THE EFFECTIVENESS OF AFTERSCHOOL TUTORING PROGRAMS ON STUDENT ACHIEVEMENT IN AN URBAN SCHOOL DISTRICT: A QUANTITATIVE ANALYSIS OF SELECTED SCHOOL PROGRAMS.

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THE EFFECTIVENESS OF AFTERSCHOOL TUTORING PROGRAMS ON STUDENT ACHIEVEMENT IN AN URBAN SCHOOL DISTRICT: A QUANTITATIVE ANALYSIS OF SELECTED SCHOOL PROGRAMS.

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University of Missouri-Kansas City, 2014.

ABSTRACT

The intent of this study is to investigate the effects of implementing afterschool tutorials and attendance at those tutorials on student achievement in mathematics and reading. The data was compiled for the 2012-2013 academic year. This study used a non-experimental post hoc design; a combination of causal-comparative and correlational methods were used. ANCOVA was used to compare the independent-variable groups’ pre- and post-treatment means on the NWEA reading and mathematics RIT scores.
APPROVAL PAGE

The undersigned, appointed by the Dean of the School of Education, have examined a dissertation titled “The Effectiveness of Afterschool Tutoring Programs on Student Achievement in an Urban School District: A Quantitative Analysis of Selected School Programs” presented by Ismet S. Isik, candidate for the Doctorate of Education degree, and certify that in their opinion it is worthy of acceptance.

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CHAPTER 1
INTRODUCTION

Since the early 1900s, education has been a major topic of and a leading impetus for political debate and legislation. The most recent major legislative educational reform that has taken place is the No Child Left behind Act of 2001 (NCLB). The NCLB Act was intended to make landmark changes in the education sector, and it is designed to improve students’ achievement and change the culture of American schools (Paige, 2002). As part of the NCLB Act, students are tested each year for English language arts, mathematics, science, and social studies.

According to The No Child Left Behind Act of 2001, “Schools are expected to have emphasis on implementing educational programs and practices that have been clearly demonstrated to be effective through scientific methods.”

Many public schools receive funds under NCLB to support programs to improve the academic achievement of Title I Students (children of low-income families). Under NCLB, each state must measure students’ progress in reading and mathematics in 3rd through 8th grade. Principals and superintendents have many responsibilities throughout the school year, and one of the most important role of a school leader is to ensure that their school(s) meets statewide standards and expectations for student achievement.

As a result of the recent focus on performance accountability, some school districts are losing their accreditation due to poor student academic performance on statewide assessments relative to state and federal expectations. There are several factors affecting current trends in student achievement. For example, Jenlink (2009) says that educational practitioners are confronted with the increasingly difficult responsibility of educating future
generations in a changing national and global society (p. 2). Marzano (2005) states that in order to maximize the opportunities for student learning, activities should be designed, managed, and monitored with established procedures in an ethical and efficient manner (p. 55). While administrators should collaborate with all stakeholders, they must also maintain a constantly-improving quality learning environment by using direct evaluation and by designing a viable curriculum in order to offer an effective teaching and learning atmosphere. However, studies show that activities within school classrooms alone cannot provide youth with the educational, social, and personal resources they need to overcome many of the issues that surround them (Darling-Hammond, 2012; Eccles et al., 1993; Karns et al., 2007; Pierce, 2010; Sundell et al., 2012).

Guskey (2003) says that teachers should use assessments as tools to determine what is not thought or what is not learned by students. The study revealed that effective use of test data is essential in order for schools to be successful. Each individual has a different learning style and teachers are expected to reach those individuals by being creative. Different types of assessments are used by teachers to enhance instruction, and thereby improve students’ learning. Teachers and students are assessing themselves in order to be better at their roles. Cobb (2003) studied assessing student’s knowledge to achieve effective instruction by school administrators and teachers. One of the findings was the importance of using assessment as a critical component of effective teaching and learning. Focusing on testing can become an issue if a school has a challenging curriculum. Marzano et al. (2005) says that “responsibility of visibility, involvement in curriculum, instruction, and assessment” are critical concepts of instructional leadership. (p. 53). Moreover, principals are expected to
adopt standards and set attainable goals (Cobb, 2003; Dove et al., 2010; Holloway, 2002; Karns et al., 2007; Militello et al., 2009; Pierce, 2010; Stein, 2012).

Students can become more successful by spending extra time outside of the school setting. In several studies, it is strongly recommended that schools arrange extra tutorials, activities and effective programs after school and on weekends to increase student achievement (Darling-Hammond, 2012; Karns et al., 2007; Pierce, 2010; Sundell et al., 2012). In summary, researchers have found that attending extra tutorials during after school may have a positive effect on student achievement.

School leadership is important, and plays a very important role in the school system; school leaders are responsible for understanding the mission, purpose, goals and objectives by all members of the school (Stein, 2012; Marzano et. al., 2005). Leaders are also responsible for recruiting high quality teachers as a key factor for students to learn (Rothman, 2010; Wolters, 2010). One of the principal compliance roles for schools is to ensure adequate yearly success on statewide assessments. NCLB requires that schools administer statewide assessments each year in 3rd grade and beyond (Gayl, 2004) According to No Child Left Behind, schools that cannot meet mandated Adequate Yearly Progress (AYP) requirements in two or more consecutive years are considered a “Needs-Improvement School.” To meet NCLB requirements (and avoid resulting sanctions), school administrators often allocate additional school hours to their instruction plans. Schools are expected to increase their monitoring of school progress and to modify their programs throughout the year. This study was intended be a pathway for school administrators to interpret their achievement scores and better understand the issues surrounding afterschool tutorials.
After School Tutorial Attendance

Researchers indicate that participating in afterschool instruction programs improves academic achievement of (Baker & Witt, 1996; Darling-Hammond, 2012; Deeb-Westervelt, 2003; Huang et al., 2000; Karns et al., 2007; Pierce, 2010; Sundell et al., 2012). For this study, I hypothesized that attending afterschool tutorials would result in higher student achievement in mathematics and reading. Several studies have shown that activities within school classrooms alone cannot provide youth with the educational, social, and personal resources they need to overcome the many issues surround them (Darling-Hammond, 2012; Eccles et al., 1993; Karns et al., 2007; Pierce, 2010; Sundell et al., 2012). Arranging additional tutorials, activities and other effective programs after school, and implementing weekend programs will increase student achievement (Baker & Witt, 1996; Darling-Hammond, 2012; Deeb-Westervelt, 2003; Huang et al., 2000; Karns et al., 2007; Pierce, 2010; Sundell et al., 2012). This study attempts to understand the effectiveness of existing tutorial programs that take place in a Midwest urban school district. The study was designed to help parents and students understand the benefits of attending provided tutorials. This study was also an effort to show that a higher percentage of attendance at added-time instruction is associated with higher grades and achievement on standardized tests. The school system studied here has implemented several tutorial services for its students.

Problem Statement

According to The No Child Left Behind Act of 2001 (NCLB): Each state must measure the success of students’ progress in reading and mathematics in grades 3 through 8. Schools are expected to place emphasis on implementing educational programs and practices that have been clearly demonstrated to be effective through scientific methods. The school
system from which data for this study were gathered is currently establishing several programs both during and after school hours. The schools’ programs are designed to be supplementary to the standard curriculum and instructional schedule. The school’s administration currently spends a significant amount of time and resources to implement these programs. The school district uses federal funds under Title I of The No Child Left Behind Act of 2001 (NCLB) to support supplementary tutoring programs to improve the academic achievement of low-income children. To-date, there has been no scientific study of the effectiveness of afterschool programs at the urban school district where the research will take place. Therefore, this study on the effects of the Afterschool Tutoring Programs was intended to be evidence to support schools in urban settings implementing school-wide, afterschool tutoring programs.

**Purpose of Study**

The intent of this study was to investigate the relationship between the school’s afterschool tutorials and student achievement. The afterschool tutorials considered here are designed to help students in mathematics and reading. The effectiveness of the tutorials was measured using the Northwest Evaluation Association (NWEA) mathematics and reading achievement scores. Thus, the purpose of the study was to determine the effectiveness of afterschool tutorials in increasing students’ reading and mathematics test scores, as well as to examine the relationship between program attendance and student scores.

**Research Questions**

The study attempts to answer the following question:

1. Does participation in afterschool tutorials improve students’ mathematics and reading
achievement?

**Definition of Key Terms**

**Average Growth Index:** A statistic appearing on some MAP reports. It is the total growth index of the group divided by the total number of students in the group.

**Accreditation Status:** School districts are accredited according to standards set by the State of Missouri - Board of Education. The three levels of accreditation are: Accredited, Provisionally-accredited and Unaccredited.

**Adequate Yearly Progress (AYP):** The *No Child Left Behind Act* (NCLB) of 2001 requires all schools, districts and states to show that students are making Adequate Yearly Progress (AYP). NCLB requires states to establish targets in the following ways:

1. **After School Programs:** The programs that are happening outside of school hours. The programs include tutorials in the afternoon and Saturdays.

2. **Annual Proficiency Targets:** The *No Child Left Behind Act* (NCLB) of 2001 requires a target for all students and student subgroups to meet in a progressive nature that would result in all students scoring at or above the proficient level on the state’s assessment by 2014.

3. **Attendance/Graduation Rates:** The *No Child Left Behind Act* (NCLB) of 2001 requires schools, districts and states to meet an additional indicator based on improvement or established targets in attendance and, for K-12 districts, graduation rates.

4. **Participation Rates:** The *No Child Left Behind Act* (NCLB) of 2001 requires all students and student subgroups to meet a 95% participation rate on statewide assessments.
**Growth Index:** A statistic appearing on some NWEA Measures of Academic Progress (MAP) reports. The growth index indicates the RIT value by which the student 1) exceeded the projected RIT (positive values), 2) fell short of the projected RIT (negative values), or 3) exactly met the projected RIT (zero).

**Growth vs. Progress:** Growth is defined as the change in a student's achievement over time; MAP assessments measure growth. Progress is defined as growth targeted to an end result. For example, a student making progress toward a specified standard. Using MAP assessments, educators can monitor progress toward desired results.

**Local Educational Agency (LEA):** The federal term for public elementary and secondary school districts and other elementary and secondary schools operated at public expense and under a publicly appointed or elected board.

**Maintenance of Effort:** A requirement common in federal education programs and some state programs that a recipient continue to expend as much state and/or local money for a particular purpose as it expended in the prior year.

**MAP Performance Index (MPI):** A single composite number that represents the performance of every student in all MAP achievement levels in a tested subject for a defined grade span. Index points are calculated by multiplying the percent of reportable students scoring in each achievement level for each subject and grade span by a defined value.

**Median:** The middle score in a list of scores or the average of the two middle scores for an even number of scores; it is the point at which half the scores are above and half the scores are below.
**Normative Data:** A preliminary reference point for educators to compare class or grade-level performance of students in the same grade from a wide variety of nationwide schools.

**Norms Study:** The RIT norms describe the performance and growth of students from school systems that volunteered to participate in the most recent study. The study provides a reasonable way to compare the performance of a single student, school, or school district to a larger, meaningful reference group.

**Northwest Evaluation Association (NWEA):** Northwest Evaluation Association (NWEA) is a not-for-profit organization committed to helping school districts throughout the nation improve learning for all students. NWEA partners with more than 2,200 school districts representing more than three million students. As a result of NWEA tests, educators can make informed decisions to promote your child’s academic growth.

**Performance-based Assessment:** An assessment designed to evaluate not only what students know, but also how effectively they can use their knowledge to understand and solve problems comparable to those encountered in everyday life.

**RIT Scale:** Assessments developed by NWEA use a scale called RIT to measure student achievement and growth. RIT stands for Rasch Unit, a measurement scale developed to simplify the interpretation of test scores. The RIT score relates directly to the curriculum scale in each subject area. It is an equal-interval scale, like feet and inches, so scores can be added together to calculate accurate class or school averages. RIT scale uses individual item difficulty to estimate student achievement. RIT scores range from about 100 to 300, depending upon the scale and test season. They make it possible to follow a student's educational growth from year to year.
**Student Mobility:** The percentage of students who change schools during the year (calculated by dividing the number of student school changes (transfers in and transfers out) by the student enrollment at the beginning of the year).

**Supplanting:** The practice of using federal or state categorical program funds in a manner which replaces state or local funds which would otherwise have been available – a practice usually prohibited.

**Triangulation of data:** Northwest Evaluation Association (NWEA) refers to the process of looking at multiple points of data, typically three supporting pieces that allow making informed decisions about students and/or academic programs.

**Organization of Subsequent Chapters**

Chapter two of this study consists of a review of the literature, including an overview of afterschool programs. Chapter three describes the design of the study and the methods that were used to perform the necessary hypothesis tests. Chapter four presents data collection methods and the analysis of the data. Finally, chapter five is a discussion of the implications, limitations and results, and provides recommendations for further research.
CHAPTER 2

REVIEW OF LITERATURE

Educating young minds and preparing them for the future is fundamental to the role of educators. Around the world, hundreds of millions of students wake up daily and report to their schools in order to receive an education. If we think of teachers having different personalities and ways of teaching, and combine this with the varied learning characteristics of students, billions of combinations of the elements of teaching children are created. Educating students through a continuum of consistent educational programs, planned activities and curriculums, from pre-kindergarten to post-secondary, is increasingly becoming a critical issue in the United States.

Since the early 1900’s, education has been a major topic of and leading cause for political debate and legislation. The most recent legislative reform that has taken place is The No Child Left behind Act of 2001 (NCLB). NCLB was intended to make landmark changes in the education sector by improving students’ achievement through change in the culture of American Schools. Jenlink (2009) stated that “Educational practitioners are confronted with the increasingly difficult responsibility of educating future generations in a changing national and global society” (p. 2). James P. Comer, the psychiatrist who created the Comer school development program, also known as the Comer process, says that NCLB’s strong focus on testing shows that lawmakers neglected the perspective of child development in the act’s development. Many schools have changed their educational programs to address new expectations resulting from new laws (Comer, 2006). The NCLB focus on testing has affected school student youth development programs, with many schools neglecting to include child development strategies in their training as a result.
Dewey (1916) said that the purpose of education is the intellectual moral and emotional growth of the individual and consequently the social evolution of democratic society and the realization of the ideals of democracy through socially engaged citizens. Jenlink (2009) defined education as a social function of a democratic society and that it is necessarily challenged with the responsibility of fostering in learners an aesthetic capacity to interact with the world, to see the world as it really is, and to challenge its existence (p. 160). Jenlink (2009) cited Dewey’s (1934) definition of aesthetic experience; that it reflects the realities of the moment and the possibilities (p. 159). The needs in education are changing like the needs of society; the needs of children are not the same now, and will never be the same in the future.

The Education System of the United States

Educating young minds and preparing them for the future is fundamental to the role of educators. Overall, the purpose of education is to prepare children to be better future citizens. Jenlink (2009), cited in Jardine and Townes (2009), says that educational practitioners are confronted with an increasingly difficult responsibility for educating future generations in a changing national and global society (p. 2). Townes (2009) stated that: “As our public schools become more and more culturally diverse, and our classroom teachers become more and more homogenized, attention to multicultural education becomes pressing” (p. 49).

Policy makers are finding it difficult to decide what they must change to prepare future citizens. Jardine (2005) stated that we educators are frustrated, threatened, and often feel powerless because of institutional demands (p. 28). Jardine (2005) cited Foucault’s sovereign power premise, that in the seventeenth and eighteenth centuries whole new
educational techniques were arising that “were used not only to make others do what the powerful elite wished, but to do these things in the exact manner specified, as well” (p. 39). With many current educational movements, we observe the same mentality. On a panel led by former Secretary of State Condoleezza Rice and John Klein, they said “The dominant power of the 21st Century will depend on human capital”. They also said “The failure to produce that capital will undermine American security.” In response to these observations, the panel made three recommendations. One of those recommendations was “Governors, working with the federal government, should develop a national security readiness audit, to judge whether schools are meeting targets.” Jardine (2009) stated that at the beginning of the seventeenth century the people who were in power were forcing many of the poor and uneducated residents to work in their factories. We can observe the same thing today; many factory owners act in a similar manner by asking government and governmental organizations to construct programs and infrastructure that prepare skilled workers needed for industry (p. 40).

Jardine (2009) stated that in Foucault’s analysis, he observed that "the knowledge and power functions in our society turned all human beings into objects that existed, acted, or were knowable only in relation to the rules laid down by this power and knowledge” (p. 49). Foucault predicted that the behaviors of the seventeenth century would still be in existence in the twentieth century. He viewed western society as a disciplinary society which tells us not only what we must be and do, but how we must do and act. Foucault also argued that our society operates for the benefit of specific people – those in power. (Jardine, 2009, p. 49)

Jenlink and Townes (2009) stated that several variables are experienced among different groups of public school students: Poverty, family makeup and stability, cultural
views, school funding mechanisms, class size, and teacher quality all influence the overall
quality of students’ experiences in school (p. 35). Jenlink (2009) stated that misuse of power
results in discrimination, marginalization, and subordination of some individuals.

Institutional discrimination is guided by policies and practices of the people who have the
power to do so (p. 18). Jenlink also indicated that “Two simple questions are asked by many
educators: How will we live with our deepest differences? And how will those differences
be used by others to determine individuals’ identities?” (p. 19).

Foucault, cited in Jardine (2005), identified “examination and the imperative to speak
as the disciplinary techniques used to cause every person and every act to be known.”
Crucially, reporting systems allow thorough observation of who is doing what. Every action,
every examination, and every progress is monitored by some system in our society. Foucault
defined this as panopticism (p. 59). According to Foucault, “the [then] current design of
education allowed supervision and information gathering, and allowed every act of every
person to be controlled by their supervisors” Jardine (2005). Similarly, today’s schools are
rewarded or punished as a result of their success on statewide assessments. Jardin (2005)
indicated that examinations became an important tool for gathering information and
knowledge about individuals. Foucault saw examinations as tools of disciplinary power (p.
63). He summed up his description of the effects of examinations as:

Finally, the examination is at the center of the procedures that constitute the
individual as effect and object of power, as effect and object knowledge. It is the examination
which, by combining hierarchical surveillance and normalizing the judgment, assures the
great disciplinary functions of the distribution and classification, maximum extraction of
forces and time, continues genetic accumulation, optimum combination of aptitudes and
thereby, the fabrication of cellular, organize and genetic and combination individuality (p. 64).

Since all students are taking mandatory high-stakes tests, ranking has become one of the most essential tools for policy makers. Jardine (2009) said that ranking schools from highest to lowest has become a major tool used to eliminate, marginalize or devalue those abilities that will not support the predominant knowledge and power of the society (p.68). In current schooling, many school districts are deemed ‘failing’ premised on the results of mandated testing. As a consequence, failing school districts are required to make significant changes or implement improvement plans. In some states, school districts are taken over by the policy makers and merged with more successful districts.

**Today’s schooling - 21st Century education.** In today’s schooling, state education departments are applying and enforcing policies and procedures that are decided by people who have the power, much as Foucault may have envisioned for the future. Although segregation and discrimination are not explicit, the political influence on setting district boundary lines is just one indication of the continuation of an early 1900s mentality. Segregation takes place in today’s schooling, as evidenced by the forcing of low-income students to attend less-well-funded neighborhood schools. Pearl and Pryor (2005) revealed that Mexican-American dominant schools were not funded at the same level predominantly Anglo Schools. Their research indicated that “In Bexar county Texas, the property taxes are five times less than more affluent districts. Schools receive less weight comparing to neighboring Anglo districts” (Pearl and Pryor, 2005, p. 52).

By looking at the demographic background of the state of Missouri and urban Kansas City, the minority enrollment average (60%) is almost four times higher than the State of
Missouri average (16%) (MODESE, 2014); the state’s overall percentages of minority students are not reflected in urban settings. Looking at the demographics of urban schools at the state department of education website, it is evident that the majority of students in Kansas City, MO and St. Louis, MO are low-income and minority students. Kozol (1991) argued that racial segregation is still prevalent (pp. 140-141) in American schools. Minority students in urban settings, for example, often attend schools where there is poor heating or no air conditioning in the building.

Many urban schools now receive less funding when compared with suburban schools with higher valuations and higher taxes (Pearl and Pryor, 2005, p. 52). Many teachers are not choosing careers in urban schools due to these problems and issues. The result of these problems is that students who attend urban schools are often systematically excluded from key policy- and decision-making processes (Fields & Feinberg, 2001, p. 49).

**Democratic education.** Many policymakers, educators, and researchers have ideas about democratic education and democratic schools; but, do not understand education in the context of constitutionally mandated changes over the history of United States in the past century. Many of them are having a difficult time explaining educational issues in the context of urban settings, where democratic education is an issue. Before defining democratic education, the relationships between the terms democracy, education, individuals, policies, and social life should be resolved.

Apple & Beane, (2007) said that:

> Democracy is not only a process; it also involves values and principles that make up the foundations of the democratic way of life. The content of democracy and its extension through education is a central concern of
democratic schools. Among such values and principles are the following:

- concern for the dignity and rights of individual and minorities;
- concern for the welfare of others and the common good;
- faith in the individual and collective capacity of people to create possibilities for resolving problems;
- the open flow of ideas, regardless of their popularity that enables people to be as fully informed as possible;
- the use of critical reflection and analysis to evaluate ideas, problems, and policies;
- an understanding that democracy is not so much an ideal to be pursued as an idealized set of values that we must live and the must guide our life as a people the organization of social institutions to promote and extend the democratic way of life. (p. 7)

hooks (2010) said democracy must be born anew in each generation, and that education is the midwife. She argued that the rise of privatization of public schools that undermines the public school; testing that fosters discrimination and exclusion; and segregation on the basis of race and class has become an accepted norm. hooks also said that the education system is under attack by White-supremacist, capitalist patriarchal values (p. 15). Shaker and Heilman (2008) stated that, “like many dominant powers, alienation has a major effect on education that is little-explored in contemporary discussions of the school and university experience. Educated elites, like other identifiable peer groups, interact frequently in their own world of the likeminded, tending to have more in common intellectually and in terms of values with their peers than with the tradesman or business people who live next door” (Shaker & Heilman, 2008, p. 65). Pearl and Pryor, (2005) cited in their literature review that Dewey indicated the greatest obstacle to achieving democratic education was the powerful alliance of class privilege and philosophies of education (p. 59).
Democratic schools should be high performing schools. Thompson (2003) listed “eight features that have been shown to contribute to increase student achievement” (p. 5):

Standard based: challenging standards define what students should know and be able to do to each level;

1. Clear mission: The mission should enable all students to meet challenging standards, develop policies and procedures for managing budgets;
2. School Climate: school climates should maintain nurturing, supportive, and respectful with students, parents, and others;
3. Assessment: high performing schools assess student performance and use results to provide prompt and targeted assistance;
4. Professional Development: The professional developments should be ongoing and high quality to help achieve school mission;
5. Resource: Resources should be used in a way to support powerful instructional practices in all schools;
6. Data Collection: The decisions should be data-driven. The data should be collected and analyzed to identify instructional or student achievement problems;
7. Communication: high performance schools communicate with internal and external stakeholders (Thompson, 2003, p.5).

**John Dewey’s approach to democratic education.** Jenlink 2009 cited Dewey (1916), who said that “the conception of education as a social process and function has no meaning until we define the kind of society we have in mind. The task of Democracy is forever that of creation of a freer and more humane experience in which all share and to
which all contribute” (p. 6). Westbrook (1999) cited in his article that Dewey saw schools as an agency of industrial capitalism that reproduces the classes of the society (p. 10). Jenlink (2009) cited Dewey (1916a) “Democracy and Education confronted America’s democracy and the inequalities in the nation” (pp. 26-27). Jenlink (2009) also stated that Dewey’s (1916a) solution “by educating all members of society, America could once again become a community of informed members engaged in an open discussion” and “return its roots” (p. 27).

Dewey viewed the goal of democracy in education as providing students with experiences in school that would teach them how to improve the larger community (Sernak, 2009, p. 171). Sernak (2009) stated that “Democratic education requires a broad perspective of shared action. Shared action results when a leader refers his or her action to others and the action of others influence his/her actions” (p. 177). Shaker & Heilman (2008) said that “democratic education is a moral, spiritual and critical endeavor noted in a particular view of humanity as equal, rational, and cooperative and a citizenry that asserts responsibility for all people, for all species and all environment” (p. 183).

Jenlink cited Dewey’s 1916 view that the social consciousness is the extension of the space into that of other individuals (p. 44). Dewey (1916) said “a democratic society must, in consistency with its ideal, allow for intellectual freedom and the play of diverse gifts and interests in its educational measures”. Shaker & Heilman (2008) stated that Dewey’s metaphor for growth provides 15 guidelines for good schools:

1. Have a clear mission, vision, and goals that will raise awareness of democracy;
2. both policies and curriculum should reflect democratic values of human
equality, justice, and human rights;
3. arising out of a caring, supportive community,
4. engage in dialogue with its community, realizing that external
communication is proactive,
5. effects states of aspiration, intellect, community, healthfulness and
freedom, promotes the rise of social consciousness
6. sensitive to its architecture: design, landscape, and maintenance quality of
a school effectively embody its mission;
7. have a line of communication with stakeholders;
8. advocates for children and youth;
9. reflect values and ideas;
10. honest and authentic;
11. develop a cycle of recurrent feedback;
12. identifies with learning and is not punitive in character;
13. valuation is vital in maintaining a good school;
14. a civilizing force to all around it for arts, aesthetics, humanism,
egalitarianism, respect for individuals and diversity, the triumph of reason
over force, and democracy;
15. and gives information for a better society, populated with persons who
aspire to high human purpose (pp. 177-181).

Urban education. Many people see urban schools as those primarily attended by
poor, inner-city African-American students. Additional challenges and problems exist in
urban settings, such as the lack of resources for teachers (Lee, 1999). Although desegregation laws have been passed, policy makers established innovative ways to establish geographical boundaries based on which neighborhoods are doing well, and which are not. Although segregation was not explicitly stated in legislation, a process of social gerrymandering became apparent as geographical boundaries were drawn. Most recent policies also force students to attend schools in the same neighborhoods. Moreover, policy makers have established a system that forces neighbors to attend the same school within districts. Nowadays, this new system of utilizing school boundaries has become the normal practice across the United States. When one speaks of urban cities and urban schools, it is commonly understood that the issue is actually that of educating low-income minority students. One often hears of discipline problems, drug use, unsupervised classrooms, unsupervised students during, and after, school; a litany of constant failures. Foucault (2003) defined urban mentality as a “practice of exclusion” or marginalization and said “I think we still describe the way which power is exercised over the mad, criminals, deviants, children and the poor in terms, mechanism and effects of exclusion, disqualification, exile, rejection, deprivation, refusal, and incomprehension” (cited in Jardine, 2009). Foucault also said that society “takes back with one hand what it seems to exclude with the other. It saves everything”. When we look at the demographics of urban school districts, the students often come from low-income and working-class families, the disenfranchised groups referred to by these authors.

According to the National Center for Children in Poverty, more than 16 million children in the United States – 22% of all children – live in families with incomes below the federal poverty level, which is $23,550 a year for a family of four. Studies suggest that
education remains critical for students in poverty, and that regular class activities will not be adequate for youth to overcome the issues around education; traditional schooling cannot provide the necessary social and personal resources they need to overcome their economically disadvantaged background (Eccles et al., 1993). Many students across the United States have a lack of supervision during the hours following school dismissal. Current statistics released by the U.S. Department of Labor in 2005 show that 78% of mothers with school-age children are working due to economic necessity (U.S. Department of Labor, 2005). One of the most important issues is that many parents are working more than one job, which leaves their unsupervised children behind. Due to the increased cost of childcare, urban parents are struggling to provide that childcare for their children, and as a result, millions of school-age children are now considered self-care (i.e. students not under direct supervision of an adult for some time period) during afterschool hours (Mahoney et al., 2009). Inner-city students must deal with many issues at an early age. Many of the issues surrounding urban neighborhoods, such as gang violence and drug prevalence, are a particular concern for unsupervised children, and those issues have deleterious effects on their academic achievement (Gorman et al. 1998). Due to issues of child supervision, many students are not doing their homework and spend much of their afterschool time babysitting siblings.

Sergiovanni (2007) stated that “community values are often replaced by contractual ones” (p. 106). School leadership and school practices are important issues when educating children. In an educational forum at the University of Missouri - Kansas City, Geneva Gay (2012) said that culture is a complex and dynamic phenomenon. Culture is not just an individual’s values or beliefs; we should look at culture across all of the people who belong
to an ethnicity. Equity and social justice are dominant educational issues that must be addressed in a fair and ethical manner. School leaders must understand pertinent ethical issues and legal rights in order to prevent discrimination and injustice. Gay (2012) advised educators to communicate through their heart while dealing with students. Payzant (2011) said that “The public perception is that urban schools are dysfunctional and incapable of teaching all students the necessary skills.” (pp. 2-3). Payzant (2011) also said that we must explore the major issues facing urban district and school leaders, what they need to know and be able to do, and how they can most effectively help those they lead to ensure that all students will learn and succeed.

**Multicultural education.** Martin Haberman (2003) stated that teachers are struggling to resolve urban-platform issues so that teachers can do their work at school in a more effective way. Teachers have a very tough job on their shoulders to find out what is affecting students’ lives and what their truths and values are. In the 1980s, a growing immigrant population and an increased variety of students with ethnic backgrounds brought new issues to urban classrooms. During Bill Clinton’s administration, multicultural education became very important. The movement toward placing an emphasis on “cultural literacy” in the 1980s also brought Haberman’s attention to cultural issues in education. Haberman (1988) stated that “The purpose of multicultural education is to prepare all Americans for functioning on three levels: as individuals, as members of some sub-group or subculture, and as effective participants in the general American society” (p. 101). There are several subgroups that exist in American society which are based on ethnicity, race, religion sex, age, economic situation, social class, and mutual interest. Sloan (2009) said that race shaped our past and continues to shape our future (Jenlink and Townes, 2009, p. 45)
Townes (2009) stated that:

“As our public schools become more and more culturally diverse, and our classroom teachers become more and more homogenized, attention to multicultural education becomes pressing” (p. 49).

Jenlink and Townes (2009) said that major political decisions today are rhetoric that affects the federal and state mandates. Many of today’s political decisions are based on the personal experiences of the majority. Therefore, all policies and procedures should be revised within a framework that recognizes the need for multicultural education (p. 49).

When it comes to activation of a political agenda, many minority groups and individuals are neglected and/or becoming invisible (p. 27). Haberman (1988) stated that “school should be an institution which provides all social groups residing within the general culture with learning that supports a balance between subgroups and their needs” (p. 102). He further said that school must be a social place where all subgroups must effectively interact. Although racism is not explicit in the process, the voices of minorities are often not heard in political agendas and consequent discrimination and racism became part of the ‘hidden’ political agenda. Due to political decisions, current ideologies about education are in conflict with multicultural education (p. 28). Haberman said that Americans need preparation for resolving the issues caused by diverse subcultures. He also mentioned that in order to have a healthy American society, all subgroups must effectively interact with each other. In his research, he revealed that “School is clearly an alien setting for many pupils who feel uncomfortable in its environs and inadequate to meet its expectations” (p. 110). Jenlink and Townes (2009) recommend challenging existing ideologies, schooling, and society with
Manning and Baruth (2009) stated several assumptions for multicultural education.

i) Cultural Diversity is a positive, enriching element in society because it provides increased opportunity to experience other cultures (p. 7).

ii) Although some people believe that it is only for minority and young adolescents, it is not intended exclusively for those groups; that perception is wrong (p. 9).

iii) All teachers and students have their own background, values, customs, perceptions, and prejudices. Socioeconomic status, ethnicity, gender, and language have a powerful and dynamic effect on school achievement (p. 9).

iv) The school must be genuinely multicultural; its expectations should reflect an understanding of different cultural groups, their attitudes towards school success, and their learning styles (p. 9).

v) Procedures, news, and announcements should be responsive to different languages. For example, a school should provide Spanish translation if the school has a significant number of Hispanic students.

vi) Multicultural education programs should reflect the rich diversity that represents U. S. society.

vii) Responsive programs must teach genuine respect and must work toward reducing racism sexism, and classism.

Haberman and Post (1998) cited in their research that Milwaukee Public Schools (1995) defined multicultural education as:
Multicultural education is a process built on respect and appreciation of cultural diversity. Central to this process is gaining understanding of the cultures of the world and incorporating these insights into all areas of the curriculum and school life with a particular emphasis on those cultures represented in our school community. Growing from these insights is a respect for all cultures and commitment to creating equitable relationships between men and women, among people of different ethnic backgrounds, and for all categories of people. Viewed in this manner, multicultural education builds respect, self-esteem, and appreciation of others and provides students with tools for building a just equitable society (Haberman and Post, 1998, p. 97).

Jenlink (2009) stated that there is a need for cultural education, and it requires that educators create space for cultural inventions (p. 25). The research on cultural awareness stated that the most important aspect of teachers’ development is their ideology; that is, what they believe about the nature of teaching and learning (Haberman and Post, 1998, pp. 97-102). The research further shows that “like an ideology, the teaching behaviors are not typically learn in course work or in student teaching but on the job by mentoring, coaching, a support of network, and some specific workshop, and classes” (pp. 103). Haberman (1998) said that there are no valid criteria for initiating or judging the effects of a multicultural curriculum (p. 97). However, the research mentioned that:

Greater multiculturalism in school programs has the potential for providing students with (a) powerful ideas for how to live successfully in the world of work; (b) useful skills for succeeding in the world of work; (c) an understanding of various cultural groups; (d) gains
in identity and strength from participating in one’s own cultural group; and (e) knowledge of ways to contribute to greater equity and opportunity for all individuals and groups (Haberman et al., 1998, p. 97).

Test focus and student achievement. According to The No Child Left Behind Act of 2001 (NCLB): “Schools are expected to have emphasis on implementing educational programs and practices that have been clearly demonstrated to be effective through scientific methods.” As test scores become the center of interest, one of the most important roles of school leaders is to ensure that their schools meet statewide expectations for student achievement on statewide assessments (Brulles et al., 2012; Darling-Hammond, 2012; Dove et al., 2010; Militello et al., 2009; Peske et al., 2006; Stein, 2012; Strunk, 2011). Beyond the many problems that all school administrators experience throughout the year, urban school administrators must deal with widespread poverty, public transportation, student behavioral issues, and other social and environmental issues commonly found in urban areas that their counterpart school systems are not faced with. Like all administrators, they have the additional challenges of lack of funding, resources and time.

The studies show that activities within school classrooms alone cannot provide youth with the educational, social, and personal resources they need to overcome the many challenges they face (Eccles et al., 1993). Within this challenging environment, principals are expected to adopt standards and set attainable goals (Cobb, 2003; Dove et al., 2010; Holloway, 2002; Karns et al., 2007; Militello et al., 2009; Pierce, 2010; Stein, 2012). With that said, many schools are being forced to close due to “poor” performance on mandated academic assessments. Robert Marzano (2005), co-founder of Marzano Research Laboratory, states that “In order to maximize the opportunities for students’ learning, the
activities should be designed, managed, and be monitored with established procedures” (p. 110). Several studies have demonstrated that effective use of test data is essential to the success of that monitoring (Brulles et al., 2012; Darling-Hammond, 2012; Dove et al., 2010; Militello et al., 2009; Peske et al., 2006; Stein, 2012; Strunk, 2011). Thomas R. Guskey (2003), an expert in educational development, stated that teachers should use assessments as tools to determine what is not taught or what the student has not yet learned. Since each student has a different learning style, teachers must reach each individual through creativity and innovation while measuring their successes and modifying their methods accordingly. In today’s schooling, teachers use many different assessment systems to measure student achievements, such as unit tests, quizzes, projects, summary assessments, benchmark tests, and nationally normed standardized tests.

Paul Cobb (2003), a professor of mathematics, studied the assessment of students’ knowledge to improve the effectiveness of instruction among school administrators and teachers. One of his findings was the importance of using assessments as a critical component of effective teaching and learning.

**Test focus and school leadership.** Principals and superintendents have many responsibilities throughout the school year. While administrators are collaborating with all stakeholders, principals must maintain a constantly improving high-quality learning environment through direct evaluation and by designing a viable curriculum that offers an effective teaching and learning atmosphere. Recognizing and celebrating the accomplishments of students, staff members and teachers are important components of building a better climate and culture in the school. Dove et al. (2010) stated that there is a
The vision of school leaders plays an important role in shaping the culture of schools (Deal & Patterson, 1998). Stein (2012) states that school leaders are the ones who design and draw schools’ blue prints like an architect. Like an architect who reviews the requirements for fire, health, plumbing, electricity, parking, sewage system, wall, frames and air conditioning, principals should (1) create a strategic plan for the future, (2) learn how to use data and help teachers understand data available to them, and (3) make decisions about priorities of the school and focus on competence (Stein, 2012). Stein (2012) also said “Good leadership can succeed, even in challenging surroundings, and failing schools can be turned around with strong leadership, effective communication, and immediate action” (p. 51).

One of the most important duties of a school principal is to ensure that staff members have high expectations for students and that those expectations are visible (Gay, 2012; Stein, 2012; Sundell et al., 2012). Principals are also expected to train and mentor teachers over time (Brulles et al., 2012; Darling-Hammond, 2012; Holloway, 2002; Militello et al., 2009; Pierce, 2010; Stein, 2012: Sundell et al., 2012), arrange ongoing school-wide assessment (Cobb, 2003; Darling-Hammond, 2012; Militello et al., 2009; Weingarten, 2008), and improve teachers effectiveness in the class by helping teachers to understand, interpret, and use the statewide assessments to prepare and change their lesson plans (Brulles et al., 2012; Darling-Hammond, 2012; Dove et al., 2010; Militello et al., 2009; Pierce, 2010; Peske et al., 2006; Rothman, 2010; Stein, 2012; Strunk 2011; Sundell et al. 2012). Having effective student support programs will help low achieving students who have personal issues (Brulles
et al., 2012; Darling-Hammond, 2012; Holloway, 2002; Pierce, 2010; Stein, 2012). Due, at least in part, to this multitude of responsibilities and expectations, principals’ working hours extend well beyond the school day.

As stated, NCLB’s main area of focus is on student achievement and the leadership practices implemented to attain those achievement expectations. Stein (2012) said that school leadership plays a very important role in school systems; leaders are responsible for understanding the mission, purpose, goals and objectives for each member of the school. NCLB requires that U.S. Public schools administer statewide assessments every year in the third through twelfth grades (Gayl, 2004). Marzano at al. (2005) stated that “One of the principal roles of the school is to show conceptual guidance for assessment practices” (p. 70). Additionally, Marzano at al. (2007) says that “One of the principal’s duties in day-to-day operations is actively assisting teachers with curriculum, instruction and assessments” (p. 71). From my personal experience, I find that many school administrators frequently force teachers to spend significant amounts of time preparing students for statewide assessments. According to NCLB, if a school does not meet adequate yearly progress (AYP) goals in two or more consecutive years it will be considered a “needs improvement” school, with associated sanctions. School administrators spend additional school hours each day developing ways to close the achievement gap among groups of students. Due to these recent changes in expectations for U.S. elementary and secondary education, schools must increasingly monitor success and modify their programs each year.

**School administrators as instructional leaders.** No Child Left behind (2001) mandates a process of testing to measure school, student and state academic achievement. Soon after these mandates became law, it became apparent that most, if not all, schools
would never reach the federally-mandated goals by the end of 2014. As a result, school leaders have become increasingly attentive to their responsibilities regarding statewide assessments. Several common practices were adopted or adapted by principals in their attempts to improve test scores in school:

(1) Leaders focused on recruitment practices, recognizing that recruiting high-quality teachers is a key factor for improving students’ learning (Rothman, 2010; Walters, 2004).

(2) They began improving teachers’ effectiveness in the class by helping teachers to understand, interpret, and use the statewide assessments to prepare and change their lesson plans as addressed by (Brulles et al., 2012; Darling-Hammond, 2012; Dove et al., 2010; Militello et al., 2009; Pierce, 2010; Peske et al., 2006; Rothman, 2010; Stein, 2012; Strunk 2011; Sundell et al. 2012).

(3) With ongoing professional development, administrators promoted new and more effective practices in school by empowering staff members. As stated in Marzano’s text, collaborative distribution occurs with the actions of one leader (Marzano et al., 2005).

(4) Administrators implemented or increased their implementation of extra tutorials, activities, and effective programs after school and on weekends (Darling-Hammond, 2012; Karns et al., 2007; Pierce, 2010; Sundell et al., 2012).

(5) Leaders adapted their goal-setting practices, recognizing that adopting standards and setting attainable goals is an important element of school
improvement (Cobb, 2003; Dove et al., 2010; Holloway, 2002; Karns et al., 2007; Militello et al., 2009; Pierce, 2010; Stein, 2012).

(6) Leaders increased their experimentation with changes in grade configuration, another method demonstrated as effective in the literature (Dove et al., 2010: Rothman, 2010).

Recent studies also show that school leaders’, especially principals’ job descriptions have changed from that of ‘manager’ to ‘instructional leader’ (Brulles et al., 2012; Cobb, 2003; Stein, 2012; Sundell et al., 2012; Pierce, 2010).

The leadership issues effecting student achievement. There are several important roles that a school leader plays throughout the year. They are responsible for recruiting high quality teachers as a key method for improving students’ learning (Rothman, 2010; Walters, 2010). Recently, the principal’s job description has changed from that of ‘manager’ to ‘instructional leader’, a change that empowers them to help teachers improve their effectiveness in the class by helping them to understand data and applying that understanding to their lesson plans (Brulles et al., 2012; Darling-Hammond, 2012; Dove et al., 2010; Militello et al., 2009; Pierce, 2010; Peske et al., 2006; Rothman, 2010; Stein, 2012; Strunk 2011; Sundell et al., 2012). The research shows that normal hours are not adequate for students to learn, and that the implementation of additional tutorials, activities and effective programs is essential (Darling-Hammond, 2012; Karns et al., 2007; Pierce, 2010; Sundell et al., 2012). Therefore, principals should adopt standards and set attainable goals (Cobb, 2003; Dove et al., 2010; Holloway, 2002; Karns et al, 2007; Militello et al., 2009; Pierce, 2010; Stein, 2012).
Rothman (2004) discussed the value-added approach to measure teacher effectiveness. The study shows that value-added data can be effective in helping school leaders to chart academic progress. The study found that teacher quality has emerged as a key factor in student achievement and learning. The study also found that 13 states use some variation of the value-added approach to measure student growth. Militello et al. (2009) studied student achievement on formative assessments. Their study revealed that educators must understand the necessity of formative assessments, that the assessments have valid academic outcomes, and the importance of analyzing and understanding test results to provide an insight as to the material students have, or have not mastered. Darlin-Hammond (2012) stated that most current evaluation systems used in schools are not effective. In the study, the value of effective and properly-implemented teacher evaluation systems is shown. Stein (2012) outlined a two-step plan: First, a leader should take charge and set clear guidelines, and second, dismiss low-performing teachers -- as opposed to engaging in collaborative leadership. The study showed the value of school leaders consistently reminding teachers of their roles and why they come to work every day.

On a panel led by former secretary of state Condoleezza Rice and John Klein, they said that “The dominant power of the 21st Century will depend on human capital”. They also said “The failure to produce that capital will undermine American security.” In response, the panel made three recommendations:

(1) Common Core standards should be adopted and expanded to include science, technology, and foreign languages,

(2) Students, especially those in poor schools, should have more choices,
(3) Governors, working with the federal government, should develop a national security readiness audit to judge whether schools are meeting targets.

One of the panelists, Carole Artgiani, said that a national audit will increase the stakes for standardized tests (Associated Press, 2012). She said the panel’s calling the federal government to the table is contrary to the U.S. Constitution, where it states that basic education is the states’ duty.

**Ecological theory and John Ogbu.** John Ogbu is a Nigerian anthropologist who researched how race and ethnic differences play out in the educational and academic achievement of African American students. Foster (2004) indicated that John Ogbu is named one of the “four intellectual giants of the 20th century.” He had an enormous influence on educational research and on educational anthropology, in particular (Foster, 2004, P. 369). In Ogbu’s research, the term minority refers to African American students in the US.

Ogbu (1990) reported that minority students had difficulty acquiring the content and style of learning required to master the curriculum materials and teaching methods used in school (p. 45). Ogbu indicated the problems minority students experience can be explained in many ways. To gain a better understanding of the problem areas, Ogbu developed three classifications within the minority group: autonomous, immigrant and involuntary. His main focus was on immigrant and involuntary minorities. Ogbu believed students’ poor performance was essentially a matter of cultural factors and not due to the genetics (Ogbu, 1990). Ogbu (1990) defined immigrant minorities as people who moved from their land of origin to another country (p. 46). Ogbu (1990) stated the main reasons for immigration are to find better opportunities, political freedom, and better economic lifestyles, and said that the
problems of immigrants in different countries are similar to each other. He believed that the majority of the problems that immigrant students face stem from expectations that they had before they left their original countries (p. 46), and felt that initial problems were associated with primary cultural differences due to moving from a different place, and the associated adjustments that needed to take place (p. 47).

Ogbu (1990) said the problems that “involuntary minority students experience differ from problems of immigrants” (p. 48). He defined involuntary minorities as “people who did not initially choose to become members of society; rather, they were brought into the society through slavery, conquest, or colonization” (p. 46). Ogbu claimed that one of the reasons for poor performance was not having equal educational opportunities. Ogbu (1983) stated that the structures of the schools are set up to recruit people into the job market by teaching beliefs, values and attitudes (p. 75). Minority students were not given access to quality schools, quality teachers, good facilities, adequate funding, and services. As a result of these poor educational opportunities, African-American students did not have equal access to desirable jobs and positions in their adult life that required a good education (Ogbu, 1990; Ogbu, 1983).

Ogbu developed a theory that reflected his studies of minority education. His initial theory was the ecological theory (CE) of African-American students’ performance. The theory is also known as Cultural Oppositional Theory (COT). The CE theory is based on Ogbu’s belief in an oppositional culture that was developed by African-American students. According to CE theory, two sets of factors influence African-American students’ school performance: (1) The system: Societal educational policies and practices; (2) Community forces: African-Americans’ belief about education (Ogbu & Simmons, 1998, p. 156). In his
theory, Ogbu included four important layers for minority student failure: (1) Student academic success is impacted by community forces contribution to African-American failure; (2) Distinction of voluntary and involuntary minorities; (3) Recognition of universal, primary, and secondary discontinuities; and (4) Involuntary minorities developed survival strategies (Foster, 2004). He strongly believed that the oppositional culture developed due the internalization of discrimination against them. The theory revealed that the differences in student performance between immigrant and non-immigrant minorities are due to differences in their community forces (Ogbu, 1999, p. 156).

Ogbu (1998) suggested several strategies for educators to overcome minority failure: Building trust, using culturally responsive teaching, being a role model, establishing high standards, and fostering parent and community involvement in education (pp. 180-182).

**Youth programs and the Comer Process.** James P. Comer is a physician who showed great interest in child psychiatry. He worked as director of the School Development Program at the Yale Child Study Center and associate dean of the Yale University School of Medicine in New Haven Ct. His work on child development and behavior, school improvement programs, and the education of minority students led Dr. Comer (2006) to create the Comer School Development Program. He defines teachers in American schools as “Parent Surrogates”. His main thought was that schools were addressing new problems and opportunities in old, and now ineffective, ways. His philosophy in education is: "Nothing is more important to success in schools than the quality of relationships between and among students, teachers, and parents. Yet many reformers treat learning as a purely mechanical process.” (Ogbu, 1988, p. 1) Comer thinks that School Development Programs (SDP) resemble a social action model in that they attempt to serve children through social change.
SDPs seek to open the social structure to a variety of inputs in order to build parent involvement and empower communities (Comer et al., 1986). His work around youth development references six domains: Physical, cognitive, psychological, language, social, and ethical. The results indicate that SDP has had measurable positive impacts on students’ achievement and the climate in school districts.

Comer has a strong belief that lawmakers have neglected the perspective of child development due to educational reforms’ focus on testing. Comer has also stated his resentments toward NCLB’s focus on testing. He thinks that this focus has affected schools’ student youth development programs, and that consequently many schools have neglected to include and fund child development strategies in their training. He also thinks that children’s interpersonal and psychosocial experiences have great impact on their ability to succeed in school. Further, he stated that parent-teacher cooperation is crucial if students are to develop academically, socially, and emotionally (Comer, 1984).

Jennifer Dubin (2013), assistant editor of the *American Educator* and writer, recently noted that the number of teachers who were attending Comer’s youth development program has declined over the years.

*Afterschool tutoring: Implementation and effectiveness.* In the United States of America, a substantial number of students grow up in poverty. Studies suggest that education remains critical for those students, and that regular class activities will not be enough for youth to overcome issues related to education, nor will it provide the social and personal resources they need to overcome their economically disadvantaged background (Eccles et al., 1993). Pierce (2010) made a study of the issues beneath the surface of high performance. The study focused on the achievement gap in the U.S., and recommended the
implementation of effective student support programs to help school leaders realize their existence in the school and the extent of the achievement gap.

21st Century Community Learning Centers Programs (21CCLC) was part of President Clinton’s political agenda to focus attention on school-age child care. Mahoney at al. (2009) stated that the lack of supervision for children during hours following school dismissal has consequences for in-school success. Conducting afterschool tutorials is a viable option for unsupervised students, and 21CCLCs were a major source of federal resources for afterschool programs. Most of the program centers offered homework assistance and academic activities, such as tutorial and remedial teaching (James-Budumy et al., 2008).

Figure 2.1. Theory of change for study of promising afterschool programs

The theory of change in educational settings indicates that when students participate in afterschool tutoring programs they are likely, over time, to begin showing positive changes in behavior and performance. James Connell, the president and cofounder of the Institute for Research and Reform in Education, is known for his research on youth development in urban settings and the “theory of change” approach to planning and evaluation of system change.
Walter (2004) investigated the different components of achievement goal theory and how they relate to each other and to student achievement. The study showed that students who express a master-approach motivation approach goal orientation work harder to overcome challenges and reach higher levels of competencies. Teachers and administrators should engage in dialog regarding students’ assessment results, and this dialog should also be about curriculum, instructional methods, and specific uses of curriculum. Brulles et al. (2012) stated that in order to have better student achievement, administrators should monitor student success (Cobb, 2003; Dove et al., 2010; Holloway, 2002; Karns et al., 2007; Militello et al., 2009; Pierce, 2010; Stein, 2012); train teachers over the time (Darling-Hammond, 2012; Dove et al., 2010; Militello et al., 2009; Pierce, 2010; Peske et al., 2006; Rothman, 2010; Stein, 2012; Strunk, 2011; Sundell et al., 2012); and ensure that differentiated instruction is in place (Brulles et al., 2012; Cobb, 2003; Stein, 2012).

The literature related to afterschool tutoring, its effectiveness in raising achievement, associated best practices and other attributes is not unequivocal. Some studies show that it is effective in one content area but not another; others show that it is effective for some students but not others. Many studies highlight differing implementation strategies as “best” practices.

The following summaries of research demonstrate the variety of tutoring programs and the sometimes contradictory nature of researchers’ findings. Although each study uses different methodologies and comes to, often, different conclusions, most authors recommend several strategies to enhance student outcomes: Providing a minimum amount of time for the tutoring process; using school district personnel as tutors to enhance the relationship between
the schools curriculum and what is tutored and the relationship between tutors and students; having high expectations for students; maintaining rigorous data regarding process and outcomes; providing adequate training for tutors; high attendance rates for students; and small – group instruction.

As recently as 2010, authors such as Yaffe, (2010) have cited the need for more data and information regarding after – school tutoring programs by several authors, researchers, and businessmen in the educational field assembled for an achievement gaps symposium on out-of-school learning held by Educational Testing Service in 2010. Yaffe indicated that studies of traditional supplementary educational services after school tutoring show a positive effect on student learning for only 4.4% of students. Other programs actually showed positive results that were not recognized due to poor research methodology. Yaffe said that in the interests of educational and fiscal responsibility, tutoring programs must use reliable data, thorough documentation and acceptable methodology so that schools can know which programs work and which do not. This finding has been echoed by other authors, such as Heinrich & Burch (2011).

Despite calls for further research, there are many studies of afterschool tutoring programs of various types in the literature, although their findings are often equivocal and their methodologies sometimes questionable. Most authors cited below provide recommended “best practices” based on their research.” Although the focus and results of many of these studies are disparate, the recommendations for “best practices” appear to be sound and applicable to tutoring programs in general.

Nelson-Royes & Reglin (2011) used qualitative methods to evaluate the effectiveness of a private tutoring program for 8th grade students. Subjects for this study were 30 8th
grade students attending nonprofit tutoring facility. The student participants in the study were 30 eighth graders who attended a local, private, nonprofit tutoring facility in the researcher's state. The tutor participants in the study were five teachers and one reading specialist. The authors used a descriptive-interview research design.

The tutoring programs studied included short and long-term goals, and timely progress checks. Nelson-Royes & Reglin found that teacher participants said documented reading progress occurred for all students who attended regularly for 12 weeks. One reason given for improved student reading achievement was that instruction could be more easily understood in a less stressful environment than the classroom. The teachers also cited repetitive practice, reinforcement and individualized academic plans as reasons for increased reading achievement. Other reasons cited for the tutoring programs effectiveness were that students were required to practice and do homework, and that the best teachers were hired for the program.

Nelson-Royes & Reglin recommended that funding and students be pointed towards programs with elements similar to those studied (i.e., Repetitive practice, reinforcement and individualized educational plans, and hiring of the most effective teachers).

Zimmer, Hamilton & Christina (2010) studied the effectiveness of the educational assistance program (EAP) administered by the state of Pennsylvania and supplementary educational services tutoring (SES) in Pittsburgh Public Schools. EAP and SES focused more heavily on academic activities than did previous programs implemented in Pittsburgh. The SES program focuses almost exclusively on low – performing and low – income students. EAP services focus on evidence – based instructional model that is aligned to state standards and it is provided to students based on their current achievement level; it is not
provided solely for low-income students. The EAP program targets students who score below proficient on the statewide examinations or below a set score on district administrated tests. SES is federally funded through NCLB as part of Title I, and may be provided by a variety of faith-based, for-profit and nonprofit entities, while tutors for EAP are hired and managed by the school district. In Zimmer et al’s Pittsburgh study, 600 students received SES services while 6000 students received EAP services.

The authors found that two important components of the programs were significantly related to student achievement gains: The experience of the tutor and grouping of students by skill level for both mathematics and reading. Overall, Zimmer et al. found that students participating in SES made significant gains in mathematics but not in reading. Students participating in EAP made small gains in both mathematics and reading.

Rothman & Henderson studied 7th graders who were “near-passing” on a standardized achievement test. The purpose of the study was to determine if after-school tutoring raised student achievement scores in mathematics and reading. The district attended by the students was classified as having: (1) Low socioeconomic status, (2) evidence of substantial failure, including inefficiency, (3) a high performance of disadvantaged students for whom extra-normal education is indicated, and (4) excessive municipal taxes.

The middle school where the study took place had a high percentage (60%) of economically disadvantaged students, and was equally divided among Hispanic, Black and White students. Tutor volunteers were selected from the best teachers in the district who had demonstrated instructional effectiveness in the classroom.

During tutoring, a teacher pupil ratio of 1:4 was maintained. Students attended two 90 minute sessions per week. Perfect attendance at tutoring sessions was rewarded.
previous research which indicated tutor training to be associated with fidelity of implementation, the tutors were trained prior to implementation of the program.

The results of the study showed statistically significantly higher mean test scores for the tutored groups than for the control groups in both mathematics and reading. The authors indicate that the use of district tutors (rather than tutors from external sources), rewarding attendance, maintaining high expectations and the use of small – group instruction, all of which previous research has shown to be effective, may have contributed to the positive significant difference for the treatment group.

Jitendra et al. (2013) studied the effects tutoring students in schema – based strategies (SBI) for solving mathematics problems. Although the study was limited to students with disabilities, there does not appear to be any reason to think that this tutoring, either and methodology or application, would not be applicable to all students. 115 third-grade students with mathematics difficulties (MD) participated in the study, and 18 tutors. MD is defined as scoring below the 40th percentile on the pretest. The study was conducted in a large Midwest urban school district.

Students received 30 minutes of tutoring five times per week. The tutoring involved helping students develop schema – based strategies to solve mathematics problems. Notable elements of the tutoring program were that tutors explicitly modeled strategies and allowed students to gradually take responsibility for using these strategies. Analysis was performed with ANCOVA, using sex ethnicity and eligibility for F/R lunch as covariates, and the pre- and post– tutoring scores on the Measures of Academic Progress (MAP; Northwest Evaluation Association, 2010) as the dependent variable.
The authors found statistically significant positive results for tutoring students in mathematical problem-solving. Positive results were shown for students regardless of the severity of their mathematical difficulties and their achievement level. The authors emphasized tutor training and small-group instruction in their study.

In their meta-analysis, Moje & Tysvaer (2010) reported findings from several studies and provide suggestions for implementing and enhancing afterschool tutorial programs. The authors said that schools should think carefully before implementing tutorial programs because, for example, they may not be the best choice if technology is limited. They also said that literacy tutoring programs should draw from students’ cultural backgrounds in order to enhance reading skills in content areas.

The authors cited several programs with affective after school tutoring elements. The Strategic Tutoring program (ST), developed by the University of Kansas, has three primary elements: 1) ST tutors provide content support and necessary prior knowledge; 2) Tutors teach strategies for learner independence; 3) Tutors become mentors to students, developing personal relationships that enhance student learning over time. The ST program emphasizes adequate training of tutors.

The Family Learning Institute (FLI) of Ann Arbor Michigan used a preliminary literacy test (Qualitative Reading Inventory (QRI)) which teacher–consultants use to develop an individualized learning plan. Based on the students’ learning plans, training tutors address each student’s indicated needs. Students attended weekly two-hour tutoring sessions during the school year. Subsequent QRI administrations showed that 75% of student participants increased their reading ability by one–three grades during a 6-month
period. The Family Learning Institute program credits its success to quality tutor training and individualized attention to students.

Moje & Tysvaer listed several attributes of afterschool programs, including providing meaningful content, using a fun and engaging curriculum, incorporating learning strategies as part of homework help, designing learning spaces for tutoring that are productive, and reflecting students’ cultural and community backgrounds within tutoring programs.

INCRE & NIOST (2005) studied 78 afterschool programs serving 4108 students in Massachusetts in order to determine which practices and policies were most effective in enhancing program implementation and student outcomes. Fifty eight of the programs were in urban areas, 14 in suburban areas, and six in rural areas. The authors cite equivocal results of many previous studies as the impetus for their research.

INCRE & NIOST emphasize that lower staff–student ratios are significantly positively related to student outcomes indicators. They also found that student relationships with staff/principles and location of the tutoring program within the school were positively related to student outcomes indicators, as well as to relations with peers and student initiative. Another important finding was that tutor and director level of education and the percentage of tutors that were certified teachers were significantly positively related to student outcomes, and that staff–turnover had a significantly negative relationship with student outcomes indicators.

INCRE & NIOST found that the factors most highly correlated with student outcomes were student engagement, staff engagement and education level of staff and administrators (as opposed to their level of training). The authors found several characteristics of programs
that were significantly correlated to quality indicators, as indicated by their summary table (p. 19) below.

Table 2.1

Summary Table

<table>
<thead>
<tr>
<th>Program characteristic(s)</th>
<th>Staff Engagement</th>
<th>Youth Engagement</th>
<th>Family Relations</th>
<th>Challenging Activities</th>
<th>High-Quality Homework Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smaller group size</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>Higher minority of time in structured Activities</td>
<td></td>
<td>-</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Days per week in homework time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stronger connections with school</td>
<td></td>
<td></td>
<td>+</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Stronger connections with parents and Community</td>
<td></td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Larger program enrollment</td>
<td></td>
<td>-</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More project-based learning activities</td>
<td></td>
<td></td>
<td>+</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>Program well-paced</td>
<td>+</td>
<td></td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Well-organized with clear routines</td>
<td></td>
<td></td>
<td>+</td>
<td></td>
<td>+</td>
</tr>
</tbody>
</table>

Watts et al (2008) cited increasing evidence for the effectiveness of afterschool programs and that such evidence should lead to research that allows better understanding and articulation of underlying program (p. 134). Their study examined program inputs, outputs
and outcomes and their interrelationship in a large southwestern school district which operated 60 afterschool programs. There were 2428 participating students in the included programs. Similar to the current study, the sample was 60.8% Hispanic, 33.1% Black and 6% White or other; in other words, a predominantly minority group of students. The authors posit that children’s opportunities to engage with adults in a caring environment would lead to higher rates of student program satisfaction and thereby be significantly related to positive program outcomes.

The dependent variables for the study were math and reading scores from state-mandated tests (scored as pass fail), positive school attributions and school attendance. The independent variables were scaled items from a survey given to students at the end of the school year. The scales related to constructs such as perceptions of program safety and support (six items, alpha = .75), perceptions of the program as a place to receive homework help (four items, alpha = .77), home as a negative environment (five items, alpha = .61) and program satisfaction (3 items, alpha = .70). A positive school attributions scale was also derived from the questionnaire and used as an outcome variable. Four hierarchical linear regression analyses were conducted, one for each of the outcomes variables (i.e., positive school attributions, state mandated standardized math and reading test scores, and school attendance).

None of the analyses related to attendance, mathematics achievement or reading test scores showed significant relationships with the predictor variables. The results of the study did show, however, that program satisfaction was the strongest predictor of positive school attributions, followed by student perception of the program as a safe environment (both findings were statistically significant). The authors indicate the program satisfaction, student
perceptions of a safe environment, and having such a strong relationship with positive school attributions should be critical components of any afterschool program.

Fashola (1998) studied the characteristics of five different types of programs (i.e., language arts afterschool programs, study skills programs, academic programs in other curriculum areas, tutoring programs for reading, and community-based programs. Of particular interest in this review are his findings relative to tutoring programs for reading and academic programs in other curriculum areas. Based on program evaluations and correlational analyses, the author proposed several “best practices” and recommendations for implementing afterschool programs.

Fashola discussed a wide variety in school and afterschool programs, some of which were formally evaluated and some not. Some of the programs had only been implemented as in-school programs and some had been implemented both in– and after–school. Following his discussion of the various programs, Fashola discussed several attributes of programs deemed to be successful (pp. 51-54):

1. Effective training and supervision of staff and volunteers are essential for an effective tutoring program.

2. Program structure is essential for programs designed to increase student achievement. “Academic programs that have been successful usually have clear goals, well developed procedures for attaining those goals, and extensive professional development (p. 53).”

3. As part of any programs goals, evaluation of the program in meeting those goals is a necessary component.
4. Children and families should be included in the program development process.

5. Tutoring programs should have an advisory board consisting of stakeholders, such as parents and other community members, who are responsible for running the program and making policy decisions.

Heinrich & Burch (2011), in a large multi-state, multi-method, meta-analysis of many tutoring-program studies, said that lack of study rigor, poor data collection, lack of control for student attributes in SES programs and inadequate research design have led to an inability to draw conclusions about the effectiveness of tutoring. They also cited the need to reach a minimal threshold of attendance at tutoring sessions to obtain any significant result in improved achievement, as commonly found in previous research. For example, Lauer et al (2006) found significantly higher gains in achievement for students who attended tutoring programs extending to 45 hours or more. The purpose of the authors’ research was to determine how much additional efficacy was obtained per hour of program length.

The authors identified 40 hours of SES attendance as a critical threshold to achieve significant gains in elementary student reading and mathematics achievement, although significant gains were only made in mathematics for middle school students. Heinrich & Burch also found that elementary students were more likely to attend tutoring sessions that were middle school students. Students who attended for more than one year made additional significant gains in their content areas, suggesting that the longer periods of attendance were effective, even across multiple years.

Heinrich & Burch found little relationship between provider characteristics, such as student-teacher ratios, total hours offered, student attendance, curriculum design, and hourly
rates charged. They also found that online tutoring providers, despite charging significantly more for their services, demonstrated no significant positive effect on student achievement.

As a result of their study, the authors recommend the following list as “best practices” for implementing SES tutoring (p. 11), although these practices appear to be highly correlated with those found by other researchers of tutorial programs in general.

1. Consistent and sustained instructional time
2. Small grouping patterns (no larger than a student-to-teacher ratio of 10:1, but smaller is better)
3. Curriculum that is content rich, differentiated to student needs, and connected to students’ regular school-day learning
4. Instruction (or content delivery) that is varied (structured and unstructured, independent and collective), active (not desk time or worksheets), focused on skills development, sequenced to achieve skill development objectives, and explicit in its targeting of specific skills
5. Positive relationships between tutors, students, and peers
6. Teachers/tutors with both content and pedagogical knowledge and continuous support, as well as constructive evaluation, from their administrators

This chapter reviewed a sample of the research related to after school tutoring. Although not exhaustive, this review does give a fair characterization of the equivocal nature of previous studies in the literature. The proposed methodology for further examining the effects of an afterschool tutoring program is presented in Chapter 3.
CHAPTER 3

METHODOLOGY

This quantitative study evaluated the effectiveness of an urban elementary school supplementary educational program. Chapter 3 describes the methodology for the study, and includes an overview of the study, its participants, the instruments used to collect data, the procedures used to carry out the design and how the data were analyzed and reported.

The School Studied

The school chosen for this study had implemented afterschool and weekend tutorials that incorporated many elements recommended as “best practices” by authors cited in the foregoing literature review. In the literature, authors have recommended using effective hiring practices for teachers (Nelson-Royes & Reglin, 2011); grouping of participating students by achievement level (Zimmer, Hamilton & Christina, 2010); using district tutors rather than outside agencies and small group instruction (Rothman & Henderson, 2011); tutor training and small group instruction (Jitendra et al., 2013); incorporating learning strategies as part of homework help and reflecting students’ cultural and community backgrounds within tutoring programs (Moje & Tysvaer, 2011). Other authors have recommended the use of highly-educated tutoring staff and the importance of maintaining staff/student relationships (INCRE & NIOST, 2005); maintaining a caring environment within which students can study and be tutored (Watts et al 2008); including parents in the planning and implementation of tutoring programs (Fashola, 1998); effective supervision, grouping students by ability and having content that is connected to regular – school activities (Heinrich & Burch, 2011).
Tutorials

The tutoring program in the school for this study had implemented many of these “best practices” recommendations, and several types of tutorial programs exist in the school district. Students could attend after school, Saturday, and winter/spring tutorial programs. Tutorials were taught by certified teachers who also taught during regular school hours. Teachers were supervised and guided by the schools’ Deans of Academics, who were involved in materials preparation and lesson plans in both schools. During the tutorials, teachers covered basic test taking skills, including reading strategies, inference, text features and elements, literary devices, directions, writing process, conventions, and forms of writing. End-of-lesson exercises, which included selected-response and constructed-response items, helped students build familiarity with testing, and also provided teachers with ongoing feedback on instruction. Teachers modified their lesson plans during tutorials based on assessments and targeted goals and objectives, which were taught progressively during tutorials. Teachers used Buckle Down Benchmark preparation materials for their lesson plans. According to the publisher, Buckle Down materials are aligned to state standards in both reading and mathematics.

Afterschool tutorials/Challenge Program. Afterschool enhancement programs were two hours long and started 5 minutes after the school day ended; the programs were designed to reinforce students’ learning immediately following the day’s instruction. The groups met an average of three days per week throughout the year. Teachers received $25 per hour and a bonus if their students showed increased success on statewide assessments; the bonus was $500 for each proficient or advanced student score on statewide assessments. In the Challenge Program, teachers each chose six students from the list of students who did
not show 40% or more on the Buckle Down Benchmark Form A test (first test). The selected low-achieving group continued afterschool tutorials until they took the state mandated assessments late in the school year.

**Saturday tutorials.** Saturday tutorials operated in conjunction with other tutorials in the school district. School administrators chose to have Saturday school due to student fatigue and resulting inattention following a full schedule on weekdays. Students were invited to attend Saturday tutorials based on their scores on the Buckle Down Benchmark Form Assessments. Students were expected to arrive with a fresh mind on Saturday morning, where they received instruction from teachers in small groups. The Saturday groups each had about 10 students. Students were provided free transportation, breakfast and lunch, and received an incentive of $50 dollars each semester based on perfect attendance at their Saturday and winter/spring-program classes.

**The winter/spring programs.** The winter/spring programs operated in conjunction with other tutorials. Students who were in these tutorials were expected to attend programs which were 3-4 days long during their winter and spring breaks. These inter-session programs were implemented in addition to the afterschool programs. Students attended 2 hours each day of Mathematics and English language arts tutorial classes. Transportation, breakfast and lunch were provided during the program. The programs were not generally mandatory; but, students were highly encouraged to participate, and received a $50 gift card contingent upon having perfect attendance. The program was held during either the winter or spring holiday periods. Teachers received $200 daily compensation for each day of tutorial instruction.
Data Considerations

Data for this study came from 222 students enrolled in grades 3 through 5 in an urban charter school district in the 2012-13 school-years. Students in the study were expected to attend supplemental class two hours after school, three hours on Saturday, and four additional hours during winter/spring break programs.

According to 2012-13 academic year data, the elementary school had 216 students enrolled (14.8% Black, 68.5% Hispanic, 10% White, 2.7% Asian). Eighty four of School A students (97.3%) qualified for free and reduced lunch.

The tutorial data (i.e., NWEA RIT scores and tutorial attendance rate) of individual students were obtained from the schools’ administration. The data contained information for all students enrolled at the schools. The sample size for tutorial activities groups varied from 100 to 150. Upon receiving proper permissions, the data were downloaded from the school’s secure web server using a school-provided username and password.

Table 3.1
School student demographic information for the 2012-13 Academic Year

<table>
<thead>
<tr>
<th></th>
<th>School A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Enrolled</td>
</tr>
<tr>
<td>3th grade</td>
<td>95</td>
</tr>
<tr>
<td>4th grade</td>
<td>62</td>
</tr>
<tr>
<td>5th grade</td>
<td>65</td>
</tr>
<tr>
<td>Male</td>
<td>90</td>
</tr>
<tr>
<td>Female</td>
<td>126</td>
</tr>
</tbody>
</table>

Note: Enrollment data is public information.
The independent variables analyzed were student participation/non-participation, student sex and categorized tutorial attendance rate. The dependent variables analyzed were students’ NWEA reading and mathematics RIT scores.

The afterschool attendance data was kept in an Excel spreadsheet on a secured file server in the school district. Upon obtaining permission, the data were released to the researcher for this study. These data were analyzed as stated in the Methods section below.

Several measures were implemented to ensure confidentiality of the study subjects:

1) Special permission was asked from the school district to start research, and a request made to the school principals for data.
2) During the study, data was kept in a secured environment.
3) Student names and private information were not revealed in the study, and during the study, an encrypted disk was used to store student test scores. Upon completion of the study, the data was erased from the computer.

Data collection. The first placement test was administered in the second week of September. An initial test measuring academic progress was given in the first month of tutorial programs.

All data obtained for the study remained on the researcher’s computer in an encrypted fashion and no paper recording was used in the study in order to protect confidentiality.

There were no interviews or surveys associated with the study.

Measures

The Northwest Evaluation Assessment (NWEA) Test was used to monitor the growth and effectiveness of the program. NWEA was founded in 1976 by a group of school districts who tried to answer the question; “How do we efficiently and accurately measure how much
students have achieved and how quickly they are learning.” NWEA has developed assessment tools to enable educational institutions and agencies to measure achievement via computerized assessments. NWEA MAP (Measures of Academic Progress) test scores were used in this study.

NWEA reports student scores on a Rasch Unit (RIT) scale. The RIT scale is a curriculum scale that uses individual items’ difficulty values to estimate student achievement, and is an equal-interval scale. The scale is the same for students who are considered at the top, middle or bottom ranges of achievement, and has the same meaning regardless of grade level. The scale scores are built from data about the performance of individual examinees on individual items.

The RIT achievement scale is an accurate, equal-interval scale. Since it always has the same meaning, regardless of grade or age of the student, it can be used to measure growth over time. There are five RIT scales: Reading, Language Usage, Mathematics, General Science, and Science. (NWEA Technical Manual, 2003)

RIT scores range from 140 to 300.

For example, 3rd grade students typically start in the 140 to 190 range and show progress to 240 to 300 by high school; students’ growth can be observed year-to-year. School districts can test the students up to 4 times in a year. Students do not take the identical test during at each testing session; each test is tailored to the students’ current achievement level, which is another function attributable to self-leveling, computer-
administered tests. Teachers are able to keep track of students’ progress and growth in basic skills, and receive detailed reports as needed.

According to the NWEA Buckle Down technical manual:

All of the reliabilities are between 0.89 and 0.96. Retest reliability is little different. Values range is 0.79 to 0.94 for test-retest pairs. The second grade test has less consistency. According to the NWEA test manual, “a strong relationship (strong reliability) is indicated when the correlations are in the mid- .80’s. (Northwest Evaluation Association, 2004)

Procedure

In 2010, the school district did not meet AYP standards, based on statewide assessment scores. As a result, the schools were placed on academic probation and expected to show improvement in their statewide assessments. A special dispensation was given to the schools to use NWEA RIT scores as their improvement measure. School administrators prepared a school improvement plan for the year 2011, 2012, and 2013 academic years; Saturday and afterschool tutoring were included in this plan, which included the implementation of a tutorial program for low-achieving students. Saturday Tutorials started as early as the second week of September. The schools used Federal funds to support these programs.

The Buckle Down Benchmark practice test was used to determine the composition of the tutoring groups. These tests were developed by Triumph Learning LLC, a test publisher, and are aligned with common core and state standards. The School used the Buckle Down test preparation materials and methods during tutorials. The assessment packages used by the schools were:
1- Language Arts step-by-step learning and practice test, 
2- Mathematics step-by-step learning and practice test, 
3- Science step-by-step learning and practice test, and 
4- Language Arts covers reading strategies, comprehension and writing prompts.

The practice tests included formatted multiple-choice and open-ended questions, and the tests were equated with what a student should have learned by the time they were to take the state assessment. Administrators developed strategies and providing professional development for teachers to use step-by-step books in their tutorials. The test publishers do not report specific studies verifying the validity and reliability of the Buckle Down practice test and other materials. Buckle Down Language Arts materials cover reading strategies, comprehension and writing prompts. The mathematics materials include formatted multiple choice and open-ended questions. The Buckle Down State Assessment Form A benchmark test was given as a pre-test early in the school year to determine students’ initial levels.

School administrators administered three different practice tests to structure the tutoring groups based on the number of correct answers. The first Benchmark test (bT1) was used to determine which students should be in the tutorial programs, and achievement criterion scores were set for each testing period. Students who did not reach those criterion scores were placed in tutorials. Based on preliminary investigation, students who showed less than 40% (bT1), 55% (bT2), or 60 % (bT3) success were placed in tutorials. After tutorials began, students were expected to achieve at least 40% correct during the first testing session (bT1). A second test (bT2) was used to modify tutorial groups, and students were expected to achieve 55% correct answers. Based on students’ scores, the groups were rearranged to focus instruction appropriately. A third test (bT3) was later used to again
modify tutorial groups, and students were expected to achieve 60% correct answers. The tests were administered to all elementary school students throughout the year. Students could attend all or part of the tutorials based on their passing scores on practice tests which were administered intermittently between the benchmark tests (bT1-bT3).

The NWEA reading and mathematics RIT scores from 2012-13 were collected for both winter and spring testing periods. The first NWEA test was given in the second week of the tutorials in fall. A second NWEA test was given to monitor students’ growth, and was administered during the first week of May, immediately following the end of tutorials.

Data Analysis

This quantitative study examines the effectiveness of academically-based tutorial programs that implement recommended “best practices” on the mean achievement scores of low-performing students who attended afterschool tutorial programs at two urban elementary schools in Missouri. The following two hypotheses were tested.

\( H_{01}: \) There is no statistically significant difference in mean NWEA RIT mathematics scores between students who did and did not attend afterschool tutorials, controlling for prior NWEA RIT mathematics scores, \( \alpha \leq .05 \).

\( H_{02}: \) There is no statistically significant difference in mean NWEA RIT reading scores between students who did and did not attend afterschool tutorials, controlling for prior NWEA RIT reading scores, \( \alpha \leq .05 \).

The hypotheses for reading and mathematics were each combined into single one-way tests of significance (ANCOVA). The ANCOVA design used the spring NWEA RIT score (reading or mathematics) as the dependent variable and the previous fall’s NWEA RIT score as the covariate. Students were divided into two groups, those with tutorial
participation of 20 hours or more and those who did not participate in tutorials. Students who attended 1-19 hours of tutorials were dropped from the analysis dataset. Group participation was used as the independent variable. Analyses was performed using the Statistical Package for the Social Sciences (SPSS v. 21).

Approval was obtained from the University of Missouri – Kansas City Institutional Review Board (IRB) to conduct this study. The tutorial attendance, student demographic, and NWEA RIT and Benchmark data were obtained from school principals after receiving the proper permissions from the schools’ administration and other entities.

Descriptive statistics and correlations for the dependent and independent variables are reported in Chapter 4, and following the hypothesis test, descriptive statistics are disaggregated by the independent-variable levels. Since all independent variables have two levels, post hoc comparisons were obviated. For all tests, appropriate plots are included.

**Ethical Considerations**

This study used an archived database from NWEA servers for all analyses. All procedures followed the confidentially agreement set up by the school District. All data analysis were conducted using the researchers’ computer, and no individual-level data was emailed or transferred to another location. No identifying data (i.e., names, social security number, school Id) was used in the analysis. There was no anticipated risk for the participants of the study.
CHAPTER 4

RESULTS OF THE STUDY

This quantitative study evaluated the effectiveness of an urban elementary school supplementary educational program. Chapter 4 describes the analysis results of the study and the demographics of its participants

Subject Demographics

From the population data obtained from the school, students with fewer than 20 hours of tutorial attendance were removed. From the resulting data, students were divided into two groups: (1) The treatment group of students who had attended 20 hours or more at tutorials and (2) students who had not attended tutorial sessions. All students in the treatment group were retained for analysis. In order to maintain relatively equal – sized treatment and control groups, an equal number of control – group students were randomly selected for comparison in analysis, stratified by subject (Mathematics & Reading) and grade. The following tables show the student demographics population and analysis datasets.
Table 4.1

Student treatment and control assignment for population and analysis datasets of students with more than 20 hours of tutorial attendance

<table>
<thead>
<tr>
<th>Subject</th>
<th>Grade</th>
<th>Group</th>
<th>Population data</th>
<th>Analysis data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>Percent</td>
<td>N</td>
</tr>
<tr>
<td>Math</td>
<td>3</td>
<td>Treatment</td>
<td>21</td>
<td>32.813</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
<td>43</td>
<td>67.188</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Treatment</td>
<td>11</td>
<td>39.286</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
<td>17</td>
<td>60.714</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Treatment</td>
<td>23</td>
<td>51.111</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
<td>22</td>
<td>48.889</td>
</tr>
<tr>
<td>Reading</td>
<td>4</td>
<td>Treatment</td>
<td>19</td>
<td>38.776</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
<td>30</td>
<td>61.224</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Treatment</td>
<td>21</td>
<td>52.500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
<td>19</td>
<td>47.500</td>
</tr>
</tbody>
</table>

**All control students were sampled due to smaller N.
Figure 4.1.

Student treatment and control assignment for population and analysis datasets of students with more than 20 hours of tutorial attendance**
Table 4.2.

Student sex for population and analysis datasets of students with more than 20 hours of tutorial attendance**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Grade</th>
<th>Sex</th>
<th>Population data</th>
<th>Analysis data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>Percent</td>
<td>N</td>
</tr>
<tr>
<td>Math</td>
<td>3</td>
<td>Female</td>
<td>39</td>
<td>60.938</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>25</td>
<td>39.063</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Female</td>
<td>17</td>
<td>60.714</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>11</td>
<td>39.286</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Female</td>
<td>26</td>
<td>57.778</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>19</td>
<td>42.222</td>
</tr>
<tr>
<td>Reading</td>
<td>4</td>
<td>Female</td>
<td>32</td>
<td>65.306</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>17</td>
<td>34.694</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Female</td>
<td>23</td>
<td>57.500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>17</td>
<td>42.500</td>
</tr>
</tbody>
</table>
** n is for population

Figure 4.2.

Student sex for population and analysis datasets of students with more than 20 hours of tutorial attendance**

Table 4.2 and Figure 4.1 show that the percentage of students by sex in the analysis group is similar to the population.
Table 4.3

Student percentage of school attendance for population and analysis datasets of students with more than 20 hours of tutorial attendance

<table>
<thead>
<tr>
<th>Subject</th>
<th>Grade</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Population data</th>
<th>Analysis data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Population data</td>
<td>Analysis data</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N</td>
<td>Mean</td>
</tr>
<tr>
<td>Math</td>
<td>3</td>
<td>64</td>
<td>95.677</td>
<td>3.436</td>
<td>95.831</td>
<td>3.325</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>28</td>
<td>96.401</td>
<td>2.953</td>
<td>96.594</td>
<td>2.931</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>45</td>
<td>96.811</td>
<td>1.925</td>
<td>96.811</td>
<td>1.925</td>
</tr>
<tr>
<td>Reading</td>
<td>4</td>
<td>49</td>
<td>96.320</td>
<td>2.982</td>
<td>96.200</td>
<td>3.112</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>40</td>
<td>96.579</td>
<td>2.275</td>
<td>96.579</td>
<td>2.275</td>
</tr>
</tbody>
</table>
** n is for population

Figure 4.3.

Student percentage of school attendance for population and analysis datasets of students with more than 20 hours of tutorial attendance**

Table 4.3 and Figure 4.3 show that the percentage of attendance by students in the analysis group is similar to the population.
Hypothesis Tests

Separate hypotheses were tested for Reading and Mathematics.

\( H_{o1} \): There is no statistically significant difference in mean NWEA RIT mathematics scores between students who did and did not attend afterschool tutorials, controlling for prior NWEA RIT mathematics scores, \( \alpha \leq .05 \).

\( H_{o2} \): There is no statistically significant difference in mean NWEA RIT reading scores between students who did and did not attend afterschool tutorials, controlling for prior NWEA RIT reading scores, \( \alpha \leq .05 \).

The hypotheses for reading and mathematics were each combined into single one-way tests of significance using ANCOVA. The ANCOVA design used use the spring NWEA RIT score (reading or mathematics) as the dependent variable and the previous fall’s NWEA RIT score as the covariate. Students were divided into two groups, those with tutorial participation of 20 hours or more (treatment) and those who did not participate in tutorials (control). Grade-levels were combined within each group. Students who attended 1-19 hours of tutorials were dropped from the analysis dataset. Group membership was used as the independent variable. Analyses was performed using the Statistical Package for the Social Sciences (SPSS v. 21). The following tables show the results of the ANCOVA models for Reading and Mathematics.

Table 4.4.

Number of students by subject area and group.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Group</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math</td>
<td>Treatment</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>54</td>
</tr>
<tr>
<td>Reading</td>
<td>Treatment</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>38</td>
</tr>
</tbody>
</table>
Table 4.5.

Descriptive statistics for dependent variable (spring 2013 NWAE RIT score) by subject area and group.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math</td>
<td>Treatment</td>
<td>202.891</td>
<td>13.936</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>216.056</td>
<td>9.950</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>209.413</td>
<td>13.763</td>
<td>109</td>
</tr>
<tr>
<td>Reading</td>
<td>Treatment</td>
<td>193.825</td>
<td>13.760</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>206.632</td>
<td>12.801</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>200.064</td>
<td>14.702</td>
<td>78</td>
</tr>
</tbody>
</table>

An assumption of ANCOVA and other general linear models tests is that the variances be approximately equal (homogeneity of variance). Levene’s test tests the hypothesis that variances are equal.

Table 4.6.

Levene's Test of Equality of Error Variances for dependent variables in the model**.

<table>
<thead>
<tr>
<th>Subject</th>
<th>F</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math</td>
<td>.453</td>
<td>1</td>
<td>107</td>
<td>.502</td>
</tr>
<tr>
<td>Reading</td>
<td>1.385</td>
<td>1</td>
<td>76</td>
<td>.243</td>
</tr>
</tbody>
</table>

a. Design: Intercept + RITScore_F12 + Status

The results of Levene’s test, by subject area in Table 4.6 show that the null hypothesis is retained, and therefore the variances are acceptably homogeneous.
Table 4.7.

ANCOVA results.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Type III SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math</td>
<td>Corrected Model</td>
<td>14804.464&lt;sup&gt;a&lt;/sup&gt;</td>
<td>2</td>
<td>7402.232</td>
<td>138.826</td>
<td>.000</td>
<td>.724</td>
</tr>
<tr>
<td></td>
<td>Intercept</td>
<td>1284.972</td>
<td>1</td>
<td>1284.972</td>
<td>24.099</td>
<td>.000</td>
<td>.185</td>
</tr>
<tr>
<td></td>
<td>RITF12</td>
<td>10082.221</td>
<td>1</td>
<td>10082.221</td>
<td>189.088</td>
<td>.000</td>
<td>.641</td>
</tr>
<tr>
<td></td>
<td>Status</td>
<td>320.639</td>
<td>1</td>
<td>320.639</td>
<td>6.013</td>
<td>*.016</td>
<td>.054</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>5651.958</td>
<td>106</td>
<td>53.320</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4800514.000</td>
<td>109</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corrected Total</td>
<td>20456.422</td>
<td>108</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading</td>
<td>Corrected Model</td>
<td>10509.094&lt;sup&gt;c&lt;/sup&gt;</td>
<td>2</td>
<td>5254.547</td>
<td>64.251</td>
<td>.000</td>
<td>.631</td>
</tr>
<tr>
<td></td>
<td>Intercept</td>
<td>1874.841</td>
<td>1</td>
<td>1874.841</td>
<td>22.925</td>
<td>.000</td>
<td>.234</td>
</tr>
<tr>
<td></td>
<td>RIT_F12</td>
<td>7313.032</td>
<td>1</td>
<td>7313.032</td>
<td>89.422</td>
<td>.000</td>
<td>.544</td>
</tr>
<tr>
<td></td>
<td>Status</td>
<td>146.539</td>
<td>1</td>
<td>146.539</td>
<td>1.792</td>
<td>.185</td>
<td>.023</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>6133.585</td>
<td>75</td>
<td>81.781</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3138643.000</td>
<td>78</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corrected Total</td>
<td>16642.679</td>
<td>77</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant, alpha less than or equal to .05

The results of ANCOVA in Table 4.7 show that the null hypothesis for Mathematics is rejected, and therefore there is a statistically significant difference in RIT scores based on group assignment (control vs treatment), but that the mean for the treatment group is lower than for the control group. The null hypothesis for Reading is retained, and no statistically significant difference in RIT scores based on group assignment (control vs treatment) was found. These results are not surprising, given the equivocal nature of researchers’ previous
findings, some of whom found significant positive effects for afterschool tutoring (James-Budumy et al., 2008; Yaffe, 2010; Nelson-Royes & Reglin, 2011), and some of whom did not (Watts et al, 2008).

In Chapter 5, the findings of this study are discussed, along with potential methods of enhancing afterschool tutoring for inner-city students and other implications for the field.
CHAPTER 5
SUMMARY, CONCLUSION, AND IMPLICATIONS

According to the National Center for Children in Poverty, more than 16 million children in the United States – 22% of all children – live in families with incomes below the federal poverty level, which is $23,550 a year for a family of four. Studies suggest that education remains critical for students in poverty, and that regular class activities will not be adequate for youth to overcome the issues around education; traditional schooling cannot provide the necessary social and personal resources they need to overcome their economically disadvantaged background (Eccles et al., 1993). Policy makers are finding it difficult to decide what they must change to prepare future citizens. Jardine (2005) stated that we educators are frustrated, threatened, and often feel powerless because of institutional demands (p. 28). The most recent legislative reform that has taken place is The No Child Left behind Act of 2001 (NCLB). NCLB was intended to make landmark changes in the education sector by improving students’ achievement through change in the culture of American Schools. The school district uses federal funds under Title I of The No Child Left Behind Act of 2001 (NCLB) to support supplementary tutoring programs to improve the academic achievement of low-income children.

Policy makers are finding it difficult to decide what they must change to prepare future citizens. Jardine (2005) stated that we educators are frustrated, threatened, and often feel powerless because of institutional demands (p. 28). As recently as 2010, authors such as Yaffe, (2010) cite the need for more data and information regarding after – school tutoring programs by several authors, researchers, and businessmen in the educational field assembled for an achievement gaps symposium on out-of-school learning held by Educational Testing
Service in 2010. Yaffe indicates that studies of traditional supplementary educational services after school tutoring show a positive effect on student learning for only 4.4% of students. Other programs actually showed positive results that were not recognized due to poor research methodology. Yaffe says that in the interests of educational and fiscal responsibility, tutoring programs must use reliable data, thorough documentation and acceptable methodology so that schools can know which programs work and which do not. This finding is echoed by other authors, such as Heinrich & Burch (2011).

Despite calls for further research, there are many studies of afterschool tutoring programs of various types in the literature, although their findings are often equivocal and their methodologies sometimes questionable. Most authors cited below provide recommended “best practices” based on their research.” Although the focus and results of many of these studies are disparate, the recommendations for “best practices” appear to be sound and applicable to tutoring programs in general.

The intent of this study was to investigate the relationship between the school’s afterschool tutorials and student achievement. The afterschool tutorials considered here were designed to help students in mathematics and reading. The effectiveness of the tutorials was measured using the Northwest Evaluation Association (NWEA) mathematics and reading achievement scores. Thus, the purpose of the study was to determine the effectiveness of afterschool tutorials in increasing students’ reading and mathematics test scores, as well as the relationship between program attendance and student scores.

**Analysis of Findings**

To gather data for this study, the researcher obtained students’ Northwest Evaluation Association (NWEA) mathematics and reading achievement scores. Data for this study came
from 222 students enrolled in grades 3 through 5 in an urban charter school district in the 2012-13 school-years. Students in the study were expected to attend supplemental class two hours after school, three hours on Saturday, and four additional hours during winter/spring break programs. The data contained information for all students enrolled at the schools. From the population data obtained from the school, students with fewer than 20 hours of tutorial attendance were removed. From the resulting data, students were divided into two groups: (1) The treatment group of students who had attended 20 hours or more at tutorials and (2) students who had not attended tutorial sessions. All students in the treatment group were retained for analysis. In order to maintain relatively equal – sized treatment and control groups, an equal number of control – group students were randomly selected for comparison in analysis, stratified by subject (Mathematics & Reading) and grade.

The study addressed the following questions: Does participation in afterschool tutorials improve students’ mathematics and reading achievement?

The hypotheses for reading and mathematics were each combined into single one-way tests of significance using ANCOVA. The ANCOVA design used use the spring NWEA RIT score (reading or mathematics) as the dependent variable and the previous fall’s NWEA RIT score as the covariate. Students were divided into two groups, those with tutorial participation of 20 hours or more (treatment) and those who did not participate in tutorials (control). Grade-levels were combined within each group. Students who attended 1-19 hours of tutorials were dropped from the analysis dataset. Group membership was used as the independent variable. Analyses were performed using the Statistical Package for the Social Sciences (SPSS v. 21). The following tables show the demographic characteristics of the study sample and results of the ANCOVA models for Reading and Mathematics.
Discussion of Research Findings

Research Question: Does participation in afterschool tutorials improve students’ mathematics and reading achievement?

The intent of this study was to investigate the relationship between the school’s afterschool tutorials and student achievement. The results of ANCOVA in Table 4.7 show that the null hypothesis for Mathematics is rejected, and therefore there is a statistically significant difference in RIT scores based on group assignment (control vs treatment), but that the mean for the treatment group is lower than for the control group. The null hypothesis for Reading is retained, and no statistically significant difference in RIT scores based on group assignment (control vs treatment) was found. These results, are not surprising, given the equivocal nature of researchers’ previous findings, some of whom found significant positive effects for afterschool tutoring (James-Budumy et al., 2008; Yaffe, 2010; Nelson-Royes & Reglin, 2011), and some of whom did not (Watts et al., 2008).

The reason behind the low mean for the students who attended afterschool tutorials vs those who did not could be explained in different ways. One way is the attending students were already low achievers and their progress did not reach the overall student mean. Since the school offered tutorials for low achievers, even statistically significant growth may not have allowed low-achieving students to score as well as other students.

The results of this study and those in the literature review for afterschool tutorials’ effect on student achievement are mixed. Although there are some findings that are congruent with this study’s findings, the qualities of the programs often affected the results. Jitendra et al. (2013) studied the effects of tutoring students in schema – based strategies (SBI) for solving mathematics problems. Although the study was limited to students with
disabilities, there does not appear to be any reason to think that this tutoring, either and methodology or application, would not be applicable to all students. 115 third-grade students with mathematics difficulties (MD) participated in the study, and 18 tutors. The authors found statistically significant positive results for tutoring students in mathematical problem-solving. Positive results were shown for students regardless of the severity of their mathematical difficulties and their achievement level. The authors emphasized tutor training and small – group instruction in their study.

Based on the analysis in chapter 4, the results of ANCOVA analysis of NWEA Math RIT scores showed that achievement was significantly different for tutorial attendees, although the scores for attendees was somewhat lower.

Zimmer, Hamilton & Christina (2010) studied the effectiveness of the educational assistance program (EAP) administered by the state of Pennsylvania and supplementary educational services tutoring (SES) in Pittsburgh Public Schools. In Zimmer et al’s Pittsburgh study, 600 students received SES services while 6000 students received EAP services. The authors found that two important components of the programs were significantly related to student achievement gains: The experience of the tutor and grouping of students by skill level for both mathematics and reading. Overall, Zimmer et al. found that students participating in SES made significant gains in mathematics but not in reading.

Based on the analysis in chapter 4, the results of ANCOVA analysis of NWEA Reading RIT scores showed that achievement was not significantly different for tutorial attendees.

Rothman & Henderson studied 7th graders who were “near-passing” on a standardized achievement test. The purpose of the study was to determine if after – school
tutoring raised student achievement scores in mathematics and reading. The results of the study showed statistically significantly higher mean test scores for the tutored groups than for the control groups in both mathematics and reading. The authors indicate that the use of district tutors (rather than tutors from external sources), rewarding attendance, maintaining high expectations and the use of small – group instruction, all of which previous research has shown to be effective, may have contributed to the positive significant difference for the treatment group.

Although each study uses different methodologies and comes to, often, different conclusions, most authors recommend several strategies to enhance student outcomes: Providing a minimum amount of time for the tutoring process; using school district personnel as tutors to enhance the relationship between the schools curriculum and what is tutored and the relationship between tutors and students; having high expectations for students; maintaining rigorous data regarding process and outcomes; providing adequate training for tutors; high attendance rates for students; and small – group instruction.

INCRE & NIOST (2005) studied 78 afterschool programs serving 4108 students in Massachusetts in order to determine which practices and policies were most effective in enhancing program implementation and student outcomes.

Watts et al (2008) cite increasing evidence for the effectiveness of afterschool programs and that such evidence should lead to research that allows better understanding and articulation of underlying program (p. 134). Their study examined program inputs, outputs and outcomes and their interrelationship in a large southwestern school district which operated 60 afterschool programs. There were 2428 participating students in the included programs. Similar to the current proposed study, the sample was 60.8% Hispanic, 33.1%
Black and 6% White or other; in other words, a predominantly minority group of students. The dependent variables for the study were math and reading scores from state-mandated tests (scored as pass fail), positive school attributions and school attendance.

Despite calls for further research, there are many studies of after-school tutoring programs of various types in the literature, although their findings are often equivocal and their methodologies sometimes questionable. Although the focus and results of many of these studies are disparate, the recommendations for “best practices” appear to be sound and applicable to tutoring programs in general.

Heinrich & Burch (2011), in a large multi-state, multi-method, meta-analysis of many tutoring-program studies, said that lack of study rigor, poor data collection, lack of control for student attributes in SES programs and inadequate research design have led to an inability to draw conclusions about the effectiveness of tutoring. They also cite the need to reach a minimal threshold of attendance at tutoring sessions to obtain any significant result in improved achievement, as commonly found in previous research. For example, Lauer et al (2006) found significantly higher gains in achievement for students who attended tutoring programs extending to 45 hours or more. The purpose of this research was to determine how much additional efficacy was obtained per hour of program length.

Conclusion

The results from the analysis in chapter 4 lead following conclusion for the effects of after-school tutorials on student achievement.

1. There is no statistically significant difference in RIT Reading scores based on group assignment (control vs treatment)

2. There is a statistically significant difference in RIT Mathematics scores based on
group assignment (control vs treatment), but the mean for the treatment group is somewhat lower than for the control group.
Implications

Schools are expected to increase their monitoring of school progress and to modify their programs throughout the year. It is hoped that this study will be a pathway for school administrators to interpret their achievement scores and better understand the issues surrounding afterschool tutorials and student achievements. None of the analyses related to mathematics achievement or reading test scores showed significant relationships with the predictor variable. The results of other studies did show, however, that program satisfaction was the strongest predictor of positive school attributions, followed by student perception of the program as a safe environment (both findings were statistically significant). The authors indicated the program satisfaction, student perceptions of a safe environment, having a strong relationship with positive school attributions, should be critical components of any afterschool program. The tutoring program in this study is different than the schools in many other studies, and incorporated various elements of other programs. Several types of tutorial programs were implemented. Students attended after school, Saturday, and winter/spring tutorial programs. Tutorials were taught by certified teachers who also teach during regular school hours. Teachers were supervised and guided by the schools’ Deans of Academics, who were involved in materials preparation and lesson plans in both schools. During the tutorials, teachers covered basic test taking skills, including reading strategies, inference, text features and elements, literary devices, directions, writing process, conventions, and forms of writing. End-of-lesson exercises, which included selected-response and constructed-response items, helped students build familiarity with testing, as well as provided teachers with ongoing feedback on instruction. Teachers also modified their lesson plans during tutorials based on assessments and targeted goals and objectives, which were taught progressively.
during tutorials. In tutorial programs, the selected low-achieving group continued afterschool tutorials until they took the state mandated assessments late in the school year. It is important to understand that according to The No Child Left Behind Act of 2001 (NCLB): Each state must measure the success of students’ progress in reading and mathematics in grades 3 through 8. Schools are expected to place emphasis on implementing educational programs and practices that have been clearly demonstrated to be effective through scientific methods. It is also important to track and Assess Goals for individual Students. If the Individualized Education Plan of a student recommends a revision of a goal for a student, the revision should be set. Individualized learning plans should be evaluated at the end of the year whether the student met his/her annual goals. Educating students through a continuum of consistent educational programs, planned activities and curriculums, from pre-kindergarten to post-secondary, is increasingly becoming a critical issue in the United States.

**Dissemination**

School administrators are currently spending a significant amount of time and resources to implement afterschool programs. Many school districts use federal funds under Title I of The No Child Left Behind Act of 2001 (NCLB) to support supplementary tutoring programs to improve the academic achievement of low-income children. Policy makers, State Education Agency officials, policy makers, school administrators, teachers, and researchers in the field of after school program would benefit from the findings of this study. This study on the effects of the Afterschool Tutoring Programs will inform schools in urban settings implementing school-wide, afterschool tutoring programs.

This study will also help parents and students understand the benefits of attending the provided tutorials.
Recommendations for Future Research

The following recommendations are made based on this study;

1. The study was limited to one district. Further study should be conducted to include more schools and districts.

2. This study was limited to third through fifth grade. Further research should be conducted as a longitudinal study of other grade levels.

3. The treatment group consisted of low achievers only. Further research should be conducted to see the effects on all students.

4. Student treatment and control assignment for population and analysis datasets of students with more than 20 hours of tutorial attendance. Further research could be included for students with more than 40 hours of tutorial attendance.

5. The types of tutorial (i.e., Saturday, afterschool, etc.) should be studied separately in order to discern any varying effect(s).

Concluding Thoughts

When we look at the factors reported in the literature, there is not just one factor that we can say affects student achievement. The factors change based on the needs of the student to achieve. The factors that most often affect students vary from school to school, neighborhood to neighborhood, and even grade-level to grade-level. It is interesting to observe severe differences even between schools next to each other in the same neighborhood. Since students experience the majority of their daily activities at the school, schooling plays a very important role. With dedicated teachers and administrators, the school can be successful. Teachers should use assessments as tools to determine what is not
thought or has not yet been learned. This study reveals that effective use of test data is essential to success. Testing data are the most significant measures for evaluating our overall school improvement efforts. The plan should be developed and revised annually using all available student and school performance data.

Based on the research, the most important challenge in today’s American school is inequality. Students who are in urban, suburban and rural schools do not have equal opportunities to learn. Each and every student should have equal access to educational programs and student activities. Many students do not have equal access to desirable jobs and positions in their adult life that required a good education, and therefore they have little incentive to succeed in school. Students should have equal opportunity to take classes, AP course, dual credits, and liberal arts like their counterparts in a bigger school. Students also need equal access to quality teachers. Additionally, minority and female student’s participation in science, math and engineering classes should be increased. The gap analysis should be carefully done with gender and race representations, and action taken upon the result to provide equal opportunity.

The purpose of this study was to help parents, educators, and students understand the benefits of attending the provided tutorials. Having after-school tutorials is a viable option for unsupervised students and meeting with state accountability expectations. For these reasons alone, it is important to provide high quality tutorial programs for low achievers.

The researchers’ findings indicate that students who enrolled in the after school tutoring program scored statistically significantly lower in Mathematics achievement. The gains in Reading achievement were not statistically significant but all student groups showed growth. Educators have many responsibilities throughout the school year. While
administrators collaborate with all stakeholders, principals must maintain a constantly improving high-quality learning environment through direct evaluation and by designing a viable curriculum and programs that offer an effective teaching and learning atmosphere. Setting high standards for student learning by aligning the schools’ academic goals to state’s assessed standards is fundamental in the current system of accountability. Recognizing and celebrating the accomplishments of students, staff members and teachers are important components of building a better climate and culture.
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