

Fall 12-2008

## **Effectiveness of Before and After-School Tutoring Programs as Measured by the Mississippi Curriculum Test**

Patricia Marie Goyette  
*University of Southern Mississippi*

Follow this and additional works at: <https://aquila.usm.edu/dissertations>



Part of the [Educational Assessment, Evaluation, and Research Commons](#), [Educational Methods Commons](#), and the [Elementary and Middle and Secondary Education Administration Commons](#)

---

### **Recommended Citation**

Goyette, Patricia Marie, "Effectiveness of Before and After-School Tutoring Programs as Measured by the Mississippi Curriculum Test" (2008). *Dissertations*. 1211.  
<https://aquila.usm.edu/dissertations/1211>

This Dissertation is brought to you for free and open access by The Aquila Digital Community. It has been accepted for inclusion in Dissertations by an authorized administrator of The Aquila Digital Community. For more information, please contact [aquilastaff@usm.edu](mailto:aquilastaff@usm.edu).

The University of Southern Mississippi

EFFECTIVENESS OF BEFORE AND AFTER-SCHOOL TUTORING  
PROGRAMS AS MEASURED BY THE MISSISSIPPI  
CURRICULUM TEST

by

Patricia Marie Goyette

Abstract of a Dissertation  
Submitted to the Graduate Studies Office  
of The University of Southern Mississippi  
in Partial Fulfillment of the Requirements  
for the Degree of Doctor of Philosophy

December 2008

COPYRIGHT BY  
PATRICIA MARIE GOYETTE  
2008

The University of Southern Mississippi

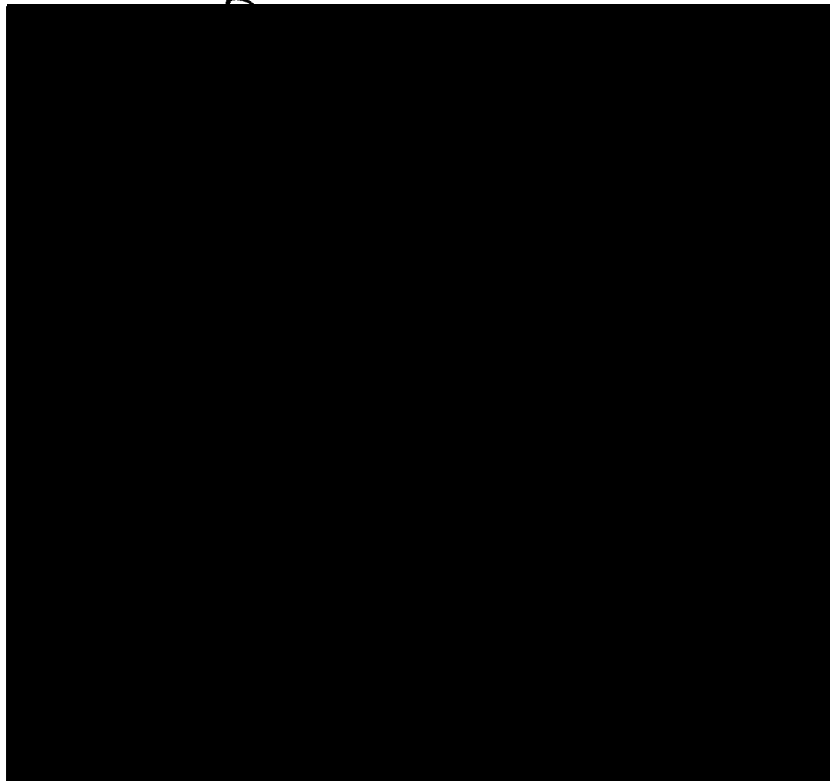
EFFECTIVENESS OF BEFORE AND AFTER-SCHOOL TUTORING  
PROGRAMS AS MEASURED BY THE MISSISSIPPI  
CURRICULUM TEST

by

Patricia Marie Goyette

A Dissertation  
Submitted to the Graduate Studies Office  
of The University of Southern Mississippi  
in Partial Fulfillment of the Requirements  
for the Degree of Doctor of Philosophy

Approved:



December 2008

ABSTRACT

EFFECTIVENESS OF BEFORE AND AFTER-SCHOOL TUTORING  
PROGRAMS AS MEASURED BY THE MISSISSIPPI  
CURRICULUM TEST

by Patricia Marie Goyette

December 2008

In the era of high stakes testing and increased accountability, the state of Mississippi has implemented the Mississippi Curriculum Test (MCT) in alignment with No Child Left Behind. Students scoring *basic* or *minimal* on the MCT are considered to be working below grade level. In response, many districts have begun tutoring students before or after school in an attempt to increase student learning. The purpose of this study was to determine if students who participated in out-of-school tutoring programs during one school year exhibited significantly more growth, as defined in the Mississippi Student Achievement Act and the No Child Left Behind Act, than students that were eligible to attend these programs but did not. There were 146 participants in grades three through six in this study. The students attended two elementary schools in a level 5 public school district in South Mississippi. There were no significant differences between those students who were eligible and attended tutoring sessions and those who were eligible but did not attend with the exception of reading and math of third grade students. Those students who attended programs showed statistically more growth than the students who did not attend.

## ACKNOWLEDGEMENTS

The writer would like to thank the committee chair, Dr. David E. Lee, and the other committee members, Dr. James T. Johnson, Dr. Rose M. McNeese, and Dr. Gaylynn Parker for their advice and support throughout this project. I would especially like to thank Dr. Thelma J. Roberson for getting me through the first three chapters after Hurricane Katrina. Without her patience and positive encouragement to pick up what was left of my original work, I may not have continued.

Special thanks go to Dr. David E. Lee for agreeing to become my committee chair midway through my dissertation process without even having met me and to Dr. James T. Johnson for being the one person who began and ended this project with me over the many years it took to finish. I truly appreciate his willingness to meet with me so often and help me put my results into writing.

## TABLE OF CONTENTS

ABSTRACT.....	ii
ACKNOWLEDGEMENTS.....	iii
LIST OF TABLES.....	vi
CHAPTER	
I.    INTRODUCTION.....	1
Theoretical Basis	
Statement of the Problem	
Hypotheses	
Definition of Terms	
Delimitations	
Assumptions	
Justification	
II.   REVIEW OF RELATED LITERATURE.....	13
Increased Standards	
At-Risk Populations	
Retention and Alternatives	
After-School Programs	
Components of Effective Programs	
Conclusion	
III.  METHODOLOGY.....	71
Overview	
Research Design	
Setting	
Participants	
Instrumentation	
Procedures	
Data Analysis	
IV.  ANALYSIS OF DATA.....	80
Descriptive Data	
Tests of Hypotheses	

V. SUMMARY..... 101

- Summary of Procedures
- Summary of Major Findings
- Conclusions
- Limitations
- Discussion
- Recommendations

APPENDIXES..... 113

REFERENCES..... 117



## LIST OF TABLES

Table	
1.	2003-2004 MCT Scores: Percentage of Students Scoring at Each Level in Reading.....81
2.	2004-2005 MCT Scores: Percentage of Students Scoring at Each Level in Reading.....82
3.	2003-2004 MCT Scores: Percentage of Students Scoring at Each Level in Language.....83
4.	2004-2005 MCT Scores: Percentage of Students Scoring at Each Level in Language.....84
5.	2003-2004 MCT Scores: Percentage of Students Scoring at Each Level in Mathematics.....85
6.	2004-2005 MCT Scores: Percentage of Students Scoring at Each Level in Mathematics.....86
7.	2005 Mississippi Curriculum Test Descriptive Data in Reading.....87
8.	2005 Mississippi Curriculum Test Descriptive Data in Language.....88
9.	2005 Mississippi Curriculum Test Descriptive Data in Mathematics.....89
10.	2005 Mississippi Curriculum Test Descriptive Data by Gender, Race, Socioeconomic Status, and Grade in Reading.....90
11.	2005 Mississippi Curriculum Test Results Showing Difference between Actual and Expected Scores by Grade Level in Reading, Language, and Mathematics.....91
12.	Constants for Calculating Overall Achievement Level (OAL) and Regression to the Mean in Each Content Area (RMR = Reading, RML = Language, RMM = Mathematics).....93
13.	Regression Coefficients for Predicting MCT Gain.....94

## CHAPTER I

### INTRODUCTION

In the wake of the No Child Left Behind act (NCLB), states are now required to tie mandatory student test scores to grade advancement. Mississippi is one of those states. As of March 2002, students in second through eighth grades take the Mississippi Curriculum Test (MCT) as their accountability measure. Third and seventh graders must score *proficient* or *advanced* on all three sections (Reading, Language Arts, and Mathematics) of the MCT in order to continue to the next grade. If a child scores *basic* or *minimum*, a retest is given midway through the next school year. If a score of *proficient* or *advanced* on the second attempt is not achieved, the child is required to repeat the grade (Mississippi Department of Education, 2002). In addition, the Mississippi Department of Education (2004a) requires that “each school’s growth expectation be reported annually according to a psychometrically approved formula and that increasing percentages of students in each subgroup perform proficient or above each year” (p. 24).

Because of NCLB, and the resulting Mississippi accountability test, there may be an increase in the number of students being retained in certain grades. Researchers have suggested that retention is not an effective way to increase achievement, it can be detrimental to students’ self-esteem, and in the long term, increases the likelihood of students dropping out of school altogether (Holmes & Saturday, 2000; Karweit, 2000; Natriello, 1998; Pouliot, 2000). To prevent retention, districts have taken a proactive stance on the issue by attempting to

identify students with the potential of not meeting the *proficient* or *advanced* requirement of the MCT and working with them beforehand in order to increase their knowledge of basic skills before taking the test in May of each year. South Mississippi's proactive stance on preventing retention as a result of MCT scores can potentially reduce the number of students who will be retained each school year.

Research to date has dealt with the affects of retention after it has occurred, and the majority of the results have concluded that students who are retained fall behind again within 2 years (Natriello, 1998). In order for schools to prevent retention, intervention programs are being developed and carried out in public schools throughout Mississippi. Examples of such programs are before and after-school tutoring. Under the Mississippi Accountability System, schools must meet growth and performance expectations. If schools fail to do so, parents can request remedial instruction from a supplemental source at the expense of the school district. With this increasing accountability, school leaders must know whether or not programs are working (Van Zoeren, 2003). The programs instituted to increase test scores and student achievement should be studied in order to determine their overall effectiveness.

### Theoretical Basis

Educational practices have shifted from a behavioral approach, which focuses on cause and effect relationships and relies on skills being mastered in sequential order, to a more cognitive approach, which stresses the need for exploratory learning in order to tap into higher level thinking skills (Nokes &

Ohlsson, 2005). Although both realms of thought have their place, neither one individually is the answer to all academic failure. People learn in different ways and at different rates (Moore, 1996). Learners also respond positively when different teaching methods are utilized depending on the subject matter that is being presented. With the increase of student teacher ratios and the wide range of achievement levels among students within one classroom, schools have begun to meet student needs in smaller settings outside of the regular school day in order to meet students' individual needs (Boylan, 1999).

Behavioral psychology practices are evident in how teachers conducted classes prior to 1970 (Magliaro, Lockee, & Burton 2005). Behaviorists' practices are based on watching and responding to behaviors and therefore are easily adapted into an educational setting. If a student demonstrates understanding of a concept, he is positively reinforced. If the student is struggling with a concept, he is led in steps towards greater understanding. Behaviorists believe that children learn when given information in a sequential order that is reinforced at each step (Dornyei, 2003) . Skills are taught individually and build on each other as each step is mastered. This approach works well in content areas which are concrete in nature and require the mastery of one skill before moving to another (Nokes & Ohlsson, 2005). The behaviorist approach is easily adaptable in the small group setting that tutoring offers and is most effective in math, decoding, distinguishing between fact and opinion, map, and foreign language skills (Shapiro, 2004). Behaviorism is not as effective in areas that require problem-solving, which is the trend educational systems have adopted in recent years (Dornyei, 2003).

Cognitive theory is derived from works of John Dewey, Lev Vygotsky, Jean Piaget, and Jerome Bruner. According to Moore (1996), these theorists believed that cognitive theory helps students develop the skills and motivation to become lifelong learners. Rather than teachers moving systematically from one step to another after observing and reinforcing behaviors, cognitive theorists believe that students will actively explore and seek out knowledge. As children learn one thing, a natural desire will develop to rely on prior knowledge to accomplish more challenging tasks. The natural tendency to move from the simple to the complex continues until the children learn, through experimentation, what is desired of them.

The basis of cognitive theory is that children have a need to be stimulated in order for growth to occur (Fashola, 2003). Piaget and Vygotsky both believed that external stimulus was the key to learning. Piaget (1976) observed that children receive knowledge through activities and discovery. Piaget felt that learning occurs in four stages: sensorimotor, preoperational, concrete operations, and formal operations (Piaget, 1972, 1973). Hypothetical reasoning is not realized until the operational stage which occurs around 11 years of age. It is then that children are able to investigate complex problems in systematic ways because thought processes become more developed. Unfortunately, not everyone gets to the formal operational stage (Lawton et al., 1980). According to Moore (1996), this form of learning relies on the assumption that learners can make the knowledge they are given their own; however, not everyone learns in this manner. According to Lawton et al. (1980), true applications of Piaget's

theory rely on the belief that learning is best accomplished through peer interactions and discovery within the physical environment. The activities that are planned for children who are being taught cognitively must match where the children are developmentally so growth will be systematic. These programs concentrate on long-term goals rather than the steps necessary to reach them.

Ausubel built his theories of learning on Piaget's cognitive growth model. Ausubel (1968) felt that the most important aspect to learning was building on the prior knowledge of the learner. In their work, Ausubel and Robinson (1969) identified three principles that should be applied to teaching and learning situations. First, general concepts are identified and taught to the learner. Second, concepts branch out and become more abstract. It is believed that new ideas can be more easily grasped by a learner when they are relevant to the learner. Third, the learner will be able to generalize learning and identify new concepts independently; however, this will always be based on what has been learned previously. If learning is not mastered in the initial introduction, an intervention is needed.

According to Lawton et al. (1980), Piaget, Ausubel, and Bruner all had different views on cognitive growth, but all agreed that its main focus is on the learner's ability to increasingly generalize information and be able to make predictions based on what has been or should be done. Piaget (1972, 1973) thought that children should be taught in a way that could compare to modern nursery schools. That is, as one developmental stage is mastered, another is in the process of being learned. Bruner (1965) felt that children should be taught

the basic concepts and then be encouraged to work together to test and build upon those concepts. Ausubel and Robinson (1969) felt that not all learners are able to learn in a discovery-oriented setting and should be taught in prescribed formats that include concrete stages. Although Ausubel and Robinson believed that discovery learning can be a part of the academic day, the discovery process should not be the main focus in classrooms where there are many different types of learners. No single theoretical approach is right for all students at all times, and teachers should learn to recognize the different needs of their students. When those needs cannot be met within the classroom setting, other approaches should be utilized.

Beginning in the 1990's, educational leaders have attempted to make connections between teachers and the learning styles of their students (Fashola, 2003). According to Fashola, teachers must find techniques that will be thought-provoking and stimulating to children. Simultaneously, these activities must help to build cognitive and abstract thinking. There are two factors that impact a child's ability to learn in the classroom environment ( Moore, 1996). First, teachers must know how to stimulate students' attentions, and teachers must know how to present the material in a way that students are able to understand. Second, the diversity of the students' learning styles should become a part of the curriculum. In fact, the diversity of the classroom plays a large part in how much stress children feel in their classrooms. Zanyer concluded (as cited in Moore, 1996) that learning is best accomplished in a stress-free environment. According to Zanyer, this can be accomplished when students are committed to the material

they are learning and the learning process that is presented. As students learn and experience successes academically, more motivation will occur. If students do not experience these successes; however, a downward spiral of academic failure occurs, and more individual approaches may be required.

Despite the differentiated instruction provided by teachers and the opportunities to learn through peers, some students still fail to thrive in regular classrooms and have caught the attention of lawmakers. Van Zoeren (2003) felt that low-achieving students need more one-on-one attention from teachers and more time on assignments to fully understand the material and improve academic skills. Out-of-school tutoring programs conducted in small-group settings are seen as a way to help students who are at-risk of failing close the educational gap between them and their more successful peers. One advantage of school-based tutoring programs is that the tutoring programs can be tailored to each student's particular needs. Tutoring has existed for more than 1,000 years in one form or another (Heron, Welsch, & Goddard, 2003). Tutoring is a fast and easily implemented way to provide instruction to small groups of students. Small group settings help children learn through exploring, which is based on the cognitive learning theory, yet they also yield to more individualized instruction that behaviorist prefer when the mastering of basic skills is needed before moving on to more complex ones.

#### Statement of the Problem

In the spring of 2004, the selected school district in this proposed study administered the Mississippi Curriculum Test to 1,820 students in reading, 1,825



in language, and 1,847 in math. The results indicated that 2% of the students scored *minimal* or *basic* in reading, 6% did so in language, and 4% scored *minimal* or *basic* in mathematics. The state averages of students who scored *basic* or below were 7% in reading, 12% in language, and 9% in math. According to No Child Left Behind, no student should fall below proficient by the year 2012. In order to close the gap between subgroups of students and meet the standards set out in No Child Left Behind, many South Mississippi elementary schools have started to offer tutoring programs to students who are considered to be at-risk of falling below *proficient* or had scored below *proficient* on any section of the MCT.

The purpose of this study was to investigate the differences between MCT scores of students who attend tutoring programs and MCT scores of students who were eligible to attend but did not. In addition, gender, race, and socioeconomic status were analyzed to determine if there were differences in scores by demographic characteristics.

### Hypotheses

This research helped answer the question of whether or not the tutoring programs offered by the selected school district statistically significantly increased the *growth* scores of students in grades 3 through 6 during the 2004-2005 school year as measured on the MCT. In order to assess growth, the Mississippi Department of Education developed a formula to compare one year's MCT test scores in reading, language, and mathematics to the following year's scores. When the initial year's raw scores of each subject on the MCT are applied in, the formula predicts what each student should score in each of the

three subject areas the following year. Students who do not achieve the predicted score have *not met* growth. A student has *met* growth if the predicted score in a given content area is achieved and has *exceeded growth* if the score is 10% or more above the predicted score (Mississippi Department of Education, 2004a).

H<sub>1</sub>: There will be a statistically significant difference in *growth scores* on the MCT between students who participated in the tutoring programs and those who did not participate.

H<sub>2</sub>: There will be no statistically significant difference in *growth scores* on the MCT by gender among students who participated in tutoring programs and those who did not participate.

H<sub>3</sub>: There will be no statistically significant difference in *growth scores* on the MCT by race among students who participated in tutoring programs and those who did not participate.

H<sub>4</sub>: There will be no statistically significant difference in *growth scores* on the MCT by socioeconomic status among students who participated in tutoring programs and those who did not participate.

H<sub>5</sub>: There will be statistically significantly more growth in the lower grades than in the than in the higher grades (Vaughn et al, 2003 ; Miller, 2003). A 2-way ANOVA will be used to determine to what extent the grade a student is in affects growth on the MCT (Miller, 2003; Vaughn, Linan-Thompson, Kouzekanani, Bryant, Dickson, & Shelley, 2003).

## Definition of Terms

The following terms were defined for the purpose of this study:

Achievement Model - "A model that establishes the minimal achievement index values (based on the percentage of students achieving at certain levels) that a school must meet" (U.S. Department of Education, 2003a).

AYP Model - "The model or formula specified in NCLB for determining whether school and school districts have met adequate yearly progress criteria" (U.S. Department of Education, 2003a).

Content Clusters - The specific framework objectives that are combined to make up each subject area of the MCT (Mississippi Department of Education, 2003a).

Exceed Growth - Schools are said to have *exceeded growth* when their growth composite is at least 10% higher than the targeted score (Mississippi Department of Education, 2003b).

Growth Model – A model that uses student data and, possibly, other variables to set a reasonable achievement expectation for a school. The actual achievement at the school is compared to the expected achievement to determine the degree to which the school has met or exceeded its expectation (The Mississippi Department of Education, 2003b).

The Mississippi Curriculum Test (MCT) - A standardized achievement test administered to second through eighth grade students in Mississippi in order to comply with the No Child Left Behind act and increase accountability standards.

Proficiency Levels - Achievement levels that describe how well students have mastered the state frameworks in reading, language, and mathematics. In Mississippi the four levels are *advanced*, *proficient*, *basic*, and *minimal*. The goal is for all students to score in the *advanced* or *proficient* ranges.

Socioeconomic Status – For the purpose of this study socioeconomic status will be defined by a student's eligibility to receive free or reduced lunch.

Tutoring Programs - For the purpose of this study, tutoring programs will refer to the before or after-school small-group academic instruction provided to students by certified teachers within the selected school district.

#### Delimitations

The following delimitations were imposed on this study:

1. The study was confined to two public elementary schools from a selected school district in Southern Mississippi.
2. Scores included in the study were limited to the following criteria:
  - a) student must have been enrolled in the 3, 4, 5, or 6<sup>th</sup> grade during the 2004-2005 school year,
  - b) student must have MCT scores in reading, language, and mathematics from the 2003-2004 school year and at least one score in reading, language, or mathematics in 2004-2005 school year in order to compute the *growth* score on the MCT,
  - c) student could not have been retained during the 2003-2004 school year,

- d) student must have been eligible for the tutoring program during 2004-2005,
  - e) student must not have been identified by the program directors as having received outside supplemental services during 2004-2005
3. This study only analyzed student *growth* as defined by the state of Mississippi.

#### Assumptions

1. For the purpose of this study, it was assumed that the *growth* and *achievement* models used by the state of Mississippi are valid and reliable.
2. It was assumed that student scores on the MCT accurately represent ability and mastery levels of the Mississippi State Framework objectives.
3. It was assumed that program directors were aware of and identified any student receiving outside supplemental services.

#### Justification

The results of this study can help to determine if the current before and after-school tutoring programs being offered in the selected school district are effective in increasing student achievement on the MCT. This, along with other studies conducted on alternative programs to retention, will help answer the question of the overall effectiveness of tutoring programs, provide a foundation for other researchers to develop studies that identify characteristics of effective school programs, and aid districts in the process of weighing the costs and benefits of providing school-based tutoring programs.

## CHAPTER II

### REVIEW OF LITERATURE

The educational system in the United States has put an increasing amount of pressure for students to learn not only the basics of reading, writing, and arithmetic, but also apply critical thinking skills (Zohar & Dori, 2003). However, higher-order thinking skills are thought to only be attainable after the basics are mastered (Nokes & Ohlsson, 2005). As a result, large gaps exist between students' ability levels within individual classrooms because not all learning is attained at the same pace (Barton, 2004). Tutoring is one method utilized to decrease the gaps of knowledge and prevent learners from falling increasingly further behind. Ediger (1997) explored the theories of early philosophers such as Bagley, Plato, Rousseau, Michael of Montaigne, and Dewey, and their contributions to modern education as related to the mastering of basic facts and an increasing ability to apply higher-order thinking skills.

William Bagley and Plato are two early philosophers who stressed the importance of learning basic skills. Bagley was one of the first philosophers to stress the importance of learning reading, writing, and arithmetic in education (Ediger, 1997). Bagley also proposed that the curriculum not be adjusted to address individual needs; instead, all students are provided with the same curriculum. Ediger (1997) cited that Plato advocated homogenous grouping of students and theorized that people should be grouped according to their abilities. He hypothesized that learning is sequential and the focus should be on the end result. Plato also stressed that knowledge is derived from reality and one should

not rely on instincts to make decisions because feelings are not reliable (Egan, 1992).

According to Egan (1992), the foundation of the modern educational system still contains many of Plato and Bagley's ideas. An example is the number of states that have state-mandated objectives that must be taught each year. In addition, although students are put into heterogeneous classrooms and the majority of students are mainstreamed into regular education classes, teachers sometimes group their students within the classroom according to their ability levels in order to provide more time to those who need it.

As cited in Williams's article (2005), Rousseau agreed with much of what Plato believed. One difference between the two was that Rousseau thought that not all students were alike in the manner and pace of learning. Learning and teaching should be spontaneous rather than adhering to a strict schedule and curriculum. Rousseau felt that the actual educational experience was part of the goal. His educational approach was for individuals to work with private tutors. The curriculum was largely determined by what the student wanted to learn, and modern-day books were frowned upon. Instead, the student's tutor would travel with the student and teach along the way. Teachers were to learn what motivated students and how students learned. Although Rousseau's ideas of individualized instruction and curriculum are not practical in modern education, his themes can still be seen by the attention educators give to individual learning styles, the stages of development, and motivational techniques.

Prior knowledge helps students truly understand what is being studied. According to Ediger (1997), Michael of Montaigne recognized the importance of prior knowledge when learning new material in the classroom. Field trips were thought of as one way to increase prior knowledge in the classroom. Another contributor to modern education whose ideas resemble Michael of Montaigne is John Dewey. Ediger cites that John Dewey has been credited with encouraging teachers to provide their students with life-like problems that require a group effort in solving. Dewey felt that students must learn to work together in order to become contributing citizens as adults. A result of Dewey's thinking has been the emergence of the idea that teachers are now thought of more as facilitators of learning than instructors.

The modern educational system in the United States emphasizes that learning starts with the simple and progresses into a higher levels of thinking; an idea proposed by early philosophers in education. Complex learning only occurs after the basics have been mastered (Shapiro, 2004). Zohar and Dori's (2003) research found that even lower performing students can achieve the skills of inference, making judgments, and actively constructing images in their minds if given the time and individualized instruction. Teaching higher order thinking skills is appropriate for all students once basic skills are mastered. Although students with higher achievement levels generally gain higher levels of reasoning skills, students with lower achievement levels can also display higher reasoning skills. Zohar and Dori did not suggest the gap between higher and lower achieving



students will close, just that relative to where students begin all students can improve their reasoning levels with direct guidance and time.

The goal in the United States is for all students to be successful and for no one to be left behind when it comes being educated. The key is finding a way to ensure mastery of the core curriculum. After-school tutoring programs are one way modern educators help lower performing students reach their full academic potential (No Child Left Behind, 2003).

#### Increased Standards

Modern workers are required to have strong communication and problem-solving skills, be able to work in teams, and show leadership skills in order to be successful (Grossman, Price, Fellerath, et al., 2002). In addition, workers need to have a deep understanding of content and be able to relate that content to other circumstances on a new level (Conway, 1997). This type of interacting requires workers to use inferential and evaluative thinking skills (Kovaleski, 1999). For workers to develop higher level thinking skills, schools need to teach beyond the basics of reading, writing, and arithmetic in order for students to have more than a surface understanding that only requires the reproduction of information (Bogaard, Carey, Dodd, Repath, & Whitaker, 2005). Unfortunately, there are still many students who have not been able to transition from lower to higher levels of thinking and this gap is apparent among identifiable groups. Among these groups are those who live in poverty, minorities, and those who speak English as a second language. The identification of lower-achieving groups of students is not new.

In 1966, the Equality of Educational Opportunities study, or the *Coleman Report*, was released (Coleman, 2006). The study was conducted after the Civil Rights Act of 1964 (1964) to determine the effectiveness of the law as it related to the educational gains among minorities. Coleman determined that an educational gap existed and attributed the differences in educational achievement between African-Americans and Caucasians to the ethnic makeup of schools. Schools where the majority of students were African-American underperformed compared to mostly Caucasian schools even when the materials, pay, and the education of teachers were comparable. As a result of Coleman's findings students were bused to other schools so that the student population of no school was more than 60% African-American.

Even after drawing attention to the educational gap between subgroups within the United States, the gap continued to grow into the 1980s (Conway, 1997) and *A Nation at-Risk* was published in 1983. *A Nation at-Risk* stated that to succeed in the 21<sup>st</sup> Century schools in the United States must teach students to be life-long learners (Conway). Although the gap still existed, Bloom (1987) determined through his work between 1943 and 1985 that all children can learn at a higher level if given the right circumstances of support, extended time, and highly qualified instructors.

In response to the continued educational gap and belief that all children can attain higher thinking skills, many school communities eliminated social promotion and implemented stronger academic standards (Balitewicz, 2000). There has also been a trend since 1992 to mainstream students, including those

with disabilities, into regular classrooms (Deshler & Schumaker, 1993). It is believed that teachers and administrators must find ways to accommodate all students within the classroom so the students can reach their academic potential (Dorward, Hudson, Drickey, & Barta, 2001).

### *No Child Left Behind*

To decrease the educational gap of children who live in poverty, minorities, and those who speak English as a second language compared to Caucasian middle class children, the No Child Left Behind Act was passed by congress in 2001 (No Child Left Behind, 2001). No Child Left Behind is one of the most ambitious federal educational statutes in decades and will take 12 years to fully implement (Finn & Hess, 2004). There are 4 sections of the law. First, No Child Left Behind holds the educational system accountable for student learning because schools that score well are rewarded while schools that do not score well are penalized. Second, No Child Left Behind emphasizes the need to provide quality instructional programs that are research based. Third, states are given control and flexibility over their own testing programs. Individual states develop test questions and a system of assessing student learning as long as federal requirements are met. Fourth, No Child Left Behind gives parents an expanded amount of control over where their children attend school. If a school's performance does not meet the required standards as laid out by each state, parents are allowed to send children to a school that did meet standards. The parents' choice of school is at the district's expense.

### *Title I*

To avoid the added cost of teaching students in alternative locations and to comply with No Child Left Behind's guidelines for providing supplemental services, many schools have begun to use Title I funds to provide internal tutoring programs in the hopes of increasing the achievement levels of students not meeting minimal standards. Title I is part of the Elementary and Secondary Education Act (ESEA) of 1965 (The Elementary and Secondary School Act, 1965). It provides over \$7 billion to the nation's school districts and schools, especially in low-income areas. The purpose of Title I funds is to improve the chances for success of those students who are the most at-risk of falling behind (The Elementary and Secondary School Act, 1965). The money for Title I was supposed to be used to upgrade the curriculum of schools and increase teaching effectiveness. In 1994, Title I was reauthorized because the closing of the achievement gap between students had stalled.

Researchers (Chandler, 1982; Hargrove, 1982; Katzenmeyer, 1991) found that there was a wide discrepancy of expectations and instructional programs between the disadvantaged and more advantaged groups of students. In fact, the National Assessment of Educational Programs (NAEP) found that the reading gap of the low-income students actually widened between 1984 and 1992. Studies of the "new" Title I found that many programs operated separately from other local and state programs which was not how the program was intended to be used. The federal government's intention was for Title I money to be used to

help give focus to the locally funded programs. The amount of Title I money schools receive depends on how many low-income students they service (The Elementary and Secondary School Act, 1965). Schools that are determined to be in high poverty areas, which means over fifty percent of their population comes from low income families, are allowed to use their money to service all of the children in their school.

While some schools use the money for programs that are used during the day, others spend at least some money on targeted assistance programs before or after-school and also during the summer. This increases the amount of instructional time children receive which may help to increase the level of learning. In order to determine the level of learning taking place in all of the identified groups, No Child Left Behind developed two methods, adequate yearly progress and growth, to measure achievement (Hock, Pulvers, Deshler, & Shumaker, 2001).

#### *Adequate Yearly Progress*

No Child Left Behind (NCLB) assesses student growth by whether or not a school has shown adequate yearly progress (AYP). Each school must show steady improvement in every grade and every subgroup or demographic group (Finn & Hess, 2004). Subgroups include gender, race, economically disadvantaged, disability, and English-language status. State education departments developed the standards for their individual state by creating a curriculum framework and criterion referenced assessments, intervening in districts that fail to meet adequate yearly progress, and generally overseeing any

matters that have to do with testing. Mississippi has identified two models, the adequate yearly progress model and the growth model, to determine whether or not schools meet adequate yearly progress each year (Mississippi Department of Education, 2003b). These models are described below:

*AYP Model:* The model or formula specified in NCLB for determining whether schools and school districts have met adequate yearly progress criteria. Under the specified procedure, the model does not actually consider growth at the school or school district. It holds all schools and districts (and certain subgroups of students within the schools and districts) to a fixed set of annual objectives based primarily on the results of statewide assessments. The criteria are established using a "starting point" that is determined using the procedure specified in NCLB. The starting point is set at either the performance in the lowest performing subgroup or the performance at the 20th percentile school in the state. (p. 27)

*Growth Model:* A model that uses student assessment data and, possibly, other variables to set a reasonable achievement expectation for a school. The actual achievement at the school is compared to the expected achievement to determine the degree to which the school has met or exceeded its expectation. (p. 28)

Achievement and growth are incorporated in the Mississippi Statewide Accountability System (Mississippi Department of Education, 2003a). All students are required to score at least proficient in reading, language, and mathematics by

the 2013-2014 school year. Adequate yearly progress starting points were calculated using the 2001-2002 school-year results. All students in Mississippi in grades 2-8 are required to participate in the annual statewide testing conducted each spring. In order to be eligible to meet adequate yearly progress, schools must test at least 95% of their students. Student scores are included in a school's report if the student has attended that school for at least 75% of the school year.

During the summer of each year the MCT results are released to local schools and districts (Mississippi Department of Education, 2003b). If a school district has failed to meet adequate yearly progress, it is required to immediately notify the parents so they can take advantage of supplementary services or the opportunity to send their children to a higher performing school. Failure to meet adequate yearly progress in Mississippi for two years will result in a Title I school or district being identified as needing improvement, corrective action, or restructuring as outlined in NCLB. NCLB states that schools that fail to meet AYP two years in a row must offer its students a choice of where to attend a school that met AYP at the district's expense (Finn & Hess, 2004). If a school does not meet AYP for three years in a row, it must offer a free supplemental service that includes tutoring after-school from approved public or private organizations. If a school fails to meet AYP four years in a row, it must write a school improvement plan; five years will result in the school being "reconstituted" and taken over by the state.

One option schools utilize to increase student achievement is to offer supplemental services. Supplemental service programs, tutoring, are designed to

increase knowledge of basic skills that have previously not been mastered by students. The services can be provided through the school system or by hiring an outside agency to provide tutoring.

### *Supplemental Services*

Under No Child Left Behind, schools that are not meeting standards must offer supplemental services to their students. Supplemental services include after-school tutoring, academic summer camps, and other educationally enriching programs offered to children from low income families (United States Department of Education, 2003b). The law applies to Title I schools. The Title I schools pay for a portion of the supplemental services provided by using federal dollars received because of the number of students enrolled who live in poverty. Tutoring gives extra help to the students who need it. Parents are often given the opportunity to choose which programs they would like their children to attend. Any type of for-profit or nonprofit organization can become a provider of supplemental services as long as it has a record of improving student achievement. Even democrats that have traditionally voted against any type of voucher system support the supplemental programs because these mini-vouchers help to ensure that federal support goes to the children who are considered to be at risk of falling further behind their peers academically (Finn & Hess, 2004).

One possible negative to schools being allowed to distribute Title I funds is their empowerment over the money. They can provide tutoring services in-house and discourage other entities from participating by denying space to work in or



delaying contracts (United States Department of Education, 2004). Regardless of who provides the supplemental services, improvement must be demonstrated over a two year period in order for the contractor to continue operations. If after two years the provider has failed to show improvement, other contractors will have the opportunity to provide services (United States Department of Education, 2003b). Because of the accountability to show improvement, it is imperative for providers of supplemental services to identify and target those children who are most at-risk of failing to meet the minimal standards for their state.

#### At-Risk Populations

More and more students are considered to be “at-risk” in today’s society (Lange & Lehr, 1999). These students are increasingly coming from every facet of today’s communities and have needs that are great and varied. Many schools today are trying to identify those students who are at-risk of failing their state achievement tests and trying to work with them proactively. Researchers suggests that children who have been exposed to many risk factors at the same time are the most likely to experience difficulties with learning and most likely to have behavioral problems. Some of these factors are living in poverty, larger family sizes, low levels of family support, maternal intelligence, poor self-esteem, and lack of education (Somers & Pilliawsky, 2004). In addition, students who associate with deviant peers tend to have an increase in behavioral problems.

#### *Minority Status*

Min Zhou (2003) studied the 2000 census and found that while the United States population has grown steadily at 13%, certain ethnic populations have

grown at an increasingly larger rate. This is particularly true of the Hispanic and African-American populations where the growth rate is as high as 21% and 61%, respectively. Despite this extreme growth in certain areas, neighborhood make-ups have remained ethnically constant. Unfortunately, children in minority neighborhoods are often exposed to below standard living conditions (Zhou, 2003).

Brown v. Board of Education was a combination of five state cases brought to the Supreme Court (Ogletree, 2004). The ruling stated that African-American children were negatively affected by segregation and schools could not be segregated based solely on race. The court found that racially segregated schools were a violation of the 14<sup>th</sup> amendment which provides for equal protection of the laws. Brown v. Board of Education was passed in 1954, yet African-American children continue to fall behind academically when compared to their Caucasian counterparts (Fashola, 2003). While the educational gap did decrease initially with African-American students making gains in achievement levels, it has remained constant since the 1990's. African-Americans tend to score lower than Caucasian students in science, math, reading, and writing. The National Assessment of Educational Progress has found that African-American students who are in the eighth grade consistently perform academically where the average Caucasian student did in the fourth grade (Barton, 2004).

The behaviors of African-American students in the classroom are influenced by many factors (Fashola, 2003). Many suffer from feelings of inadequacy, isolation, and low self-esteem. African-American boys are also more

likely to drop-out of school, be expelled, and not attend college. Consequently, African-American boys are the most likely subgroup to be incarcerated and commit homicide in the United States and for many, success in the workforce is an unattainable goal. Administrators must recognize that what takes place in their students' lives inside and outside of school is influential in affecting school performance (Fashola, 2003).

The needs of minorities are not always addressed in the regular classroom setting due to time constraints, large numbers of students, and the wide ranges of ability levels present in the classroom. Fashola (2003) suggested targeting minorities for after-school programs can help address special needs because many would not get any additional academic assistance if they were to go straight home in the afternoons. After-school programs provide students with qualified teachers who are able to offer more individualized attention in smaller settings than possible during the regular school day. Extended hours offer stimulating experiences that allow African-American students and other minorities to be exposed to a variety of recreational, academic, and cultural experiences that would otherwise not be experienced. The extra hours are an ideal time to provide students with the extra time needed to succeed academically. African-American students who attend after-school programs tend to score higher in math than African-American students who do not attend programs (Somers & Pilliawsky, 2004).

One successful program offered to minority children is the Urban School Initiative School Age Child Care (SACC) project in Ohio school districts (Mid-

Continent Research for Education and Learning, 2003). In 1999, children who participated in the SACC project exceeded the statewide percentages of the students meeting proficiency standards in every area tested. The group also reported higher levels of social acceptance, and their teachers stated that the students stayed on task better when attending after-school programs.

Some programs have targeted the African-American population in particular. These include LA's BEST, Empowerment Zone, Baltimore and Philadelphia, and the 21<sup>st</sup> Century Community Learning Centers concentrated in high poverty low performing districts (Fashola, 2003). LA's BEST now has 10 sites and serves over 10,750 students that come from 123 elementary schools (United States Department of Education, 2002). LA's Best has been in existence for over 14 years and is considered a valuable resource for research and study (Paige, 2002). One program that is modeled after LA's BEST is Beyond the Bell in Los Angeles. Beyond the Bell's mission is to oversee all of the programs administered outside of the traditional school day. Some of the programs coordinated by Beyond the Bell are academic instruction, band, safety education programs, and youth services.

Unfortunately, many low-income families cannot afford to send their children to after-school care due to finances, time, and transportation issues. However, the administrators of after-school programs should consider ways to overcome these obstacles especially for African-American boys. Participating in programs and experiencing positive interactions with staff members can lead to

fewer behavioral problems during the day in addition to increased academic achievement (Fashola, 1998).

One example of a free or reduced cost after-school program that targeted students is the Howard Street Tutoring Program (HSTP). The program was developed to help improve the academic scores of students who were reading below grade level in second and third grades (Fashola, 1998). The program's administrators identified concrete steps to increase the participation rates of its students. First, the administrators understood that many of the students being targeted suffered from feeling isolated. Second, the group looked for situations within the school setting that helped to create those feelings. Third, the administrators of the program developed situations that brought together the targeted population with the services being provided. The administrators understood the research of Hudley (1992) that stated individual success is more important than educational success to African-American males who often feel more successful when put into positions that require increased personal responsibility. The group also realized that if African-American males did not experience success in school, they would not be inclined to put themselves into the same position for failure after school.

### *English as a Second Language (ESL)*

According to Saenz, Fuchs, and Fuchs (2005), students whose first language is not English make up more than 2 million of the United States school population, and that number is forecasted to grow to more than 6 million over the next 15 years.

Cardelle-Elawar (1991) studied the effects of feedback given by teachers on math achievement of ESL students and discovered that many bilingual students lacked the vocabulary needed in order to solve problems in math. In addition, ESL students, as well as non ESL students who were under-achieving, often give up easily when solving math problems that require multiple steps. Cardelle-Elawar found that when teachers guided students' thinking processes towards solutions rather than relying only on students' prior knowledge, students in her study were able to find their own mistakes more easily and viewed them as opportunities to learn rather than a failure to be able to learn.

Similar findings were found in reading. English as a second language learners need to have an extended amount of time focused on vocabulary (Denton, Anthony, Parker, & Hasbrouck, 2004). ESL students also benefit when the text being read is tied to comprehension questions and writing tasks. Saenz et al. (2005) found that students who participated in peer-assisted reading strategies increased comprehension levels more than those who did not. The researchers believed that this was possible because non-English speakers need opportunities to practice their new language and working with peers allowed this. In addition, when students work in small groups, more opportunities are provided to make predictions about the information being read and to summarize it afterwards. Also, reading in small groups allows students to work on their own reading level which helps to increase self-esteem and motivation for learning the new language.

### *Socioeconomic Status*

There is a strong link between low test scores on standardized tests and socioeconomic backgrounds which has led some officials to argue that scores have more to do with student backgrounds than how well the schools are actually doing their jobs (Brown, 2000). The results are brighter for low-income students who attend after-school programs. Children with low economic backgrounds who are involved in after-school programs tend to perform better in math, reading, and other subjects than both low-income children who go home to parents and those who go to babysitters. The Los Angeles's YS Care (Youth Services Care) program is offered to families on TANF (Temporary Assistance for Needy Families) with children in kindergarten through fifth grades. Students who participated in the after-school program outpaced their nonparticipating counterparts in reading and math (Mid-Continent Research for Education and Learning, 2003).

Research by Cob, Harper, McCormick, McNeil, Miltenberger, Phillips, Schneider, Taylor, and Wilkens (2006) suggested summer break widens the educational gap between low and middle-income children. They found that offering summer programs for at least 3 hours per day helped reduce the "summer slip" that often occurs. The programs studied provided fun and enriching activities. The students were in groups of 8 with multiple grades represented. This encouraged the students to form quality relationships with each other and fostered non-competitive relationships. The small groups also helped to form a connection the mentors helping the students.

The gains lower-income students experienced held true unless the attended programs were led by negative staff members. When negative interactions occurred in after-school programs, students' grades actually fell (Fashola, 1998). The relationship supports Moore's (1996) analysis that classroom environments play an integral role in creating a stress-free atmosphere that is conducive to learning. It also emphasizes the importance of low-income students forming valuable relationships within an academic setting in order to increase achievement levels.

#### Retention and Alternatives

Success in the early elementary years is critical if a student is to ultimately graduate from high school (Holmes & Saturday, 2000). Education agencies in the United States have continuously looked for ways to prevent students from dropping-out of school. One strategy to preventing drop-outs has been to retain students not working on grade level. Although numerous studies have concluded that retention is not an effective way to increase achievement, it continues to be prevalent. According to Holmes and Saturday (2000), the perceptions of retention by communities, parents of school-aged children, teachers, and even children who have been retained still indicate that retention is sometimes necessary and effective despite decades of research concluding otherwise.

Retention has been studied for several decades with most of the results continuing to support social promotion over retention (Natriello, 1998). In the 1970's, most research indicated that retention had no positive effect on students and promotion was actually better than retention. In the 1980's, the majority of



the research concluded that retention actually had negative effects on students in the areas of achievement, personal adjustment, self-concept, and attitudes towards school. Even though the preponderance of research pointed otherwise, by the end of the 1980's social promotion was ridiculed and the promotion of high standards was enforced (Gewertz, 2002). During the 1990's, most of the research continued to conclude that retention was not beneficial and also suggested that retention had a negative effect on students' cognitive achievement (Natriello, 1998).

There is one notable exception to the findings that retention is a negative factor for low-achieving students. When retention is coupled with remediation and occurs during the early years of school, repeating the year can have a lasting positive effect (Natriello, 1998). As long as students work on targeted skills throughout the next year rather than being recycled through another year of the same curriculum taught with the same techniques, achievement levels will likely improve (Karweit, 2000). If this specialized focus does not occur, retained students consistently have significantly lower academic achievement and lower self-esteem than peers who are promoted. In addition, grade retention is the most powerful predictor of a student's decision to leave school (Holmes & Saturday, 2000).

Despite the research indicating that retention is not effective, 15% to 19% of children in the United States are retained each year according to The American Federation of Teachers as cited by Holmes and Saturday (2000). A national study was conducted in 2000 that found most of the students that are

retained are in first grade, male, minority, changed schools more than once, come from large families, and live in the South or in poverty (Karweit, 2000). There are reasons why retention remains commonplace. One reason is because of the political attractiveness. The media have devoted public attention to high school graduates that cannot read. Politicians add to this by advertising the limited number of resources available to under-performing districts (Natriello, 1998). Another reason for the continuation of retention is that, in general, people want to have a sense of fairness and believe that promotion should be earned (Holmes & Saturday, 2000).

Retention continues because of outside factors as well as the internal factors of the perceptions of those directly involved in retention decisions. Many people at all levels believe that social promotion is damaging to students by giving a false sense of achievement, and that social promotion is morally and educationally wrong (Gerwertz, 2002). Parents of low achieving students often view retention as a viable option and feel that it should be considered when children are failing to make adequate progress in school. In a study by Anderson and West (1992), parents were asked about their children's self-esteem after retention and stated that after the initial impact, the retained children gradually attained pre-retention levels (Anderson & West, 1992). In addition, when previously retained high school students in one study were asked about the effects of their experiences, the students stated that being retained had been helpful. Although upset at the time of the occurrence, over time the retained students made better friends because they believed they were no longer being

picked on by other kids for being stupid and also felt better off academically as a result of being retained (Hagborg, 1993). Teachers, as well as parents and children, also think retention is sometimes necessary. When teachers were interviewed regarding their thoughts on retention, the majority stated that retention was needed and beneficial for many students. This is despite knowing about the amount of research that discredits retention (Pouliot, 2000).

### *Prevention, Classroom Changes, and Remediation*

With so much evidence that retention is not an effective tool when addressing lack of achievement, many districts have started to turn to other alternatives. Effective alternatives to retention fall into three categories: prevention, classroom changes, and remediation (Holmes & Saturday, 2000).

School districts are attempting to utilize prevention as a way to increase achievement levels of lower performing students. An example is providing help in small group settings during before or after-school tutoring. Moore's study (1996) compared the achievement of ESL students before and after attending a one-hour after-school program for 6 months. The students who attended the program had better scores on their standardized test. In addition, the students increased their national curve equivalent scores, based on the bell curve which states the majority will fall in the middle of a range of scores, beyond that of the norm group. Tennessee has two popular prevention programs that are geared towards academics (Fashola, 1998). The extended-day tutoring program in Memphis targets students in grades 2 through 4 by offering the Success for All reading program. The Murfreesboro Extended School Program in Tennessee offers

before and after-school programs. These structured programs provide 30 minutes of homework help and then a choice of other academic activities such as basic reading skills, computers, science, and math for an hour.

Changes within the classroom can also be a successful method to increase achievement levels of students. According to Holmes and Saturday (2000), Reading Recovery has proven to be an effective strategy over the long term. Other recognized programs are those that include continuous progress which allows students to complete objectives at their own pace and small group settings.

Another alternative to retention is remediation. Some districts place students who are not developmentally ready for the next grade in half step programs. These lower performing students are placed between grades. Boston is one area that has built in a transition program for those students who would otherwise fail (Gewertz, 2002). The research so far on this alternative has been somewhat disappointing. After comparing a group of students who were placed in readiness programs for 10 years with students who were recommended but did not attend, Holmes and Saturday (2000) found that attendees scored lower on all levels of achievement than the ones who were socially promoted. Balitewicz (2000) conducted another study and found that students who were placed in a transitional year between kindergarten and first grade did not do as well on sixth grade testing as students who were recommended for the program but did not attend. While research has indicated that remediation does not always result in increased achievement, the HOSTS program is often one

exception. HOSTS (Helping One Student to Succeed), is a program that began in Vancouver, Washington, in 1972 (Fashola, 1998). HOSTS programs usually work with students who fall in the bottom third of academic tests. These programs mostly rely on trained volunteers and multi-aged mentors. The programs supplement what is being taught in the classroom and are tailored to fit the needs of the individuals in the program. A study of its effectiveness conducted by Fashola and Slavin (1997) found that students in first and second grades increased their NCE (Normal Curve Equivalent) scores substantially. Students in other grades had significant gains as well.

#### *Class Size Reduction*

Once “at-risk” populations began to be identified and the negative consequences of retention were more realized, schools began to reduce the number of students in classrooms as a way to ensure student success. Class-size reduction became a topic of interest in the mid-1980’s. Questions arose as to whether or not reducing the number of students in classes actually worked. Policy Brief Number 23 addressed some of the major concerns (McRobbie, Finn, & Harman, 2000). The authors of this brief released in August of 1998 wanted to know whether just reducing the number of students in classrooms resulted in achievement gains or if other factors must also change. The researchers also wanted to know how long students needed to be involved in smaller classes in order to see effects, how long the effects would last, and what made some classrooms more effective than others. The brief also tried to help determine if

the costs outweighed the benefits of class-size-reduction (McRobbie et al., 2000).

In order to answer the questions surrounding smaller classrooms, Project Star was conducted (Finn, Gerber, Achilles, & Boyd-Zaharias, 2001). Project Star was a comprehensive study on the effectiveness of classroom reduction programs. The teachers in this study were all highly qualified to teach in their subject areas and did not change the materials previously taught for the study. Project Star found that the teachers in the program had more interaction time with individual students and were more aware of their students' reading progress than teachers not participating in the study (McRobbie et al., 2000). Other studies have also found that teachers with smaller classes spend less time disciplining their classes and more time teaching reading skills to poorer readers (Holloway, 2002).

McRobbie's study (2000) found that classroom reduction did result in gains in achievement of reading and math. The largest increase in achievement gains occurred after the first year of classroom reduction with only slight increases in subsequent years. The majority of the gains were seen in minority students who attended school in inner cities and were in a low socioeconomic bracket; however, students with behavioral problems or learning disabilities were less likely to have achievement gains unless they also received other services designed for their needs. Class size definitely matters with developmentally delayed students (Brown, 2004). Failure rates for developmentally delayed students are at 23% compared to the 11% of regular education students. The

gap increases as class sizes get larger (Brown, 2004). The benefits of being in a smaller classroom in the early years of education are significant in reading and last over time, even when students move to larger classrooms after the third grade (McRobbie, 1996; Nye, Hedges, & Konstantopoulos, 2004). Students in grades K through 3 who were in class size reduction programs had higher achievement levels over the next 5 years when compared to those who were not in these classes. Students who had another year of small classes had even longer lasting benefits. Students who were deemed “university bound” did not seem to react one way or another to the change in student/teacher ratios (Brown, 2004). Although students in ninth and tenth graders who were not labeled as college bound were more likely to struggle throughout the rest of their academic years if they did not receive one-on-one help according to the Ontario Secondary School Teacher’s Federation and the Ontario Institute for Studies in education as cited by Brown (2004).

According to McRobbie (1996), the benefits of reduced classroom sizes are realized even more when they are combined with other strategies. Strategies that lead to higher achievement include increased parental involvement in school activities, districts that provide healthcare for students, communicating with the community about school needs, being imaginative with resources, not being afraid of trying out new ideas, and collaborating with local colleges and other school districts to find “best practices.” In addition, reduced classes that combine peer tutoring, small groups, and computer-assisted instruction lead to greater achievement gains (McRobbie et al., 2000).

California started reducing class sizes in 1996 (Holloway, 2002). The teachers in these classrooms stated that they felt like their students were more motivated than when teaching larger classes and less withdrawn and passive than in larger settings. As a result students seemed to be more willing to participate in activities when part of small groups. In addition fewer disruptions were reported in reduced sized classrooms for behavioral reasons and more time was spent working with struggling readers (McRobbie et al., 2000). Although reducing classroom numbers does not physically result in more instructional time, teachers report feeling like there is more time in their days because of the ability to spend more quality time actually teaching rather than correcting behavior.

There have been various takeoffs on the classroom reduction strategy such as pull-out programs, teachers tutoring before and after-school, and peer tutoring (Nye et al, 2004). The programs are generally aimed at disadvantaged students and districts often devote numerous resources of time and money for these students' success. Many of these programs concentrate on students more than two grade levels behind rather than other students working below grade level (Nye et al., 2004). Principals report that even though tutoring programs are developed to reach at-risk children, all children benefit from the increased amount of time devoted to instruction rather than focusing on student behaviors, working in small groups with other children on the same level, and an increase in teacher's monitoring of individual work (McRobbie, 1996).



### *Private Tutoring*

Even with the continued practice of retaining students and in providing reduced class sizes for students who are at-risk of failing, some students still fall behind their peers and need more intense and individualized help. Not only has enrollment in tutoring programs offered by public schools increased over recent years, private institutions such as Sylvan Learning Centers and Kumon Math and Reading Centers have tripled their enrollment (Boyle, 2004). Private tutoring executives report that their mission is to increase achievement, decrease the gaps students have between peers, and ensure that highly qualified teachers are provided to students (Finn & Hess, 2004). Students report learning more in private settings because more attention is devoted to them, tutoring facilities are quieter than classrooms, and there are fewer disruptions.

Private tutoring previously was utilized mostly for children with wide learning gaps. Now children with a wide range of skills use tutoring regularly. Not only do private institutions work with remediation skills, they also offer enrichment opportunities. Students can attend private learning centers when preparing for specific tests such as entry exams or just to help them on standardized tests in general (Boyle, 2004). Sylvan is so sure of increasing student achievement that they offer 12 hours of free tutoring to students who do not see an increase in achievement levels by at least one year. Private tutoring success rates may be due the lower teacher-to-student ratio. Sylvan has a 1:3 ratio while Kumon's is 1:20 (Boyle, 2004). However, there is a cost difference between private and public tutoring options however. In Chicago, public tutoring costs about \$300 per

child for 80 hours of instruction at a 1:15 student teacher ratio over a 20 week period. In comparison, private tutoring in the same area costs \$1,500 at a ratio of 1:8 including anywhere between 40 to 80 instructional hours over the same time period (Dell'angela, 2004).

## After-School Programs

### *Need for After-school Programs*

There are more than 50 million parents of school-aged children in the United States of America in the workforce (Grossman, et al., 2002). In addition, the number of children enrolled in school in the 1990s returned to an all time high of 49 million in 1970, and this trend is expected to continue upwards over the next several years. Twenty-eight million children have both parents or their single parent in the workforce. These children are more likely to commit or be a victim of crimes in the after-school hours before 6:00 P.M (Chaddock, 1999) . One way communities in the United States are attempting to combat the problems associated with the growing number of working parents is by supporting after-school programs.

The idea of school-based after-school programs is not new in the United States. After-school programs were first introduced in the 1940s to provide care to the children whose mothers worked during World War II (United States Department of Education, 1997). In recent years, the popularity of after-school programs has increased rapidly. The increase is a response to the number of mothers who are working outside of the home, concerns about the risks to children who are unsupervised during the after-school hours, and the pressure to

increase academic achievement (United States Department of Education, 2004). The one place where after-school programs are not as prevalent is in rural areas (United States Department of Education, 1997). This may be attributed to a lower number of both parents in the workforce and the ability for nearby extended family members to care for children after-school.

### *Benefits of After-school Programs*

Many after-school programs that have been in existence for years are operated in conjunction with communities and outside agencies. Several programs have been studied and looked at for their effectiveness (Zuelke & Nelson, 2001). Communities with after-school programs have lower incidences of juvenile crime rates and tobacco use (Fashola, 1998). A Carnegie Council on Academic Development study presented at the National Conference on Curriculum Instruction found that students involved in organized activities had higher self-esteem, grades, and educational aspirations, and a greater sense of control over their lives (United States Department of Education, 2000). Also, comprehensive after-school programs offered in communities across the United States have produced children who are less likely to commit crimes or be involved in what is deemed “risky” behaviors such as the use of tobacco products. A reason may be because students who attend after-school programs are supervised and engage in more socially acceptable behaviors than those children who do not attend such programs (Fashola, 1998).

The link between academic achievement and after-school care is not fully understood (Grossman, et al., 2002), but tutoring is significantly related to fewer

dropouts, according to Edmonds and White (Somers & Pilliawsky, 2004). Reports have found that children in formal after-school programs are considered by their teachers to have better work habits than children who were informally supervised at home and were also rated as being more emotionally adjusted and better at peer relations (Center for Research on the Education Students Placed At-risk, 1998). Teachers, staff, and administrators feel that students who attend after-school programs are more ready to learn in their regular classrooms. Many also feel that students who get help with their homework do better in school. In general, students who participate in after-school programs are able to maintain their academic standings, reduce family stress, and develop attitudes about school that will help them succeed even after they stop participating in the programs (Cosden, Morrison, Gutierrez, & Brown, 2004).

In addition to offering structured care for children, after-school programs are now also seen as a means of improving academic achievement. The programs often serve smaller populations than the school as a whole and there is more time to meet the individual needs of the students who attend (Center for Research on the Education Students Placed At-risk, 1998). This is reported in both private and public sectors. After-school programs also have the unique ability to provide cultural experiences that many children would otherwise not encounter. The combination of smaller groups, more time spent on classroom objectives, and individualized instruction helps after-school programs increase levels of achievement of the students that are not performing well in their regular

classroom settings (Center for Research on the Education Students Placed At-risk, 1998).

### *Acceptance of After-School Programs*

In response to the lower risks and increased achievement levels of children who attend after-school programs, 93% of Americans now agree that tutoring should be offered in their own neighborhoods, and two-thirds of voters say they would be willing to pay \$100 more a year in taxes to pay for them (Grossman, et al., 2002). However, the growth of such programs is not automatic. In order to build on their popularity and to gain support of the American voters, after-school providers must make sure high-quality programs are offered. The programs must be strong academically, encourage healthy habits among their participants, and be socially fulfilling and motivational (United States Department of Education, 2003a).

### *Pioneering Programs*

The 21<sup>st</sup> Century Learning Centers program is a billion dollar program authorized by the United States Department of Education (AOL Time Warner Foundation, June 2003; United States Department of Education, 2004). The learning centers are run by each district and funded by the number of Title I students at the schools offering tutoring programs. Each program focuses on programs in high-poverty areas during non-school hours. The programs offer a variety of enrichment activities along with basic academic tutoring. The 21<sup>st</sup> Century Learning Center programs were reauthorized under Title I I-C to focus on increasing enriching academic opportunities to children who attend low-

performing schools (Paige, 2002). The 21<sup>st</sup> Century Program is a key component of the No Child Left Behind Act. Funding has grown from \$40 million dollars in fiscal year 1998 to \$1 billion dollars in fiscal year 2002 (United States Department of Education, 2004). The 21<sup>st</sup> Century Community Learning Centers are generally open before and after school and on Saturdays. Typically, one hour is spent on homework and snacks, one hour for another academic activity, and a third hour for recreational or cultural activities (United States Department of Education, 2004). Today, there are about 6,800 rural and inner-city schools in 1,420 communities participating in the program (Kane, 2004). Although federal law authorizes the program, the tutorial services offered are designed in-house to help students meet individual local and state requirements in core subjects such as reading and math (AOL Time Warner Foundation, 2003). The learning centers also provide drug prevention programs, technology education, art, music, and recreational activities.

In 1999, the U.S. Department of Education contracted with Mathematica Policy Research, Inc. and Decision Resources, Inc. to evaluate the 21<sup>st</sup> Century Community Learning Centers programs (U.S. Department of Education, 2004). The researchers looked at several areas to determine the program's success: After-school supervision, location, activities, academic performance and achievement, behavior, personal and social development, and safety. The findings, which were presented in 2003, found that the programs did not affect reading scores or grades in elementary students when compared to those students who did not attend, although students who attended did spend

significantly more time on homework. Despite the lack of growth in achievement, the students were better able to work with each other in teams, tended to believe the best about others, and set and began working on goals. The researchers felt that one possible reason why achievement gains were not realized may have been a result of the turnover rates among the staff who worked in the centers. Although the administrators tended to remain constant, over two-thirds of the staff left each year.

The Wallace-Reader's Digest Funds established the Extended Services Schools (ESS) initiative in 1997 (Grossman et al., 2002). ESS has sites in twenty low-income communities across the United States. All states are entitled to a portion of the billion dollars appropriated to ESS schools. Although the programs are independently run, all have adopted one of four nationally recognized programs that they serve as models for their programs: Beacon, Bridges to Success, Community Schools, and the West Philadelphia Improvement Corporation. All of the programs include academic and nonacademic enriching activities that are targeted to help the development of children during the after-school hours. All programs also operate in schools and include partnerships in their respective communities. Over time ESS sites have learned to target skills that need to be addressed and identify core goals for their programs. In addition, ESS sites have developed better recruiting strategies for staff and increased positive relationships with host schools. Although the tutoring programs at the ESS schools are open to everyone, priority is given to low income students and students performing poorly in academic areas. Seventy-five percent of the

students are eligible for free lunch and two-thirds of the schools have had at least two principals in the past 5 years.

The effectiveness of the ESS programs was studied by Grossman et al., (2002). Results indicated that across all sites, the programs were easily implemented and the demand for them increased over time. In addition, the children who attended the programs were better behaved than non-attending peers and became more responsible as reported by their parents and teachers. Students participating in ESS programs report paying more attention in class because of the programs and feeling like they belong in the schools they attend more than before participating in the programs. Attendees also admit to skipping school less and becoming friends with people who make better decisions. About two-thirds of the students report doing better in school because of the programs attended.

The Mott Foundation provided grants to community after-school programs. The funds were used to train caregivers and increase public awareness. The efforts of the foundation became so popular that the other entities joined in and formed the After-School Alliance in 1999. The After-School Alliance includes the Charles Stewart Foundation, the U.S. Department of Education, J. C. Penny Company, the Open Society Institute, The After-school Corporation, the Entertainment Industry Foundation, and the Creative Arts Agency Foundation (After-school Alliance, 2004). The founders recognized the need for after-school programs and the need for increasing the number or quality of such programs. The After-school Alliance found that across the country 54 million children are not



supervised after school. As a result, the children are more likely to be involved in or fall victim to crime and other risky behaviors. Studies conducted found that children who are involved in after-school programs have better grades, behavior, and school attendance (After-school Alliance, 2004).

Soldotna, Alaska, has a large population of students who are at-risk of failure. In response to this, the After the Bell program was put into place (United States Conference of Mayors, 2003). This is a weekend, after-school, and summer program run by the city, the Kenai Peninsula Borough school district, the Soldotna Community Schools, the local Boys and Girls clubs, and other community entities. The purpose of the program is to improve academic performance in school and the behavior of the children. All of the sites offer homework assistance and other educationally enriching activities. Some sites even offer individual tutoring. The program coordinators believe that when students' academic achievement increased, their self-confidence also improves.

#### *Emphasis on Core Subjects*

While many programs have been in existence for years, some of the most impressive programs are those that focus on the core subjects of reading, language, and mathematics (Department of Education, University of California at Irvine, 2001; Massachusetts Department of Education, 2003; Mid-Continent Research for Education and Learning, 2003). Houston offers funding for after-school programs around the city (Mid-Continent Research for Education and Learning, 2003). The After-School Achievement Program has yielded better results in all core subjects when comparing participants to non-participants, but

the results have not been statistically significant.

Some programs have shown significant positive results. Some of the factors that may contribute to success in core areas are the participation rates of students who attend, the length of time the programs were administered during the school year, and the commitment to success by the program designers. In 1998, the California After-School Learning and Safe Neighborhood Partnership Program were started (Department of Education, University of California at Irvine, 2001). This partnership provides before and after-school care to students, 50% of the students, receive free and reduced lunch. Although centers are allowed to design their own programs, they must have an academic component. Results have shown that reading scores among those who participate have increased faster than other students statewide. The gains are closely related to participation rates in the programs.

Foundations Incorporated has existed since 1992 (Mid-Continent Research for Education and Learning, 2003). A study was conducted by McRel for the United States Department of Education in three states at 19 centers. The study found that participants' test averages improved in national percentile rankings by an average of 10 points in reading and math. The time span for this gain was from the fall pretest to the spring posttest. One of the centers studied was in San Diego. The goal of San Diego's ambitious program was to make after-school programs affordable to every elementary and middle school student in the city. As a result of the efforts, 57% of the students in San Diego's "6 to 6" program increased their reading scores by 10% in one year. In math, 44% of the

participants increased their scores. In addition almost two-thirds of the parents who responded to a survey reported that they noticed improvements in their children's academic abilities (Mid-Continent Research for Education and Learning, 2003).

### *The Study of After-School Programs*

Educational research involves applying the scientific method to educational problems (Moore, 1996). The goals of educational research are usually to explain why something is occurring, predict what will happen under a certain set of circumstances, or to control an educational outcome. Research into academic achievement has been used to resolve methodological problems and is essential in developing new skills or approaches to be used in the classroom.

In order to increase the achievement levels of high-risk populations and comply with the supplemental services mandated by No Child Left Behind, there has been an increasing amount of research devoted to after-school programs. But with so much riding on the results of such studies it is important to address possible problems with their accuracy and find solutions to ensure that the results researchers are getting are valid. According to Hock et al. (2001), one reason for the difficulty in studying tutoring programs is that there is such a difference in the terms associated with tutoring. Some schools want tutoring programs to help students gain literacy skills such as problem-solving abilities. Other schools are interested in improving grades and want tutors to help with homework assignments. Still others, according to Hock et al. (2001), want a combination of homework help and application of skills to be taught.

Once the definition of tutoring has been established in research studies, participants need to be selected. Educational research is limited because of ethical and legal constraints when selecting a control group (Fashola, 1998). Denying students access to programs that might be effective is not acceptable to many ethics committees. In addition, attendance, especially in voluntary programs, is often unpredictable. There are reasons beyond the researchers' control that account for why students do and do not attend tutoring programs. One reason many students do not attend programs could be a lack of motivation. Simply controlling for prior achievement, grades, socioeconomic status, and other obvious factors does not account for the motivational factors either the children or their parents have for attending programs. One way to address the difficulty of controlling outside factors is to compare students who had the opportunity to be involved in programs to those who did not have the opportunity. Another way is to compare students who signed up for programs in their initial offerings to those who began attending later in the year. No matter how a researcher addresses the motivational factor of attending, it is important to have well-matched groups (Fashola, 1998).

As the popularity of after-school programs increases, so does the need to determine if the programs are effective. Moore (1996) stated that it is difficult to explain, predict, and control situations that involve people because there are many known and unknown variables that make it difficult to generalize findings. The fact that some tutoring programs have shown to have a positive affect on standardized tests scores is an important revelation (Nellie Mae Education

Foundation, 2003). Most educational interventions and programs are unable to show a measurable impact not tightly tied to the curriculum or on follow-up tests after a particular program is over. Zuelke and Nelson's (2001) study suggested why some researchers have not found an increase in achievement levels among program attendees. The researchers proposed that schools do not always communicate regularly with outside agencies about the needs of their students. The lack of communication leads to programs that do not meet the needs of the attendees. Regardless of the obstacles faced when determining the effectiveness of tutoring programs, research is needed to ensure educators are doing everything possible to increase the achievements levels of the children most at-risk of not completing school.

#### Components of Effective Programs

Tutoring shares some of the same advantages as other methods of remediation (Heron et al., 2003). Students who participate in tutoring services share a common purpose, have the benefit of skills training not always available in the regular classroom, and are able to participate in engaging activities related to those skills. When designing tutoring programs it is important to realize what factors will lead to positive outcomes.

Even the best programs can fail if certain physical elements are not met. No matter what instructional methods are utilized, there must be enough staff members to carry them out (Fashola, 1998). Having enough staff helps to ensure that students feel safe and are offered academic programs that fit their individual needs. Staffing also increases positive perceptions of the program by the staff,

students, parents, and other members of the community (Nellie Mae Educational Foundation, 2003).

The most successful programs run smoothly and follow a structured schedule which helps to maximize their effectiveness (Kane, 2004). Struggling students need to be identified early and interventions must be intense and ongoing, according to Miller (2003). Students often need long-term support of more than one year in order to catch-up with their peers. Students who are involved in programs that meet regularly and have structured settings exhibit increased achievement levels over time. The students become more proficient at staying on task, completing assigned work, and comprehending material.

According to Green, Aldreman, and Liechty (2004), successful programs assess students on an ongoing basis and tailor interventions to the specific needs at that time. The authors studied second grade students who were at-risk. Peer tutors in the same class and college students worked with the at-risk second graders for 20 minutes each day. The students were monitored for progress after each session. At its conclusion, it was noted that the struggling students and the second graders in their class that helped them both felt that their reading skills increased, as well as their relationships with one another.

Another element that points to success is one's understanding of how students learn. Even if concrete changes are not made, being aware of individual learning styles can lead to improvement (Cassidy, 2004).

Students who fail to learn to read in the first and second grade tend to struggle with reading throughout their academic lives (Vaughn et al., 2003). Early

intervention with these students has been shown to prevent problems as the students get older, particularly in reading and math, content areas considered to be foundational (Boyle, 2004). Early interventions can be especially effective for young students struggling with learning how to read (Vaughn et al., 2003). The National Research Council and the National Reading Panel agree on evidence that suggests certain elements of reading instruction are effective with struggling readers. Struggling readers often respond to systematically addressed phonological awareness, alphabetic principles, word analysis, fluency, and comprehension. The same findings were found by Jitendra, Edwards, Starosta, Sacks, Jacobson, & Choutka (2004). Their 2-year study of struggling readers in the first and second grades found that one-on-one intervention resulted in significant gains in reading when used with the Read Well reading program which focuses on phonological awareness. Gains were also observed in spelling and comprehension. The researchers found that the longer students participated in the study and the more often they attended, the more their skills increased.

Hock (2001) found that even students with learning disabilities could learn new strategies which carried over into the regular classroom setting. Research developed by KU-IRLD (Kansas Institute for Research in Learning Disabilities) staff (Deshler & Schumaker, 1993) suggested strategies for children with mild disabilities. This model recommended that students and teachers progress through a series of eight steps when learning new material. When implemented correctly keeping to the integrity of the program, completing the steps resulted in higher student achievement. When compared with students who were not

enrolled in the instructional learning strategies, students who were enrolled made larger gains than those who were not.

### *Grouping*

Although reduced class sizes have become immensely popular in recent years, not all districts have the financial ability to offer it. In addition, the reduced teacher to student ratio is usually not extended to upper elementary grades. In order to increase student understanding and provide a deeper understanding of the material presented, many institutions have implemented small group instruction that have been effective in increasing achievement levels (Bogaard et al, 2005). The findings from a Title I study by Lyon et al (2004) found that just having good instructors can increase reading ability by 6%. There is also evidence that suggests putting students in small groups within the classroom is often beneficial and allows teachers to focus on individual weaknesses in order to help them succeed (Vaughn, et al., 2003). A combination of an effective teacher with targeted small groups has been shown to increase the percentage of students who fall in the bottom 30% of their peers academically to below 2% (Lyon et al., 2004).

Group size has been determined to be a pivotal factor with some students. Smaller group sizes are helpful because they allow teachers to get to know individual students on a personal and academic level. Small groups allow teachers to individualize discussions with students and help to increase the amount of time students remain on task (Vaughn et al., 2003). Small grouping within the classroom is often enough for some students who have fallen slightly



behind their peers. Unfortunately, other students need more than just a great teacher who incorporates small groups in the regular education setting. These struggling students often become candidates for tutoring programs. According to Lyon (2004), evidence from successful schools and many research studies has shown that having high-quality instruction, small group instruction, and targeted individual interventions can substantially reduce the proportion of students who struggle in the classroom. This is particularly so when students are presented with complex material that requires them to not only understand but also apply their understandings to other areas (Bogaard et al., 2005)

Knowing that some students need more targeted instruction has led educators to ask how small the groups outside of the regular education setting can be and still increase achievement levels. Wasik and Slavin (1990) evaluated five primary reading programs and found that 1:1 tutoring was the most effective, although groups of 3 to 5 also showed improvements. Research from Vaughn et al., (2003) also found that both a 1:1 and 1:3 ratios were highly effective. Both ratios were better than 1:10 when dealing with phoneme segmentation, fluency, and comprehension. Although not as effective, groups with as many as 6 students also showed improvement. The size of the groups is important because of the amount of resources that are available to the providers.

Money influences everything from the number of tutors that can be hired to the curriculum that is used. The people who provide tutoring programs must also know if what they are providing is effective in reaching the goals they have set for their students. A study funded by the Mid-Continent Research for

Education and Learning (2003) found that after-school and summer school programs do, in fact, increase student achievement scores in reading and math. In some cases, the increase was significant. An analysis of 56 studies around the country conducted by Colorado-based McREL Research found that elementary and secondary schools that provided tutoring services had increasing student standardized scores. They also found that the programs that are the most effective work with students who are at-risk. Participating students who were at-risk and in kindergarten, first, and second grades raised their scores on standardized tests. The test scores of participating students in high school also increased. One-on-one reading programs were shown to be the most effective method. This held true for all of the age groups represented.

### *Effective Tutors*

Teachers often do not have enough time during the school day to give at-risk children the one-on-one attention that is necessary for them to comprehend the concepts needed to master major subjects, develop self-confidence, and experience success in school (Coulter, 2004). Out-of-school tutoring programs can offer more individualized attention to those students who are not excelling during the school hours. School-based academic tutoring programs usually take place on the school grounds and are administered by regular teachers or paraprofessionals who are paid to stay after-school (Fashola, 1998). The programs usually offer a mix of academic help, culturally enriching experiences, and recreational activities. Tutoring students consistently in basic skills is related to higher test scores (Boylan, 1999). This is especially true when highly effective

tutors provide the tutoring, but this does not necessarily mean that the tutors need to be certified teachers (Beishuizen, Hof, van Putten, Bouwmeester, & Asscher, 2001). Big Buddies is a tutoring program that uses 11<sup>th</sup> and 12<sup>th</sup> grade honor students to tutor 3<sup>rd</sup> and 4<sup>th</sup> graders (Somers & Pilliawsky, 2004). The 3<sup>rd</sup> and 4<sup>th</sup> grade students showed an increase in self-esteem, on-task behaviors, and positive attitudes towards school. In addition, more than half of the students who attended gained one grade-level on their skills in the area in which they were being tutored.

Effective tutors motivate students to go beyond their own academic expectations (Gerwertz, 2002). The most effective tutors attend training sessions on an ongoing basis (Morris & Shaw, 1990). Studies reviewed by Lyon, Fletcher, Torgesen, Shaywitz, and Xhhabra (2004) revealed that students in high-poverty schools increased reading abilities when their teachers attended professional development seminars and offered intensive interventions. Even higher reading skills were realized by students if teachers were trained on how to effectively use researched-based instructional methods in small group settings (Hock et al., 2001).

In order for tutoring programs to help students increase academic skills, students in need of tutoring must attend. Fashola (2003) found that programs with African-American male instructors attract African-American male boys. Once in tutoring programs, African-American boys respond well to their male counterparts and are able to form bonding relationships that are conducive to learning. The benefits of having a tutor of the same race and gender remain

constant regardless of whether or not activities are conducted by volunteers or certified teachers.

According to Morris and Shaw (1990), most of the time tutoring sessions should be devoted to students reading aloud with a tutor. The groups should be small enough to offer individual attention and the materials should be the same as those used with the higher functioning groups (Peterson, 1989). Students tend to learn more when their instructors use higher level materials yet spend more time instructing them at their own pace. Tutors must have the patience to allow students to come to their own conclusions instead of giving them the answers. Tutors also need to create positive social environments between themselves and the youths with whom they are interacting (Hock et al., 2001). If tutors are able to provide strong academic support which offers students the opportunity to interact with peers and learn collaboratively academic, decision making abilities and leadership skills will improve according to Schinke, Cole, and Poulin (2000).

#### *Attendance*

One issue that should be considered when designing and implementing a tutoring program is how the attendance rates will affect the program's success. Studies have linked attendance rates to effectiveness, and administrators may conclude that the key to having an effective program may be to focus more on ensuring high attendance rates (Counsel of Chief State School Officers, 2002). Many educators agree that low-achieving students often need more one-on-one time to increase comprehension skills and understand assignments. Fashola (1998,) found that overall, the greater the attendance rates were of the students

attending after-school programs, the more likely the attending students were to perform better than their non-attending peers. This was especially true when students attended programs at least 80% of the time. When controlling for attendance, Somers and Pilliawski (2004) also found that academic tutoring programs have largely been shown to improve academic achievement as attendance rates increase. Continued research on the effectiveness of tutoring programs should be conducted (Fashola, 2003).

Children in 1<sup>st</sup> through 3<sup>rd</sup> grades are more likely to attend tutoring programs (73%) than children in 6<sup>th</sup> through 8<sup>th</sup> grades (54%). Most students who attend regularly scheduled tutoring sessions on a frequent basis have positive outcomes (Somers & Pilliawski, 2004). Tutoring programs often help students with actual assignments and provide instruction on various strategies that students can generalize across academic areas. Evaluations of LA's BEST (Better Educated Students for Tomorrow) showed that once students began participating in the program activities, their attendance improved (Kane, 2004). This led to higher academic achievement in math, reading, and language. California's After-school Learning and Safe Neighborhoods Partnership Program (ASLSNPP) found that students who attended their programs for more than 150 days showed an increase in scores on standardized tests by 4.9% and lowered the achievement gap between the program's low-income students and other students.

After-school programs that have been shown to have the greatest effects on student achievement are those that mandate attendance 5 days a week

(Pajares, 2001). While requiring students to participate in programs 5 days a week may increase achievement levels, it may also decrease the number of students who could be allowed to attend the programs. Children often have other obligations and places to be. The parents of these students stated that their children would miss out on too many other opportunities if the attendance policies in after-school programs were too strict (Pajares, 2001).

As noted earlier, transportation can be seen as a major inhibitor to attendance (Fashola, 2003). Many lower income families also depend on their older siblings to care for younger children and take on other responsibilities at home. Another reason students may not attend is that program costs can be prohibitive to some parents. Unfortunately, the children who would benefit from tutoring the most are often the ones that are the least able to attend on a regular basis.

The next issue administrators should consider is how to get students to attend programs that may help them academically. This is especially true of students who are at-risk (Peterson, 2000). Children might not want to attend any program that does not interest them (Fashola, 2003). Programs should offer varied activities while still keeping sight of their overall achievement goals. One way to encourage students to attend these programs is to work with their teachers (Rawson, 1992). Teachers can help encourage students to attend by pointing out the program's activities which are of interest to their students. The teachers of the programs can also help to encourage participation if they have some of the same personal characteristics as the students they are targeting.

Sometimes, even after careful targeting of students during the school day through standardized test scores and classroom work, program facilitators have a difficult time encouraging students to attend. In Nashville, an elementary school had many students who were struggling in reading. A program was developed by the teachers in the school to offer extra help to the students. The program utilized computer programs as well as small group sessions with certified teachers. The principal of the elementary school initially sent out notices to the parents of all children who were eligible to attend the after-school program at school (Lesson in Value, 2003). When the letter got few responses, another notice was sent with similar results. Finally, the principal set up open houses in the students' communities and went to the parents' homes in order for them to enroll their students.

Other effective ways to encourage students to attend after-school programs may be to mail out notices to students' houses. After mailers have been sent, parents should be called a few weeks before programs begin to be given the opportunity to get more information. In addition, schools should hold meetings in the evenings about their programs and hold registration in public complexes to provide more opportunities for parents to register their children. Schools can even offer to print their information packets in different languages (United States Department of Education, 2002).

One example where attendance rates were examined is the ESS program supported by the Wallace-Reader Digest Funds (Grossman et al., 2002). The program operated in twenty schools around the country. All programs offered a

variety of activities to appeal to learners, were not mandatory, based in schools, and funded with the help of community organizations. Students who spoke English as a second language worked with a mentor. On average, students in this program attended 20 days each semester, an average of 1-2 times per week. Although some believed that these students did not attend often enough to affect their academics, most of the students did attend most of the sessions for the entire semester, and the results indicated that there were cumulative effects for those who participated over the entire time. Because an increase in grades was not expected to be evident after the first year, the researchers asked the students about feelings towards academic successes in school. The students who attended the programs the most often and over the longest period of time reported feeling better about themselves, an increase in self-esteem regarding ability to complete assigned work correctly, and stated they paid better attention in class.

Coulter (2004) studied 12 teenagers in a juvenile detention center. Over a 6 month period, four tutors taught reading skills using novels. Coulter found that the more often students attended tutoring sessions, the more their reading skills increased. The participants in the study increased as much as three times what was expected based on literature at the time.

Students in the Texas After-school Corporation (TASC) program also experienced success when compared to eligible students who did not participate in their program. After one year, 31% of the participants scored at a higher proficient rate while only 23% of non-participants did. After 3 years, studies



concluded that students who participated in the program the most consistently and over the longest period of time exhibited the largest academic gains (United States Conference of Mayors, 2003).

### *Motivation*

In a business setting, manufacturers produce a product that customers want. The qualities of products are directly related to what customers need and are willing to pay for at that time. Although products differ in quality and price, the differences are purposeful in order to meet the largest number of needs (Berry, 1994). In education, it is not enough to just meet the needs of students by offering them a curriculum that is on their level and fits their needs at any given time. Educators must also find a way to motivate students to “buy in” to the learning process. Motivation is just one of the factors that affect the learning process, but it is one that has been given a great deal of attention for many decades (Simon, 2004). Motivation as it relates to learning began receiving attention in the 1950s through the Humanistic Movement that was largely pioneered by Maslow (1954). Maslow proposed the theory that the way people are motivated internally affects their personal, social, and academic well-being. The theory of internal motivation was prevalent until the 1980s when cognitive approaches became favorable. The cognitive approach suggests that although people can be internally motivated, they can also be motivated through external factors by identifying specific styles and personality characteristics that help individuals learn (Price, 2004).

Buchanan, Seligman (1995), and Peterson (2000) all agreed that having an optimistic personality style is related to academic achievement and the ability to set and achieve goals, while having a pessimistic style is related to learned helplessness and negative academic outcomes. Pajeres (2001) suggested that many people naturally feel that achievements are deserved. Others have what is described as an imposter syndrome and have intense feelings that accomplishments are a result of some type of fraud. These feelings of inauthenticity are often seen in girls who are high achievers and people who are generally depressed or anxious. Another personality style, invitational, suggests that people develop beliefs about themselves and the world around them and that helps to define how they will interpret new experiences.

People with different personality styles approach work differently. Those who are task-oriented do work in order to master the material that is put in front of them. They see learning as the goal for whatever they are doing. On the other hand, individuals who are performance-oriented do better when competing with others. Their goal is to do better than those around them. Rather than seeing work as a tool for learning, performance driven individuals complete their work out of fear of looking bad or incompetent to others. Relying on other people for motivation can be detrimental when students are asked to work independently on projects or at their own pace. Whatever personality trait people have, their view of themselves is often formed by their experiences and feedback received from others.

Bandura's (1986) social cognitive theory suggests that the beliefs a person has about himself or herself are directly related to his or her ability to succeed academically. Positive dispositions such as optimism, perception of authenticity, and self-acceptance are all related to motivation and academic achievement. Pajare's study (2001) found that people who value school, view learning as having a purpose, seek personal challenges, and learn to master ideas also have confidence in themselves, positive feelings, and view their achievements as being deserved. Students with a positive view of school also have less academic anxiety than their peers (Rawson, 1992).

Knowing that people have different personality styles and experience situations differently are not enough in educational settings. Teachers and administrators must find ways to motivate all personality types to succeed. The primary issue is not just to provide a great service to students, everyone involved must be sure that learning has been a result of that service (Kovaleski, 1999). If students are not motivated to learn, learning will likely not occur (Rawson, 1992). Unfortunately, dealing with so many personality types is often not an easy undertaking, especially when trying to help students who are at-risk. Often times, students who have failed academically in the past find little value in trying to succeed academically in the future, yet students who get beyond those feelings and persist in their endeavors are more likely to succeed in the future (Peterson, 2000). Those students are more likely to persist rather than drop-out of programs.

### *Parental Involvement*

Even when children get help with homework and are introduced to new cultural experiences through after-school care, it is still important for parents to be involved in after-school tutoring settings (Cosden, Morrison, Gutierrez & Brown, 2004). Parental expectations and aspirations have been shown to have the strongest relationship to academic success of students (Fan & Chen, 2001). According to Hoover-Dempsey, Battiato, Walker, Reed, DeJong, and Jones (2001), parents participate in schools for specific reasons. Parents who help students in school generally believe that their child's teacher wants them to be involved and feel their attitudes about school influence their children's attitudes. Parental attitudes influence a child's attitude and when children perceive school as a positive influence, personal perceptions of ability also increase. Involved parents tend to believe that showing interest in school will result in their children also showing greater interest and often tend to give one-on-one attention when their children need it. When children see their parents engaged in schoolwork they may be more apt to do schoolwork themselves. This is because children see their parents as similar to themselves (Cosden, Morrison, Gutierrez & Brown, 2004). Involved parents tend to believe that positive parental interactions with teachers will increase student relationships with teachers as well (Hill & Taylor, 2004).

However not all parents can be physically involved with students during the school day. Fortunately, there are other ways parents can influence student outcomes. Parents can provide a structured schedule for homework each day

after school (Fan & Chen, 2001). Doing the same activities at the same time each day helps students focus on the current task at hand. The structured setting also helps students learn self-regulatory skills and how to set and achieve short-term individual goals. Often times, students pay attention in class but do not always understand the material as it is presented. Parents can work with their child in the home at the student's pace (Muijs, Harris, Chapman, Stoll, & Russ, 2004). Even if parents cannot be a part of the school day with students on a regular basis they can sometimes be available to chaperone field trips and attend special events (Fashola, 2003). Showing an interest in school will reinforce its importance.

Parents who are poorly educated, speak little or no English, or are unfamiliar with the school system tend to have a difficult time helping their children with their schoolwork. Also, parents with limited resources often find it easier to let schools help their children with their homework (Cosden et al., 2004). Large numbers of parents in Title I schools say that they want to be involved in their children's schools yet their involvement is often significantly lower than more affluent students' parents. This is true among low-income parents, parents with small children who do not attend school, and parents of older children. In these instances it is crucial for schools to provide outreach programs to help parents feel more useful. For example, Hill and Taylor (2004) identified several schools serving mostly low-income students that focused on increasing parental knowledge of the curriculum and helping parents realize their capacity to help students rather than relying on parents for fundraising activities.

Many also offered adult education classes and social service programs at the school site.

### Conclusion

After-school programs continue to grow in popularity. Many children, regardless of race, gender, and socioeconomic status, need extra help beyond what they are getting in the regular classroom (Fashola, 2003). In addition, according to Zhou (2003), neighborhoods with a high concentration of people living in poverty lack community organizations. The inconsistency of services provided is largely due to a lack of funding and feelings that there are no profits to be made in poverty-ridden communities (Fashola, 2003).

There are three reasons that after-school programs have gained momentum over the past several years (After-School Alliance, 2003). First, after-school programs provide supervised settings that help students avoid being involved in anti-social behaviors during non-school hours. Second, after-school programs broaden children's experiences and improve their socialization skills, especially children in low-income areas who otherwise have limited contact with places outside of their immediate neighborhoods. Third, after-school programs can help students who are not performing well academically during the regular school day.

With ever-increasing standards set forth by the federal government and society in general, schools are increasingly becoming more and more accountable for the success of all students regardless of their subgroup (Lyon, Fletcher, Torgesen, Shaywitz, & Xhhabra, 2004). In response, districts are using

the federal money to target students who are considered to be the most at-risk of falling behind academically and are offering opportunities outside of the regular academic school day to increase student knowledge of basic skills in reading, language, and mathematics. The question to be answered now is whether or not these efforts have resulted in increased academic proficiency of students as indicated on standardized test scores.

## CHAPTER III

### METHODOLOGY

#### Overview

The purpose of this study was to determine if students who participated in out-of-school tutoring programs exhibited significantly more growth, as defined in the Mississippi Student Achievement Act and the No Child Left Behind Act, than students that were eligible to attend these programs but did not (Mississippi Department of Education, 2003b). This was a causal comparative study. The relationship of the tutoring programs to growth on the MCT was determined using data from the 2003-2004 and 2004-2005 school years.

#### Research Design

In accordance with the AYP model used by the state of Mississippi, the students in the selected public school district in Southern Mississippi must have tested on all three sections of the MCT and scored *basic* or *minimal* on at least one section of the 2003-2004 school year's MCT to be eligible for the study. The independent variable consisted of those students' scores who tested either *basic* or *minimal* and their participation in before or after-school tutoring programs offered at their school during the 2003-2004 school year. The dependent variable was the participants' MCT scores from the 2004-2005 school year. Demographic characteristics of gender, race, and socioeconomic status (eligibility for free or reduced lunch) were used to study subgroups within the sample. Scores from the 2003-2004 and 2004-2005 school years were utilized in this study.



## Setting

This study was conducted in a selected city in Southern Mississippi with a population of approximately 50,644 (City of Biloxi, 2000). Of the 26,461 people in the workforce, 4,668 are in the armed forces. The median household income in this city is \$34,106. High school graduates account for 81.9% of the population and 19.2% have a bachelor's degree or higher. The majority, 71.4%, of the population is white, 19% black, and 3.4% Vietnamese.

Originally the study consisted of two public school districts, but one dropped out after Hurricane Katrina. The public school district in the selected city had one high school, two junior highs, seven elementary schools, and an alternative school (Biloxi Public School District, 2006). The district employed over 700 people and had 5,791 students (Biloxi Public School District, 2006). The district had an accreditation level of 5 which is the highest ranking available by the state. Five of the seven elementary school principals agreed to participate in the study. Two schools lost their records during Hurricane Katrina and one offered its tutoring program during the school day. These three were eliminated from the study. The two remaining kindergarten through sixth grade schools that participated in this study will be referred to as School A and School B.

School A had approximately 843 students in grades kindergarten through six. There were 47 teachers, 1 principal, and two assistant principals. The student to teacher ratio was 18:1. Extra programs offered at the school included extra tutoring by certified teachers before the school day began, 6<sup>th</sup> grade band, music, art, a computer lab with a full time teacher, HOST, Accelerated Math,

Accelerated Reading, CREATE for gifted students, and a media center. It was a level five school after the 2003-2004 school year.

School B had approximately 631 students in grades kindergarten through six. There were 35 teachers, 1 principal, and 1 assistant principal. The student to teacher ratio was 18:1. Extra programs offered at the school included extra tutoring by certified teachers after the school day ended, 6<sup>th</sup> grade band, music, art, a computer lab with a full time teacher, HOST, Accelerated Math, Accelerated Reading, CREATE for gifted students, and a media center. It was a level four school after the 2003-2004 school year.

When the results of the MCT were made available to the schools, students in third through sixth grades who scored *basic* or *minimal* on any section (reading, language, mathematics) were invited to attend a tutoring program offered by their school free of charge the following year. Teachers could also recommend students based on the student's school-day performance. The tutoring programs were optional. Both School A and School B offered programs that concentrated on reviewing and learning basic skills. Because of the time each school began the school day, School A offered the tutoring program before the school day began and School B offered theirs after the school day ended. Both of the tutoring programs were one hour in length and were taught by approximately 14 certified teachers within the school the students attend. Students attend the program in the library Monday through Thursday. Fridays were set aside for planning. The teachers were paid through Title I funds. School A and School B used a combination of pencil and paper activities, computer

applications, and hands-on activities to reinforce the skills being reviewed. The curriculum focused on basic reading and math skills. The teacher to student ratio ranged from 1:1 to 1:7 depending on how many students attended each day.

### Participants

The sample for this study was taken from two elementary schools in a select public school district in Southern Mississippi. Participants who were in grades two through five during the 2003-2004 school year who scored either *basic* or *minimal* on one or more sections of the MCT were included. The MCT assesses students in reading, language, and mathematics in grades 2 through 8. One hundred forty-six participants were included in this study. The actual number was determined when data was collected. At that time, race, gender, and socioeconomic status was also determined and recorded in Chapter IV. Participants were selected by examining the test scores available at each participating school and category status of students available through the district coordinator. Students who attended tutoring programs were identified by the program directors at each participating school.

### Instrumentation

The instrument used to gather data was the MCT for 2003-2004 and 2004-2005 school years. All second through eighth grade students in Mississippi take the MCT each spring. The MCT was developed by an ad hoc committee which included five state board of education members and the state superintendent along with a group of exemplary teachers as identified by their superintendents. The MCT is published by CTB-McGraw-Hill and is criterion in

nature (Mississippi Department of Education, 2003a). In 2000, students took the Mississippi Curriculum Test for the first time. Test items that were identified as biased because of ethnic and regional differences were discarded. In 2001, three forms were piloted. The three forms were equated and one was chosen for use in subsequent tests (Mississippi Department of Education, 2003a). The validity and reliability of the MCT was determined in October and November of 2002 to ensure the MCT represented true achievement levels of those being tested and that similar results would be produced over time.

#### Procedures

The study commenced after it was approved by the Institutional Review Board Committee of The University of Southern Mississippi (Appendix A). Consent by the district superintendent to conduct the study in the selected school district was obtained on the February 18, 2005 (Appendix B). In order to determine the elementary schools within the selected district that had similar tutoring programs, the principals were interviewed (Appendix C). The principals were asked about their schools' tutoring programs, the tutors enlisted, how the programs were funded, any staff training conducted, and how the tutors communicated with parents and teachers. Two school principals did not return phone calls or emails asking them to participate in the study. One other school did not offer tutoring programs outside of regular school hours. The remaining four school principals agreed to participate in the study but two lost their records in Hurricane Katrina. The tutoring programs were determined to be similar in nature because the programs are all conducted by certified staff members and

use a combination of pencil and paper activities, computer applications, and hands-on activities. In addition, the schools all provided the same amount of time to the students being tutored.

The principals of the schools with similar tutoring programs were asked to provide the names of students that attended their programs. The names were necessary in order to match individual students to their MCT scores and were kept on a password-protected computer. Once the names were matched with the corresponding scores, the names were deleted. The schools also provided information on those who scored *basic* or *minimal* on any subject of the 2003-2004 MCT and the corresponding scores on the 2004-2005 MCT. The district provided information on gender, race, and socioeconomic status so the researcher could determine if predictions could be made about the effectiveness of the tutoring programs among the different sub-groups.

The scores of students that did not test on all three subject areas were not included in the study because *growth* scores on the MCT cannot be predicted without all three scores in the base year. The students that that did score *basic* or *minimal* on any section of the 2003-2004 MCT were included in the study and placed into two groups: those who participated in tutoring programs and those who did not but were eligible.

After all of the 2003-2004 scores and tutoring data were collected, the 2004-2005 scores were obtained so the participants' *growth* could be determined. The success of the tutoring programs in the selected school district was measured by the number of students who showed at least a year's worth of

*growth*, which is based on numbers, rather than relying only on the *advance*, *proficient*, *basic*, and *minimal categories* (Mississippi Department of Education, 2002). This is because some students are initially so far below the *proficient* standard that it may take many years to close the gap between them and their peers enough to score at least *proficient* and not need additional services (Van Zoeren, 2003). In order to attribute the success of the students to the tutoring programs, the participants were compared with students who were eligible for tutoring services because they scored *basic* or *minimal* on the 2003-2004 MCT but did not attend.

#### Data Analysis

Data obtained from the MCT tests of 2003-2004 and 2004-2005, students' participation in tutoring programs, and student demographic information was analyzed using SPSS. The study used the *growth model* established by The Mississippi Statewide Accountability System (October 2003b). To determine growth, students must have attended the same school for at least 70% of the current school year and taken the MCT in all three subject areas the prior school year. Both sets of scores in each of the three subject areas (reading, language, and mathematics) are included in the growth calculation. There are two sets of predictions utilized in the growth model. First, the model predicts the gains for each student in each subject. If a student reaches that growth, the model determines that growth has been *met* for that year. For the second prediction, the model is set at 10% higher than the *met* requirement and students that reach that level are considered to have *exceeded* growth. The following is the current

prediction model being used in Mississippi school accountability standards (2004a):

Predicted Gain = (.21785 X OAL) + (-0.70266 X RMR, RML, or RMM) + 17.697407  
 OAL is the Overall Achievement level which is determined by adding the scale scores of all three subject areas and subtracting that from the OAL score from that grade in year one. RMR (regression to the Mean in Reading), RML (Regression to the Mean in Language), and RMM (Regression to the Mean in Math) are determined by subtracting the scale score from year 2 in that subject area from the Regression from the Mean score table (p.19).

The growth scores were utilized to perform the statistics for the following hypotheses:

H<sub>1</sub>: There will be a statistically significant difference in *growth scores* on the MCT between students who participated in the tutoring programs and those who did not participate. A *t*-Test will be utilized to determine if participating in tutoring programs significantly affects growth scores in MCT reading, language, and mathematics achievement between participants and non participants.

H<sub>2</sub> : There will be no statistically significant difference in *growth scores* on the MCT by gender among students participated in tutoring programs and those who did not participate. A 2-way ANOVA will be used to determine if gender is a predictor on increasing growth on the MCT.

H<sub>3</sub> : There will be no statistically significant difference in *growth scores* on the MCT by race among students participated in tutoring programs and those

who did not participate. A 2-way ANOVA will be used to determine if race is a predictor on increasing growth on the MCT.

H<sub>4</sub> : There will be no statistically significant difference in *growth scores* on the MCT by socioeconomic status among students who participated in tutoring programs who did not participate. A 2-way ANOVA will be used to determine if socioeconomic status is a predictor on the MCT.

H<sub>5</sub>: There will be statistically significantly more growth in the lower grades than in the than in the higher grades (Vaughn et al; Miller, 2003). A 2-way ANOVA will be used to determine to what extent the grade a student is in affects growth on the MCT.



## CHAPTER IV

### ANALYSIS OF DATA

The purpose of this study was to determine if students who participated in out-of-school tutoring programs exhibited significantly more growth, as defined in the Mississippi Achievement Act and the No Child Left Behind Act, than the students that were eligible to attend these programs but did not (Mississippi Department of Education, 2003b).

Chapter IV presents descriptive data relative to the subjects in the study and provides results of the tests presented in Chapter 1.

#### Descriptive Data

There were 146 subjects in the study. The independent variables consisted of attendance of out-of-school programs, gender, race, socioeconomic status, and grade level in school. Race was limited to Caucasian and African-American due to a limited number of participants of other races. Twelve participants were eliminated from the study for the race variable. The criterion variables were MCT scores in reading, language, and mathematics. The data were collected from records on file in the selected school district on student MCT scores from the school years 2003-2004 and 2004-2005 and on students who attended out-of-school tutoring programs during the 2004-2005 school year. Two elementary schools in a selected public school district were included. A summary of the district statistics can be found in Tables 1-6.

Table 1

## 2003-2004 MCT Scores: Percentage of Students Scoring at Each Level in Reading

	% Minimal	% Basic	% Proficient	% Advanced
Grade 2				
School A	2.6%	1.8%	63.2%	32.5%
School B	2.2%	6.7%	71.9%	19.1%
District	2.7%	4.0%	59.7%	33.6%
Grade 3				
School A	0.0%	5.6%	37.9%	56.5%
School B	0.0%	5.1%	50.6%	44.3%
District	0.4%	4.9%	45.5%	49.1%
Grade 4				
School A	0.0%	1.8%	58.4%	39.8%
School B	2.7%	4.1%	58.9%	34.2%
District	0.9%	1.8%	60.5%	36.9%
Grade 5				
School A	0.9%	1.8%	46.4%	50.9%
School B	4.4%	5.6%	62.2%	27.8%
District	2.9%	2.2%	49.9%	44.9%

Table 2

## 2004-2005 MCT Scores: Percentage of Students Scoring at Each Level in Reading

	% Minimal	% Basic	% Proficient	% Advanced
Grade 3				
School A	2.9%	8.6%	9.5%	39.0%
School B	3.4%	9.2%	42.5%	44.8%
District	2.4%	6.8%	47.6%	43.2%
Grade 4				
School A	0.8%	4.1%	59.0%	36.1%
School B	3.5%	3.5%	57.6%	35.3%
District	1.8%	2.5%	54.4%	41.2%
Grade 5				
School A	1.8%	2.7%	51.3%	44.2%
School B	2.4%	7.1%	54.1%	36.5%
District	1.5%	3.5%	52.9%	42.1%
Grade 6				
School A	1.0%	5.7%	61.9%	31.4%
School B	10.0%	11.0%	68.0%	11.0%
District	4.3%	6.3%	67.6%	21.8%

Table 3

2003-2004 MCT Scores: Percentage of Students Scoring at Each Level IN  
Language

	% Minimal	% Basic	% Proficient	% Advanced
Grade 2				
School A	0.0%	6.1%	15.8%	78.1%
School B	3.4%	10.1%	29.2%	57.3%
District	1.5%	10.1%	23.1%	65.4%
Grade 3				
School A	0.0%	6.6%	38.5%	54.9%
School B	1.3%	5.1%	39.2%	54.4%
District	1.4%	7.4%	38.1%	53.2%
Grade 4				
School A	0.9%	14.0%	45.6%	39.5%
School B	2.7%	16.2%	44.6%	36.5%
District	1.8%	16.9%	53.5%	27.9%
Grade 5				
School A	0.0%	1.6%	40.0%	58.4%
School B	3.3%	27.8%	54.4%	14.4%
District	1.6%	12.1%	60.9%	25.5%

Table 4

2004-2005 MCT Scores: Percentage of Students Scoring at Each Level IN  
Language

	% Minimal	% Basic	% Proficient	% Advanced
<b>Grade 3</b>				
School A	1.9%	4.9%	44.7%	48.5%
School B	2.3%	14.9%	42.5%	40.2%
District	2.0%	7.7%	42.4%	47.9%
<b>Grade 4</b>				
School A	1.7%	11.6%	38.0%	48.8%
School B	4.8%	7.1%	39.3%	48.8%
District	2.3%	9.2%	35.5%	53.1%
<b>Grade 5</b>				
School A	2.7%	11.6%	51.8%	33.9%
School B	8.2%	11.8%	55.3%	24.7%
District	2.6%	9.6%	55.9%	32.0%
<b>Grade 6</b>				
School A	0.0%	7.6%	53.3%	39.0%
School B	7.0%	26.0%	44.0%	23.0%
District	2.2%	14.4%	49.9%	33.5%

Table 5

2003-2004 MCT Scores: Percentage of Students Scoring at Each Level IN  
Mathematics

	% Minimal	% Basic	% Proficient	% Advanced
<b>Grade 2</b>				
School A	0.0%	2.6%	63.2%	34.2%
School B	0.0%	9.0%	68.5%	22.5%
District	0.2%	5.6%	59.7%	34.4%
<b>Grade 3</b>				
School A	0.0%	1.6%	40.0%	58.4%
School B	0.0%	9.0%	68.5%	22.5%
District	0.2%	1.3%	44.9%	53.6%
<b>Grade 4</b>				
School A	2.5%	5.0%	31.4%	61.2%
School B	2.7%	8.1%	40.5%	48.6%
District	1.7%	6.2%	34.5%	57.7%
<b>Grade 5</b>				
School A	1.8%	7.2%	34.2%	56.8%
School B	11.8%	20.4%	41.9%	25.8%
District	4.7%	12.7%	35.5%	47.1%

Table 6

2004-2005 MCT Scores: Percentage of Students Scoring at Each Level IN  
Mathematics

	% Minimal	% Basic	% Proficient	% Advanced
<b>Grade 3</b>				
School A	1.9%	2.9%	43.8%	51.4%
School B	2.3%	4.6%	44.8%	48.3%
District	1.1%	3.3%	40.1%	55.6%
<b>Grade 4</b>				
School A	2.4%	11.2%	32.0%	54.4%
School B	4.7%	8.2%	38.8%	48.2%
District	2.2%	8.7%	33.0%	56.1%
<b>Grade 5</b>				
School A	4.4%	10.5%	39.5%	45.6%
School B	14.1%	16.5%	35.3%	34.1%
District	7.1%	12.4%	43.8%	36.8%
<b>Grade 6</b>				
School A	1.0%	3.8%	17.1%	78.1%
School B	13.5%	17.7	27.1%	41.7%
District	4.3%	8.4%	25.2%	62.1%

The data in Table 7 indicate that students who participated in out-of-school tutoring programs in grade 3 had the highest mean growth score in reading and students in grade 3 who did not participate had the lowest. Students

in grade 6 who did not participate in out-of-school tutoring programs had the highest standard deviation in reading while students in grade 3 who did not participate in out-of-school tutoring programs had the smallest.

Table 7

2005 Mississippi Curriculum Test Descriptive Data in Reading

Variable	Mean	Std Dev	Cases
Grade 3 Attended	4.87	6.51	6
Did Not Attend	-2.08	2.68	10
Grade 4 Attended	2.13	5.68	13
Did Not Attend	2.03	4.44	16
Grade 5 Attended	2.04	4.33	24
Did Not Attend	-1.53	6.75	11
Grade 6 Attended	-.20	3.78	38
Did Not Attend	.92	13.25	28

The data in Table 8 indicate that students in grade 3 who participated in out-of-school tutoring programs had the highest mean growth score in language and students in grade 4 who did participate had the lowest. Students in grade 5 who did participate in out-of-school tutoring programs had the highest standard deviation in language while students in grade 3 who did participate in out-of-school tutoring programs had the smallest.



Table 8

## 2005 Mississippi Curriculum Test Descriptive Data in Language

Variable	Mean	Std Dev	Cases
Grade 3 Attended	4.37	3.20	6
Did Not Attend	1.40	4.66	10
Grade 4 Attended	-.38	5.36	13
Did Not Attend	2.50	5.78	16
Grade 5 Attended	2.71	6.64	24
Did Not Attend	1.34	6.61	11
Grade 6 Attended	.57	3.50	38
Did Not Attend	.98	4.92	28

The data in Table 9 indicate that students in grade 3 who participated in out-of-school tutoring programs had the highest mean growth score in mathematics and students in grade 5 who did not participate had the lowest. Students in grade 3 who did participate in out-of-school tutoring programs had the highest standard deviation in reading while students in grade 3 who did not participate in out-of-school tutoring programs had the smallest.

Table 9

## 2005 Mississippi Curriculum Test Descriptive Data in Mathematics

Variable	Mean	Std Dev	Cases
Grade 3 Attended	7.46	6.80	6
Did Not Attend	1.50	3.05	10
Grade 4 Attended	.76	4.30	13
Did Not Attend	.93	4.76	16
Grade 5 Attended	.88	4.92	24
Did Not Attend	.04	6.14	11
Grade 6 Attended	.43	3.70	38
Did Not Attend	.67	4.10	28

Further analysis in Table 10 indicates females and males who attended out-of-school tutoring programs had higher mean growth scores in reading than students who did not participate. Caucasians attending out-of-school tutoring programs had higher mean growth scores in reading while African-Americans who attended out-of-school tutoring programs had lower mean growth scores in reading than those who did not attend. Similarly, students who paid regular prices for lunch and students with free or reduced lunch had higher mean growth scores if they did not attend out-of-school tutoring programs than those who did attend. Caucasian females who did not attend out-of-school tutoring programs had negative mean growth scores.

Table 10

2005 Mississippi Curriculum Test Descriptive Data by Gender, Race,  
Socioeconomic Status, and Grade in Reading

Variable	Mean	Std Dev	Cases
Female Attended	1.48	4.80	37
Did Not Attend	-.38	13.82	25
Male Attended	.10	4.60	44
Did Not Attend	.27	5.37	40
Caucasian Attended	.85	4.23	31
Did Not Attend	-1.26	5.04	32
African-American Attended	1.11	5.10	42
Did Not	2.18	12.99	29
Regular Price Attended	1.33	4.62	36
Did Not Attend	1.68	6.16	29
Free/Reduced Attended	1.20	4.73	51
Did Not Attend	1.56	5.58	30

The data in Table 11 represents the difference between actual and expected growth in reading, language, and mathematics in grades 3 through 6. As may be observed, the actual means were higher than the expected means in all data shown in the table except sixth grade reading. Reading scores in sixth grade reading had the lowest difference with a mean of 2.09. Math scores in third grade had the highest difference with a mean of +53.980.

Table 11

2005 Mississippi Curriculum Test Results Showing Difference between Actual and Expected Scores by Grade Level in Reading, Language, and Mathematics

Variable	Mean	Std Dev	Min./Max.	Cases
<b>Reading</b>				
Grade 3	5.17	54.53	-49.05/152.64	16
Grade 4	17.63	41.96	-109.74/109.50	29
Grade 5	7.78	45.62	-151.51/112.57	35
Grade 6	2.09	68.85	-104.48/481.99	66
<b>Language</b>				
Grade 3	30.09	51.63	-75.54/94.46	16
Grade 4	12.25	57.62	-106.74/127.66	29
Grade 5	19.84	57.07	-80.01/166.57	35
Grade 6	6.21	34.41	-111.65/92.99	66
<b>Mathematics</b>				
Grade 3	53.98	78.10	-52.74/269.04	16
Grade 4	10.12	53.16	-109.85/110.81	29
Grade 5	7.08	60.45	-95.34/162.52	35
Grade 6	5.52	39.91	-86.52/111.54	66

Growth scores were determined using the following formula (2004a):

Predicted Gain = (overall achievement level coefficient x [actual overall achievement level – constant overall achievement level]) + (regression of the mean coefficient – [actual regression towards the mean in reading, language, and mathematics – constant regression towards the mean in reading, language, and mathematics])

In order to determine *growth scores* on the MCT, a predicted score is needed. The predicted score uses the average gain for students throughout the state determined by the overall achievement level during the first year of testing and accounts for the regression towards the mean. The overall achievement level (OAL) constants for each grade level were determined by adding the scaled reading, language, and mathematics scores of each student taking the test in the spring of 2001 enrolled in the same school for at least 70% of the school year and finding the mean. The regression towards the mean constants for each grade level were determined by finding the statewide mean in reading (RMR), language (RML), and mathematics (RMM) of those students attending the same school in 2002 for at least 70% of the school year. The data in table 12 represents the constants for determining overall achievement level and regression towards the mean.

A multiple regression analysis of the students who took the MCT in 2002 and were in the same school for at least 75% of the school year resulted in the regression equation used for predicting MCT gains from overall achievement levels and regression towards the mean values. The prediction equation also

shows how much the predicted gain is for each point a student scores above the statewide overall achievement level and statewide reading, language, and mathematics mean. Table 13 shows the regression coefficients for predicting MCT gains.

Table 12

Constants for Calculating Overall Achievement Level (OAL) and Regression to the Mean in Each Content Area (RMR = Reading, RML = Language, RMM = Mathematics)

Cohort	OAL	RMR	RML	RMM
Grade 2>>3	1351.64	460.97	456.96	433.71
Grade 3>>4	1449.95	484.26	485.67	480.01
Grade 4>>5	1517.03	505.57	505.80	505.66
Grade 5>>6	1572.32	521.60	524.74	525.98

Table 13

Regression Coefficients for Predicting MCT

---

Cohort	OAL Coefficient	RM Coefficient	Predicted Gain
Grade 2>>3	0.16	-0.69	25.13
Grade 3>>4	0.18	-0.69	22.65
Grade 4>>5	0.22	-0.70	17.69
Grade 5>>6	0.23	-0.81	13.68

Tests of Hypotheses

Five hypotheses were tested. An alpha level of .05 was used as the decision level and the results of the tests follow.

Hypothesis 1

There was not a significant difference in *growth scores* on the MCT in reading, language, or mathematics among students who participated in tutoring programs and those who did not participate.

A one-sample *t* test was used to evaluate the hypothesis. The data indicate that Hypothesis 1 was rejected in reading ( $t(144) = .75, p = .46$ ), language, ( $t(144) = -.17, p = .86$ ), and mathematics ( $t(144) = .50, p = .62$ ). The level of significance was greater than .05 which indicated there was no significant difference between students who participated in tutoring programs and those who did not participate. When examined by individual grade level, the *growth scores* in grade 3 were significantly higher on the MCT in reading ( $t(14) = 3.028, p = .009$ ) for students who participated in tutoring programs ( $M = .4.87, SD =$

6.51) than those who did not participate ( $M = -2.08$ ,  $SD = 2.68$ ) and mathematics ( $t(14) = 2.43$ ,  $p = .029$ ) between students who participated in the tutoring programs ( $M = 7.46$ ,  $SD = 6.80$ ) and those who did not participate ( $M = 1.50$ ,  $SD = 3.05$ ) (see Table 6).

### Hypothesis 2

There was not a significant difference between in *growth scores* on the MCT in reading, language, or mathematics by gender among students who participated in tutoring programs and those who did not participate.

MCT *growth scores* in reading, language, and mathematics were subjected to a two-way analysis of variance between gender (male, female) and attendance (attended, did not attend) in tutoring programs. No effects were statistically significant at the .05 significance level. Hypothesis 2 was accepted.

The main effect of attendance in reading yielded an  $F$  ratio of  $F(1, 146) = .54$ ,  $p = .463$ , such that the *growth scores* were not significantly higher for those who participated in tutoring programs in reading ( $M = 1.21$ ,  $SD = 4.67$ ) than for those who did not participate ( $M = .32$ ,  $SD = 9.45$ ). The main effect of gender in reading yielded an  $F$  ratio of  $F(1, 146) = .06$ ,  $p = .808$ , such that the *growth scores* were not significantly higher for females in reading ( $M = 1.04$ ,  $SD = 9.45$ ) than males ( $M = .65$ ,  $SD = 4.96$ ). The interaction effect was non-significant,  $F(1, 146) = .02$ ,  $p = .878$ .

The main effect of attendance in language yielded an  $F$  ratio of  $F(1, 146) = .00$ ,  $p = .965$ , such that the *growth scores* were not significantly higher for those who participated in tutoring programs in reading ( $M = 1.33$ ,  $SD = 5.03$ ) than for



those who did not participate ( $M = 1.48$ ,  $SD = 5.32$ ). The main effect of gender in language yielded an  $F$  ratio of  $F(1, 146) = .09$ ,  $p = .768$ , such that the *growth scores* were not significantly higher for females in language ( $M = 1.29$ ,  $SD = 4.07$ ) than males ( $M = 1.48$ ,  $SD = 5.83$ ). The interaction effect was non-significant,  $F(1, 146) = .44$ ,  $p = .436$ .

The main effect of attendance in mathematics yielded an  $F$  ratio of  $F(1, 146) = .63$ ,  $p = .428$ , such that the *growth scores* were not significantly higher for those who participated in tutoring programs in mathematics ( $M = 1.33$ ,  $SD = 5.03$ ) than for those who did not participate ( $M = 1.48$ ,  $SD = 5.32$ ). The main effect of gender in mathematics yielded an  $F$  ratio of  $F(1, 146) = .20$ ,  $p = .655$ , such that the *growth scores* were not significantly higher for females in mathematics ( $M = 1.29$ ,  $SD = 4.07$ ) than males ( $M = 1.48$ ,  $SD = 5.83$ ). The interaction effect was non-significant,  $F(1, 146) = .2.95$ ,  $p = .088$ .

### Hypothesis 3

There was not a significant difference in *growth scores* on the MCT in reading or language by race among students who participated in tutoring programs and those who did not participate. There was a significant difference in *growth scores* between Caucasians and African-Americans in mathematics but the interaction effect was non-significant.

MCT *growth scores* in reading, language, and mathematics were subjected to a two-way analysis of variance between race (Caucasian, African-American) and attendance (attended, did not attend) in tutoring programs. No

effects were statistically significant at the .05 significance level. Hypothesis 3 was accepted.

The main effect of attendance in reading yielded an  $F$  ratio of  $F(1, 134) = .16, p = .688$ , such that the *growth scores* were not significantly higher for those who participated in tutoring programs in reading ( $M = 1.00, SD = 4.72$ ) than for those who did not participate ( $M = .37, SD = 9.74$ ). The main effect of race in reading yielded an  $F$  ratio of  $F(1, 134) = 2.06, p = .153$ , such that the *growth scores* were not significantly higher for Caucasians in reading ( $M = -.23, SD = 4.74$ ) than African-Americans ( $M = 1.55, SD = 9.11$ ). The interaction effect was non-significant,  $F(1, 134) = 1.51, p = .221$ .

The main effect of attendance in language yielded an  $F$  ratio of  $F(1, 134) = .138, p = .74$ , such that the *growth scores* were not significantly higher for those who participated in tutoring programs in language ( $M = 1.51, SD = 5.16$ ) than for those who did not participate ( $M = 1.22, SD = 5.35$ ). The main effect of race in language yielded an  $F$  ratio of  $F(1, 134) = .01, p = .907$ , such that the *growth scores* were not significantly higher for Caucasians in language ( $M = 1.36, SD = 4.64$ ) than African-Americans ( $M = 1.40, SD = 5.73$ ). The interaction effect was non-significant,  $F(1, 134) = 1.66, p = .199$ .

The main effect of attendance in mathematics yielded an  $F$  ratio of  $F(1, 134) = .91, p = .342$ , such that the *growth scores* were not significantly higher for those who participated in tutoring programs in mathematics ( $M = 1.22, SD = 4.86$ ) than for those who did not participate ( $M = .71, SD = 4.47$ ). The main effect of race in mathematics yielded an  $F$  ratio of  $F(1, 134) = 4.73, p = .032$ , such that

the *growth scores* were significantly higher for Caucasians in mathematics ( $M = 1.93$ ,  $SD = 4.89$ ) than African-Americans ( $M = .15$ ,  $SD = 4.34$ ). The interaction effect was non-significant,  $F(1, 134) = 3.80$ ,  $p = .053$ .

#### Hypothesis 4

There was not a significant difference in *growth scores* on the MCT by socioeconomic status among students who participated in tutoring programs and those who did not participate.

MCT *growth scores* in reading, language, and mathematics were subjected to a two-way analysis of variance between socioeconomic status (free or reduced priced lunch, regular priced lunch) and attendance (attended, did not attend) in tutoring programs. No effects were statistically significant at the .05 significance level. Hypothesis 3 was accepted.

The main effect of attendance in reading yielded an  $F$  ratio of  $F(1, 146) = .74$ ,  $p = .391$ , such that the *growth scores* were not significantly higher for those who participated in tutoring programs in reading ( $M = 2.21$ ,  $SD = 5.05$ ) than for those who did not participate ( $M = -.16$ ,  $SD = 6.78$ ). The main effect of socioeconomic status in reading yielded an  $F$  ratio of  $F(1, 146) = .29$ ,  $p = .590$ , such that the *growth scores* were not significantly higher for participants with free or reduced lunch in reading ( $M = 1.38$ ,  $SD = 5.15$ ) than participants paying for regularly-priced lunch ( $M = 1.50$ ,  $SD = 2.15$ ). The interaction effect was non-significant,  $F(1, 146) = .87$ ,  $p = .352$ .

The main effect of attendance in language yielded an  $F$  ratio of  $F(1, 146) = .02$ ,  $p = .890$ , such that the *growth scores* were not significantly higher for those

who participated in tutoring programs in reading ( $M = 1.33$ ,  $SD = 5.03$ ) than for those who did not participate ( $M = 1.48$ ,  $SD = 5.32$ ). The main effect of socioeconomic status in language yielded an  $F$  ratio of  $F(1, 146) = .16$ ,  $p = .686$ , such that the *growth scores* were not significantly higher for participants with free or reduced lunch in language ( $M = 1.25$ ,  $SD = 4.66$ ) than participants paying for regularly-priced lunch ( $M = 1.62$ ,  $SD = 5.82$ ). The interaction effect was non-significant,  $F(1, 146) = .00$ ,  $p = .997$ .

The main effect of attendance in mathematics yielded an  $F$  ratio of  $F(1, 146) = .21$ ,  $p = .650$ , such that the *growth scores* were not significantly higher for those who participated in tutoring programs in mathematics ( $M = 1.14$ ,  $SD = 4.71$ ) than for those who did not participate ( $M = .76$ ,  $SD = 4.45$ ). The main effect of socioeconomic status in mathematics yielded an  $F$  ratio of  $F(1, 146) = 3.26$ ,  $p = .073$ , such that the *growth scores* were not significantly higher for participants with free or reduced lunch in mathematics ( $M = .44$ ,  $SD = 4.897$ ) than participants paying for regularly-priced lunch ( $M = 1.74$ ,  $SD = 4.02$ ). The interaction effect was non-significant,  $F(1, 146) = .89$ ,  $p = .347$ .

#### Hypothesis 5

There was not a significant difference between *growth scores* on the MCT by grade level. The one-way analysis of variance in reading,  $F(3, 145) = .43$ ,  $p = .73$ ; language,  $F(3, 145) = .96$ ,  $p = .41$ ; and mathematics,  $F(3, 145) = 2.27$ ,  $p = .08$  all had a  $p$  value  $>$  than .05 indicating that neither reading ( $M = .81$ ,  $SD = 7.18$ ), language ( $M = .40$ ,  $SD = 5.15$ ), nor mathematics ( $M = 1.00$ ,  $SD = 4.59$ )

*growth scores* on the MCT were significantly affected by grade level. Hypothesis 5 was rejected.

## CHAPTER V

### SUMMARY

The general purpose of this study was to determine the relationship between out-of-school tutoring programs and student achievement in reading, language, and mathematics. The dependant variable of the study was *growth scores* on the MCT while the independent variables were participation in tutoring programs, gender, race, socioeconomic status, and grade level.

The ultimate goal of this study was to provide data to educators on the effectiveness of the out-of-school tutoring programs provided in two elementary schools in a southern Mississippi public school district on reading, language, and mathematics achievement a measured by *growth scores* on the MCT. The specific purposes of the study were:

1. To determine if there was a significant difference in predicted and actual reading, language, and mathematics *growth scores* for students participating in out-of-school tutoring programs and those who did not participate.
2. To examine the relationship between *growth scores* and the variables of participating in tutoring programs, gender, race, socioeconomic status, and grade level.
3. To present descriptive data relevant to the variables of this study.

## Summary of Procedures

The participants of this study were 146 students in third through sixth grades during the 2004-2005 school year.

The researcher met personally with the superintendent of the school district to explain the study, secure permission to conduct the study, and utilize the data. The individual school principals were also personally contacted to explain the nature of the study and to collect the data within each school site.

The differences in actual and predicted *growth scores* on the 2004 MCT were used for determining *growth* in reading, language, and mathematics. The 2001 statewide scaled scores were used as the dependent variable and the 2002 statewide scaled scores were used as the predictor to determine the expected *growth score* for each subject. The *growth score* consisted of the difference between the 2004 and 2005 MCT results in reading, language, and mathematics.

The statistical computations required by the study were performed using SPSS 11.0 for Windows. The .05 alpha level was used on all tests of hypothesis.

### Summary of Major Findings

The analysis of data pertaining to the testing of the hypotheses was presented in Chapter IV. A summary of those results follows:

1. There was no significant difference in *growth scores* on the MCT among students participating in tutoring programs and those who did not participate.

2. There was no significant difference in *growth scores* on the MCT by gender among students participating in tutoring programs and those who did not participate.
3. There was no significant difference in *growth scores* on the MCT by race among students participating in tutoring programs and those who did not participate. There were; however, significantly lower *growth scores* by African-Americans compared to Caucasians regardless of whether or not tutoring programs were attended.
4. There was no significant difference in *growth scores* on the MCT by socioeconomic status among students participating in tutoring programs and those who did not participate.
5. There was no significant difference in *growth scores* on the MCT by grade level among students participating in tutoring programs and those who did not participate. The two exceptions to this were students who took the third grade reading and mathematics tests.

### Conclusions

Data in Chapter IV related to the relationship between *growth scores* and the variables of attendance in out-of-school tutoring programs, gender, race, socioeconomic status, and grade level provided the following conclusions:

1. Out-of-school tutoring programs were the most effective for students in third grade regardless of race, gender, socioeconomic status, and the subject being remediated.



2. Changes in *growth scores* of third graders are likely to be attributed to the wide range of teaching strategies utilized in the tutoring programs which included small group, one-on-one, computer assisted programs, and kinesthetic activities.
3. Although third graders who attended tutoring programs exhibited significant growth in reading and mathematics as a whole, the variables of race, socioeconomic status, and gender were not significant.
4. There were no statistically measurable changes in *growth scores* for students in fourth, fifth, or sixth grades who attended the out-of-school tutoring programs included in this study.
5. Caucasian students attending tutoring programs experienced higher growth and African-American attending tutoring programs had negative growth.
6. Students with low socioeconomic status attending the tutoring programs showed negative growth.
7. Caucasian females who did not attend tutoring programs had negative growth.

## Limitations

The following limitations were imposed on this study:

1. This study was conducted in one district on the Mississippi Gulf Coast.

The city in which the district is located has 50,644 people (City of Biloxi, 2000). Of those, 71.4% were White, 19% Black, and 3.4% Vietnamese.

The median household income is \$34,106. The air force base, which employs 4,688 people, is a major economic source of the city and employs 11.8% of the working force.

2. The results of this study were representative of this particular population. In addition, although the tutoring programs were similar in nature because they were taught by certified staff members and used a combination of pencil and paper activities, computer applications, and hands-on activities, they were run by different staffs, with different populations, and different student-specific curriculums.

3. This study did not attempt to determine why students did not participate in tutoring programs or the motivational levels of those who did participate. Motivation, whether intrinsic or extrinsic, is key to achievement and the success of tutoring programs is often pivotal on that understanding.

4. This study did not attempt to determine why parents chose not to allow students to participate in the tutoring programs offered. Parents' interest in school serves as a positive role model and involved parents are often able to give the one-one attention needed by students in tutoring programs.

5. The English as a second language subgroup had to be dropped from the study because the two schools within the district where most of these students attended lost their tutoring records during Hurricane Katrina.
6. Race was defined as Caucasian or African-American. Hispanic and Vietnamese participants will not be explored in this study due to the lack of records on these subgroups after Hurricane Katrina
7. The study was limited to one school district after Hurricane Katrina due to lost records and a shifted focus on recovery efforts.
8. The study was limited to one year due to the modified school year caused by Hurricane Katrina. None of the schools in the study offered tutoring programs the second year. As programs mature, the effectiveness is often more significant for participating students.
9. The programs used by the school in this study were not standard. Different methods were utilized throughout the year making it difficult to attribute any findings to one particular method.

### Discussion

The results of this study mirror others performed around the country. Although positive achievement results are often not significant, academic gains and positive attitudes of students, parents, and teachers toward tutoring programs are prevalent (Grossman et al., 2002). Tutoring programs are seen as helpful because they can help to decrease family stress, maintain current academic standings, and keep students from dropping out of school (Cosden, Morrison, Gutierrez, & Brown, 2004). Tutoring programs also play a role in increasing students' self-esteem, intrinsic value, motivational levels, and class

participation. These factors can be difficult to attribute to specific tutoring programs.

Although the programs in this study used similar methods for tutoring such as one-on-one, kinesthetic, small group instruction, and computer assisted programs, neither tutoring program followed a specific researched-based program. Students were not progressed-monitored throughout the year and switched between teaching methods each tutoring session. Different programs and strategies were utilized in a manner that each certified teacher saw fit. In addition, the student teacher ratio shifted over time and students did not always work with the same tutor. According to Fashola (1998), having consistent tutors are vital to successful programs. Having the same tutor enables teachers to form positive relationships with students and helps teachers understand students' strengths and weaknesses so planning can be tailored toward individual needs.

The student-teacher relationship is an important component to educational settings. Although the schools observed in this study all employed certified teachers to provide tutoring services, certified teachers are not necessary (Hock et al., 2001). Tutors that offer students the opportunity to engage with others in learning and allow ample time to process information and problem solve rather than quickly providing answers in order to move on to the next question are often effective. Tutors that have the patience to allow critical thinking to occur and provide the academic support needed to guide students to a greater understanding often form trusting relationships with students because the students feel less pressure to perform.

The participants observed in this study were diverse in nature. Different races, gender, cultural backgrounds, and economic levels were represented. The schools studied did not attempt to match the students to their tutors using any of these variables. Instead, teachers were assigned and groups were formed according to skills needing to be remediated. Fashola (2003) found that students often perform better when matched with tutors that have an insight into what the students' family lives are like. African-American male students relate better to African-American tutors and therefore experience higher levels of academic growth. This remained constant even when the tutors were not certified teachers. Programs such as HOST build on this premise by matching volunteers to students based on individual characteristics.

It is not known how many hours students attended the tutoring programs because attendance was not monitored. School A kept records during the first year of the study and if students were consistently absent, they were dropped from the program in order for students on the waiting list to attend. Records were not kept the second year. School B did not keep records at all and welcomed any student to come as often or little as possible; the theory being that any attendance would be beneficial. Studies have indicated that regular and consistent attendance by students and teachers several days a week is a high indicator of successful programs (Department of Education, University of California at Irvine, 2001).

The district in this study did not provide transportation for the students to attend tutoring sessions or day care for siblings. Low-wealth populations often lack the accessibility needed to attend before or after school tutoring. In addition

to not having transportation, many poor students often have household responsibilities and family obligations that require them to be home while one or both parents are at work (Fashola, 2003). The lack of family resources is two-fold because not only are these students unable to attend needed tutoring sessions before or after school, but the parents of these children are often not able to help academically because they are either not at home or are unable to do the work themselves because of a limited education. For tutoring programs to truly be successful, these issues must be addressed. Schools must be able to attract and keep the students who need extra help the most.

Many researched-based programs are utilized in the American educational setting. Programs such as Success-for-All and Math Navigator rely on specific formats that teach skills in a structured timeline. Some are even scripted in nature and leave little room for adaptations to be made. Research on these programs has shown that following them leads to greater academic knowledge. The Howard Street Program in Chicago (Morris & Shaw, 1990) even pinpointed that students need 50 hours of reading aloud to a tutor to increase reading achievement by one-half of a year. The schools represented in this study did not utilize any specific programs and provided a mixture of instructional methods to their students. Further research is suggested to determine the difference between using specific programs versus tailor made activities for individual needs.

The findings of this study did not correspond to findings by McRobbie et al. (2000) that students provided with intervention strategies at younger ages see greater gains than those in older grades. McRobbie found that students up to

third grade benefit from small group instruction and these results hold true over time. The gap widens as students get older and those who did not receive the extra help needed at an early age often are unable to catch up to their peers even if they eventually attend tutoring programs (Brown, 2004). This study only attempted to analyze tutoring programs for students starting in grade three who scored basic or minimal on the MCT when they were in grade two. The MCT does not begin testing students until they reach second grade therefore students in lower grades would not have had scores to compare for this study. Further studies might include programs that utilize a different measurement tool that includes lower elementary grades in order to test whether or not students in lower grades would experience more growth.

#### Recommendations

As a result of analyzing the data for this study, the following recommendations are made:

1. It is recommended that this study be replicated to determine if attendance in out-of-school tutoring programs has an effect on *growth scores* on the MCT over time.
2. It is recommended that students be paired with the same tutor. Having the same tutor increases the likelihood that students will attend tutoring programs. The compatible relationship between the student and the teacher allows the teacher to constantly be focused on relevant needs rather than having to reassess achievement levels. The relationship enables students to feel comfortable in the learning environment

knowing someone is interested in each student's success. The bond that forms between the student and tutor reduce the number of factors that contribute to insignificant growth.

3. It is recommended that this study be replicated to include other schools and districts and increase the potential for its findings to be utilized in other educational settings. A larger study would increase the likelihood that other districts would support and utilize the idea and structure of out-of-school tutoring programs.
4. It is recommended that the choice of programming and instructional design should be research-based. Consistent programming within schools and districts would allow for a better understanding of the results of future studies and provide tangible evidence that specific strategies lead to future growth.
5. It is recommended that attendance in programs be recorded. The ability to track regular consistent attendance in out-of-school tutoring programs would help the researcher establish a link between the presence of the student and *growth* on measurable assessments. Tracking attendance levels would also help correlate the interdependence of success on measurable assessments to the amount of time spent in out of-school tutoring.
6. It is recommended that tutoring programs include a heterogeneous staff that closely mimics the overall population being serviced. This



should include gender, race and multicultural diversity. Doing so would help students identify with tutors and provide a role model that offers a vision of potential success.

7. It is recommended that tutoring programs offer pre and post tests in order to determine the *growth* of the students participating. Doing so would aid in determining how the program can be tailored to better meet the needs of its students.

APPENDIX A  
 INSTITUTIONAL REVIEW COMMITTEE OF THE UNIVERSITY OF  
 SOUTHERN MISSISSIPPI

THE UNIVERSITY OF SOUTHERN MISSISSIPPI



Institutional Review  
 Board

118 College Drive #5147  
 Hattiesburg, MS 39406-0001  
 Tel: 601.266.6820  
 Fax: 601.266.5509  
[www.usm.edu/irb](http://www.usm.edu/irb)

**HUMAN SUBJECTS PROTECTION REVIEW COMMITTEE**  
 NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Human Subjects Protection Review Committee in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months.  
 Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: **28071506**  
 PROJECT TITLE: Effectiveness of **Before** and **After**-School Tutoring as Measured  
 by The Mississippi Curriculum Test  
 PROPOSED PROJECT DATES: **06/01/05** to 0:131/08  
 PROJECT TYPE: dissertation or Thesis

APPENDIX B  
CONSENT TO CONDUCT STUDY IN SELECTED SCHOOL DISTRICT



---

*Biloxi Public Schools*  
160 St. Peters Ave.. Biloxi, MS 39530 • P.O. Box 168, Biloxi, MS  
39533  
Telephone 228.374.1810 • Fax 228.436.5171  
**Paul A. Tisdale, ED.D.,**

---

February 18, 2005

Mrs. Goyette,

You are to be commended for working on your doctorate degree.

Permission is granted to conduct your research study related to the effectiveness of after-school tutoring in Biloxi Public Schools.

Please send me a copy of your letter to elementary principals for my file.

Most respectfully,

Paul A. Tisdale

APPENDIX C

INTERVIEW QUESTIONS FOR PRINCIPALS

Tutoring

General School Information

What is the name of your school?

What percent of the students in your school have free or reduced lunch?

Tutoring Program Information

<p>Does your school offer tutoring to students before, during, or after school? (if you answer YES to any section, proceed with the following questions. If NO, go to the bottom of the survey and click SUBMIT)</p>	<table border="1"> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </table>						
<p>What time of day is the tutoring program offered?</p>	<table border="1"> <tr> <td></td> </tr> </table>						
<p>Describe any staff training you or someone else conducts with your tutors:</p>	<table border="1"> <tr> <td></td> </tr> </table>						
<p>Describe the instructional methods used in your tutoring program and any curriculum programs</p>	<table border="1"> <tr> <td></td> </tr> </table>						
<p>What qualifications are the tutors in your school required to possess?</p>	<table border="1"> <tr> <td></td> </tr> </table>						
<p>Are the tutors in your tutoring program paid?</p>	<table border="1"> <tr> <td>Yes</td> <td>No</td> </tr> <tr> <td></td> <td></td> </tr> </table>	Yes	No				
Yes	No						
<p>If so, how is their pay determined?</p>	<table border="1"> <tr> <td></td> </tr> </table>						
<p>How are students selected to be in your school's tutoring program?</p>	<table border="1"> <tr> <td></td> </tr> </table>						
<p>How many students can be serviced in your tutoring program?</p>	<table border="1"> <tr> <td></td> </tr> </table>						

How many of the students in your program tested basic in the following subject areas?		
Reading	Language	Math
Do you have a waiting list for students who are eligible to attend your school's tutoring program?	Yes	No
How many days per week and for how long are students tutored each day in each subject?		
How does your school's tutoring program communicate with parents in order to get students to enroll in the program?		
Describe the ongoing communication between the tutoring program and parents who have children enrolled:		
Describe the ongoing communication between the tutoring program and teachers who have students enrolled:		
Describe your tutoring program's attendance policy if it has one:		
Are the students in your program reevaluated throughout the year to assess continued need?	Yes	No
If so, what materials are used to reevaluate their needs?		
What is the student/teacher ratio of your program?		
How is your tutoring program funded?		

## REFERENCES

- After-School Alliance. (2003). *After-school alliance backgrounder: Formal evaluation of after school programs.* (EDRS No. 481 901). Washington, DC: After-school Alliance.
- After-School Alliance (2004). *What is the after-school alliance?* After-school Alliance.
- Anderson, R., & West, R. (1992). *Adapting to retention: A qualitative study revealing the retention philosophy of non-promoted students and their parents.* A paper presented at the annual meeting of the Mid-South Educational Research Association, New Orleans.
- AOL Time Warner Foundation. (June, 2003). *21<sup>st</sup> Century literacy survey.*
- Ausubel, D. (1968). *Educational psychology: A cognitive view.* New York: Holt, Rinehart & Winston.
- Ausubel, D., & Robinson, F. (1969). *School Learning.* New York: Holt, Rinehart & Winston.
- Balitewicz, T. (2000). *The long-term effects of grade retention.* (Doctoral dissertation, Johns Hopkins University, 2000). (ERIC Document Reproduction Service, ED424616.)
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englewood Cliffs, NJ: Prentice Hall.
- Barton, P. (2004). *Why does the gap persist?* *Educational Leadership*, 62(8), 8-14.

- Beishuizen, J., Hof, E., van Putten, C., Bouwmeester, S., & Asscher, J. (2001). Students' and teachers' cognitions about good teachers. *British Journal of Educational Psychology, 71*(2), 185-212.
- Berry, S. (1994). Estimating discrete choice models of product differentiation. *RAND Journal of Economics, 25*(2), 242-262.
- Biloxi Public School District (June, 2006). Retrieved June 19, 2006, from <http://www.biloxischools.net/>
- Bloom, A. (1987). *The closing of the American mind: How higher education has failed democracy and impoverished the souls of today's students*. New York: Simon and Schuster.
- Bogaard, A., Carey, S., Dodd, G., Repath, I., & Whitaker, R. (2005). Small group teaching: Perceptions and problems. *Politics, 25*(2), 116-125.
- Boylan, H. (1999). Exploring alternatives to remediation. *Journal of Developmental Education, 22*(3), 2-8.
- Boyle, T. (2004). Rise of a new class. *Toronto Star*. A-18.
- Brown, D. (2000). Arizona ranks schools by 'value added' to scores. *Education Week, 19*(22), 18-19.
- Brown, L. (2004, November 12). Applied-level failure rates grow with class size, report says. *Toronto Star*, p. A19.
- Bruner, J. (1960). *The process of education*. Cambridge, MA: President and Fellows of Harvard College.
- Bruner, J. (1965). The growth of mind. *American Psychology, 20*, 1007-1017.
- Buchanan, G., & Seligman, M. (1995). *Explanatory style*. Hillsdale, NJ: Erlbaum.

- Cannon, C. (2006). Implementing research practices. *High School Journal*, 89, 8-13.
- Cardelle-Elawar, M. (1991). Effects of feedback tailored to bilingual students' mathematics needs on verbal problem solving. *The Elementary School Journal*, 91, 165-175.
- Cassidy, S. (2004). Learning style: An overview of theories, models, and measures. *Educational Psychology*, 24, 419-444.
- Center for Research on the Education Students Placed At-risk. (1998). *Review of extended-day and after-school programs and their effectiveness*. (Issue Brief No. 24). Baltimore, MD: Fashola.
- Chaddock, G. (1999). Say goodbye to "latch-key" kids. *Christian Science Monitor*, 91, 245-259.
- Chandler, H. (1982). Title I and learning disabilities: The creatures from the federal swamp. *Journal of Learning Disabilities*, 15, 183-185.
- City of Biloxi. (2000). U. S. bureau of the census. Retrieved May 6, 2006, from <http://www.biloxi.ms.us/censusdata/>.
- Civil Rights Act of 1964, Pub. L. NO. 88-352, 110 Stat. 7152 (1964).
- Cob, N., Harper, S., McCormick, K., McNeil, K., Miltenberger, M., Phillips, R., Schneider, R., Taylor, G., & Wilkens, S. (2006). Summer programming: What do children say? *Journal of Youth Development: Bridging Research and Practice*, 1. (Article 0601FA003)
- Coleman, J. (2006). In *Encyclopedia Britannica*. Retrieved July 20, 2006, from Encyclopedia Britannica Premium Service: <http://www.britannica.com/eb/article-9000690>



- Conway, J. (1997, May). Educational technology's effect on models of instruction. *Educational Technology*, 1-7.
- Counsel of Chief State School Officers. (2002). Extended learning opportunities in fostering academic achievement: Selected school profiles.
- Cosden, M., Morrison, G., Gutierrez, L., & Brown, M. (2004). The effects of homework and after-school activities on school success. *Theory into Practice*, 43(3), 220-227.
- Coulter, G. (2004). Using one-to-one tutoring and proven reading strategies to improve reading performance with adjudicated youth. *The Journal of Correctional Education*, 55(4), 321-333.
- Dell'angela, T. (2004). 63,000 children enroll in Chicago tutoring program. *Chicago Tribune*, 1.
- Denton, C., Anthony, J., Parker, R., & Hasbrouck, J. (2004). Effects of two tutoring programs on the English reading development of Spanish-English bilingual students. *Elementary School Journal*, 104, 289-306.
- Department of Education, University of California at Irvine (2001). Evaluation of California's after-school learning and safe neighborhoods partnerships program: 1999-2000.
- Deshler, D. & Schumaker, J. (1993). Strategy mastery by at-risk students: Not a simple matter. *The Elementary School Journal*, 94(2), 153-168.
- Dewey, J. (1938). *Experience and Education*. New York: The MacMillan Company.

- Doise, W., Mugny, G., & Perret-Clermont, A. (1975). Social interaction and the development of cognitive operations. *European Journal of Social Psychology, 5*, 367-383.
- Dornyei, Z. (2003). Attitudes, orientations, and motivations in language learning: Advances in theory, research, and applications. *Language Learning, 53*(2), 3-33.
- Dorward, J., Hudson, P., Drickey, N., & Barta, J. (2001). Standards, instruction and accountability: Teaching to test or testing to teach? *Teaching and Change, 8*(3), 247-258.
- Ediger, M. (1997). Influence of ten leading educators on American education. *Education, 118*(2), 267-276.
- Egan, K. (1992). The role of schools: The place of education. *Teachers College Record, 93*, 641-655.
- The Elementary and Secondary School Act, (1965). Public Law 89-10.
- Fan, X., & Chen, (2001). Parental involvement and students' academic achievement: A meta-analysis. *Educational psychology review, 13*, 1-22.
- Fashola, O. (1998). *Review of the extended-day and after-school programs and their effectiveness*. (report No. 24). Baltimore, MD: Center for Research on the Education of Students Placed At-risk. (ERIC Document Reproduction Service No. ED424343)
- Fashola, O. (2003). Developing the talents of African-American male students during the non-school hours. *Urban Education, 38*, 398-450.

- Fashola, O. & Slavin, R. (1997), Promising programs for elementary and middle school schools: Evidence of effectiveness and replicability. *Journal of Education for Students Placed at-risk*, 2, 251-308.
- Finn, J., Gerber, S., Achilles, C., & Boyd-Zaharias, J. (2001). The enduring effects of small classes. *Teachers College Record*, 103(2), 145-184.
- Finn, C., & Hess, F. (2004). On leaving no child behind. *Public Interest*, 157, 35-57.
- Gerwertz, C. (2002). More Chicago pupils flunk grade. *Education Week*. 22,(6), 1-13.
- Green, S., Aldreman, G., & Liechty, A. (2004). Peer tutoring, individualized intervention, and progress monitoring with at-risk second-grade readers. *Preventing Reading Failure*, 4, 11-17.
- Grossman, J., Price, M., Fellerath, V., Jucovy, L., Kotloff, L., Raley, R., & Walker, K. (2002). *Multiple choices after-school: Findings from the extended-services school initiative*. (Issue Brief No. 143). Philadelphia, PA: Public/Private Ventures & Manpower Demonstration Research Corporation.
- Hagborg, W. (1993). *Teacher and high school student grade retention attitudes*. Paper presented at the annual meeting of the National Association of School Psychologists, Anaheim, CA.
- Hargrove, M. (1982). Teachers' perceptions of ESEA Title I programs. *Education*, 103, 96-100.
- Heron, T., Welsch, R., & Goddard, Y. (2003) Application of tutoring in specialized subject areas. *Remedial and Special Education*, 24, 288-301.

- Hill, N., & Taylor, L. (2004). Parental school involvement and children's academic achievement. *Current directions in psychological science, 13(4)*, 161-187.
- Hock, M., Pulvers, K., Deshler, D., & Shumaker, J. (2001). The effects of an after-school tutoring program on the academic performance of at-risk students and students with Id. *Remedial and Special Education, 22*, 172-187.
- Holmes, T., & Saturday, J. (2000). Promoting the end of retention. *Journal of Curriculum and Supervision. 15(4)*, 300-314.
- Holloway, J. (2002). Do smaller classes change instruction? *Educational Leadership, 59(5)*, 91-92.
- Hoover-Dempsey, K., Battiato, A., Walker, J.; Reed, R., DeJong, J., & Jones, K. (2001). Parental involvement in homework). *Educational Psychologist, 36(3)*, 195-209.
- Hudley, C. (1992). Attributions for pride, anger, and guilt among incarcerated adolescents. *Criminal Justice and Behavior, 19(2)*, 189-205.
- Jitendra, A., Edwards, L., Starosta, K., Sacks, G., Jacobson, L., & Choutka, C. (2004). Early reading instruction for children with reading difficulties: Meeting the needs of diverse learners. *Journal of learning Disabilities, 37(5)*, 421-439.
- Kane, T. (2004, January). The impact of after-school programs: Interpreting the results of four recent evaluations. William T. Grant Foundation.
- Karweit, N. (2000). *Grade retention on the education of students placed at-risk*, Baltimore, MD. Center for Research and Improvement.

- Katzenmeyer, C. (1991). Singing the same old tune: Federal evaluation policy and the program effectiveness policy. *Theory Into Practice, 30*, 69-73.
- Kovaleski, J. (1999). High versus low implementation of instructional support teams: A case for maintaining program fidelity. *Remedial and Special Education, 20*(3), 170-184.
- Lange, C., & Lehr, C. (1999). At-risk students attending second chance programs: Measuring performance in desired outcome domains. *Journal of Education for Students Places at-risk, (4)*, 173-193.
- Lawton, J., Saunders, R., & Muhs, P. (1980). Theories of Piaget, Bruner, and Ausubel: Explications and implications. *Journal of Genetic Psychology, 136*, 121-137.
- Lesson in the value of tutors. (2003, October 10). *Chicago Tribune*.
- Lyon, R., Fletcher, J., Torgesen, J. Shaywitz, S., & Xhhabra, V. (2004). Preventing and remediating failure: A response to Allington. *Educational Leadership, 61*(6), 86-88.
- Magliaro, S.; Lockee, B.; & Burton, J. (2005). Direct instruction revisited: A key model for instructional technology. *Educational Technology Research and Development, 53*, 41-55.
- Maslow, A. (1954). *Motivation and personality*. New York: Harper & Row.
- Massachusetts Department of Education (2003). After-school and out-of-school time grant program year end report fiscal year 2002.
- McRobbie, J. (1996). *Focus on california's class-size reduction: Smaller classes aim to launch early literacy*. (Tech Rep. No. 423 604). WestEd, San Francisco, CA.

McRobbie, J., Finn, J., & Harman, P. (2000). Class size reduction: Lessons learned from experience. Office of Educational Research and Improvement (Policy Brief No. 23).

Meyers, C. (1993). *Promoting active learning strategies for the classroom*. San Francisco: Jossey-Bass Publishing.

Mid-Continent Research for Education and Learning (2003). The effectiveness of out-of-school time strategies in assisting low-achieving students in reading and mathematics: A research synthesis.

Miller, S. (2003). Partners-in-reading: Using classroom assistants to provide tutorial assistance to struggling first-grade readers. *Journal of Education for Students Placed At-Risk*, 8,(3), 333-350.

Mississippi Department of Education. (2002). *Implementation of grades 3 and 7 benchmarks for the Mississippi Curriculum Test*. Retrieved October 23, 2005 from <http://www.mde.k12.ms.us/public/lic-4.htm>

Mississippi Department of Education. (2003a). *Curriculum frameworks test development test blue prints*. Office of Research and Statistics, Mississippi Department of Education.

Mississippi Department of Education. (2003b). *Mississippi Statewide Accountability System: School level accountability model based on* Department of Education.

Mississippi Department of Education. (2004a). *Mississippi Public School Accountability Standards*. Mississippi Department of Education Office of Innovation and School Improvement Office of Accreditation.

Mississippi Department of Education (2004b). *School improvement and closing the achievement gap report*. Mississippi Department of Education Office of the Deputy State Superintendent and the Office of Innovation and school improvement.

Mississippi Department of Education. (2002). *Implementation of grades 3 and 7 benchmarks for the Mississippi Curriculum Test*. Retrieved September 14, 2005 from <http://www.mde.k12.ms.us/public/lic-4.htm>

Moore, R. (1996). Accelerating English language and academic achievement through an after-school enhancement program. Doctoral dissertation, University of Sarasota, Florida, 1996. (ERIC Document Reproduction Service No. ED394287)

Morris, D., & Shaw, B. (1990). Helping low readers in grades 2 and 3: An after-school volunteer tutoring program. *The Elementary School Journal*, 91, 132-151.

Muijs, D., Harris, A., Chapman, C., Stoll, L., & Russ, J. (2004). Improving school in socioeconomically disadvantaged areas: A review of research evidence. *School Effectiveness and School Improvement*, 15(2), 149-175.

Natriello, G. (1998). Failing grades for retention. *American Association of School Administrators*. Retrieved January 21, 2004, from [http://www.asa.org/publications/sa/1998\\_08/Natriello.htm](http://www.asa.org/publications/sa/1998_08/Natriello.htm)

Nellie Mae Educational Foundation. (June, 2003). Critical hours: After-school programs and educational success.

No Child Left Behind Act of 2001, Public Law NO. 107-110, § 115 Stat. 1425 (2001).

- No child left behind? (2003). *NEA Today*, 21(8), 20.
- Nokes, T., & Ohlsson, S. (2005). Comparing multiple paths to mastery: What is learned? *Cognitive Science*, 29(5), 769-796.
- Nye, B., Hedges, L., & Konstantopoulos, S. (2004). Do minorities experience larger lasting benefits from small classes? *The Journal of Educational Research*, 98(2), 94-100.
- Ogletree, C. (2004). The significance of Brown. In *All deliberate speed: Reflections on the first half century of Brown v. Board of Education* (pp. 3-14). W. W. Norton Company: NY.
- Ormrod, J. (1995). *Educational psychology: Principles and applications*. Englewood Cliffs, NJ: Prentice-Hall.
- Paige, R. (2002). *No child left behind: A desktop reference*. The Office of Undersecretary, The United States Department of Education, Washington.
- Pajares, F. (2001). Toward a positive psychology of academic motivation. *Journal of Educational Research*, 95(1), 27-36.
- Peterson, J. (1989). Remediation is no remedy. *Educational Leadership*, 46(6), 24-26.
- Peterson, C. (2000). The future of optimism. *American Psychologist*, 55, 44-55.
- Piaget, J. (1973). *The child and reality*. (The Viking Press, Trans.) New York. (Original work published in 1972)
- Piaget, J. (1976). *The psychology of intelligence*. Totowa, NJ: Littlefield Adams.
- Pouliot, L. (2000). *A double method approach for a double need: To describe teachers' beliefs about grade retention, and to explain the persistence of*



*these beliefs*. Paper presented at the annual meeting of the American Educational Research Association.

Price, L. (2004). Individual differences in learning: Cognitive control, cognitive style, and learning style. *Educational Psychology, 24*, 681-699.

Rawson, H. (1992). Effects of intensive short-term remediation on academic intrinsic motivation of at-risk children. *Journal of Instructional Psychology, 19*(4), 274-286.

Rueter, T. (1998). An after-school haven needed. *Christian Science Monitor, 90*, 15-16.

Saenz, L., Fuchs, L., & Fuchs, D. (2005). Peer-assisted learning strategies for English language learners with learning disabilities. *Exceptional Children, 71*(3), 231-248.

Schinke, S., Cole, K., & Poulin, S. (2000) Enhancing the educational achievement of at-risk youth. *Prevention Science, 1*(1), 51-60.

Shapiro, B. (2004). Developing understanding: Research on science learning and teaching over time. *Canadian Journal of Science, Mathematics, and Technology Education, 4*, 1-6.

Simon, C. (2004). Learning styles: An overview of theories, models, and measures. *Educational Psychology, 24*, 419-444.

Somers, C., & Pilliawsky, M. (2004). Drop-out prevention among urban, African American adolescents: Program evaluation and practical implications. *Preventing School Failure, 48*(3), 6-23.

United States Conference of Mayors (2003). After-school programs in cities across the United States survey report.

- United States Department of Education. (1997). *Schools serving family needs: Extended-day programs in public and private schools*. National Center for Education Statistics.
- United States Department of Education. (2000). *National conference on curriculum, instruction, and assessment in the middle grades: Linking research and practice*. National Educational Research Policy and Priorities Board.
- United States Department of Education. (2002). *June resources – Afterschool and summer programs*. Washington, DC..
- United States Department of Education. (2003a). Arnold Schwarzenegger, education secretary Paige co-host first-ever after-school summit. Press Release
- United States Department of Education. (2003b). President Bush, Secretary Paige highlight after-school services available under No Child Left Behind. Press Release.
- United States Department of Education. (2004). *When schools stay open late: The national evaluation of the 21<sup>st</sup> century community learning centers program*. Executive Summary. Washington, DC: Office of the Undersecretary.
- Van Zoeren, T. (2003). A study of the after-school basic skills tutoring program at Hopewell Crest School (New Jersey). *Dissertation Abstracts International*, 64/11, 3949. (UNI No. 3112703)

- Vaughn, S., Linan-Thompson, S., Kouzekanani, K., Bryant, D., Dickson, S., & Shelley, B. (2003). Reading instruction grouping for students with reading difficulties. *Remedial and Special Education, 24*(5), 301-316.
- Wasik B., & Slavin, R. (1990) Preventing early reading failure with one-to-one tutoring: A best-evidence synthesis. Needham Heights, MA: Allyn & Bacon.
- Williams, C. (2005). The true self. *Encounter, 18*(4), 2-6.
- Zhou, M. (2003) Urban education: Challenges in educating culturally diverse children. *Teachers College Record, 105*, 208-225.
- Zohar, A., & Dori, Y. (2003). Higher order thinking skills and low-achieving students: Are they mutually exclusive? *Journal of the Learning Sciences, 12*(2), 145-181.
- Zuelke, D., & Nelson, G. (2001). The effect of a community agency's after-school program on reading and math GPA for at-risk tutored students. *Education, 121*, 799-810.