reading Gains after Two Years of Retention

Measure	N	Percentage
Decline in Scores	5	23%
No Growth in Scores	1	4.5%
Reached ITBS Grade Level of 3.8	3	14%
Did Not Reach ITBS Grade Level	18	83%
Met CPS Promotion Guidelines of 2.8	5	23%
Scored at Second Grade Level	7	32%
Scored at First Grade Level	4	18%
Scored Below First Grade Level	2	9%

N=22

Note. Two students who had a decline in scores also scored below the first grade level.

The average percentage of gain in reading scores after two years of retention was -33.40% (see Appendix F). Twenty-three percent of the students (n=5) had a decline in scores, while 4.5% of the students (n=1) showed no growth in scores. Fourteen percent of the students (n=3) reached the ITBS criteria of 3.8. Twenty-three percent of the students (n=5) met the CPS promotion guidelines. Thirty-two percent of the students (n=7) scored at the second grade level, while eighteen percent of the students (n=4) scored at the first grade level. Nine percent of the students (n=2) scored below the first grade level as measured by the ITBS. Eighty-three percent of the students (n=18) did not meet the criteria of 3.8 as measured by the ITBS.

Eighteen percent of the students (n=4) had a decline in reading scores after one year of retention. Despite the fact they were retained for a second time, the retention still did not help the students reach grade level attainment (see Appendix A).

By comparison, 23% of the students (N=5) had a gain in reading achievement after the first year of retention, but lost that gain after the second year of retention. In addition, 4.5% of the students' (n=1) reading scores did not change after one year of retention and the reading scores declined after the second year of retention. One student's (4.5%) reading score declined after the first and second retention. Two of the students' (9%) reading scores remained the same after the first retention.

Section II: Percentage of Mathematics Gains

Percentage of Gains in the Ranges of 2.8-5.2

Data for the mathematics percentage of gain were obtained from the students' pre-test and post-test mathematics scores (see Appendix G). The students were divided into 1) students meeting at least the ITBS grade level criteria of 3.8, 2) students meeting at least the ITBS second grade criteria; and 3) students who scored below the second grade criteria. Table 15 presents the 1998 data for student achievement scores by ranges for the 69 students who met the third grade criteria and scored between the ranges of 2.8 and 5.2.

Table 15

1998 ITBS 2.8 to 5.2 Range of Mathematics Gains 1st Year after Retention

Range	N	Average % of Gains
2.8-3.0	10	18.62%
3.1-3.4	21	30.23%
3.5-3.7	15	29.26%
3.8-5.2	23	33.47%
Total	69	27.89%

N=69

These 69 students were eligible for promotion according to CPS guidelines

of 2.8, although 47 of these students did not reach the ITBS criteria of 3.8. The ten students in the 2.8-3.0 range had an average gain of 18.62%. These ten students were eight-months to one-year below grade level of 3.8 as measured by the ITBS. The 21 students in the range of 3.1-3.4 had an average gain of 30.23%. These 21 students were four-to seven-months below grade level. The 15 students in the range of 3.5-3.7 with an average gain of 29.26% were one- to three-months below the ITBS grade level criteria. However, twenty-three students in the range of 3.8-5.2 with an average gain of 33.47% met the ITBS grade level criteria of 3.8.

These data illustrate that although these 69 students have been retained for one academic school year, their performance on the ITBS range one-year below grade level to one-year-four-months above grade level as measured by the ITBS. All students acquired some gains in mathematics in this achievement range.

Percentage of Gain in the Range 1.8-2.7

Table 16 provides a descriptive account of mathematics gains by ranges for the first year after retention for those 32 students who scored between the ranges of 1.8 and 2.7, the level for second grade according to the ITBS (see Appendix H).

Table 16

1998 ITBS 1.8-2.7 Range of Mathematics Gains 1st Year after Retention

Range	N	Average % of Gains
1.8-2.0	5	0.244%
2.1-2.3	10	13.39%
2.4-2.7	17	22.21%
Total	32	11.90%

N=32

This group of 32 students did not meet the ITBS criteria of 3.8 or CPS criteria of 2.8; therefore they were not eligible for promotion. The five students in the range of 1.8-2.0 with an average gain of 0.244% were one-year-eight-months to two-years below grade

level. Ten students scored in the range of 2.1-2.3 with an average gain of 13.39%. These 10 students were one-year-five-months to one year-seven-months below grade level criteria as measured by the ITBS. Similarly, the 17 students in the range of 2.4-2.7, with an average gain of 22.21%, were one-year-one-month to one-year-four-months below grade level as measured by the ITBS.

Following one year of retention, scores for six students decreased from -4.34% to a -21.05% and scores for two students remained the same. In addition, ITBS scores for this group of 32 students ranged one-year-two-months to two-years below grade level as measured by the ITBS.

Percentage of Gains in the Range 1.0-1.7

A descriptive account of gains in mathematics by range for the first year after retention for two students who scored in the range of 1.0 to 1.7 is presented in Table 17. According to the ITBS first grade level, these students were not eligible for promotion.

Table 17

ITBS 1.5-1.6 Range of Mathematics Growth 1st Year after Retention

Math 97	Math 98	Average % of Gains
2.3	1.6	-43.75%
1.5	1.5	0.00%

N=2

The student who scored 1.6 in 1998 had an average loss of -43.75%. This student was two-years-two months below grade level and the score of the student decreased from second-grade-third-month to first-grade-sixth-month after one year of retention. Similarly, the student who scored 1.5 had an average gain of 0.00%. This student had no growth in score after the first retention and was two-years-three months below grade level as measured by the ITBS.

The scores for the two students in this category ranged from two-years-two-months to two-years-three-months below grade level as measured by the ITBS. Also, the student who scored 2.3 in 1997 mathematics score had a decrease in score of seven months. The student who scored 1.5 in 1997 had no change in score after retention in 1998.

Collapsed Analysis of Mathematics Achievement for 104 Students

Further analysis of Tables 15, 16, and 17 provides data that shows the growth in mathematics scores for 103 students after one year of retention. These data are presented in Table18.

Table 18

Range of Mathematics Gains after 1st Year of Retention

Measure	N	Percentage
Decline in Scores	6	5.8%
No Growth in Scores	4	3.9%
Reached ITBS Grade Level of 3.8	15	14%
Did Not Reach ITBS Grade Level	81	77%
Met CPS Promotion Guidelines of 2.8	47	45%
Scored at Second Grade Level	32	31%
Scored at First Grade Level	2	1.9%
Scored Below First Grade Level	0	0.0%

N=103

Six of the students (5.8%) had a decline in scores, while 3.9% of the students (n=4) scores remained the same. Fourteen percent of the students (n=15) reached ITBS grade level criteria. Seventy-seven percent of the students (n=81) did not reach ITBS grade level of 3.8 after one year of retention as measured by the ITBS. Forty-five percent of the students (n=47) met the CPS promotion criteria of 2.8, while, thirty-one percent of the students (n=32) scored at the second grade level and 1.9% of the students (n=2) scored at

the first grade level as measured by the ITBS. Unlike reading scores, none of the students scored below the first grade level in mathematics achievement (see Appendix A).

Mathematics Growth after Second Year of Retention

Twenty-two of the 105 students were not promoted for a second year. Table 19 indicates this data (see Appendix I)

Table 19

1999 ITBS 1.8-4.8 Range of Mathematics Gains 2nd Year after Retention

Range	N	Average % of Gains
1.8-2.1	3	17.14%
2.3-2.7	5	41.55%
3.0-3.2	3	40.41%
3.3-3.7	6	35.81%
3.9-4.8	5	46.50%
Total	22	36.28%

N=22

Table 19 shows the percentage of gains in mathematics for the 22 double retained students. Three students who scored in the range of 1.8-2.1 had an average gain of 17.14%. These three students were one-year-seven-months to two-years below grade level. Moreover, five students scored in the range of 2.3-2-7 with an average gain of 41.55%.These five students were one-year-one month to one-year-five months below grade level.

In comparison, three students scored in the range of 3.0-3.2 with an average gain of 40.41%. These three students were six- to eight-months below grade level. Six students scored in the range of 3.3 to 3.7 with an average gain of 35.81%; however they were one- to five-months below grade level. Finally, five other students scored in the range of 3.8-4.8 with an average gain of 46.50%. These five students met the grade level criteria and were on level and one year above grade level as measured by the ITBS.

Following two years of retention, the average percentage of gain was 27.89%, an increase of 8.39% from the first retention year. Fourteen percent of the students (n=3) showed no growth in mathematics scores. Following two years of retention, scores for the students ranged from two years below grade level to one year above grade level as measured by the ITBS.

Table 20 describes the percentage of gains in mathematics achievement after two years of retention.

Table 20

Percentage of Mathematics Gains after 2nd Year of Retention

Measure	N	Percentage
Decline in Scores	2	9.5%
Reached ITBS Grade Level of 3.8	4	19%
Did Not Reach ITBS Grade Level	18	82%
Met CPS Promotion Guidelines of 2.8	8	38%
Scored at Second Grade Level	8	38%
Scored at First Grade Level	0	0%
Scored Below First Grade Level	0	0%

N=22

The average gains in mathematics scores after two years of retention were 36.28 % (see Appendix I). Two students (9.5%) had a decline in scores. Nineteen percent of the students (n=4) reached the criteria of 3.8 as measured by the ITBS, while 82% of the students (n=18) did not reach the ITBS grade level criteria of 3.8. Thirty-eight percent of the students (n=8) scored in the range of the CPS promotion guidelines of 2.8. Thirty-eight percent of the students (n=8) scored at the second grade level. In contrast to reading none of the students scored at or below the first grade level in mathematics.

Two students (40%) had a decline in scores after the first retention. Following the second retention, although they made gains, they did not reach grade level attainment. One

student (4.5%) had gains after the first retention and lost the gains after the second retention. Three students' (14%) scores remained the same from the pre-test to after the first retention. Following the second retention, the gains were one-month, three-months and eight-months respectively. Two students, (9%) after the second retention, gained three months, and one student (4.5%) gained one month.

Section III: Research Questions

Research Question I: Will retention exert a greater effect on ITBS scores in reading or mathematics?

Table 21 represents this data. The mean column is the most salient piece of information as; it indicates the average level of gains over time. Therefore, one can directly compare reading and mathematics for each time frame presented.

Table 21

Reading and Mathematics Achievement after 1st and 2nd Year of Retention

	Mean Difference
Reading 97-98	0.7
Reading 98-99	0.0
Mathematics 97-98	0.8
Mathematics 98-99	0.05

Measure	Year	N	Minimum	Maximum	Mean	Std. Deviation
Reading	97	103	0.5	3.6	1.782	0.660
Reading	98	103	0.4	4.0	2.431	0.701
Reading	99	21	0.2	4.2	2.419	1.188
Mathematics	97	103	1.3	4.0	2.316	0.531
Mathematics	98	103	1.5	5.2	3.157	0.769
Mathematics	99	22	2.0	5.0	3.20	0.82

Reading and mathematics achievement after two years of retention are illustrated in Table 21 for the total group. The data results indicate that the mean score of 1.782 in

reading for 1997, and 2.431 in 1998, shows a 0.7 increase. The mathematics means score of 2.316 in 1997 and 3.157 in 1998 indicate an increase of 0.8. These results indicate that the scores were similarly affected by retention with the difference being 0.1.In addition the results are the same for reading and mathematics in 1999; with a reading mean score of 2.419 and mathematics mean score of 3.20. The data results indicate that after one and two years of retention ITBS reading and mathematics scores were similarly affected.

Research Question II: Are there gender differences in retention relative to growth in reading and mathematics? This data is presented in Table 22.

Table 22

Gender Differences in Reading and Mathematics Growth

	Read 97		Mathematics 97	
Measure	Male	Female	Male	Female
N	155.0	164.0	149.0	159.0
Minimum	0.5	0.5	1.3	1.3
Maximum	5.8	6.3	5.2	5.6
Mean	2.505	2.627	2.967	2.830
Std. Deviation	1.022	1.026	.875	.812

	Read	98	Mathematics	98
N	51.0	54.0	49.0	54.0
Minimum	0.4	0.9	1.5	1.8
Maximum	5.7	4.0	5.2	4.7
Mean	2.418	2.455	3.129	3.207
Std. Deviation	.814	.818	.793	.717

	Read	99	Mathematics	99
N	11.0	11.0	11.0	11.0
Minimum	0.2	0.4	2	2
Maximum	3.6	4.2	5	5
Mean	2.167	2.558	3.05	3.16
Std. Deviation	.972	1.289	.95	.78

After one year of retention, the boys had a mean score of 2.41 in reading and a 3.12 in mathematics; the girls had a mean score of 2.45 in reading and a 3.20 in mathematics. There was a .04 difference in achievement following one year of retention in reading and a

.08 difference in mathematics in relation to gender. Additionally, after two years of retention, the boys had a mean score of 2.16 in reading and a 3.05 in mathematics; the girls had a mean score of 2.55 in reading and 3.16 in mathematics. There was a .39 difference in reading and a .11 difference in mathematics in relation to gender. Thus, following retention, the girls had slightly higher achievement results in both mathematics and reading.

Research Question III: Were more girls or boys promoted after one year of retention?

Thirty-six percent of the boys and 34% of the girls were retained from the sample of students. After one year of retention 21% of the boys and 22% of the girls were retained for a second time. There was a 1% difference in promotion rates, thus both genders tend to be retained/promoted at an equal rate.

Summary

The results of the data from research Hypotheses I and II point out that there was a statistically significant difference in ITBS reading and mathematics scores after retention at the .05 level. The null hypotheses were rejected in both instances. This was in direct contrast to the expected outcome.

In addition, further inferential exploration with the one sample t-test showed that the scores of the students were below grade level criteria as measured by the ITBS. In fact, following two years of retention, the t-test illustrated that there was a -1.437 difference in reading and a -.60 difference in mathematics in the tested mean score of the students and the ITBS grade level criteria of 3.8.

Individual percentages of gains indicate that after one year of retention, only 1.9% of the students (n=1) out of 105 students reached the ITBS grade level criteria of 3.8 in

both reading and mathematics as measured by the ITBS. In addition, 1.9% of the students (n=2) reached the ITBS grade level criteria of 3.8 in reading and 21% of the students (n=22) in mathematics.

In comparison, 27% of the students (n=28) met the CPS promotion criteria of 2.8 in both reading and mathematics. There were also 26% of the students (n=28) who met the CPS promotion guidelines in reading and 46% of the students (n=48) who met the promotion criteria in mathematics. Following two years of retention, 81% of the students (n=18) did not reach the ITBS grade level criteria of 3.8 in reading and 77% of students (n=17) did not reach the 3.8 grade level criteria in mathematics as measured by the ITBS. Following two years of retention, 9% of the students (n=2) reached the ITBS grade level criteria of 3.8 in both reading and mathematics. In comparison, 23% of the students (n=5) reached the CPS promotion criteria of 2.8 in reading and 41% of the students (n=9) in mathematics.

CHAPTER V

SUMMARY, DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS

A summary of the research findings, discussions, implications and recommendations for further study are presented in this concluding chapter. Statistically significant differences were found in the students' ITBS scores after each year of retention for both reading and mathematics. This was in direct contrast to the expected findings. A more thorough investigation, using other analyses, found that although the students made gains, they were still below the ITBS grade level criteria after each year of retention.

Summary

The quantitative analyses (ANOVA) found statistically significant differences in students' reading and mathematics ITBS scores after each year of retention. However, the reading and mathematics mean scores of the students did not reach the ITBS grade level criteria of 3.8 as measured by the ITBS.

Descriptive calculation of the percentage of gain for each student's reading and mathematics scores found that most students made very small gains, if any, after each year of retention. There were similar gains in reading and mathematics and there were no gender differences in reading and mathematics achievement following retention.

Discussion

The CPS Promotion Policy was put into place to end social promotion and to hold schools and students accountable for academic achievement. Retention, then, was intended to provide remediation in reading and mathematics so that students could meet grade-level criteria. A closer look at the findings show that the CPS Promotion Policy produced only one student out of the 105 retained who met the ITBS criteria of 3.8 in both reading and

mathematics after the first retention and 28 students that met the CPS promotion criteria of 2.8 in both reading and mathematics. Of the remaining 74 students, only 22 remained in the school. The others (52) were either transferred out of the system, went to another school in the district, or reclassified and transferred to special education classes.

Following two years of retention, only two of the remaining 22 students met the ITBS grade level criteria of 3.8 in both reading and mathematics and six students met the CPS promotion criteria of 2.8 in both reading and mathematics.

Although the ANOVA showed significant differences in student scores for each year of retention, the multiple retained students were still below the ITBS criteria of 3.8 for third graders, 4.8 for fourth graders, and 5.8 for fifth graders, scores that would have placed them on level with their age-grade-level peers. This means that following two years of retention, these students were 11 years old were still classified as third grade students and were still in a third grade classroom with students who were eight years old.

These over-age students are more likely to have future problems than are their promoted peers. Walker and Madhere (1987) found that multiple retained students are more likely to be negatively affected in the area of affective and social maturation. They are also prone to developing learning, emotional and behavioral problems (Meisels and Liaw, 1993). Not only are the retained students susceptible to social and emotional problems, they are so far behind their peers academically that they will never catch up.

Researchers have found that the repeated failure and disruption in the normal progression of school levels is a precursor to dropping out of school and society. Lloyd (1978) argues that student retention in the first three grades is a definite sign of becoming a dropout. If his theory is correct, then the data from this study point to the majority of the

subjects, especially the multiple retained students, not becoming high school graduates. Some might not complete the elementary school program of study. Roderick's (1995) research on school dropouts supports this theory.

This researcher believes the data indicate failure of the CPS Promotion Policy because it fell far short of the intended goal. Not only did the majority of the retained students not reach the criteria of 3.8 established by the ITBS, they were also not able to reach the lowered standard of 2.8 established by the CPS Promotion Policy. The gains made by the majority of these students, if any, left them academically and socially behind their promoted grade level peers.

Reading

Because of the small sample size, further analyses were performed to determine the average gains of the sample for each year of retention. Data revealed that after the first retention year, reading mean scores were 2.4; this was a gain of seven months, or 0.7 from the 1.7 with which they began the retention year. They were retained again only to obtain the same mean score of 2.4 at the end of the second retention year. These data showed that following two years of retention with the same curriculum a gain of 0.7 was recorded which was not enough to put the students on grade level as measured by the ITBS. These students also did not meet the lowered CPS Promotion Policy standards. Thus, after two years of retention, the mean reading scores of 2.4 for students were comparable to the ITBS scores of a student in the fourth month of second grade. With such small gains, one must ask the question: Would these students have gained more if they had been promoted along with their peers? While the answer to this question is beyond the scope of this study, research supports the theory that retained students make less gains in academic

achievement than similar functioning promoted students. Reynolds (1992) found that when students are retained at the third grade level, they score at the level of a second grade student rather than a third grade student following retention.

Mathematics

Students began the first year of retention with a mean score of 2.3 in mathematics. After the first retention year, mathematics mean scores were 3.1; this was a gain of eight months or 0.8. This number was 0.7, or seven months higher than the mean reading scores. Students had a 0.1 increase in mathematics following the second retention year, bringing their mean scores to 3.2 after two years of retention. While these were significant gains, there was a six-month difference between the 3.8 criteria set by the ITBS for third graders and a two-year difference as compared to their promoted grade-level peers. After two years of retention, the mathematics mean score of 3.2 for students were comparable to the ITBS scores of a student in the second month of third grade. They met the CPS Promotion Policy criteria of 2.8 in mathematics. However, they were still not eligible for promotion because they did not meet the criteria of 2.8 in reading. The author believes this to be a serious flaw in the CPS Promotion Policy, because it does not allow for subject repeating. Under this policy, a student must repeat the entire year of subject matter if he or she has not mastered reading and math skills, unlike high school, where only the failed subject is repeated.

Gender Differences in Achievement

The descriptive means for males and females indicate that there were no significant differences in achievement in reading and mathematics between males and females. There were similar fluctuations in achievement in scores for both males and females. Following

the first year of retention, both males and females showed a decline in scores, with females showing a greater decline. The males dropped one month or 0.1, while the females dropped two months or 0.2. After the second year of retention, the boys had another decline of three months or 0.3 in reading attainment whereas the girls had a slight increase of one month or 0.1 over the previous year.

The males and females showed similar results in mathematics. The males showed an increase of two months or 0.2 while the females showed an increase of four months or 0.4 following the first retention. The girls' mathematics scores increased two months higher than the boys. Following the second retention, both the males and females showed a decline in mathematics achievement of one month or 0.1. These data indicated a loss of gains made by the males and females during the second retention year. If students follow the trends indicated by previous researchers they, particularly, the multiple retained students will have a continued loss of academic achievement. The work of Abidin, Golladay, and Howerton (1971) support the results of these findings. They found that students had a decline in academic achievement following the first six years of retention.

Comparison of Reading and Mathematics

When examining the overall results descriptively, the results showed that the reading and mathematics mean scores of the students were similarly affected after retention. The results revealed a 0.7 increase in reading, in comparison to a 0.8 increase in mathematics. Although the mathematics mean score of the students' was 0.6 points higher than the reading mean score before retention, only a 0.1 difference in reading and mathematics resulted following two years of retention.

Implications

The CPS Promotion Policy was put into place to end social promotion and as an instrument to support academic achievement. The policy did not effectively prevent social promotion or support academic achievement for the majority of this sample. First, the ITBS grade level criterion was dropped from 3.8 to 2.8. This allowed students who were already below grade level criteria to be promoted at even lower grade level criteria. This process has characteristics that are synonymous with social promotion because some students were promoted although they were one or more years behind the "normal" age-grade level placement. Second, this policy not only places stress on teachers to teach to the test, but also justifies elimination of subjects not tested by the ITBS. Such practices lead teachers to spend many hours on test preparation and fewer on new and creative ways of presenting the curriculum.

Students who have failed repeatedly are being staffed into special education programs and then promoted to their age-appropriate grade level. This means that some students have been promoted two-and three-grade levels at one time, which is also characteristic of social promotion. In addition, many students fell farther behind after the first retention, only to be retained a second time and thus losing more academic leverage. The students who were retained for the second time should have scored at 5.8 as measured by the ITBS to be on grade level with their fifth grade peers. The reality is that none of the students reached the fifth grade ITBS criteria. The majority of the students scored at the second grade level in reading and mathematics, scores that place them three years behind their promoted age-grade level peers. Consequently, this sample of students has lost one to

three years of the natural progression through school. If students follow this trend, they will fall farther and farther behind their promoted peers.

Another worrisome trend is the large number of disadvantaged students who are retained because they are not meeting grade level standards. Ogbu (1994) points out that not only are the African-American students being hurt through testing policies, they do not have equal access to the proper resources that will allow them to meet and surpass the challenges within a culturally bias school system. As Darling-Hammond points out, socio-economics play an important role in students being "ready" for academic achievement. If resources such as rich early childhood experiences are not within the reach of minority students, they may forever score well behind their Caucasian counterparts because of testing policies such as the one implemented by CPS.

Some researchers note that a lack of normal grade-level progression is a precursor to dropping out of school (Comer, 1988; Lloyd, 1978; Natriello, 1987; and Roderick, 1994). If these predictions hold true, the CPS Promotion Policy has predisposed this group of students to the risks associated with dropping out of school, having low self-esteem, and suffering from social and emotional problems.

The CPS promotion policy is predicated on ITBS scores for promotion and retention decisions. The ITBS test designers note that this instrument was not designed for this purpose and other factors should weigh into the decisions when judging students' academic achievement (University of Iowa, 1997). This evidence buttresses our contention that the CPS promotion policy is flawed. Retention, and especially multiple retentions, is not the treatment for disadvantaged students to reach grade level attainment. Further, research must begin to address individuality by examining policies that have academic

standards that address one goal for all students rather than addressing the diversity in student bodies.

Recommendations for Further Study

The results of this study indicate a need for further research pertaining to the retention of students and how to best help those students who are having academic difficulties. In addition, the constricted focal point of this study did not allow for other variables to be taken into consideration regarding factors that might have caused the continued lack of academic achievement. An extension of this study should look at other variables that could have contributed to students not reaching academic standards such as: instructional strategies, student learning, attendance, and health.

Research should address the extent to which the rights of children are being subjugated when policies and procedures designed for accountability subsume academic standards. It is hoped that this study will spawn the interest of other researchers and policy makers to work in partnerships to design programs that will have positive outcomes for students not negative ones such as repeated failure.

Assessments are another area to be addressed in further research. Researchers need to determine how best to evaluate student learning with a variety of instruments during the academic school year to assess the degree of success of each individual student. The researcher proposes a longitudinal study where students who have been retained at the third grade, especially those who have been retained multiple times, are followed into high school and beyond to examine developmental and educational outcomes.

Further Limitations of the Study

As with all research this study is not without further limitations. Although the researcher was not interested in a control group of students for this study, not having a control group prevented a comparison to those students promoted with similar academic scores over time. Further, only using data did not allow the students voices to be heard so that they could discuss their experiences before, during, and after non-promotion. Attrition might have influenced the positive results of student achievement.

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Appendix A

Reading and Mathematics Raw Scores

Subject	Gender	Race	Level	Read 97	Math 97	Read 98	Math 98	Read 99	Math 99
1	Female	Black	9	1.7	2	2.6	3.4	.	.
2	Female	Black	9	1	3.5	2.1	4.3	.	.
3	Female	Black	9	2.9	2.3	3.7	3.1	.	.
4	Female	Black	9	1	1.4	-0.9	1.8	2.7	2
5	Female	Black	9	0.8	2.5	1.4	3.5	.	.
6	Male	Black	9	1.5	2.1	2.8	3.7	.	.
7	Female	Hispanic	9	2.6	2.9	3.5	3.6	.	.
8	Female	Black	9	2.9	2.3	3.4	3.2	.	.
9	Male	Black	9	2.6	2.3	2.6	3	.	.
10	Female	Black	9	1.9	3	2.7	4.2	.	.
11	Male	Black	9	2.1	2.4	2.9	4.2	.	.
12	Female	Black	9	0.8	2.2	2.6	2.6	3.7	3.5
13	Male	Black	9	1.5	3.4	3.2	3.9	.	.
14	Male	Black	9	2.6	2.4	2.2	2.2	.	.
15	Female	Black	9	2.5	3.1	3.6	3.5	.	.
16	Male	Black	9	1.3	2	2.4	2.2	.	.
17	Male	Black	9	1.3	2.4	2.1	3.7	.	.
18	Female	Black	9	2.2	2.2	2.2	2.6	.	.
19	Female	Black	9	3.6	2.3	3.3	3.7	.	.
20	Female	Black	9	1.9	3.2	4	4.7	.	.
21	Male	Black	9	1	2	2.2	2.6	3.2	3
22	Female	Black	9	1.9	2.4	2.5	2.3	4.2	3.7
23	Male	Black	9	1	2	2.6	2.4	.	.
24	Male	Black	9	1.9	2.7	2.4	2.4	2.7	3.6
25	Male	Black	9	1.3	2.3	2.5	1.9	.	.
26	Female	Black	9	1.3	1.3	1.6	2.1	0.4	2.6
27	Female	Black	9	1	2.4	2.2	3.2	.	.
28	Female	Black	9	1.7	1.3	2.6	2.7	.	.
29	Female	Black	9	1.9	2	2.2	3	.	.
30	Female	Black	9	1	2.1	1.6	2.5	2.4	3.5
31	Female	Black	9	1.3	2.5	2.4	2.1	.	.
32	Male	Black	9	1.9	2	1.9	2	1.3	2.1
33	Female	Black	9	2.2	4	3	4.2	.	.
34	Female	Black	9	2.1	2.8	2.1	4.5	4.1	4.6
35	Female	Black	9	1.7	2	2.4	3.6	.	.
36	Male	Black	9	2.6	3.7	5.7	5.2	.	.
37	Male	Black	9	1.7	.	1.9	3.6	.	.
38	Female	Black	9	1.5	2.5	2.5	2.8	.	.
39	Male	Black	9	1.9	2.3	3.6	3.7	.	.
40	Male	Black	9	1	2.7	0.4	2.8	.	.

Reading and Mathematics Raw Scores, (Cont.)

Subject	Gender	Race	Level	Read97	Math97	Read98	Math98	Read99	Math99
41	Male	Black	9	2.7	3	3.3	3.5	.	.
42	Female	Black	9	1.9	2.3	2.4	3.1	.	.
43	Male	Black	9	1.3	2.2	2.2	2.4	1.1	3.2
44	Female	Black	9	2.2	3.2	2.6	4.4	.	.
45	Female	Black	9	2.1	1.3	1.6	2.2	1.1	3
46	Female	Black	9	2.1	2.1	2.4	3.2	.	.
47	Male	Black	9	2.5	2.4	3.1	3.6	.	.
48	Male	Black	9	2.1	2.1	1.1	2.6	2.2	3.3
49	Male	Black	9	2.6	2	3.7	3.9	.	.
50	Female	Black	9	0.8	1.6	0.8	2.6	.	.
51	Male	Black	9	2.7	2.5	3.6	3.3	.	.
52	Female	Black	9	2.5	3	2.2	3.4	.	.
53	Female	Black	9	1.5	2.2	2.4	3.6	.	.
54	Male	Black	9	2.1	1.7	0.9	3	2.8	3.9
55	Female	Black	9	2.1	2.6	2.7	3.3	.	.
56	Female	Hispanic	9	1.7	2.9	3	4.3	.	.
57	Female	Black	9	2.6	2.6	3.6	4.2	.	.
58	Female	Hispanic	9	2.5	2.6	3.7	4	.	.
59	Male	Black	9	1.9	2.4	1.1	2.9	2.6	4.1
60	Male	Black	9	2.5	2.6	2.4	3.5	.	.
61	Male	Black	9	2.1	2.3	2.2	2.9	.	.
62	Female	Black	9	0.8	1.7	1.6	2.6	2	2.5
63	Male	Black	9	0.5	1.5	2.2	3.2	.	.
64	Female	Black	9	1.5	1.7	2.8	2.5	.	.
65	Male	Black	9	1	2.7	2.6	3.4	.	.
66	Male	Black	9	1.9	1.7	2.8	3.1	.	.
67	Female	Black	9	2.5	2.4	2.2	3.7	.	.
68	Male	Black	9	1.3	2.4	2.2	3.2	.	.
69	Female	Black	9	1.9	2	2.1	3.4	.	.
70	Male	Black	9	1.9	1.9	1.9	2.8	.	.
71	Male	Black	9	0.8	2.3	1.6	1.6	.	.
72	Male	Black	9	2.5	3	3	3.2	.	.
73	Female	Black	9	1.5	2.1	2.1	3.2	.	.
74	Male	Black	9	1.9	3.1	3.3	4.3	.	.
75	Male	Black	9	0.5	1.5	2.1	2.2	2.7	2.7
76	Male	Black	9	2.2	2.6	2.6	3.8	.	.
77	Female	Black	9	0.6	2.5	2.5	2.7	.	.
78	Female	Black	9	2.9	1.8	2.6	3.2	.	.
79	Male	Black	9	0.8	2.1	2.4	2	.	.
80	Male	Black	9	1	2.1	1.4	3.2	.	.
81	Male	Black	9	1.3	.	1.9	2.6	.	.
82	Female	Black	9	1.3	1.8	2.1	2.6	3.4	3.3
83	Male	Black	9	1.5	2.5	2.4	3.9	.	.

Reading and Mathematics Raw Scores, (Cont.)

Subject	Gender	Race	Level	Read97	Math97	Read98	Math98	Read99	Math99
84	Female	Hispanic	9	2.6	2.2	1.9	4	.	.
85	Male	Black	9	1.5	2.5	2.2	3.6	3.6	4.8
86	Male	Black	9	1.7	1.3	1.1	2.4	.	.
87	Female	Black	9	1.9	1.9	2.2	2.9	.	.
88	Female	Black	9	2.1	2.2	2.1	2.5	3.8	4.2
89	Male	Black	9	1.3	2.7	2.7	3.8	.	.
90	Male	Black	9	3.4	2.6	3.4	3.3	.	.
91	Male	Black	9	1.5	2	2.1	2.6	.	.
92	Male	Black	9	0.6	2	2.1	2	2	2.3
93	Female	Black	9	3	2.5	3.2	3.7	.	.
94	Female	Black	9	1.5	2.5	2.2	3.1	.	.
95	Female	Black	9	1	2.3	3.7	4	.	.
96	Female	Black	9	1.7	3.5	3.5	3.5	.	.
97	Male	Black	9	1.5	1.5	1.6	1.5	0.2	1.8
98	Female	Black	9	1.5	2.4	1.6	2.8	.	.
99	Male	Black	9	1.7	2	2.1	2.2	.	.
100	Male	Black	9	2.2	2.7	2.8	4	.	.
101	Female	Black	9	1.3	1.7	2.5	2.1	1.3	2.7
102	Male	Black	9	2.1	2.6	3	5	.	.
103	Male	Hispanic	9	1.3	1.5	2.8	3.2	.	.
104	Female	Black	9	2.6	1.9	1.9	2.3	.	.
105	Female	Hispanic	9	1.9	2.1	2.4	3.9	.	.

Appendix B

Reading and Mathematics Raw Scores of 22 Students

Double Retained Students

Subject	Gender	Race	Level	Read 97	Math 97	Read 98	Math 98	Read 99	Math 99
4	Female	Black	9	1	1.4	-0.9	1.8	2.7	2
12	Female	Black	9	0.8	2.2	2.6	2.6	3.7	3.5
21	Male	Black	9	1	2	2.2	2.6	3.2	3
32	Female	Black	9	1.9	2.4	2.5	2.3	4.2	3.7
24	Male	Black	9	1.9	2.7	2.4	2.4	2.7	3.6
26	Female	Black	9	1.3	1.3	1.6	2.1	0.4	2.6
30	Female	Black	9	1	2.1	1.6	2.5	2.4	3.5
32	Male	Black	9	1.9	2	1.9	2	1.3	2.1
34	Female	Black	9	2.1	2.8	2.1	4.5	4.1	4.6
43	Male	Black	9	1.3	2.2	2.2	2.4	1.1	3.2
45	Female	Black	9	2.1	1.3	1.6	2.2	1.1	3
48	Male	Black	9	2.1	2.1	1.1	2.6	2.2	3.3
54	Male	Black	9	2.1	1.7	0.9	3	2.8	3.9
59	Male	Black	9	1.9	2.4	1.1	2.9	2.6	4.1
62	Female	Black	9	0.8	1.7	1.6	2.6	2	2.5
75	Male	Black	9	0.5	1.5	2.1	2.2	2.7	2.7
82	Female	Black	9	1.3	1.8	2.1	2.6	3.4	3.3
85	Male	Black	9	1.5	2.5	2.2	3.6	3.6	4.8
88	Female	Black	9	2.1	2.2	2.1	2.5	3.8	4.2
92	Male	Black	9	0.6	2	2.1	2	2	2.3
97	Male	Black	9	1.5	1.5	1.6	1.5	0.2	1.8
101	Female	Black	9	1.3	1.7	2.5	2.1	1.3	2.7

Appendix C

Table 3

ITBS 2.8-5.7 Ranges of Individual Reading Percentage of Gains 1st Year After Retention

Subject	Year-1997	Year-1998	% of Gain
3	2.9	3.7	21.62%
6	1.5	2.8	46.43%
7	2.6	3.5	25.71%
8	2.9	3.4	14.71%
11	2.1	2.9	27.59%
13	1.5	3.2	53.13%
15	2.6	3.6	30.36%
19	3.6	3.3	-9.09%
20	1.9	4.0	52.50%
33	2.2	3.0	26.67%
36	2.6	5.7	54.39%
39	1.9	3.6	47.22%
41	2.7	3.3	18.18%
47	2.5	3.1	19.53%
49	2.6	3.7	29.73%
51	2.7	3.6	25.00%
56	1.7	3.0	43.33%
57	2.6	3.6	27.78%
58	2.5	3.7	32.43%
64	1.5	2.8	46.43%
66	1.9	2.8	32.14%
72	2.5	3.0	16.67%
74	1.9	3.3	42.42%
90	3.4	3.4	0.00%
93	3.0	3.2	6.25%
95	1.0	3.7	72.97%
96	1.7	3.5	51.43%
100	2.2	2.8	21.43%
102	2.1	3.0	30.00%
103	1.3	2.8	53.57%

N=30

Appendix D

Table 4

ITBS 1.9-2.7 Ranges of Individual Reading Percentage of Gains 1st Year After Retention

Subject	Year-1997	Year-1998	% of Gain
1	1.7	2.6	34.62%
2	1.0	2.1	52.38%
9	2.6	2.6	0.00%
10	1.9	2.7	29.63%
12	0.8	2.6	69.23%
14	2.6	2.2	-18.18%
16	1.3	2.4	45.83%
17	1.3	2.1	38.10%
18	2.2	2.2	0.00%
21	1.0	2.2	54.55%
22	1.9	2.5	24.00%
23	1.0	2.6	61.54%
24	1.0	2.4	20.83%
25	1.3	2.5	48.00%
27	1.0	2.2	54.55%
28	1.7	2.6	34.62%
29	1.9	2.2	13.64%
31	1.3	2.4	45.83%
32	1.9	1.9	0.00%
34	2.1	2.1	0.00%
35	1.7	2.4	29.17%
37	1.7	1.9	10.53%
38	1.5	2.5	40.00%
42	1.9	2.4	20.83%
43	1.3	2.2	40.91%
44	2.2	2.6	15.38%
46	2.1	2.4	12.50%
52	2.5	2.2	-13.64%
53	1.5	2.4	37.50%
55	2.1	2.7	22.22%
60	2.5	2.4	-4.17%
61	2.1	2.2	4.55%
63	0.5	2.2	77.27%
65	1.0	2.6	61.54%
67	2.5	2.2	-13.64%
68	1.3	2.2	40.91%
69	1.9	2.1	9.52%
70	1.9	1.9	0.00%

ITBS 1.9-2.7 Ranges of Individual Reading Percentage of Gains 1st Year After Retention,

(Cont.)

Subject	Year-1997	Year-1998	% of Gain
73	1.5	2.1	28.57%
75	0.5	2.1	76.19%
76	2.2	2.6	15.38%
77	0.6	2.5	76.00%
78	2.9	2.6	-11.54%
79	0.8	2.4	66.67%
81	1.3	1.9	31.58%
82	1.3	2.1	38.10%
83	1.5	2.4	37.50%
84	2.6	1.9	-36.84%
85	1.5	2.2	31.82%
87	1.9	2.2	13.64%
88	2.1	2.1	0.00%
89	1.3	2.7	51.85%
91	1.5	2.1	28.57%
92	0.6	2.1	71.43%
94	1.5	2.2	31.82%
99	1.7	2.1	19.05%
101	1.3	2.5	48.00%
104	2.6	1.9	-36.84%
105	1.9	2.4	20.83%

N=59

Appendix E

Table 5

ITBS 1.0-1.7 and Below Ranges of Individual Reading Percentage of Gains 1st Year After Retention

Subject	Year-1997	Year-1998	% of Gain
4	1.0	0.9	-11.11%
5	0.8	1.4	42.86%
26	1.3	1.6	18.75%
30	1.0	1.6	37.50%
40	1.0	0.4	-150.00%
45	2.1	1.6	-31.25%
48	2.1	1.1	-90.91%
50	0.8	0.8	0.00%
54	2.1	0.9	-133.33%
59	1.9	1.1	-72.73%
62	0.8	1.6	50.00%
71	0.8	1.6	50.00%
80	1.0	1.4	28.57%
86	1.7	1.1	-54.55%
97	1.5	1.6	6.25%
98	1.5	1.6	6.25%

N=16

Appendix F

Table 7

ITBS 0.2-4.2 Ranges of Individual Reading Percentage of Gains 2nd Year After Retention

Subject	Year-1997	Year-1998	Year-1999	% of Gain
4	1.0	0.9	2.7	62.96%
12	0.8	2.6	3.7	78.38%
21	1.0	2.2	3.2	68.75%
22	1.9	2.5	4.2	54.76%
24	1.9	2.4	2.7	29.63%
26	1.3	1.6	0.4	-255.00%
30	1.0	1.6	2.4	58.33%
32	1.9	1.9	1.3	-46.15%
34	2.1	2.1	4.1	48.78%
43	1.3	2.2	1.1	-18.18%
45	2.1	1.6	1.1	-90.91%
48	2.1	1.1	2.2	4.55%
54	2.1	0.9	2.8	25.00%
59	1.9	1.1	2.6	26.92%
62	0.8	1.6	2.0	60.00%
75	0.5	2.1	2.7	81.48%
82	1.3	2.1	3.4	61.76%
85	1.5	2.2	3.6	58.33%
88	2.1	2.1	3.8	44.74%
92	0.6	2.1	2.0	70.00%
97	1.5	1.6	0.2	-650.00%
101	1.3	2.5	1.3	0.00%

N=22

Appendix G

Table 12

ITBS 2.8-4.7 Ranges of Individual Mathematics Percentage of Gains 1st Year After Retention

Subject	Year-1997	Year-1998	% of Gain
1	2.0	3.4	41.18%
2	3.5	4.3	18.60%
3	2.3	3.1	25.80%
5	2.5	3.5	28.57%
6	2.1	3.7	43.24%
7	2.9	3.6	19.44%
8	2.3	3.2	28.12%
9	2.3	3.0	23.33%
10	3.0	4.2	28.57%
11	2.4	4.2	42.85%
13	3.4	3.9	12.82%
15	3.1	3.5	11.42%
17	2.4	3.7	35.13%
19	2.3	3.7	37.83%
20	3.2	4.7	31.91%
27	2.4	3.2	25.00%
29	2.0	3.0	33.33%
33	4.0	4.2	4.76%
34	2.8	4.5	37.78%
35	2.0	3.6	44.45%
36	3.7	5.2	28.85%
38	2.5	2.8	10.71%
39	2.3	3.7	37.84%
40	2.7	2.8	3.57%
41	3.0	3.5	14.29%
42	2.3	3.1	25.81%
44	3.2	4.4	27.27%
46	2.1	3.2	34.38%
47	2.4	3.6	33.33%
49	2.0	3.9	48.72%
51	2.5	3.3	24.24%
52	3.0	3.4	11.76%
53	2.2	3.6	38.89%
54	1.7	3.0	43.33%
55	2.6	3.3	21.21%
56	2.9	4.3	32.56%
57	2.6	4.2	38.09%
58	2.6	4.0	35.00%
59	2.4	2.9	17.24%
60	2.6	3.5	74.29%
61	2.3	2.9	20.69%

ITBS 2.8-4.7 Ranges of Individual Mathematics Percentage of Gains 1st Year After Retention, (Cont.)

Subject	Year-1997	Year-1998	% of Gain
63	1.5	3.2	53.12%
65	2.7	3.4	20.59%
66	1.7	3.1	45.16%
67	2.4	3.7	35.14%
68	2.4	3.2	25.00%
69	2.0	3.4	41.18%
70	1.9	2.8	32.14%
72	3.0	3.2	6.25%
73	2.1	3.2	34.38%
74	3.1	4.3	27.91%
76	2.6	3.8	31.57%
78	1.8	3.2	43.75%
80	2.1	3.2	34.36%
83	2.5	3.9	35.90%
84	2.2	4.0	45.00%
85	2.5	3.6	30.56%
87	1.9	2.9	34.48%
89	2.7	3.8	28.95%
90	2.6	3.3	21.21%
93	2.5	3.7	32.43%
94	2.5	3.1	19.35%
95	2.3	4.0	42.50%
96	3.5	3.5	0.00%
98	2.4	2.8	14.29%
100	2.7	4.0	32.50%
102	2.6	5.0	48.00%
103	1.5	3.2	53.13%
105	2.1	3.9	46.15%

N=69

Appendix H

Table 13

ITBS 1.8-2.7 Ranges of Individual Mathematics Percentage of Gains 1st Year After Retention

Subjects	Year-1997	Year-!998	% of Gain
4	1.4	1.8	22.22%
12	2.2	2.6	15.38%
14	2.4	2.2	-9.09%
16	2.0	2.2	9.09%
18	2.2	2.6	15.38%
21	2.0	2.6	23.08%
22	2.4	2.3	-4.34%
23	2.0	2.4	16.67%
24	2.7	2.4	-12.50%
25	2.3	1.9	-21.05%
26	1.3	2.1	38.10%
28	1.3	2.7	51.85%
30	2.1	2.5	16.00%
31	2.5	2.1	-19.05%
32	2.0	2.0	0.00%
43	2.2	2.4	8.33%
45	1.3	2.2	40.90%
48	2.1	2.6	19.23%
50	1.6	2.6	38.46%
62	1.7	2.6	34.62%
64	1.7	2.5	32.00%
75	1.5	2.2	31.82%
77	2.5	2.7	7.40%
79	2.1	2.0	-5.00%
82	1.8	2.6	30.77%
86	1.3	2.4	45.83%
88	2.2	2.5	12.00%
91	2.0	2.6	23.08%
92	2.0	2.0	0.00%
99	2.0	2.2	9.09%
101	1.7	2.1	19.05%
104	1.9	2.3	17.39%

N=32

Appendix I

Table 16

ITBS 1.8-4.8 Ranges of Individual Mathematics Percentage of Gains 2nd Year After Retention

Subject	Year-1997	Year-1998	Year-1999	% of Gain
4	1.4	1.8	2.0	30.00%
12	2.2	2.6	3.5	37.14%
21	2.0	2.6	3.0	33.33%
22	2.4	2.3	3.7	35.14%
24	2.7	2.4	3.6	25.00%
26	1.3	2.1	2.6	50.00%
30	2.1	2.5	3.5	40.00%
32	2.0	2.0	2.1	4.76%
34	2.8	4.5	4.6	39.13%
43	2.2	2.4	3.2	31.25%
45	1.3	2.2	3.0	56.67%
48	2.1	2.6	3.3	36.36%
54	1.7	3.0	3.9	56.41%
59	2.4	2.9	4.1	41.46%
62	1.7	2.6	2.5	32.00%
75	1.5	2.2	2.7	44.44%
82	1.8	2.6	3.3	45.45%
85	2.5	3.6	4.8	47.92%
88	2.2	2.5	4.2	47.62%
92	2.0	2.0	2.3	13.04%
97	1.5	1.5	1.8	16.67%
101	1.7	2.1	2.7	37.04%

N=22

Appendix J

Letter Requesting Data from The Chicago Public School System

Dr. Joseph Hahn
Director,
Research, Assessment, and Quality Reviews
Office of Accountability
125 S. Clark Street 11th Floor
Chicago, Illinois 60603

Dear Dr. Hahn:

I am a doctoral student at DePaul University in Chicago, Illinois. I would like to obtain ITBS reading and math grade equivalent scores from three inner-city elementary schools for students who were in third grade for the first time during the 1996-1997 school year, were tested on grade level in May of 1997 and remained in the third grade for the 1997-1998 school year. If these same students were still in third grade for the 1998-1999 and the 1999-2000 school year, those scores are also being requested.

This information will help me analyze the impact of retention on standardized test scores. I understand that any data that you provide for me in response to this request is subject to the Security Agreement Regarding Use of Chicago Public Schools Student Level Data that I have on file with you.

After discussing my research objectives with my dissertation chair and with the data analyst from your office, the appropriate data to analyze for this study will be the following variables for the 1996-1997, 1997-1998, 1998-1999, and the 1999-2000 school year:

- ITBS reading and math grade equivalent scores
- Student identification numbers
- Race
- Date of birth
- School unit number
- Reading grade equivalent score
- Math total grade equivalent score
- Test level
- Test form for each school year
- Number of third grade students tested in May 1997
- School attendance rate for each school year
- Racial breakdown (% of African American, % of Hispanic, % of Asian, % of Native American, and % of White) (1996-1997 only)

I will need to receive this information for the following elementary schools:

Elementary Schools
Doolittle West
Fulton
Piccolo

Please save the data on disk in a Microsoft Excel 2000 spreadsheet and notify me when it is ready so that I can pick it up.

Thank you for your assistance.

Sincerely,

Brenda J. Williams
Principal Investigator

Appendix K

Security Agreement Regarding Use of Chicago Public Schools Student Level Data

Introduction

The organization or individual signing this agreement has requested access to student-level data in order to conduct research that we hope will ultimately aid in efforts to improve education, or efforts to improve the general well-being of students, teachers, parents, schools, and the community at large.

Pursuant to the Illinois School Code 105 ILCS 10/6 (4), this data may be provided for the purpose of research, statistical reporting or planning. The Illinois School Code requires recipients of the data to sign an affidavit "agreeing to comply with all applicable statutes and
rules pertaining to school student records."

Authorized Users

This data is provided for the sole use of the organization or individual signing this document. The person signing this agreement is responsible for ensuring that all student level data provided by the Chicago Public Schools is securely stored and that staff researchers and
analysts abide by the security requirements described here. This data **may not be shared** with other researchers or analysts outside of this organization without the consent of CPS.

Data Security Procedures

Though the CPS data provided to the organization does not contain student names, it is still critical that the data be kept secure and confidential. Therefore, all CPS student level data must be stored securely so that only authorized users within the organization have access to it. This means that computer data bases should be password protected; that precautions are taken to ensure that access through modems, networks, and the Internet is carefully monitored and limited to authorized users; and that data tapes, disks, paper files and other storage media are kept in secure locations.

Restrictions on the Use of Data

Data is to be used for research purposes only. This data is being provided for research purposes and the user of this data agrees that the data will be used for research, statistical reporting and/or planning only. The data is not to be used in product marketing studies, student recruitment studies, or in other commercial ventures.

Only aggregate data is to be reported. Individual level data may be analyzed for the purpose of obtaining aggregate information across individuals or subgroups. It is inappropriate to seek out or report individual-level data for the purpose of obtaining information about or
identifying specific students, even for research purposes, unless the researcher has obtained explicit written permission from the students' parents and such use has been approved in writing by the Chicago Public Schools' Director of Research, Assessment and Quality Review:

If data at the individual-level is used in a report for illustrative purposes, data must be obscured in such a way that the student's identity cannot be inferred or discovered.

Signature of Data Requester

If data is to be used by an organization, the director of the organization should sign on behalf of the organization.

I, Brenda J. Williams *(print or type name),* agree to comply with all applicable statutes and rules pertaining to school student records and to abide by the conditions above for using student data provided by the Chicago Public Schools. 1 understand that I am responsible for assuring that all users within my organization abide by the conditions in this agreement. I also agree to the following:

- I will require each user of this data within my organization to read and sign a document stating that they have read **this** agreement, which I will keep on file at my office.
- I understand that this data may not be shared outside of my organization.
- If I leave this organization, I will make sure that either: (a) all copies of the student level data provided by CPS are destroyed or returned to the CPS; or, (b) that another person in the organization will take over responsibility for maintaining the agreements stipulated in this document.
- I agree to secure the data in the manner explained in the attached document ***(PROVIDE ATTACHMENTS EXPLAINING Your DATA SECURITY PROCEDURES)***

Signature Date Signed: 4/29/2001

Name of Organization: DNA

Appendix L

Data Security Procedures

The data disks, one with the information and the other one as a working document, will be kept in a locked file cabinet at home. The information will NOT be copied to the hard drive of the computer. The disks will be destroyed by detaching the data information section once the dissertation has been approved.

Feel free to contact me if you have any questions.

Sincerely,

Brenda J.

Brenda J. Williams
Principal Investigator

(773) 768-6994 (H), (773) 418-8099 *(C), (773)* 535-9000 (W)

Appendix M

SUMMARY OF THE
ELEMENTARY SCHOOL PROMOTION POLICY
(96-97)

Decisions to promote or retain elementary students should be based on successful completion of the curriculum, attendance, and performance on the *Iowa Tests of Basic Skills.* Students at grades three, six, and eight are subject to special considerations explained below. Retention of students is not recommended unless efforts at remediation of academic deficiencies have been unsuccessful. It is recommended that kindergarten students should not be retained.

Criteria for Promotion at Grades Three, Six, and Eight

- Minimum grade-equivalent score in Reading and Mathematics on the *Iowa Tests of Basic Skills (ITBS)*
  - -Grade 3 2.8 (Grade Level is 3.8)
  - -Grade 6 5.3 (Grade Level is 6.8)
  - -Grade 8 7.0 (Grade Level is 8.8)
- Minimum report card grade requirements
  - -Passing final cumulative grade in Reading
  - -Passing final cumulative grade in Mathematics
- Minimum attendance requirement
  Not more than 20 days of unexcused absences, including absence caused by out-of-school suspension. (Students who score at or above grade level on both the Reading and Mathematics sections of the ITBS are exempted from this requirement.)

Students who do not meet all of these criteria will be required to attend a summer bridge program. Students who successfully complete the summer bridge program will be promoted at the end of the summer. Third-grade and sixth-grade students who do not successfully complete the summer bridge program will be retained. Eighth-grade students who do not successfully complete the summer bridge program will receive a certificate of transition and will be assigned to a one-semester remediation program, either it a high school site or an elementary school site, depending on the age of the student. They will then be retested, and those students who score a 7.0 in Reading and Mathematics will be promoted to high school for the second semester.

VITA

Brenda J. DeMar-Williams
2920 E. 78th Street
Chicago, Illinois 60649

EDUCATION

Ed.D. in Educational Leadership
Dissertation: *Repetition of Retention Practices: Does Retention Improve Academic Achievement?*

DePaul University, Degree to be awarded June 2003

M.A. in Educational Administration, Rosary College, 1995

Administration and Supervision Certification, Rosary College, 1995

Approval Learning Disabilities, Chicago Board of Education 1995

B.S. in Elementary Education, Loyola University, 1992

Illinois Teaching Certificate Type 03 Loyola University, 1992

PROFESSIONAL EXPERIENCE

1998-Present — **Assistant Principal, Robert Fulton Elementary School**
Primary responsibilities include school administration

1994-1998 — **Teacher, Brian Piccolo Elementary School**
Primary responsibilities included:

- Attendance Counselor
- Dean of Students
- Quality Review Internal Team Coordinator
- Summer School Lead Teacher
- SIPAAA Team Member
- LSC Election Coordinator
- Learning Disabilities Resource Teacher, First-Fifth Grade
- Coordinated State and City School Testing

1993-1994 — **Teacher, May Academy Elementary School**
Primary responsibility included teaching eighth grade students

1992-1993 — **Teacher, St. Thomas the Apostle School**
Primary responsibility included teaching fourth grade students

RESEARCH INTEREST

I have an interest in the area of meeting the academic, social, and emotional needs of disadvantaged African-American youth and their families.

TEACHING AREAS AND INTEREST

My teaching interest is in the area of elementary education with a focus on under privileged youth

MEMBERSHIPS

Chicago Principals and Administrators Association
Chicago Area Alliance of Black School Educators
Association for Supervision and Curriculum Development

RECOGNITION

Blue Key National Honor Society
Who's Who in American Education
St. Thomas the Apostle Principal's Award
St. Thomas the Apostle Community Service Award