EVALUATING EXTENDED LEARNING TIME ON URBAN STUDENT PERFORMANCE

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To Mommy and Daughter with love
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ANDREA MOSS

ABSTRACT

In the United States, children between the ages of five and eighteen spend up to 85 percent of their time out of school. After the school day ends, working parents of school-age children and youth need to secure adequate after-school care. During after school hours, between the hours of 3 p.m. and 7 p.m., 19 percent of violent offenses committed by juveniles occur (U.S. Department of Justice, 2010). On the National Assessment of Educational Progress (2015) the average eighth-grade minority student performs at about the level of the average fourth-grade white student. These data indicate that the best use of time after school involves closing the achievement gap and providing a haven for school-age children and youth (Durlak & Weissberg, 2007).

The literature notes mixed opinions concerning the impact of extended learning time in the form of after-school programs. Interested stakeholders believe that, despite the inconsistent findings of the effect of after-school programs on academics and student behavior, after-school programs can narrow the achievement gap through academic and social support, promote physical fitness, and offer refuge for children and youth. Researchers believe that these varied results may stem from the need for improved research designs and a determination of which children benefit the most from participation in after-school programs (Riggs & Greenberg, 2004).

This study addressed the need for extended learning time in the form of after-school programs in urban schools. It sought to evaluate the effect of participation in school-based after-school programs on the academic and social behaviors of elementary
and middle school students in an urban school district. It used an ex-post facto research design and included after-school participation, Ohio Achievement Assessment data in reading and mathematics, suspensions, school attendance and demographics including race, gender, age, disability, and English proficiency as variables.

Participants included students in grades three through eight from two schools in an urban district. The researcher analyzed data to compare participants in an after-school program to non-participants according to the variables mentioned above. The results of this study showed that after-school programs academically and socially benefit urban elementary and middle school students.
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CHAPTER I

INTRODUCTION

As a child, my definition of a tutor included a private in-home educator of the children of wealthy parents who viewed the use of a tutor as a means to get their children into the best colleges or help them earn the top grades. Tutoring provided an opportunity that disadvantaged children could not experience because their parents could not afford to pay for it. As a teen, I learned firsthand that lower-middle-class families could and should take advantage of tutoring. When I reached the level of advanced placement calculus my senior year, I discovered that I needed additional support. Unfortunately, my mother could not support me in that her mathematics education ended at algebra. Therefore, she sought other opportunities for support in developing my understanding of calculus. After that, we found a tutor at Case Western Reserve University (CWRU). Every Saturday for two hours a week for ten weeks on CWRU’s campus, he reviewed calculus concepts with me. He helped me to earn a B in a class that I would have failed without his support. I am so glad that my mother's definition of a tutor did not resemble my childhood definition. Hiring a tutor was well worth the money and sacrifice.

As a parent, tutoring also benefited my daughter in her preparation for the ACT.
As an educator in an urban school district, I recognize the value of extended learning time. Sharing the same sentiment, the staff of my school created an after-school program. We felt that sometimes students need someone other than their classroom teacher to re-explain the concepts and skills taught in class. Some need extra practice in a particular subject. Others need exposure to learning targets they did not master in previous grades. Our program led to improved grades, higher standardized test scores, and increased understanding. It seems logical that all schools provide tutoring to those who need it regardless of cost.

**Statement of the Problem**

Many stakeholders find low mathematics and reading test scores, and high juvenile crime rates in America sobering. On the National Assessment of Educational Progress (2015) 60% of fourth graders and 66% of eighth graders in mathematics and 64% of fourth graders and 66% of eighth graders in reading performed below proficient. Among those low performing students, 67% of them came from urban schools (NAEP, 2015). According to the Trends in International Mathematics and Science Study (2015), the United States, compared to other countries, ranked 11th in 4th-grade math, 9th in 8th-grade math, 8th in 4th-grade science and 8th in 8th-grade science. After being ranked first, the Progress in International Reading Literacy Study (2011) indicated that American 4th-grade students ranked 6th out of 53 countries in reading. Unfortunately, U.S. international rankings continue to fall as other nations continue to rise. The Department of Justice (2010) reported that 63% of all juvenile violent offenses occur on school days. According to a study on after-school programs, the likelihood of cutting classes, using drugs, drinking alcohol, smoking cigarettes, and engaging in sexual activity increased threefold for non-participants in after-school activities (Afterschool Alliance, 2009).
These statistics indicate that the best use of time after school involves closing the achievement gap and providing a haven for school-age children (Durlak & Weissberg, 2007).

One would assume that more time in school should result in more learning, better student performance and less behavioral concerns in and out of the classroom. In fact, most educators equate more instructional time with opportunities to deepen the curriculum, personalize instruction, and enrich educational experiences (Fabman et al., 2011). Baker, Fabrega, Galindo, and Mishook (2004) define time as a separate and central resource in the educational process and deem it as complicated to study due to the difficulty in determining actual time spent on instructional tasks and efficiency of instruction. Despite decades of effort, performance gaps among American students and their global peers, affluent and poor school districts, African American students and their white counterparts remain stagnant. Many stakeholders wonder if extended learning time impacts student performance gaps and continue to debate over how to best use it.

Major societal concerns drive the development and implementation of extended learning time. After the school day ends, millions of young people turn to their own devices while most schools sit idle (Afterschool Alliance, 2008). In the United States, children between the ages of five and eighteen spend up to 85% of their time out of school. Many Americans believe that Asian students outperform American students due to longer school days in Asian countries. Some researchers note that Asian students receive the same amount of instructional time as U.S. students. However, how Asian students use their time outside of school differs from how American students use their time. The difference lies in the way Asian schools accommodate its students before and after school with enrichment opportunities (Afterschool Alliance, 2008).
Educators, across the nation, search for ways to improve student reading and mathematics academic achievement. One educational challenge educators confront daily involves finding sufficient time during the school day to address the unique and diverse needs of students. Children learn, and their brains mature at different rates. Therefore, some students may need additional time and practice to experience academic, social, and emotional growth. While others, who are above grade level, may need enrichment to experience, academic, social, and emotional growth. Many believe that extending learning time can provide support for anyone who needs more time to achieve or exceed proficiency in reading and mathematics.

Federal legislation such as Title I of the No Child Left Behind Act (NCLB) of 2001, the current version of the Elementary and Secondary Education Act (ESEA) and the Every Student Succeeds Act (ESSA) hold schools, districts, and states responsible for the academic performance of its students. ESEA requires states to yearly test students to determine whether all students, as well as various subgroups, show progress toward meeting state academic content standards in reading, mathematics, science, and social studies. Schools that fail to make adequate progress for three consecutive years must provide additional instructional support such as tutoring or after-school programs.

Ohio uses the Third Grade Reading Guarantee as an additional requirement for public schools. Research shows that children who read below a third-grade level by the end of third grade will likely struggle in all classroom subjects in subsequent grades. The Third Grade Reading Guarantee requires the identification of struggling readers in kindergarten through third grade and instructs teachers to draft a reading improvement and monitoring plan (RIMP) that addresses their students' unique reading needs, provide intensive reading instruction through the use of evidence-based interventions, and ensure
student success in reading by the end of third grade. The interventions provided must take place outside of regular reading instruction. Students in third grade must meet a minimum score on one of various reading assessments to advance to the fourth grade. Tutoring has become of interest to teachers and school administrators because it can assist in meeting these expectations.

In 2009, The United States Department of Education awarded the state of Ohio with $132 million in School Improvement Grant (SIG) funds of the $3.5 billion available across the country. Schools eligible for these funds represented Ohio's lowest-achieving schools, those in the bottom 5% of schools, Title I schools under school improvement status, and Title I secondary schools. Schools, seeking SIG funds, applied to the Ohio Department of Education. Those receiving these funds provided 225 hours of extended learning time for students and 75 hours of professional development for teachers.

**Rationale of the Study**

Schools assume a prominent role in addressing the needs of children during after school hours. Many students participate in many in-school after-school activities such as sports and clubs. Some school districts and community agencies implement after-school programs to compensate for the lack of quality education in schools in low-income areas and provide support for students performing above or below-grade level. After school programs supplement what children learn during the school day by exposing them to activities that promote cognitive, social, emotional, physical, and moral growth and development and provide a safe, supervised environment for them. Politicians tend to support academically focused after-school programs (Afterschool Alliance, 2008). Psychologists and social scientists tend to believe in the adoption of holistic models of youth development (Afterschool Alliance, 2008). Federally funded after-school
programs must meet the needs of the communities it serves by addressing many contemporary concerns such as narrowing the achievement gap.

Ongoing research into the causes of gaps in achievement between low-income minority students and middle-income white students suggest that in-school factors and home/community factors promote the gap (Berliner, 2009). Berliner (2009) weights home/community influences more heavily than in-school factors for those children who spend more time at home and in their communities than in school. Therefore, at-risk students tend to gain the most from after-school program participation. Regrettably, at-risk students fail to take advantage of after-school program participation (Gayl, 2004). If after-school programs focus on attracting students who will benefit the greatest from participation in it and provide the same learning opportunities available to middle and upper-class students, experiences that meet their interest and skills, and exposure to positive adult and peer relationships then academic and social benefits will follow (Miller, 2003).

Purpose of the Study

The purpose of this study was to examine the effect of after-school programs in an urban district on elementary and middle school students' standardized test scores and in-school behaviors. There are many benefits of after-school program participation. Unfortunately, after-school programs require a significant amount of funding. Due to the expense of these programs, one must determine whether after-school programs significantly impact standardized test scores and improve student in-school behaviors. This study sought to address the following questions:

1. How does elementary/middle-grade student participation in an extended learning time program influence their academic achievement in reading and
mathematics as compared to non-participants in an extended learning time program?

2. How does elementary/middle-grade student participation in an extended learning time program influence their in-school behaviors as compared to non-participants in an extended learning time program?

3. To what extent do the extended learning time participants’ demographics explain their academic achievement?

4. To what extent do the extended learning time participants’ demographics explain their in-school behaviors?

Operational Definitions

*Extended Learning Time*: A school-based program offered outside of school time and on school premises before and after the school day ends and on Saturdays

*Elementary school student*: A student in grades 3 - 5

*Middle school student*: A student in grades 6 - 8

*Academic achievement*: Ohio Achievement Assessment scores in reading and mathematics

*In-school behaviors*: Number of days absent, tardy, unexcused from school and suspended

*Student characteristics*: Age, gender, race, English language proficiency, and disability

Significance of the Study

After-school programs differ in effectiveness. The inconsistent findings of after-school programs' effect on academics and in-school student behavior may stem from this variation and a lack of understanding of how after-school programs impact children's
developmental trajectories (Riggs & Greenberg, 2004). Riggs and Greenberg (2004) believe in the use of an ecological and developmental perspective to evaluate after-school programs, including improved research designs, detailed analysis of program types and services, and an accurate determination of which children benefit the most from participation in them. The use of their approach may reveal the actual effect of after-school programs on academic achievement.

**Limitations**

Many factors influence academic achievement and in-school student behavior that makes research on extended learning time (ELT) difficult and limits this study. Most studies on ELT involves qualitative research in the form of case studies. Moreover, more hours in school does not necessarily translate into more time spent on learning. Instructional time and efficiency remain difficult to determine in that time spent on instruction depend on the quality of the curriculum and instruction, the content knowledge of the teacher, the pedagogical practices used, and the level of engagement of students. This study focused on the school year and school day and excluded the effects of summer school and before school programs on academic achievement and student behavior.

**Summary**

To compete locally, nationally, and globally, children and youth need solid skills in reading and mathematics. A below basic performance in reading and mathematics limits college and career choices and other opportunities. The SIG and various legislation provides funding and encourages growth in after-school programs. In 2001, four out of ten children in kindergarten through eighth grade participated in after-school activities at least once a week. Unfortunately, this means that between eight and fourteen
million children and youth are alone and unsupervised after school. With the focus on accountability, extended learning time may provide support to those students who need more time to achieve proficiency.
CHAPTER II

LITERATURE REVIEW

Halpern (2002) traced the beginning of after-school programs to concerns in the early 1900s for the care and safety of children who lived in unsafe neighborhoods. Kanter (2001) reported that in the United States, six million children out of 54 million in kindergarten through grade eight attended an after-school program funded by their school district or within their community. The National Institute on Out of School Time (2003) reported the existence of eight million children ages five to fourteen who remained unsupervised after school, thus in need of an after-school program.

Educators, students, and families believe that schools spend too much time on preparation for high-stakes testing and too little time on teaching and learning. Moreover, disagreements exist within various circles as to the value of the use of high-stakes testing to assess students’ academic performance. High-stakes testing exists in most states and requires a score of proficient or better on statewide assessments. Forty-nine of the fifty states revised their academic requirements into learning standards and use high-stakes statewide assessments to check students’ progress in reaching standards mastery and to make major decisions such as promotion to the next grade and graduation. Today’s employers need to fill entry-level positions with applicants who possess basic
math and English skills, and the patrons of their businesses want to converse with employees who possess those skills. Evidence points to the need for after-school programs for children and youth for improved test results and employment. Federal legislation such as Title I of the No Child Left Behind Act (NCLB) of 2001, the current version of the Elementary and Secondary Education Act (ESEA) and the Every Student Succeeds Act (ESSA) expanded learning time to address persistent achievement gaps.

The No Child Left Behind (NCLB) Act of 2001 drew greater attention to how children and youth use their time after the school day ends. Under the NCLB, Supplemental Education Services offered support to schools to improve academic achievement and reduce risky behaviors. These additional educational services needed to take place outside of the school day and provide adequate evidence that the services made a difference in student performance (No Child Left Behind Act of 2001, section 1116(e)).

According to Miller (2003), children and youth desire more responsibility, independence, and autonomy and need a sense of identity and experiences in the real world. ESSA encourages academic and social and emotional development and offers after-school opportunities such as STEM, physical activity, mentoring, and counseling to promote student participation, interest, and engagement.

**Defining "School Year" and "School Day" Time**

Studies regarding time typically gravitate toward the number of school days and the number of hours in a school day. Today, most school districts follow the school calendar standard established in the 1960’s including 170 to 180 school days per year, five days per week, and six and a half hours per day (Silva, 2007). Kolbe and others
(2011) note that more than 180 days represent an extended school year and seven or more hours per day represent an extended school day.

**Need for Extended Learning Time**

In 1983, *A Nation at Risk* report asked educators to examine how students spend their time at school and the amount of time spent on homework. Students in the United States spend less time at school and on schoolwork as compared to students in other countries. In countries such as Japan, France, and Australia, students experience more instructional time than students in the United States (Organization for Economic Co-Operation and Development, 2005). With the ever-increasing demands placed on the education system for all students to meet or exceed standards, educators must teach an expanded curriculum with greater depth, within the same time-frame that school systems required for more than 100 years (Elder, 2009). According to Cosden, Morrison, Albanese, and Macias (2001), homework helps to develop good study habits and results from a student's need to comprehend, practice, and retain content and skills introduced during the regular school day.

Policymakers and research studies recommend programs such as after-school programs that extend the learning time of students, especially for those at-risk and in failing schools (Council of Chief State School Officers, 1999; Lauer et al., 2006; National Education Commission on Time and Learning, 1994; National School Board Association, 2005; No Child Left Behind Act of 2001; Weiss, Little, Bouffard, Deschenes, & Malone, 2009; Worthen & Zsiray, 1994). According to Viadero (2007), little to no evidence of academic benefit exist concerning the provision of the NCLB that provided after-school tutoring to at-risk students. She stated, "While most parents report satisfaction with the
services, the studies find, the added hours of tutoring have so far produced only small or negligible gains on state reading and mathematics tests” (p.7). Viadero argued against the time and money spent on after-school programs when research fails to support its value.

**Benefits**

According to The Costs and Benefits of After School Programs: The Estimated Effects of the After School Education and Safety Program Act of 2002, every dollar spent on after-school programs saves taxpayers $3 because of reductions in youth crime, teen parenthood, and school dropout rates. This cost-benefit not only saves money, but leads to the life-long love of learning, improvement in academics and behaviors, and contributions in civic life that results from participation in after-school programs and activities.

The Afterschool Alliance's (2008) recent examination of multiple studies of after-school program impact found substantial evidence that after-school programs benefit children and families. For example, after-school programs keep children and youth safe and protect them from harmful and unsafe behaviors and help working parents who need child care assistance. Moreover, after-school program offer activities that help children and youth improve social and emotional learning and academic performance and build better adult and peer relationships. Young children benefit from interpersonal and intrapersonal skills development and improved academic performance. Middle school youth benefit from after-school program participation in the form of improved attendance, conflict management skills, and academic achievement.

Participation in after-school programs benefits those who participate in it. After-school program participation also helps to keep youth from cutting school, using alcohol
or drugs, and engaging in sex. According to the 1995 Westat, Inc. analysis of national data, students who failed to participate in after-school programs are 49 percent more likely to use drugs and 37 percent more likely to become young parents than students who spend one to four hours per week in after-school programs. According to the Child Trends Research Brief (2002), after-school programs prevent unwanted pregnancies by promoting sound judgment, offering health education, and providing positive alternatives to sexual activity. Moreover, if children remain involved in after-school programs through their teens, they are more likely to attend college, vote, and volunteer as adults.

After-school activities provide positive benefits for adolescents. After-school programs and activities keep children and youth busy during the timeframe, that is after the school day ends when adolescents are most likely to commit crimes, become victims of a crime, or participate in sexual activity. After-school programs can provide opportunities to explore colleges and careers through, develop skills, and give back to the community. After-school programs offer much-needed guidance to adolescents to become productive, responsible citizens.

**After School Program Characteristics**

Many researchers attempted to identify the characteristics of the most effective after-school programs and activities. Robert Halpern, of Chicago's Erikson Institute for Graduate Study in Child Development, names two attributes of effective programs:

1. They support and complement classroom learning by emphasizing social, emotional and physical development.
2. They provide authentic learning experiences.
Other research identifies these additional characteristics of successful after-school programs:

1. Provide positive emotional climate without harsh, punitive controlling adult supervision.
2. Provide activities that support socialization with peers.
3. Include time for physical and creative activity.

The research highlights common characteristics among the plethora of after-school programs. After school programs operate from September to June, at least three days per week, and from the end of the school day to as late as 6:00 p.m. and serves a set group of enrolled students from kindergarten through twelfth grades (Hall, Yohalem, Tolman, & Wilson., 2003). Functional requirements include school-based, daily attendance of enrollees, and responsiveness to the needs and interests of students (Riggs & Greenberg, 2004). Many programs include certified teachers and instructional aides among their staff. Most after-school programs provide homework assistance, enrichment activities, social development, college preparation, job training (Friedman & Bleiberg, 2002), and a safe place for children while their parents work (Currie, 2006).

**After School Programs That Show Improvement**

After-school programs have proved to have positive effects on the academic achievement of at-risk students in math and reading (Fashola, 1998; Lauer et al., 2006). An Afterschool Alliance report (2008) also indicated that students who did not participate in after-school programs showed declines in academic and behavioral performance. Moreover, researchers at the University of California, Irvine, and the University of Wisconsin-Madison (Vandell, Reisner, & Pierce, 2007) joined forces to conduct a study
supported by the Mott-Foundation. The study evaluated high-quality after-school programs. They concluded that significant academic gains resulted for both elementary and middle school students and significant behavioral gains resulted for middle school students whose use of tobacco, alcohol, and drug decreased.

For two-years, Vandell and his colleagues (2007), studied disadvantaged students who regularly attended a quality after-school programs. Their research showed that that disadvantaged students performed ahead of their unsupervised counterparts. They noted sixth and seventh-grade students who regularly attended after-school programs scored 12 percentile points higher on a standardized math assessment than those who did not attend. The Promising Afterschool Programs Study (2008) examined 2,914 low income elementary and middle school participants in 35 programs across eight states and noted improved academic performance from participation in those after-school programs. A study conducted by the After School Corporation and LA's BEST after-school program (Goldschmidt & Huang, 2007), an after-school program that serves 18,000 students in 105 schools, found similar results. It indicated after-school program participation improved school attendance and overall academic performance and curtailed juvenile delinquency.

A meta-analysis of 56 studies on after-school programs throughout the United States revealed the statistically significant impact on academics. Lauer and others (2006) noted the positive effects of after-school programs on mathematics and reading achievement of at-risk students with reading having the most significant gains due to the use of one-on-one tutoring. Martin and his colleagues (2007) studied 33 high-risk teens who attended an after-school program at an alternative school for academic and
behavioral concerns. The after-school program offered tutoring, counseling, and social activities. The participants in this program received numerous suspensions from school, missed more than 40 days of school, experienced truancy, collected at least twenty discipline referrals, fell behind two grade levels and came from low socioeconomic families. After two years of participation, the researchers learned from this study that participants showed improvement in academics, attendance, and behavior. Academically, they improved by at least two grades. Behaviorally, their attendance improved, discipline referrals decreased, and suspensions or expulsions became nonexistent. The studies above show the numerous benefits of after-school programs and their positive impact on academic achievement and behavior. However, other students reveal the negligible to no impact of after-school programs on academic performance and behavior.

A study performed in 2002 on after-school programs, investigated the impact of after-school programs on various cognitive and non-cognitive measures. The study divided 636 elementary and secondary school participants into two groups: 241 regular program attendees and 395 non-regular program attendees (Munoz, 2002). Descriptive, correlation and analysis of covariance (ANCOVA) methodology were used to analyze the data. The results of the study indicated a positive relationship between higher program participation and students' academic performance. In several studies, for more than ten years, researchers at the University of Wisconsin found a host of benefits resulting from participation in high-quality after-school programs by elementary school age children. These included better grades, work habits, emotional adjustment, and peer relations (Eaton & Quinn, n.d.). In another study that synthesized existing studies on after-school
programs, the researchers discovered that after-school programs make a valuable contribution to academic achievement and the overall development of participants (Miller, 2003). Therefore, many studies deem that participation in quality after-school programs contributes to children's academic success and social development (Junge, Manglallan, & Raskauskas, 2003).

After-school programs improve the behaviors of at-risk students. In one study the benefits of an afterschool tutoring program included improved student behaviors such as self-esteem, class participation, and homework completion (Baker, Reig, & Clendaniel, 2006). These programs vary in their mode of delivery, format, goals, instruction, and outcomes. (Baker et al., 2006; Davenport, Arnold, & Lassmann, 2004; Jenkins & Jenkins, 1987; Juel, 1996; Ross et al., 2008; Saddler & Staulters, 2008).

**Afterschool Programs Failing to Show Improvement**

In 2004, Thomas Kane examined a report from four initiatives: The After-School Corporation (TASC), 21st Century Community Learning Centers (21st CCLC), San Francisco Beacons Initiative (SFBI), and Extended Services Schools Initiative (ESSI) (Kane, 2004). Upon close examination of each report, he noticed that all of them reported that after-school programs failed to influence standardized test scores and school attendance. Roukeina (2005) reviewed the scores of middle school students participating in the after-school program over a three-year period. He concluded that no significant difference existed between scores in math and reading of participants during their three middle school years and non-participants.

Another study found a minimal effect of after-school programs on academic achievement. A quantitative analysis of fifty-six studies of after-school and summer
programs indicated a small impact on student achievement in reading and mathematics (Lauer et al., 2004). Researchers who created the report, which the U.S. government used to justify proposed cuts in federal aid to after-school programs, released further results suggesting that such programs provide no educational benefit (Archer, 2004). Both reports used standardized test scores and student grades to compare elementary and middle school students in after-school programs with non-participants.

**Urban At-Risk Students**

Deschenes, Cuban, and Tyack (2001) defined at-risk students as those students who are "outside of the mainstream mold, and who cannot meet the expectation of an academic set of standards" (p. 525). At-risk students include English as a second language learners, students with special needs, and minorities. It also includes those from low-income families and broken homes. At-risk students are deemed low-achievers, drop-outs, and criminals. According to the Children's Defense Fund (2000), at-risk students are more likely to live in dangerous neighborhoods, experience recurring health issues and health-care concerns, receive a less than desirable education, lack after-school care, and encounter violence. Teachers often respond to them unfavorably and hold low or negative expectations. These areas often fail to provide enriching encounters with literature and the arts and exposure to language and meaningful social interactions (Duke, 2000). As a result, urban children and youth often enter school behind their non-urban peers and experience higher dropout rates, special education placement, and grade retention (Davis-Allen, 2009). Children of poverty are more likely to return from school to an empty home because their parents work long hours at jobs that do not pay enough to afford child-care. Lumsden (2003) reported that millions of children go home to
unsupervised homes. During self-care, children are more likely to become involved in
criminal activity and promiscuous behaviors (Brooks-Gunn & Duncan, 1997). Therefore,
etnicity, family structure, and socioeconomic status influence academic success.

**Gender**

Unfortunately, the research provides very little information about specific gender
issues in after-school programs. Most of the studies discuss the importance of avoiding
stereotypes and making generalizations about girls and boys (Frosch, Sprung, Archer &
Fancseli, 2003). For example, exposing boys to STEM activities and exposing girls to
activities related to home economics encourages stereotyping. Other studies focus on the
differences between how males and females behave, learn, and development. David
Kommer (2009) used brain theory, social difference, and learning styles to discuss
differences between the male and female brain. One aspect of brain theory focuses on
brain differences between genders concerning processing, chemistry, structure, and
activity. How students process information based on gender may substantially impact
academic achievement and how they approach learning opportunities.

Kommer (2009) believe that society creates the social differences that exist
between males and females. Society tends to dictate the way in which males and females
look, act, or think. For example, it expects men to take care of their families as the
breadwinner and act tough. However, society encourages females to express traditional
characteristics of females such as reactive, dependent, and domestic. It is important to
note that differences have its advantages and disadvantages.

Lastly, (Kommer, 2009) suggest that learning styles differ for males and females
as males think abstractly and females think concretely. Researchers must take into
consideration all of the above differences when designing and implementing quality after-school programs. Gender can play a role in how students acquire knowledge and skills and manage behaviors during school and at an after-school program, however generalizations and stereotyping should not.

**Attendance**

When scrutinizing after-school programs for effectiveness, researchers examine attendance rates and participation rates of students (Kane, 2004; Lauer et al., 2006; McComb & Scott-Little, 2003; Reisner et al., 2004). Effective after-school programs significantly impact school grades and standardized test scores of students who attend. The research suggests (Durlak & Weissberg, 2007; Posner & Vandell, 1999; American Youth Policy Forum, 2006) that increased participation in activities after school improves academic performance, school attendance, and student behavior. Bissell (2002) reported that students in California's After School Learning and Safe Neighborhoods Partnerships Program (ASLSNPP) showed gains in reading standardized test scores and those who participated for more than 150 days showed the highest gains. Other studies (Huang, Gribbons, Kim, Lee, & Baker, 2000; Jenner & Jenner, 2007) agree that after-school program attendance makes a significant difference in academic achievement for at-risk students. Elementary students appear to attend more frequently, and middle and high school students participation drops and becomes almost non-existent as they age (Kane, 2004). It appears that because after-school programs focus on strategies to improve academic and socio-emotional learning, that by participating in them, students would show improvement. Some researchers suggest that if program designers and administrators engage students, motivate them to attend regularly, or provide
participation incentives, gains would result (Huang et al., 2000; Lauer et al., 2004).

**Testing**

Although teachers gave nationally standardized achievement tests to high school students in the fifties and sixties, the preoccupation with students' test results began in the early 1980’s. The publication of A Nation at Risk encouraged increased testing. Even with all the emphasis on testing, the Carnegie Foundation’s Report Card on Schools and the Committee on Policy for Racial Justice report did not find equity or excellence in our educational system. Since test results were the only indication of educational effectiveness, it became the standard by which the public and parents determined student achievement. The reliance on testing also stemmed from newspaper editors publishing statewide educational test results, on a district-by-district basis, and its impact on instruction. Policymakers believe that testing enhances instructional effectiveness. Therefore, federal and state legislation mandates annual testing.

Popham (1995) defines assessment as a device to assess attitudes, knowledge, and skills or "a formal attempt to determine students' status concerning educational variables of interests." Mahoney defines value-added as a child's academic growth in one-year’s worth of teaching. He believes that "when working with something, leave it better than you found it by adding value" (Mahoney, 2004). Value-added assessment is a statistical method that measures how much progress a child makes in a school year (Sanders, 1998). The value-added assessment began in private industry as a means to measure productivity. Its origin in the education realm began in Tennessee in the early 1990's with Dr. William Sanders, an agricultural professor, and statistician as its pioneer. Colleges and school districts in many states including Ohio use this approach.
Value-added assessment differs from standardized tests. It measures how much progress or academic growth a child makes, independent of others, in a school year through the use of a pre-test/post-test method. On the other hand, standardized tests are norm-referenced since it measures one group of students' level of achievement to a different group of same grade students' level of achievement the following year. The teacher must employ a variety of instructional techniques included guided discovery, direct instruction, and cooperative grouping to ensure learning results as their pay depends on it.

Advocates of this approach consider it fair, sensible, and reasonable. It is appropriate, practical, and feasible for hard-working teachers to receive higher pay than mediocre teachers. Under value-added assessment, effective teachers will retain their positions while burned-out veterans and ineffective teachers will lose their jobs. It provides teachers with diagnostic data at the beginning of the school year to aid in planning and instruction. Teachers would have to work together to develop instructional strategies that promote learning gains and complement students' learning styles.

The Ohio Department of Education (ODE) uses Ohio's Achievement Assessment also know as the (OAA) as one measure of school quality and effectiveness. It requires school districts across the state of Ohio to administer the OAA in the spring of each year to students in grades three through eight in reading and mathematics to determine standards mastery. The OAA represents a criterion-referenced test in that it measures what information and skills a student learned throughout the school year in a specific curriculum. Its purpose is the assess students’ knowledge of Ohio’s New Learning Standards. Unlike norm-referenced tests, the OAA does not compare one student to another or rank them.
Criterion-referenced tests such as the OAA report data in the form of scaled scores, raw scores, and performance levels. For each grade level and content area, the scaled score shows where a student's score falls within a range of scores. The raw score reveals the number of correct test items. Performance levels disclose the number of content standards mastered. A score below 400 means the student failed to meet expectations for that grade and content area. A score above 400 means that the student met grade level expectations for the standards taught. OAA scores are also used to determine whether students are making Adequate Yearly Progress (AYP) under NCLB and ESSA. This assessment tool is used to measure student progress from year to year and student mastery of content standards. As a result, information is available on school reports at the class, school, district, and state levels.

Supporters

Although the research literature revealed mixed opinions in the use of after-school programs to promote academic achievement, after-school programs enjoy support from parents, community leaders, the private sector, philanthropic organizations, and federal, state, and local agencies (Riggs & Greenberg, 2004). The New York Times awarded a $2.6 million grant, to build and sustain after-school programs, in New York, affirming the value of after-school programs to families and communities (Friedman & Bleiberg, 2002). Libraries in Lake Zurich, Illinois and across the country operate after-school programs offering homework help and pleasure reading activities (Long, 2000).

Legislative History

It appeared difficult to find many opposed to providing children with opportunities that promote academic and social growth. Nevertheless, opponents argue
that 21st CCLC cuts or diminishes funding for many vital programs such as Dropout Prevention and the Even Start Family Literacy. President Bush opposed funding for after-school programs at the current amount. The Clinton-Gore administration supported the 21st CCLC in their commitment to helping families and communities keep their children safe and smart. President Bill Clinton often spoke of the value of after-school programs. The president's support encouraged the reauthorization of the ESEA. Other federal agencies and organizations promote local 21st CCLC programs. For example, The U.S. Department of Agriculture (USDA) Food and Nutrition Service provides snacks for after-school program participants. The Afterschool Alliance is a non-profit public awareness and advocacy group with a vision of ensuring access to after-school programs for all youth by the year 2010. The Mott Foundation, private philanthropy, funds training, evaluation, and public awareness activities related to after-school programs.

This study examines after-school programs at the local level. Congress establishes the guidelines under which after-school programs operate, and each state administers its own 21st CCLC program. At the local level, participating schools provide the setting for enrichment opportunities after the school day ends (Dekanter, 1999).

In 1996, Title IV, Part B of the Elementary and Secondary Education Act of 1965 (ESEA) authorized the 21st CCLC as a national program to provide grants to schools, community-based, faith-based, and non-profit organizations partnerships for the establishment of community learning centers that provide academic enrichment and keep children safe. ESEA offered educational assistance for disadvantaged children and contained 40 educational programs including 21st CCLC. In 2002, the No Child Left Behind Act (NCLB) amended ESEA and significantly changed the 21st CCLC. Under
ESEA, the U.S. Department of Education conducted a nationwide competition and awarded grants with a duration of 3 to 5 years, for after-school programs to public schools and districts that collaborated with other public and private organizations. NCLB transferred administration from the U.S. Department of Education to state education departments (SEAs). The U.S. Department of Education awards states education agencies. SEAs develop selection criteria. Local education agencies (LEAs), community-based organizations, and other public or private entities may apply to states for sub-grants and must identify and implement research-based programs that can help children in high poverty and low performing schools succeed. Award recipients may use the funds to carry out a broad array of activities related to education, sports, health, arts, and community service and tailored to meet local needs. Types of after-school programs include tutoring and supplemental instruction in reading, math, and science; drug and violence prevention curriculum and counseling; youth leadership and character building activities; volunteer and community service opportunities, college awareness and preparation; homework assistance; arts and culture; technology; employment training; recreation; and athletics. The grant funds recipients for a period not to exceed five years and grants cannot be made in an amount less than $50,000.00.

The 21st CCLC reached agenda status to secure funding for community education programs and to address social and political concerns. In 1993, Senator Jim Jeffords of Vermont introduced the 21st CCLC legislation. He created the language of the bill with the assistance of the National Community Education Association, a community school programs advocate, to stabilize the funding base for community school programs related to senior citizens, parenting skills, and child care services to name a few. National
politics deemed student academic performance instead of community outreach programs as the primary outcome of 21st CCLC. After that, under Improving America's Schools Act of 1994, Congress enacted 21st CCLC legislation requiring applicants for grants to develop academically focused after-school programs for disadvantaged students. Congress appropriated $40 million for school districts that offered activities listed in the bill. In 2008, Congress authorized $2.5 billion for this initiative. On February 4, 2008, President Bush, in his fiscal year 2009 budget proposal, asked Congress to cut the 21st CCLC program funding from $1.1 billion to $800 million.

Supportive public opinion polls regarding the need for after-school programs and government publications and reports on poor student performance on standardized tests illuminated the need for this legislation. Local entities such as schools and community organizations implement this policy. Implementation issues included low enrollment, poor participant attendance, lack of initial funding, and staffing concerns.

The 21st CCLC initiative represents an essential federal funding source of support to children and youth after the school day ends. In 2003, to evaluate 21st CCLC, the U.S. Department of Education funded a study conducted by Mathematica Policy Research Inc. that used a representative, national sample of 21st CLCC in elementary and middle schools. The report outlined the negligible impact of after-school programs on academic and behavioral outcomes. After that, the U.S. Department of Education funded a separate national evaluation to examine the implementation and effectiveness of 21st CCLC. Local agencies conducted their analyses of student participants, parents, teachers, program staff members, and program partners through surveys and noted academic and social gains from after-school program participation.
In surveys conducted by the Charles Stewart Mott Foundation and JCPenny in 1999 and 2000, after-school participants and families expressed the importance of after-school programs to their communities. The Working for Children and Families: Safe and Smart After School Programs report, published jointly in April 2000 by the U.S. Department of Education and U. S. Department of Justice, noted a gap between the time when children get out of school, and parents get off work. The Federal Bureau of Investigation and youth-advocacy groups' studies also noted this gap and indicated that juvenile crime peaked between 2:00 p.m. and 8:00 p.m. Moreover, the report found that after-school programs served the age groups likely to engage in juvenile crime during those hours. Based on these recent findings, no plans exist to terminate 21st CCLC.

As a response to the interest in after-school programs, in-depth research on after-school programs resulted. On June 6, 2007, Senator Dodd and Senator Ensign introduced the Improving 21st Century Community Learning Centers Act of 2007. It purposed to reauthorize the 21st Century Community Learning Centers and incorporate it into the No Child Left Behind legislation. On the other hand, President Bush wanted to reduce after-school program funding and restructure it as part of a voucher program. The NCLB Act thwarted President Bush’s efforts and its successor, The ESSA, expanded learning time as a means to support low-achieving schools. These legislative acts also funded after-school programs. Federal grants recipients, whether public or private must abide by the following laws: Title VI of the Civil Rights Act, Title IX of the Education Amendments of 1972, § 504 of the Rehabilitation Act of 1973, and Age Discrimination Act of 1975 to maintain funding and produce measurable results.
The Charles Stewart Mott Foundation and the U.S. Department of Education created the Afterschool Alliance coalition to promote and secure funding for high-quality after-school programs and provide all children with access to high-quality after-school programs by 2010. The Afterschool Alliance coalition released several studies on after-school programs highlighting its importance to children, families, and communities. The Afterschool Network, consisting of 50 networks, one in each state, works toward the same vision as Afterschool Alliance of furthering after-school participation and promoting student success. This organization, for its efforts, received recognition in "helping form policy, building effective partnerships, and pursuing and maintaining quality learning after school, whether in classrooms, community centers, or faith-based settings" (Motts Foundation, 2007). The Urban Institute, a nonpartisan think tank, publishes studies, reports, and issues on the 21st CCLC. These organizations make a case for quality after-school programs.

**Summary**

Some studies indicate significant gains for students who attend after-school programs. They publicize the after-school support programs offer to families. They draw attention to improved academic and social skills to support schools and reduced crime and safer environments to support communities; according to proponents, these indicators show the success of after-school programs (Miller, 2003). Other research fails to show gains for those students who participate in after-school programs. Moreover, studies reveal the multiple ways in which researchers explain the success or failure of after-school programs. Others indicate if researchers measure an after-school program's success or failure against standardized assessment results, then it becomes difficult for
opponents of after-school programs to neglect such programs (Evan & Bechtel, 1997; Miller, 2003). Besides, high-quality after-school programs provide significant effects on student achievement and behavior just as low-quality programs can fail to show substantial results (Frankel, Streitburger, & Goldman 2005). High-quality after-school programs lead to performance gains.

Society believed that schools could act alone to prepare students for the 21st century adequately. Regrettably, the gap between the educationally "haves and have-nots" and the U.S. and other countries widened. As a result, our disadvantaged students remained unable to take full advantage of opportunities available in America and our standing in the world continued unchanged. Today, underserved students remain inadequately prepared to enter college or the workforce. After that, America's educational system made drastic changes to play catch up with an innovative world and close the achievement gap, thus the advent of the No Child Left Behind Act (NCLB) of 2001. By the year 2014, NCLB proposed to improve achievement for all below-grade-level students. NCLB brought high-stakes testing to the forefront and placed pressure on schools to make adequate yearly progress (AYP) to meet this accountability measure. Schools more than ever before searched for creative ways to reach this goal including the use of after-school programs. Weiss and others (2009) believed that the NCLB imposed an insurmountable challenge. In fact, most schools failed to meet the 2014 deadline. They noted unequal access to resources and educational opportunities as the primary reason and felt that at-risk students needed interventions and support to close the achievement gap. Some of these resources included extended learning opportunities such as summer school, before school, afterschool, and family services.
The National League of Cities reports by Katz, Hoene, and de Kervor (2003) stated that city officials believed that access to after-school programs played an integral part in the success of families in their local communities. One provision of NCLB known as the Supplemental Educational Services (SES) allowed disadvantaged students in systematically low-achieving Title I schools free math and reading tutoring services, outside of the regular school day. Legislatures, educators, and other stakeholders agree that a traditional school format fails to provide enough support to bring students into the 21st century, particularly for disadvantaged students.

The review of the related literature on after-school programs and their effectiveness found many consistent themes. These themes included flaws in the theoretical framework, models of varying types, and issues surrounding the research available on after-school programs. Moreover, evidence and non-evidence of after-school program effectiveness, attendance issues of after-school program participants, 21st Century Community Learning Centers, and using high-yield reading and mathematics strategies during after-school instruction and criterion-referenced competency tests as an evaluation tool for after-school programs represented other themes. Due to societal issues, at-risk students find it difficult to reach the high standards placed upon them by society and meet today’s educational demands (Hock, Pulvers, Deshler, & Schumaker, 2001). The need for extended learning time exists for a variety of reasons.

If the problems concerning at-risk children and youth remain unsolved, ultimately, consequences including crime, incarceration, risky behaviors, and unemployment will spike. Therefore, students deemed at-risk for failure or who attend low-achieving schools need a way to reach their full potential. One solution included
extended learning opportunities such as after-school programs. Some of these programs provided disadvantaged students with opportunities currently unavailable to them. After-school programs benefit not only the student and school through increased instructional time and meeting the requirements of ESSA, but also help parents and the community (Saddler & Staulters, 2008).
CHAPTER III

METHODOLOGY

This chapter described the quantitative methods used to evaluate the influence of school-based extended learning time (i.e., before, after, and Saturday school programs) in an urban school district on academic achievement and in-school student behaviors. The researcher measured its influence on academic performance as measured by Ohio standardized assessments in reading and mathematics (i.e., The 2013 Ohio Achievement Assessment (OAA) in reading and math). She also weighed its influence on in-school student behaviors as measured by daily attendance rate (i.e., number of days absent from school, number of days tardy for each regular school day), number of excused absences, and number of days in out-of-school suspension. Moreover, the researcher wanted to learn, based on student personal characteristics (i.e., age, gender, ethnicity, Individualized Education Plan (IEP) status, and English as a second language (ESL) status), which students benefited the most from participation in after-school programs. The researcher measured personal characteristics against participants' academic achievement and in-school student behaviors. She collected data for students in grades 3 through 8 at schools within an urban school district receiving a School Improvement Grant (SIG). SIG funds provided struggling schools with additional support to improve their academic
performance and conditions for learning. In this study, the researcher compared participants in school-based, federally funded extended learning time programs to non-participants.

This study sought to address the following questions:

1. How does elementary/middle-grade student participation in an extended learning time program influence their academic achievement in reading and mathematics as compared to non-participants in an extended learning time program?

2. How does elementary/middle-grade student participation in an extended learning time program influence their in-school behaviors as compared to non-participants in an extended learning time program?

3. To what extent do the extended learning time participants’ demographics explain their academic achievement?

4. To what extent do the extended learning time participants’ demographics explain their in-school behaviors?

This chapter consisted of the following sections: Conceptual framework, research design, participants, data collection, and data analysis. These sections described the methodology used in this study.

**Conceptual Framework**

This study sought to add to the body of knowledge related to the influence of extended learning time programs on academic achievement in the form of higher standardized test scores and academic growth and improved in-school student behaviors including higher attendance rates and lower out of school suspension rates of urban
children and youth. Many urban students can and do experience success in academic and behavioral performance. Unfortunately, for some, their attitudes towards education create barriers to reaching their full potential. Moreover, many children find it difficult to focus on learning with a variety of distractors competing for their attention. Therefore, schools become challenged to create strategies that promote academic and behavioral success for all students. Research performed by The Vermont Project Team (Morehouse, 2009) suggested that "successful afterschool programs challenge students, set high expectations for behavior and performance, and provide opportunities for exploration and mastery" (p.8). After-school/extended learning time programs must provide rigor so that students feel challenged academically and eager to continue participation in them and efficiently manage student behaviors so that learning results. With rigor, relevance, and relationships in place, higher academic achievement and the display of responsible, respectful, and safe practices should follow.

The researcher developed the following model concerning urban students and their need for extended learning time based on the literature. Lauer and others (2004) found a statistically significant impact of after-school programs on mathematics and reading achievement of at-risk students. Martin and his colleagues (2007) revealed that with after-school program participation comes improved attendance, decreased discipline referrals, and the elimination of suspensions and expulsions. Another study showed that after-school involvement does not impact attendance in school, grades on report cards, scores on high-stakes tests, and behaviors (Lauver, 2002). Archer's (2004) study used standardized test scores and student grades to compare elementary and middle school students in an after-school program with their non-participating counterparts. His
research revealed minimal academic benefit. As in other quantitative studies, for this study, the researcher included the personal characteristics of ethnic background, gender, age, disability, and English language proficiency as part of this study to determine its influence on academic success and in-school behaviors.

The model (see Figure 1) used in this study consisted of four primary components. These four components included extended learning time program participation, academic achievement, in-school student behaviors, and personal characteristics of participants in extended learning time. The researcher discussed these four components independently and also described the direction of influence each element had on one another.

After-school/extended learning time programs. Urban children and youth need learning opportunities that keep them engaged, active, and out of trouble and parents need a secure place for their children before the school day begins and after the school day comes to a close. To create opportunities for learning that extend beyond the school day, several schools within this urban district offered after-school programs funded by the School Improvement Grant. These schools provided educational opportunities before and after school and on Saturdays that provided tutoring, homework assistance, athletics, and arts to students who attend their school. These extended learning time programs offered activities between the hours of 2:30 p.m. and 6:30 p.m. during the school week. On Saturdays, between 8:00 a.m. and 12:00 p.m., these programs opened for service to children and families. After-school program participation acted as an independent variable. The investigator compared students who participated in an afterschool/extended
learning time program offered by their school to students who did not participate in an afterschool program at their respective school.

Academic achievement. Regarding collecting academic achievement data for participants and non-participants, the researcher used Ohio Achievement Assessment results in reading and mathematics as the measure of academic achievement. The Ohio Achievement Assessment resembles a criterion-referenced assessment, in that it measures how well a student can apply the knowledge and skills taught in a particular subject. The researcher used scaled scores. These scaled scores indicated whether a student scored within a range of scores for that grade and subject. The researcher expected that students who participated in an afterschool/extended learning time program to score higher on standardized tests as compared to non-participants.

Student personal characteristics. There exist five components of student characteristics. These components included age, ethnicity, gender, IEP status, and ESL status. The research described after-school program participants and non-participants according to their age, ethnicity as black, white, Hispanic, Asian, or other, gender as male or female, disability as disabled or not, and English language proficiency as ESL or not.

Student in-school behaviors. The researcher used four components to measure in-school student behaviors. These components included absence rate, number of days suspended out of school, number of excused absences, and number of days tardy during the regular school day. An out-of-school suspension may result from an office referral depending on the severity of the infraction. It represents a consequence that results in a 1-10-day period when a student may not attend school. Tardy referred to students who arrive at school after the school day begins. The researcher expected that students who
participated in an after-school program will show higher daily attendance rates, a lower number of tardy arrivals, a smaller number of unexcused absences, and no out-of-school suspensions.

The direction of the model. Although the primary focus of this study examined the influence of after-school/extended learning time programs on student achievement and behavior, it is also essential to discuss the directional interworking of the model (see Figure 1). The first arrow on the left moves from after-school participation to academic achievement in that the researcher wanted to learn of the influence after-school program participation had on academic achievement in the form of standardized tests scores in reading and mathematics. The second arrow on the right moves from after-school program participation to in-school student behaviors in that the researcher also wanted to learn of the influence after-school program participation had on the in-school student behaviors of attendance rate, excused absences, tardy arrivals, and suspensions. The researcher also wanted to determine the influence of student characteristics on academic achievement and in-school student behaviors. Therefore, an arrow is drawn from student characteristics to academic achievement, and an arrow is drawn from student characteristics to in-school student behaviors.
Research Design

The ex-post facto or after the fact research design also known as quasi-experimental research was used in this research study. This approach appeared appropriate in that the researcher used numerical data to answer predetermined research questions (Ary, Jacobs, & Sorensen, 2010; Messemer, 2007; Messemer and Valentine, 2004). It was also suitable because the purpose was to determine influence between dependent (i.e., academic achievement and in-school student behavior) and independent (i.e., participation, student characteristics) variables. These variables could not be
The effect and probable cause of after-school programs has already taken place and will be studied after the fact (Ary et al., 2010). Correlational research involves one group and at least two variables. Ex post facto research was chosen over correlational research because this study involves two groups, those who participate in after-school programs and those who do not participate in after-school programs. The groups in this study are different from the after-school participation variable, and the goal was to determine what variables are contributing to this difference. Selection bias became a concern with this research in that students were not randomly assign to participate or not to participate in after-school programs. Research questions 1 and 2 investigated the effects of participation on academic achievement and in-school student behaviors. Research questions 3 and 4 investigated the influence of participants' ethnicity, gender, IEP status, ESL status, and age on academic achievement and in-school student behaviors.

Sample

The sample was comprised of 3rd grade through 8th-grade participants and non-participants in afterschool programs during the 2012–2013 school year. The researcher used elementary and middle school students from schools receiving SIG funds in an urban district as the sample. The participants for this study included a representative sample of 964, grade 3 through 8 students in an urban school district who attend a school that offered an after-school/extended learning time program through the use of grant funding. Of the 964 participants in this study, 237 participated in extended learning time. The composition of participants in this study included 531 (55%) males and 433 (45%) females, of which 522 (54.1%) identified themselves as black, 211 (21.9%) as white, 209
(21.7%) as Hispanic, 15 (1.6%) as other, and 3 (0.3%) as Asian or Pacific Islander, and 4 (0.4%) chose not to identify their race. The age of students’ ranged from 9 to 16 years old. Participants are considered economically disadvantaged in that 100% of students participate in a free lunch program.

**Data Collection**

The researcher requested permission from the central office of the school district to gain access to the necessary student data. The researcher asked the school district to provide a formal letter of support and permission to collect the necessary student data for this investigation. Finally, the researcher sought IRB approval at Cleveland State University to move forward with this investigation. After that, the researcher obtained data via a secure email from the district's central office data department. Upon receipt, the data was stored in Excel, and SPSS was used to analyze it. The data provided included after-school/extended learning time program participation, student achievement including standardized testing results in reading and mathematics, and in-school student behaviors as represented by daily school attendance rate and tardy, number of suspensions occurring out of school, and student personal characteristics including age, gender, ethnicity, IEP status, and ESL status. The district reported that a staff of trained professionals collected the data from various data reporting sources and electronic school records. Although ethical evidence was not made available with the data, more than likely there may be some ethical constraints such as in the form of the accuracy of records.
Data Analysis

The researcher employed the following data analysis concerning the four research questions. For research question 1, "How does elementary/middle-grade student participation in an extended learning time program influence their academic achievement in reading and mathematics as compared to non-participants in an extended learning time program?", The researcher measured the participation in after-school/extended learning time affects achievement using a One-way Analysis of Variance (ANOVA) approach.

For research question 2, "How does elementary/middle-grade student participation in an extended learning time program influence their in-school behaviors as compared to non-participants in an extended learning time program?", The researcher measured the difference in student behaviors between the two groups, participants, and non-participants, using a One-way ANOVA approach.

For research question 3, "To what extent do the extended learning time participants' demographics explain their academic achievement?" the researcher measured the influence of student demographics on academic achievement using a One-way ANOVA approach. Whereas, the researcher measured the influence of extended learning time participation on academic achievement based on ethnicity, gender, age, IEP status, and ESL status.

For research question 4, "To what extent do the extended learning time participants' demographics explain their in-school behaviors?" The researcher measured the influence of student demographics on in-school behaviors using a One-way ANOVA approach. Whereas, the researcher measured the influence of extended learning time
participation on in-school behaviors based on ethnicity, gender, age, IEP status, and ESL status.

**Summary**

This chapter examined the methodology used in this study. This study compared students in grades 3 – 8 who participated in an after-school/extended learning time program to those who did not participate in an after-school/extended learning time program within their schools. Chapter IV will review the results and discuss the information found in the data.
CHAPTER IV
ANALYSIS OF DATA

Introduction

This chapter presented the findings of the statistical analysis described in Chapter III. The purpose of this study was to gain a better understanding of the influence of extended time and opportunities on learning for urban students. This study compared participants of two, school-based before and after school tutoring program and activities to its non-participants. Four research questions drove this study. They included:

1. How does elementary/middle-grade student participation in an extended learning time program influence their academic achievement in reading and mathematics as compared to non-participants in an extended learning time program?

2. How does elementary/middle-grade student participation in an extended learning time program influence their in-school behaviors as compared to non-participants in an extended learning time program?

3. To what extent do the extended learning time participants’ demographics explain their academic achievement?
4. To what extent do the extended learning time participants’ demographics explain their in-school behaviors?

Findings Related to Research Question #1

*How does elementary/middle-grade student participation in an extended learning program influence their academic achievement in reading and mathematics as compared to non-participants in an extended learning program?*

To explore the influence of extended learning time on academic achievement in reading and mathematics, a one-way between groups analysis of variance was conducted to compare mean Ohio Achievement Assessment (OAA) scores in reading and mathematics of participants and non-participants in extended learning time. Table 1 shows the outcome of the analysis of variance.

Table 1

*Academic Achievement for Extended Learning Time Participants and Non-participants*

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>SS</th>
<th>F</th>
<th>Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading OAA Scores</td>
<td>2145.236</td>
<td>2.919</td>
<td></td>
<td>2.919</td>
<td></td>
</tr>
<tr>
<td>Participants</td>
<td>392</td>
<td>25.551</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-participants</td>
<td>389</td>
<td>27.654</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math OAA Scores</td>
<td>4135.115</td>
<td>5.972*</td>
<td></td>
<td></td>
<td>.01</td>
</tr>
<tr>
<td>Participants</td>
<td>383</td>
<td>24.515</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-participants</td>
<td>378</td>
<td>26.394</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05. **p < .01. ***p < .001. (n = 825)*
The rows for the dependent variables reading OAA scores and math OAA scores include the sum of squares, F-ratio, p-value, and the estimate of effect size which provided a measure of the magnitude of the effect. The rows for the independent variables of participants and non-participants in extended learning time for reading and math show information on the mean and standard deviation about reading OAA scores and math OAA scores. There were 825 participants used for this question.

As for academic achievement in reading, there was not a statistically significant difference in scores on the OAA in reading between participants and non-participants in an extended learning time program \((F (1,823) = 2.919, p = .088)\). As for academic achievement in math, there was a statistically significant difference in scores on the OAA in math between participants and non-participants in an extended learning time program \((F (1,823) = 5.972, p < .05)\). In spite of reaching statistical significance, the actual difference in mean scores between groups was minimal. The effect size, calculated using eta squared was .01. The small effect size indicated a hardly noticeable effect of extending learning time participation on OAA scores in mathematics.

**Findings Related to Research Question #2**

*How does elementary/middle-grade student participation in an extended learning time program influence their in-school behaviors as compared to non-participants in an extended learning time program?*

To explore the influence of extended learning time on in-school behaviors a one-way between groups analysis of variance was conducted to compare means of absence rate, tardy, unexcused absences, and suspensions of participants and non-participants in extended learning time. Table 2 shows the outcome of the analysis of variance.
The rows for the dependent variables, absence rate, unexcused absences, tardy, and suspensions include the sum of squares, F-ratio, p-value, and the estimate of effect size which provided a measure of the magnitude of the effect. The rows for the independent variables of participants and non-participants in extended learning time show information on the mean and standard deviation of absence rate, unexcused absences, tardy, and suspensions. There were 964 participants used for this question.

Table 2

*In-school Behavior for Extended Learning Time Participants and Non-participants*

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>SS</th>
<th>F</th>
<th>Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absence Rate</td>
<td>5214.274</td>
<td>31.803***</td>
<td>.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants</td>
<td>9</td>
<td>8.317</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-participants</td>
<td>14</td>
<td>13.96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unexcused Absences</td>
<td>7053.902</td>
<td>30.358***</td>
<td>.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants</td>
<td>10</td>
<td>11.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-participants</td>
<td>17</td>
<td>16.02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tardies</td>
<td>205.951</td>
<td>1.636</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants</td>
<td>8</td>
<td>12.17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-participants</td>
<td>7</td>
<td>10.89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suspensions</td>
<td>165.926</td>
<td>4.785*</td>
<td>.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants</td>
<td>2</td>
<td>4.320</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-participants</td>
<td>3</td>
<td>6.315</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05. **p < .01. ***p < .001. (n = 964)*
As for the in-school behavior of absence rate, there was a statistically significant difference in the rate of absences between participants and non-participants in an extended learning time program \((F (1, 962) = 31.803, p < .001)\). Despite reaching statistical significance, the actual difference in mean scores between groups was small. The effect size, calculated using eta squared was .03. As for the in-school behavior of unexcused absences, there was a statistically significant difference in the rate of unexcused absences between participants and non-participants in an extended learning time program \((F (1, 962) = 30.358, p < .001)\). Despite reaching statistical significance, the actual difference in mean scores between groups was small. The effect size, calculated using eta squared was .03. As for the in-school behavior of tardy, there was not a statistically significant difference in the number of times tardy between participants and non-participants in an extended learning time program \((F (1, 962) = 1.636, p = .201)\). As for the in-school behavior of suspensions, there was a statistically significant difference in the number of suspensions between participants and non-participants in an extended learning time program \((F (1, 962) = 4.785, p < .05)\). Despite reaching statistical significance, the actual difference in mean scores between groups was minimal. The effect size, calculated using eta squared was .01.

**Findings Related to Research Question #3**

*To what extent do the extended learning time participants’ demographics explain their academic achievement?*

To explore the effect of participation in extended learning time on academic achievement in reading and mathematics as it relates to demographics, a one-way analysis of variance was conducted to compare the means of the variables of gender,
ethnicity, English as a second language (ESL) status, Individualized Education Plan (IEP) status, and age of participants in extended learning time to academic achievement. Table 3 shows the outcome of the analysis of variance.

Table 3

*Extended Learning Time Participation, Academic Achievement, and Demographics*

<table>
<thead>
<tr>
<th>Variables</th>
<th>SS</th>
<th>F</th>
<th>Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading OAA Scores</td>
<td>4255.847</td>
<td>6.738**</td>
<td>.01</td>
</tr>
<tr>
<td>Math OAA Scores</td>
<td>2579.306</td>
<td>4.178*</td>
<td>.01</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading OAA Scores</td>
<td>1031.480</td>
<td>1.633</td>
<td></td>
</tr>
<tr>
<td>Math OAA Scores</td>
<td>664.445</td>
<td>1.076</td>
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</tr>
<tr>
<td>ESL Status</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Reading OAA Scores</td>
<td>1.063</td>
<td>.002</td>
<td></td>
</tr>
<tr>
<td>Math OAA Scores</td>
<td>1742.478</td>
<td>2.822</td>
<td></td>
</tr>
<tr>
<td>IEP Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading OAA Scores</td>
<td>73998.396</td>
<td>117.158***</td>
<td>.01</td>
</tr>
<tr>
<td>Math OAA Scores</td>
<td>63846.245</td>
<td>103.413***</td>
<td>.01</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading OAA Scores</td>
<td>1762.992</td>
<td>2.791</td>
<td></td>
</tr>
<tr>
<td>Math OAA Scores</td>
<td>917.426</td>
<td>1.486</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05. **p < .01. ***p < .001. (n = 819)
The rows for the dependent variables of OAA reading scores and OAA math scores for participants in extended learning time included the sum of squares, F-ratio, p-value, and estimate of effect size as it relates to the independent variables of gender, ethnicity, English as a second language status, IEP status, and age. There were 819 participants used for this question.

There was a statistically significant difference in reading scores between males and females participants in an extended learning time program \((F (1, 819) = 6.738, p < .01)\). There was a statistically significant difference in math scores between males and females participating in an extended learning time program \((F (1, 819) = 4.178, p < .05)\). Despite reaching statistical significance between male and female participants in reading and math scores, the actual difference in mean scores between groups was quite small.

The effect size, calculated using eta squared was .01.

There was not a statistically significant difference in reading scores between black and non-black participants in an extended learning time program \((F (1, 819) = 1.633, p = .202)\). There was not a statistically significant difference in math scores between black and non-black participants in an extended learning time program \((F (1, 819) = 1.076, p = .300)\).

There was not a statistically significant difference in reading scores between ESL and non-ESL participants in an extended learning time program \((F (1, 819) = .002, p = .967)\). There was not a statistically significant difference in math scores between ESL and non-ESL participants in an extended learning time program \((F (1, 819) = 2.822, p = .093)\).
There was a statistically significant difference in reading scores between IEP and non-IEP participants in an extended learning time program \((F(1, 819) = 117.158, p < .001)\). There was a statistically significant difference in math scores between IEP and non-IEP participants in an extended learning time program \((F(1, 819) = 4103.413, p < .001)\). Despite reaching statistical significance between IEP and non-IEP participants in reading and math scores, the actual difference in mean scores between groups was quite small. The effect size, calculated using eta squared was .01.

There was not a statistically significant difference in reading scores between the ages of participants in an extended learning time program \((F(1, 819) = 2.791, p = .095)\). There was not a statistically significant difference in math scores between the ages of participants in an extended learning time program \((F(1, 819) = 1.486, p = .223)\).

**Findings Related to Research Question #4**

*To what extent do the extended learning time participants’ demographics explain their in-school behaviors?*

To explain the effect of extended learning time on in-school behaviors as it relates to demographics, a one-way analysis of variance was conducted to compare the means of the variables of gender, ethnicity, English as a second language (ESL) status, Individualized Education Plan (IEP) status, and age of participants in extended learning time to in-school behaviors. Table 4 shows the outcome of the analysis of variance.

The rows for the dependent variables of absence rate, unexcused absences, tardy, and suspensions for participants in extended learning time included the sum of squares, F-ratio, p-value, and estimate of effect size as it relates to the independent variables of
gender, ethnicity, English as a second language status, IEP status, and age. There were 958 participants used for this question.

Table 4

*Extended Learning Time Participation, In-school Behaviors, and Demographics*

<table>
<thead>
<tr>
<th>Variables</th>
<th>SS</th>
<th>F</th>
<th>Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absence Rate</td>
<td>653.239</td>
<td>4.074*</td>
<td>.01</td>
</tr>
<tr>
<td>Unexcused Absences</td>
<td>1586.684</td>
<td>6.906**</td>
<td>.01</td>
</tr>
<tr>
<td>Tardies</td>
<td>.013</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Suspensions</td>
<td>558.958</td>
<td>16.683***</td>
<td>.01</td>
</tr>
<tr>
<td>Ethnicity</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Absence Rate</td>
<td>31.103</td>
<td>.194</td>
<td></td>
</tr>
<tr>
<td>Unexcused Absences</td>
<td>18.153</td>
<td>.079</td>
<td></td>
</tr>
<tr>
<td>Tardies</td>
<td>381.332</td>
<td>3.215</td>
<td></td>
</tr>
<tr>
<td>Suspensions</td>
<td>46.437</td>
<td>1.386</td>
<td></td>
</tr>
<tr>
<td>ESL Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absence Rate</td>
<td>144.642</td>
<td>.902</td>
<td></td>
</tr>
<tr>
<td>Unexcused Absences</td>
<td>71.760</td>
<td>.312</td>
<td></td>
</tr>
<tr>
<td>Tardies</td>
<td>788.090</td>
<td>6.645**</td>
<td>.01</td>
</tr>
<tr>
<td>Suspensions</td>
<td>307.634</td>
<td>9.182**</td>
<td>.01</td>
</tr>
<tr>
<td>IEP Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absence Rate</td>
<td>671.303</td>
<td>4.186*</td>
<td>.01</td>
</tr>
<tr>
<td>Unexcused Absences</td>
<td>40.576</td>
<td>.177</td>
<td></td>
</tr>
<tr>
<td>Variables</td>
<td>SS</td>
<td>F</td>
<td>Eta Squared</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------</td>
<td>--------</td>
<td>-------------</td>
</tr>
<tr>
<td>Tardies</td>
<td>215.640</td>
<td>1.818</td>
<td></td>
</tr>
<tr>
<td>Suspending</td>
<td>.209</td>
<td>.006</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absence Rate</td>
<td>1519.909</td>
<td>9.479**</td>
<td>.01</td>
</tr>
<tr>
<td>Unexcussed Absences</td>
<td>927.348</td>
<td>4.036*</td>
<td>.01</td>
</tr>
<tr>
<td>Tardies</td>
<td>1657.070</td>
<td>13.973***</td>
<td>.01</td>
</tr>
<tr>
<td>Suspending</td>
<td>460.849</td>
<td>13.755***</td>
<td>.01</td>
</tr>
</tbody>
</table>

*\(p < .05\). **\(p < .01\). ***\(p < .001\). (n = 958)

There was a statistically significant difference in absences between male and female participants in an extended learning time program (\(F(1, 958) = 4.074, p < .05\)). There was a statistically significant difference in unexcused absences between male and female participants in an extended learning time program (\(F(1, 958) = 6.906, p < .01\)). There was a statistically significant difference in suspensions between male and female participants in an extended learning time program (\(F(1, 958) = 16.683, p < .001\)).

Despite reaching statistical significance between male and female participants for in-school behaviors of absences, unexcused absences, and suspensions the actual difference in mean scores between groups were quite small. The effect size, calculated using eta squared was .01 for each variable. There was not a statistically significant difference in times tardy between male and female participants in an extended learning time program (\(F(1, 958) = .000, p = .992\)).
There was not a statistically significant difference in absences between black and non-black participants in an extended learning time program ($F(1, 958) = .194, p = .660$). There was not a statistically significant difference in unexcused absences between black and non-black participants in an extended learning time program ($F(1, 958) = .079, p = .779$). There was not a statistically significant difference in times tardy between black and non-black participants in an extended learning time program $F(1, 958) = 3.215, p = .073$). There was not a statistically significant difference in suspensions between black and non-black participants in an extended learning time program $F(1, 958) = 1.386, p = .239$).

There was not a statistically significant difference in absences between ESL and non-ESL participants in an extended learning time program $F(1, 958) = .902, p = .342$). There was not a statistically significant difference in unexcused absences between ESL and non-ESL participants in an extended learning time program $F(1, 958) = .312, p = .576$). There was a statistically significant difference in times tardy between ESL and non-ESL participants in an extended learning time program $F(1, 958) = 6.645, p < .01$). Despite reaching statistical significance between ESL and non-ESL participants for times tardy and suspensions, the actual difference in mean scores between groups was quite small. The effect size, calculated using eta squared was .01.

There was a statistically significant difference in absences between IEP and non-IEP participants in an extended learning time program $F(1, 958) = 4.186, p < .05$). Despite reaching statistical significance between IEP and non-IEP participants for
absences, the actual difference in mean scores between groups was quite small. The effect size, calculated using eta squared was .01. There was not a statistically significant difference in unexcused absences between IEP and non-IEP participants in an extended learning time program $F(1, 958) = .177, p = .674$). There was not a statistically significant difference in times tardy between IEP and non-IEP participants in an extended learning time program $F(1, 958) = 1.818, p = .17)$. There was not a statistically significant difference in suspensions between IEP and non-IEP participants in an extended learning time program $F(1, 958) = .006, p = .937)$. There was a statistically significant difference in absences between ages of participants in an extended learning time program $F(1, 958) = 9.479, p < .01)$. There was a statistically significant difference in unexcused absences between ages of participants in an extended learning time program $F(1, 958) = 4.036, p < .05). There was a statistically significant difference in times tardy between ages of participants in an extended learning time program $F(1, 958) = 13.973, p < .001)$. There was a statistically significant difference in suspensions between ages of participants in an extended learning time program $F(1, 958) = 13.755, p < .001)$. Despite reaching statistical significance between ages of participants for absences, unexcused absences, times tardy, and suspensions, the actual difference in mean scores between groups was quite small. The effect size, calculated using eta squared was .01 for absences, unexcused absences, tardy, and suspensions.

Summary

For research question one, participation in extended learning time influenced scores on the OAA in mathematics. On average, participants’ OAA math scores were
five points higher than non-participants. Participation in extended learning time did not influence OAA scores in reading. Moreover, for research question two, participation in an extended learning time program influenced in-school behaviors of absence rate, number of unexcused absences, and number of suspensions. On average, participants were absent from school, five days less than non-participants had seven less unexcused absences than non-participants, and were suspended one time less than non-participants. Participation in extended learning time did not influence time tardy.

For research question three, females who participated in extended learning time earned higher OAA scores in reading and higher OAA scores in math than males who participated in extended learning time. Students without an IEP who participated in extended learning time earned higher OAA scores than those with an IEP who participated in extended learning time. For research question four, females who participated in extended learning time spent more time in school, arrived on time, and received fewer suspensions than males who participated in extended learning time. Non-ESL participants had fewer times tardy and suspensions than ESL participants. Non-IEP participants had fewer absences than IEP participants. Elementary participants' absence rate, unexcused absences, times tardy, and suspensions were less than middle school participants. According to these results, urban student participation in extended learning time influences academic achievement and in-school behaviors.
CHAPTER V

DISCUSSION OF THE FINDINGS

Summary of the Study

The educational systems in the United States have been increasingly scrutinized over the past thirty years by students, parents, educators, and policymakers. Numerous reports exist that contest the success of our schools in educating our children and youth. For example, a 1983 report entitled A Nation at Risk noted the vital nature of educational reform. In 2002, The No Child Left Behind (NCLB) Act pressured districts to improve academic performance. It also required those districts who failed to meet state educational goals for adequately yearly progress for three consecutive years to provide supplemental education services (SES) in the form of tutoring or other academic supports designed to assist students in reaching proficient levels on state assessments. The Working for Children and Families: Safe and Smart After School Programs report, published jointly in April 2000 by the U.S. Department of Education and U. S. Department of Justice, noted a broad span of time between when children get out of school, and parents get off work. Between the hours of 2:00 p.m. and 8:00 p.m., The Federal Bureau of Investigation and youth-advocacy groups' studies indicated that juvenile crime peaked. Gayl (2004) reported that children and youth were more than
likely to experiment with drugs as well as other risky behaviors. Public opinion regarding the need for after-school programs and government publications and reports on poor student performance on standardized assessments legitimate funding and legislation for after-school programs.

In response, Congress established the guidelines under which after-school programs operate. State educational agencies distributed funding to local agencies using an application process. At the local level, schools or community organizations tailored their programs to the needs of participants. Participating schools provided the setting for educational opportunities. At all levels, an evaluation component exists.

Many state educational agencies have adopted the educational policies set forth by The NCLB Act and its successor, the ESSA, and searched for strategies and reforms that would restore America to its former grandeur in education among comparable nations. In recent decades, programs that have provided academic support to children and youth outside of school hours has grown. These programs are a strategy that many urban districts use to address the academic and social needs of their students. Unfortunately, with governmental programs comes a higher level of scrutiny and accountability. Interested stakeholders want to know if these programs meet academic targets and thus improve academic outcomes. They want to know if these programs accomplish its goals.

Most programs before and beyond the school bell were managed by community-based organizations that offered opportunities that support academic, social, and emotional development. While these programs continue to play an integral role, they often do not coordinate their efforts and communicate with schools. The advent of SES
adds a new approach to the landscape of out-of-school opportunities for students in that their programs are designed explicitly for increasing student performance in reading and math in that they are explicitly aligned to state standards. Academic services can be provided before school, after school and weekends, behind school doors. Tutors are teachers within the school district, and sessions take place within schools.

According to several studies, a fraction of out-of-school programs has been formally evaluated (Bodilly & Beckett, 2005; Raley, Grossman, & Walker, 2005; Zimmer, Hamilton, & Christina, 2010). The purpose of this study was to quantitatively determine the influence of extended learning time on urban learners who participated in school-based, federally funded extended learning time programs. Moreover, the purpose of this study was to examine the characteristics of students participating in extended learning time concerning academic achievement and in-school behaviors. The researcher collected assessment, demographic, and participation data on individual students. Participation data suggested that fewer than a quarter of all students eligible for participation took advantage of extended learning time and participation rates decreased at higher grade levels. African American students were more likely than other students to take advantage of these opportunities.

The purpose of this chapter is to present the findings. Also, the relationship between the quantitative results of this study and the literature will be discussed. Moreover, it will describe the limitations of the study, consider implications for practice and research this study may have for educational efforts at the local, state, and federal levels, and suggest areas for further investigation.
This research was conducted to gauge the influence of extended learning time on academic achievement and in-school student behaviors of urban learners. Identifying the influence of extended learning time can assist urban school district administrators who are contemplating or currently implementing extended learning time programs within their schools in creating or redesigning their extended learning time programs. Also, the findings from this study may assist school districts in ascertaining whether their program structure and content is appropriate for meeting their educational goals. Insights gained from this research study may encourage parents to consider seriously placing their children in extended learning time. Furthermore, these findings may aid federal and state education officials in deciding whether extended learning time is the proper strategy to work toward at the federal and state levels.

Based on the findings from this study, the researcher sought to examine change in academic achievement and in-school student behaviors within a one-year implementation of extended learning time in an urban school district. To study possible significance in the change in academic achievement and in-school student behaviors the following research questions guided this study:

1. How does elementary/middle-grade student participation in an extended learning time program influence their academic achievement in reading and mathematics as compared to non-participants in an extended learning time program?

2. How does elementary/middle-grade student participation in an extended learning time program influence their in-school behaviors as compared to non-participants in an extended learning time program?
3. To what extent do the extended learning time participants’ demographics explain their academic achievement?

4. To what extent do the extended learning time participants’ demographics explain their in-school behaviors?

**Summary of Procedures**

The researcher obtained quantitative categorical and continuous data for 964 urban students. Participation in extended learning time, academic achievement, in-school student behaviors, and demographic data were used for this study. The sample was grouped into two categories: (a) Participants (n = 237) and (b) non-participants (n = 727). Academic achievement was measured by OAA scores in reading and mathematics. In-school student behaviors included the number of absences, unexcused absences, times tardy, and suspensions. Demographic data included gender, age, race, disability, and English language proficiency. Although multiple schools within the district in this study received SIG funding for extended learning time, the researcher received preexisting data on all variables in the study from only two of the schools. Electronic communications were sent between the researcher and the school district to ascertain the required data. The compiled data was sent via secured emails. The data was then analyzed using SPSS Version 24.0 for Windows software. The demographic characteristics of participants and research questions were examined using descriptive statistics including means and standard deviations. Statistically significant differences amongst participants and non-participants and participants were investigated using Univariate ANOVA.
Limitations

This study did not examine program features to ascertain those associated with improved academic achievement and in-school behaviors. It also did not examine program implementation. Implementation requires strategies related to recruitment of student and qualified staff, retention of both staff and students, and parental involvement. Program results that demonstrate little effectiveness may indicate weaknesses in program implementation. An effective program coupled with high-quality implementation increases the success rate of a program. Although tutoring services were designed to target students who scored below proficient on state assessments in reading and mathematics, these programs allowed any student interested in participating to participate. The participants of this study were from two schools instead of all of the schools within the district that held SIG-funded extended learning time programs. Therefore, the sample was relatively small. The voluntary nature of out-of-school program participation yielded low participation and program attendance rates. The difference between those who choose to participate and those who choose not to participate presented a challenge in assessing programs' effectiveness. These programs may have positive effects for students who currently do not participate in them. This study was conducted using data from the 2013 – 2014 school year. The results may have changed with an increased timeframe as most efforts require a 3 to a 5-year window to see improvement. There exist a plethora of factors that can influence student academics and behavior during the school year which makes it difficult to pinpoint the ones that provide the greatest influence on academics and behaviors. Therefore, it is difficult to
make general conclusions regarding afterschool programs' effect on standardized test scores and behavior.

Discussion of Significant Findings

This study addressed four research questions. The researcher will independently discuss the findings for each question.

Findings related to research question #1. For research question one, the Ohio Achievement Assessment in mathematics and reading was used to examine the influence of extended learning time participation on urban students’ academic achievement during a one-year implementation period. The data revealed that participation in extended learning time influenced scores on the OAA in mathematics. On average, participants’ OAA math scores were five points higher than non-participants. It must be noted that the average math scores after program participation was still below 400 and did not meet proficiency. On the other hand, participation in extended learning time did not influence OAA scores in reading. Regarding student academic achievement, our analysis suggested that urban students who participated in extended learning time experienced achievement gains in math, but did not experience achievement gains in reading. The gains achieved were small. Therefore, our results for participation in extended learning time are mixed, a finding that is consistent with the literature. Kane (2004) noted no significant effects on achievement after one year of participation. In contrast, Lauer and others (2003) found positive achievement effects in reading and mathematics. In a study by Messemer (2007), the findings indicated significant learning gains in reading, math, and language skills. A significant difference between math and not reading may represent the different quality of tutoring across the subjects. This study is a reliable
indicator that students who receive more instructional time in mathematics showed greater academic improvement than those who did not receive more instructional time.

**Findings related to research question #2.** For research question two, absence rate, number of times tardy, number of unexcused absences, and number of out-of-school suspensions was used to examine the influence of extended learning time participation on urban students' in-school behaviors. Vandell (1999) reported that the more often academically at-risk students attended after-school programs, the more likely they showed improvement in their behavior. The Wisconsin Department of Public Instruction (2010) revealed that effective after-school programs improved classroom behavior. In this study, participation in an extended learning time program influenced in-school behaviors of absence rate, number of unexcused absences, and number of suspensions. On average, participants were absent from school, five days less than non-participants had seven less unexcused absences than non-participants, and were suspended one day less than non-participants. On the other hand, participation in extended learning time did not influence the number of times tardy. Of the 225 hours available for tutoring, most tutees participated for less than half the time allotted. With regular attendance in extended learning time, more significant gains should follow in all behaviors.

**Findings related to research questions #3.** For research question three, gender, ethnicity, age, disability, and English language proficiency was used to explain differences in academic achievement amongst participants. A significant difference was found between female and male extend learning time participants' OAA test scores. Females who participated in extended learning time earned higher OAA scores in reading and higher OAA scores in math than males who participated in extended learning time.
Although they outscored their male counterparts, on average, they did not reach proficiency. David Kommer (2009) used brain theory research to explain the differences in the structure of the brain in males and females. He noted the social and learning style differences between males and females based on brain theory. These results encourage extended learning time teachers to take into consideration the varied learning styles of males and females not only during school hours but during extended learning time.

Students without an IEP who participated in extended learning time earned higher OAA scores than those with an IEP who participated in extended learning time. These results encourage the use of special educators as extended learning time teachers to ensure improved outcomes for students with special needs. It also indicates that we need to do more to prepare teachers to work with diverse learners during extended learning time.

**Findings related to research question #4.** For research question four, gender, ethnicity, age, disability, and English language proficiency was used to explain the difference in in-school behaviors amongst participants. Females who participated in extended learning time spent more time in school, arrived on time, and received fewer suspension days than males who participated in extended learning time. Non-ESL participants had fewer days tardy and suspensions than ESL participants. Non-IEP participants had fewer absences than IEP participants. Elementary participants' absence rate, unexcused absences, days tardy, and suspensions were less than middle school participants. According to these results, subgroups of urban student participation in extended learning time influences academic achievement and in-school behaviors.
Implications for Research and Practice

Principals often determine the use of school facilities before the school day begins and after the school day ends. Elected officials can assist with financial support to open schools before and after the school day for extended learning time. This research study found that extended learning time has a positive impact on student math outcomes. Educators can use this knowledge in deciding whether or not to offer math assistance during extended learning time. If a school or district considers the implementation of extended learning time, it is essential to decide to teach one subject or more than one subject. School boards, superintendents, principals, teachers, parents, students, and other members of the educational community can decide whether they want their extended learning time to focus on a particular grade level, subject, or grade band. Whether it is a school-based or community-based extended learning time program and its goal is to improve academics, staff development must take place and must focus on enhancing the learning of all students during extended learning time and supporting adult learning and collaboration.

After school programs, offer services and support for all ages. Unfortunately, this study, among others, reported low attendance. To experience the full range of benefits of after-school participation, students must be present on time all the time. Program developers must seriously consider the activities and instructional strategies that motive, engage, and challenge all learners to participate regardless of gender, ethnicity, disability, language proficiency, and age in attracting all students. Sometimes the best way to address a problem or an issue such as improving academic outcomes of children and youth is to create a policy. Many times decisions are easy to make when a system exists.
To devise comprehensive plans, one needs to call upon various actors. At the school level, administrators, parents, students, and teachers are excellent sources of policy issues and policy development. The creation of after-school policies at the school level can avoid conflict and show equity. Policymaking is too critical to be left to the government alone. Governmental intervention and resources are not always needed to address concerns. There exist organizations that can create and promote policy and meet community needs that reduce educational, economic, and social disparities such as the Afterschool Alliance.

**Suggestions for Further Investigations**

The results of this study have generated several ideas for future studies. First of all, low attendance for middle school students at an after-school program poses a significant concern in that this age group is more likely to engage in criminal and risky behaviors. This research study was limited to students in grades three through eight. Perhaps increasing the sample size to include primary and high school students could provide a greater understanding of extended learning time across all grade levels. Further investigation into the operational features of these programs may provide insight into the significance, and the lack of importance found within the one-year time span of this study. A parallel investigation should be conducted to determine teacher perceptions of extended learning time. It would allow a researcher to ascertain what took place during each tutoring session. Grouping students by skill level instead of grade may promote more significant achievement gains. Comparison of private management versus public management of extended learning time would be a useful study. Since we want our students to become career and college ready, future research should include the
exploration of occupations and professions in extended learning time. Moreover, we need to investigate further why those who need academic support refuse to participate in extended learning time programs. Also, we need to know what will attract those who choose not to participate in traditional programs.

Little evidence exists on the value of linking after-school programs with schools and its impact on outcomes for children and youth. Some believe that aligning after-school programs too closely with the school day may pose serious concerns. For example, Halpern (2000) argued that a crucial aspect of after-school programs is that they do not resemble components of schools, but provide a space representative cultural and personal identity of participants. Promoters of the arts described after school hours as the time for young people to experience environments and activities that are not available during the school day (Eisner, 2001; Gee, 2001; Reimer, 2001; Wolf, 1999). On the other hand, Noam and his colleagues (1999) stated that after-school programs should differ from school. However, both schools and after-school programs should communicate with each other to learn from each other.

**Conclusion**

There exists a strong demand for quality after-school programs. Urban communities, in particular, need after-school programs in that urban children and youth often lack the exposure to the opportunities and activities typically afforded to middle and upper-class children and youth such as sports, clubs, and tutoring. According to various studies, quality after-school programs improve academic performance and classroom behavior as well as offering mentoring, arts, athletics, and recreation. Communities and businesses benefit from how children and youth spend unsupervised
hours. While their parents are at work, children and youth have a safe space to engage in productive activities instead of risky and criminal behaviors. After-school programs generate positive outcomes for families. Parents miss work when their children are without childcare. These programs offer the assurance to working families that their children have a place to go while they are at work. This study can be used to encourage that we maintain adequate children and youth programs. It can be used to help community-based programs design their programs to complement what students are learning during the school day. This study supports interested stakeholders, students, parents, and policymakers in seeing the benefits of after-school activities through the use of data.

In summary, these findings suggest that the use of after-school programs is a meaningful way to improve academic and behavioral outcomes. More data-driven studies are needed for policymakers to continue to offer financial support for after-school programs. Longitudinal research may have shown a significant difference in all areas of academic achievement and all in-school student behaviors.
REFERENCES


Roukema, R.A. (2005). *The impact of the support our students (SOS) after-school program on the achievement of middle school students at risk of academic failure*
(Unpublished doctoral dissertation). North Carolina State University, Raleigh, NC.


APPENDICES
APPENDIX A

APPROVAL

December 4, 2015
Andrea Moss
Doctoral Student
College of Education and Human Services
Cleveland State University

Dear Ms. Andrea Moss,

This letter is to indicate the CMSD’s approval for your dissertation research study “Measuring the Impact of Extended Learning Time On Academic and Behavioral Performance of Elementary and Middle School Students in an Urban District.” The study is approved under the following provisions:

1. Cleveland Metropolitan School District student data for grades 3-8 at Franklin D. Roosevelt, Paul Revere, and Luis Munoz Marin (2012-2013 school year) will be provided with a scrambled student ID. Information to decode student ID for linking purposes will be sent to researcher.

2. All individual item data must remain anonymous and individual results need to be reported in the aggregate to make it unidentifiable.

We request that you submit to us any final report resulting from your research within 90 days of the project completion. We also request electronic copies of all ascent and approval documents from participating parents and or students for our records.

We look forward to assisting you however we can. Please contact us if you have any questions.

Sincerely,

Christopher L. Broughton, Ph.D.

The primary goal of the Cleveland Metropolitan School District is to become a premier school district in the United States.

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