EXAMINING TITLE I ELEMENTARY SCHOOLS IN TENNESSEE: A QUANTITATIVE STUDY OF PREDICTED OUTCOMES

by

Jessilon Ann Madison

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education in Curriculum and Instruction

Liberty University

2020

EXAMINING TITLE I ELEMENTARY SCHOOLS IN TENNESSEE: A QUANTITATIVE STUDY OF PREDICTED OUTCOMES

by

Jessilon Ann Madison

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education in Curriculum and Instruction

Liberty University

2020

APPROVED BY:

Rebecca Lunde, Ed.D., Committee Chair

Joseph Fontanella, Ed.D., Committee Member

ABSTRACT

The purpose of this predictive, correlational study was to determine how accurately Tennessee Comprehensive Assessment Program (TCAP) English Language Arts (ELA) achievement scores can be predicted from a linear combination of Lottery for Education Afterschool Programs (LEAPs) participation, geographic location, and Community Eligibility Participation (CEP) at Title I elementary schools in Tennessee: A quantitative research method using a linear multiple regression analysis was used to assess these variables. Data was gathered from publicly available records. For the sample, 100 Title I elementary schools participated in LEAPs and 100 Title I elementary schools did not participate in LEAPs. One hundred and one have adopted CEP, and 99 have not adopted CEP. Additionally, in regards to geographic location, 55 were city, 26 were suburb, 17 were town, and 102 were rural. The results of this regression indicated that the model explained 15.6% of the variance, and the model was a significant predictor of CEP participation. Past research on the significance of after school programs has been equivocal, and Title I students do not achieve to their full potential due to their low socioeconomic status. Perhaps, more research that evaluates socioeconomic status or poverty percentages in schools are worth investigating because it seems as if they may serve as key indicators of what schools may be struggling the most in regards to lack of meeting students' needs. Educators will need to continue to research and evaluate ways to address these challenges in hopes to remedify the achievement gap in low-achieving schools.

Keywords: Tennessee Comprehensive Assessment Program (TCAP), Title I elementary school, Lottery for Education Afterschool Programs (LEAPs), geographic location, Community Eligibility Provision (CEP)

Dedication

This dissertation is dedicated to my husband, who encouraged me to pursue my dreams and finish my dissertation, so we both could become doctors. I also dedicate this dissertation to my mother because without her I would not be here.

Table of Contents

List of Tables

List of Figures

List of Abbreviations

Association of Christian Schools International (ACSI)

Community Eligibility Prevision (CEP)

English Language Arts (ELA)

Every Student Succeeds Act (ESSA)

Educational Testing Service (ETS)

Food Research & Action Center (FRAC)

Institutional Review Board (IRB)

Lottery for Education Afterschool Programs (LEAPs)

Multi-State Alternate Assessment (MSAA)

National Center for Education Statistics (NCES)

No Child Left Behind (NCLB)

Supplemental Nutrition Assistance Program (SNAP)

Statistical Package for the Social Sciences (SPSS)

Temporary Assistance for Needy Families (TANF)

Tennessee Comprehensive Assessment Program (TCAP)

Tennessee Comprehensive Assessment Program-Alternate (TCAP-ALT)

Test of English as a Foreign Language (TOEFL)

Variance Inflation Factor (VIF)

CHAPTER ONE: INTRODUCTION

Overview

One may argue that quality after school programs are imperative because the activities in which students participate in during after school hours are critical to their development. Additionally, the implementation of after school programs has ramifications for all parties involved. Under these circumstances, this chapter has included (1) a summary of the background, (2) the problem and purpose statements, (3) the study's significance, (4) the research questions, and (5) the definitions.

Background

Educators across the United States have been striving to close the achievement gap for years and have been leaning towards analyzing the outcomes of after school programs to provide a remedy for this situation (Norman et al., 2001; Halpern, 2002; Halpern, 2003; Mahoney et al., 2005; Ladson-Billings, 2006; Mahoney & Parente, 2009; Duncan & Murnane, 2011; Community Preventative Services Task Force 2015; Knopf et al., 2015; Hurd & Deutsch, 2017). However, understanding how students are academically motivated will aid in this discussion coming "full circle."

The History of After School Programs

After school programs were once referred to as "boys clubs" because young boys were subjected to the workforce at an early age and were often working in dangerous conditions such as assisting in war efforts, and these "boys clubs" were sought after to provide a safe environment for young boys and to prohibit them from starting in the workforce at an early age (Mahoney & Parente, 2009). Young girls were not initially the focal point of after school programs because they often served in roles that were less dangerous such as completing

household chores. The historical aspects of after school programs are in important in understanding their role in education that they currently play. There was limited research on the topic of after school programs; however, the consensus seems to be the same. For example, Mahoney and Parente (2009) examined after school programs and their origins. According to these researchers, after school programs emerged because children used to participate in the labor force and formal schooling. The latter part of the 19th century changed and the need for American children to participate in the labor force decreased. Organizations sought out to put an end to child labor and forced participation because they believed it to be morally wrong especially during the Industrial Revolution. During this time, children worked long hours in dangerous factory conditions for very little money. Children were ideal because their size allowed them to move in and out of small spaces. They could also be paid less than adults. As a result, education laws were enforced in the late 1800s, which made educational expectations for students mandatory (Mahoney & Parente, 2009). This shift of child labor in the United States was one of the more remarkable changes that influenced the social and economic entities of the nation over the last two centuries. Thus, after school programs were born and these educational expectations were called "drop-in-after-school centers" (Mahoney & Parente, 2009). After school programs were developed with mission statements and purposes that far surpassed basic childcare that further accelerated the growth of after school programs. The role of women in the workforce also changed which meant that women were pursuing more active roles in the labor force and were no longer meeting the traditional family roles or structure. Although they were paid less than men, women were leaving the home to fulfill roles that were related to their household work (i.e. seamstresses, housekeeping, office work, and nursing). Thus, leaving a gap between the end of the school day for children and the workday of their parents, which in turn

left children being unsupervised during the after school hours and a need to monitor children during these hours. Additionally, Hurd and Deutsch (2017) briefly discussed the historical perspective of after school programs. The aim of after school programs has always been to foster positive youth. Interestingly, large cities with growing immigrant populations and crowded houses caused children to spend their out of school time on the streets. Child advocacy groups were worried about these trends and saw a need for safe spaces where children could play after school; thus, the need for after school programs became paramount.

At-risk students have been commonly associated with low-income families or those located in economically disadvantaged areas. For example, Halpern (2002) examined the history of after school programs for low-income children. An emphasis was placed on policymakers, the media, child development, professionals, and parents being the founders in increasing the attention on after school hours. The individuals that were concerned with this label viewed the hours in which occur after school as "risk and opportunity" (Halpern 2002). The author concluded their article by discussing the burdens that face the implementation of after school programs and suggested an appropriate set of purposes and expectations for what lies ahead (Halpern, 2012). One of the burdens associated with after school programs have been the cost of implementation. Those that wish to adopt an after school program must find their purpose and expectations for the cohort of students they wish to help. They must also understand that although after school programs can serve as a developmental resource and support for children, they only work to the extent in which they are allowed to work. Children will only be able to fulfill their selves if they are adequately nurtured, supported, and protected.

Further discussing the role of women impeding the workforce, additionally, Mahoney et al. (2005) recognized that an increase in demand for after school programs were due to a large

increase in maternal employment. After school programs also provide safe environments and alternatives to self-care. Mahoney et al. (2005) stated that after school programs promote several key developmental tasks such as academic performance; school engagement; and social behaviors and relationships. Their research also found that literature tends to focus more on academic achievement rather than aiming to discuss personal and interpersonal domains (Mahoney et al., 2005). As stated earlier, students who come from low-income homes are thought to be key beneficiaries of after school programs because they are at an economic disadvantage. Much research exists regarding low-income students and after school programs. For example, Halpern (2003) discussed the implications for after school programs for low-income children, suggesting that the history of after school programs are due to poverty in the United States. Most early programs did not have any rules or regulations. The start of early after school programs were intended to keep children off the streets and some were even called "off the street clubs" (Halpen, 2003). Children could drop in when they wished, and expectations were low. The establishment of after school programs was no different from the desire to establish supervised playgrounds in that play, recreation, and informal education shared many of the same roots.

A Brief History of the Achievement Gap

A student starts to influence the achievement gap as it first manifests itself through standardized tests that students take during their early years of education. Arguably, one may say that it begins much earlier, while educators determine if a student is ready to attend kindergarten. While educators sought to analyze the disparity in academic performance between groups of students, the term "achievement gap" has been coined to have appeared sometime in the early 1950s when the Supreme Court ruled in *Brown v. Board of Education* (1953) that racial

segregation of public schools was unconstitutional. For this reason, achievement gaps have traditionally existed and analyzed amongst different races (Norman et al., 2001); however, students from different income levels have also been under evaluation and on the rise while looking at information in the past decade. In 2001, Duncan and Murnane (2011) reported that the achievement gap between high- and low-income families has grown "30 to 40 percent larger" while compared students born "25 years earlier" (p. 91). Interestingly enough, Ladson-Billings (2006) argued that the focus of the achievement gap was misplaced and those wishing to further scrutinize the achievement gaps' disparities should consider the education debt that has accumulated over time and comprises of historical, economic, sociopolitical, and moral components. Therefore, more attention should be given to students who identify with high- and low-income status because students who are being raised in a low-income household are subjected to fewer educational resources, poor nutrition, and limited access to healthcare. Additionally, it should not be ignored that structural and institutional factors affect the achievement gap in those minority students that come from low-income households are more likely to attended poorly funded schools based on zoning patterns. Due to their complexity, closing the achievement gap has been a slow, uneven process that has been often been left incomplete. Gaps in race, gender, and social gaps persist throughout the United States and scientific research shows that students' mindsets are important to consider when understanding what influences the achievement gap (Rattan et al., 2015). Researchers suggest that policymakers and educators alike should possess both growth and belonging mindset in which the educator understands that intelligence can be developed over time and the belief that the educator belongs in their school or a given academic field (Rattan et al., 2015). As previously mentioned, one can

see that origin and the causes of the achievement gap are both cultural and structural that influence student performance in school.

Closing the Achievement Gap

When discussing the implications of closing the achievement gap, at-risk students fall under this umbrella term. The definition of at-risk students is discussed later in this chapter; however, it should not go unnoticed that these students may be found in rural communities where students are at an economic disadvantage. Looking through the lens of this perspective, this is where the study is rooted and finds its identity in labeling at-risk students. Interestingly, Knopf et al. (2015) addressed out of school time and academic programs to improve school achievement in at-risk students. Researchers started their discussion by identifying "at-risk students." These students are low-income and of minority status in and are associated with poor educational outcomes that may result in a reduction of long-term health benefits of education. Methods of the Guide to Community Preventive Services were used and an existing systematic review was supplemented with a Community Guide update (Knopf et al., 2015). Additionally, the main outcome measure was to evaluate the standardized mean difference amongst groups. The results yielded 32 studies from the existing review and 25 studies from the update. Knopf et al. (2015) found that focused programs were more effective than general academic programs and reading-focused programs were only effective in grades Kindergarten through third grade. Consequently, researchers were unable to gather enough information to determine the effectiveness of behavioral outcomes and longer-term academic outcomes (Knopf et al., 2015). In short, Knopf et al. (2015) concluded that after school programs particularly focused on academics are effective in increasing academic achievement for at-risk students.

Educators wish for their students to be successful. In doing this, educators are advocates for academic achievement. Under these circumstances, the Community Preventative Services Task Force (2015) addressed in their article that out of school time academic programs are significant in improving academic achievement and health equity. The Community Preventative Services Task Force issued separate findings for four types of out of school time academic programs in literary analysis. These programs are (1) reading focused out of school time academic programs, (2) mathematics focused out of school time academic programs, (3) general out of school time academic programs, and (4) out of school time academic programs. Community Preventative Services Task Force (2015) found that academic achievement is linked with long-term health and is commonly implemented in racial, ethnic, and minority or low-income communities; thus, likely to improve health equity.

After School Programs and Social/Emotional Outcomes

Academic achievement has been targeted as the most important outcome of formal educational experiences (Moore, 2019). However, social and emotional outcomes as well as a students' well-being and psychological development have been evaluated in relation to academic achievement (Moore, 2019). Numerous studies have been implemented to demonstrate their significance. For example, Hurd and Deutsch (2017) discussed the significance of after-school programs and the future of children in their study. More specifically, researchers emphasized that after school programs promote social and emotional learning skills amongst students. Understanding the significance of after school programs have been proven as complex because many problems currently exist such as attendance is not mandatory for students. This makes it hard to distinguish between the program's effects and students' personal characteristics. Despite

this, Hurd and Deutsch (2017) argued in their analysis of literature that after school programs can promote many desirable social and emotional outcomes.

Influential Theorists

Behaviorism

Perhaps, after school programs are best understood by looking at past theorists that may have influenced their design and implementation. Under those circumstances, B.F. Skinner is a well-known theorist and it should be thought of that his theories could possibly play a role in the design of after school programs (i.e. the idea that praise and rewards could positively reinforce behaviors and encourage students to continue with it) – such as the need or desire to perform well in school. This is important in understanding what fosters motivation in relation to academic achievement. For after school programs to be successful, students need to be motivated in order to do well in school; thus, promoting academic achievement. According to Smith and Woodward (1996), behaviorism has played a leading role in behavior management; however, O'Donohue and Kitchener (1998) discussed that individuals should be aware of behaviorism and how the various forms of it differ amongst major theorists. Behaviorism may be implemented in after school programs by i.e. using punishments to discourage students from negative behaviors that might hinder academic achievement such as refraining to remain on task. Beyond following rules, there are learning actions administrators of after school programs can reinforce.

Maslow's Hierarchy of Needs

More importantly, Abraham Maslow is another well know theorist whose Hierarchy of Needs has played a major role in understanding what motivates students (Taormina & Gao, 2013). He postulated that in order for an individual to meet their full potential that they move through a series in order to satisfy their needs. This is to say that at-risk students from low-

income families may not be having their needs met. These needs are (1) physiological needs, (2) safety needs, (3) love and belonging needs, (4) esteem needs, and (5) self-actualization. More importantly, Maslow's Hierarchy of Needs can serve as a useful tool for educators in that students are less likely to perform at their full potential until their basic needs are met. Educators have a limited impact on students' home lives; therefore, assessing students' needs while at school is paramount. After school programs can fulfill these needs by serving students such as meeting each one of these needs. One way that psychological needs can be met is by making sure that all students have access to water and nutritious snacks available. Although there is an abundance of literature regarding the necessity of after school programs, the literature can attest to the need for further understanding.

Problem Statement

After school programs are significant in promoting academic achievement in students (Community Preventive Services Task Force, 2015; Knopf, et al., 2015). At-risk students and low-achieving schools are thought to be key beneficiaries of these programs in order to promote life-long success; however, limited research is available regarding their significance on this population. At-risk students have been linked to a variety of negative outcomes including school violence and lack of academic achievement (Cid, 2017; Sanders et al., 2018). These findings have been argued to be especially true of students who identify with a minority status (i.e. Latino and Caribbean) (Cid, 2017).

Improving the educational outcomes and addressing the achievement gap for this cohort has been a topic of interest amongst scholars alike (Chen et al., 2019). After school programs can wear many hats; however, promoting learning equity is what should be of the utmost importance (Jacobson et al., 2018). The literature suggests that after school programs that are rich in reading,

science, and math may especially be beneficial to at-risk students (Lee et al., 2017; Young, & Young, 2018; O'Meara & Prendergast, 2019). Interestingly, some school districts have taken the intuitive and have created after school programs that allow for students to recover lost credits for a failed course (Tobin & Colley, 2018). The research is clear that after school programs possess the possibilities to keep students safe, boost students' success rates, and help parents keep their jobs, but most researchers can agree that a need for further examination of after school programs and their significance is imperative because not all after school programs are alike (Grogan et al., 2015).

After school programs have been a well-documented approach to closing achievement gaps. However, literature is lacking on the significance of after school programs and their impact on academic achievement whilst looking at students that are located in an economically disadvantaged area. Additionally, little to no research exists regarding the implications of government-funded after school programs and their outcomes. State assessment scores have also not been used as a tool to measure the success of these programs. The problem is that a lack of research exists in the realm of state-funded after school programs for at-risk elementary students who are located in economically disadvantaged areas.

Purpose Statement

The purpose of this predictive, correlational study is to determine how accurately Tennessee Comprehensive Assessment Program (TCAP) English Language Arts (ELA) achievement scores can be predicted from a linear combination of Lottery for Education Afterschool Programs (LEAPs) participation, geographic location, and Community Eligibility Provision (CEP) participation at Title I elementary schools in Tennessee. The criterion variable

is *TCAP ELA achievement scores* while the predictor variables are *LEAPs participation, geographic location, and CEP participation*.

TCAP

The TCAP is a statewide assessment that was mandated by the 1992 Tennessee Education Improvement Act as a way to collect extensive data on students and to evaluate assessment scores across the state of Tennessee (Leuthold, 1999). The TCAP ELA score was measured by accessing the publicly available file located on the Tennessee Department of Education website where students in third through eigth grade scores were reported together as one sum (percentage) and represented individually for each school for the 2018-2019 school year.

Academic Achievement

Academic achievement is defined as marked completion of one's educational goals or achievements, in which, an example of this may be made by interpreting and evaluating students' standardized tests' scores (Mertens & Anfara, 2006). Academic Achievement was measured by looking at the percentage of reported "on mastered" ELA scores for each school, which consisted of students in third through eighth grade.

LEAPS

LEAPs is an after school program that is implemented all over the state of Tennessee, and it is funded by unclaimed lottery winnings in the state of Tennessee. LEAPs had over 200 locations during the 2018-2019 school year, and LEAPS is implemented in schools, community-based organizations, faith-based organizations, and charity-based organizations. However, LEAPs seem to be more prevalent in Tennessee elementary schools where students are at an economically disadvantage such as classified Title I schools (TN Department of Education,

2016b). LEAPs participation was measured by obtaining a list of schools that were enrolled from the 2018-2019 school year by contacting the director of LEAPs.

After School Programs

After school programs are programs that take place during the after school hours, and these programs promote personal/social development, academic development, and career readiness (National Youth Violence Prevention Resource Center, 2001). These programs must include an academic component and participation is voluntary, although students may be required to participate under certain circumstances (i.e. to avoid retention in grade) (Community Preventive Services Task Force, 2015).

Geographic Location

Geographic location was identified by the status set forth by the National Center for Education Statistics (NCES) (n.d.) as city, suburb, town, and rural. The geographic location for each school was measured by using the software provided by NCES and entering in each school individually and recording their location.

City, Suburb, Town, and Rural

Additionally, in 2006, the NCES worked with the Census Bureau to create a new local classification system. According to the NCES website, a city was described as a territory inside an urbanized area inside a principle city. Suburb was described as territory outside a principle city and inside an urbanized area. City and suburban have further been divided up by size (large, midsize, and small). Large was a population of 250,00, midsize was a population less than 250,000, and small was a population less than 100,000 (National Center for Education Statistics, n.d.). Finally, town was described as a territory inside an urban cluster, and rural was described as census-defined rural territory. Town was considered fringe (less than or equal to 10 miles

from an urbanized area), distant (more than 10 miles and less than or equal to 35 miles from an urbanized area), or remote (more than 35 miles from an urbanized area), and rural was considered fringe (less than or equal to 5 miles from an urbanized area and less than or equal to 2.5. miles from an urban cluster), distant (5 miles but less than or equal to 25 miles from an urbanized area and 2.5 miles but less than or equal to 10 miles from an urban cluster), or remote (25 miles from an urbanized area and 10 miles from an urban cluster) (National Center for Education Statistics, n.d.).

CEP Participation

The CEP is a non-meal pricing service option for students and school districts in low-income areas (USDA Food and Nutrition Service, 2019). Schools that adopt CEP are reimbursed using through programs such as the Supplemental Nutrition Assistance Program (SNAP) and Temporary Assistance for Needy Families (TANF). CEP participation was measured by using the database provided on the USDA Food and Nutrition Service website, selecting Tennessee as the state, and then using their list of schools that reported "yes" as participation and "no" as participation for the 2018-2019 school year.

Economically Disadvantaged Students or At-Risk Students

Economically disadvantaged students or at-risk students are students who are located in areas that have high rates of poverty and households of low-socioeconomic status (National Center for School Engagement, n.d.; McCann & Austin, 1988). Additionally, these students may be thought of as "problem students" and exhibiting behaviors such as skipping school or missing school excessively, displaying disruptive behavior, bullying or harassing other students, and fighting (National Center for School Engagement, n.d.). These students are often low-income and of minority status (Knopf et al., 2015).

Title I Schools

Title I schools are schools that receive extra assistance in federal funds due to large numbers of low-income students, which in turn assists in helping students reach their educational goals (Johnston & Martelli, 2019). Title I schools was measured by obtaining a list located on the Tennessee Department of Education's website of Title I schools that were recorded as being Title I for the 2018-2019 school year.

Overview

Overall and for this study, the population has consisted of elementary students attending Title I schools in Tennessee, and the sample has consisted of 100 Title I elementary schools that provided LEAPs and 100 Title I elementary schools that did not provide LEAPs, resulting in 200 Title I elementary schools. All students in the state of Tennessee are required to take the TCAP towards the end of every school year. The ELA achievement scores have been analyzed, and Title 1 schools' LEAPs participation, geographic location, and CEP participation have been analyzed.

Significance of the Study

Current literature continues to investigate the significance of after school programs theoretically, empirically, and applicably. For example, an article by Woodland (2016) discussed diversity as it relates to after school programs. Furthermore, Woodland (2016) analyzed the literature on after school programs and resilience theory as protective factors that encourage resilience among young Black males and other urban youth. As a result, Woodland (2016) argued that after school programs should be introduced as a resource for Black males and other urban youth. Additionally, Riise et al. (2019) found that students who participate in after school programs receive physical activity. Their participants were first graders from 14 after school

programs in which 426 students were included (Riiser et al., 2019). The students wore an accelerometer to determine levels of physical activity. Their study reported that on average that children accumulated at least 25.8 minutes of moderate and vigorous physical activity during their after school program stay (Riiser et al., 2019). Finally, Hedemann and Frazier (2017) believed after school programs are significant in minimizing risks among urban youth. In their article, music education and social development in after school programs are discussed. Their study focused on two goals that included supporting staff to encourage student engagement and behavior management and integrating social-emotional activities into the curriculum (Hedemann & Frazier, 2017). Participants were measured on mental health needs and the feasibility of social-emotional needs delivered. Hedemann and Frazier (2017) found that participants reported high rates of anxiety and depression symptoms, while also reporting high satisfaction with the activities. Overall, the proposed study that is this dissertation was significant because it builds off previous studies that have addressed the same issue and has addressed a gap in the literature. This study that has been presented can contribute to the (1) theoretical, (2) empirical, and (3) applied foundation of research by having contributed (1) that after school programs play a significant role in helping educators determine if the implementation of an after school program would be successful in their school district, (2) that the further research that was presented within the bounds of the dissertation further scrutinizes the implementation of after school programs, and (3) by providing a new insight and understanding into the topic of after school programs, socioeconomic status, and free and/or reduced meal options for students. Above all, the significance of this study has been a successful tool for educators as well as grant developers in that it provides a possible solution to combat the academic challenges of students who are located in economically disadvantaged school districts.

Research Question

RQ1: How accurately can the Tennessee Comprehensive Assessment Program (TCAP) English Language Arts (ELA) achievement scores be predicted from a linear combination of Lottery for Education Afterschool Programs (LEAPs) participation, geographic location, and at Title I elementary schools in Tennessee?

Definitions

1. *Tennessee Comprehensive Assessment Program (TCAP)* - The TCAP was defined as a statewide assessment that was mandated by the 1992 Tennessee Education Improvement Act as a way to collect extensive data on students and to evaluate assessment scores across the state of Tennessee (Leuthold, 1999). The TCAP English Language Arts (ELA) score was measured by accessing the publicly available file located on the Tennessee Department of Education website where students in third through eighth grade scores were reported together as one sum (percentage) and represented individually for each school for the 2018-2019 school year.
2. *Academic achievement* – Academic achievement was defined as marked completion of one's educational goals or achievements, in which, an example of this may be made by interpreting and evaluating students' standardized tests' scores (Mertens & Anfara, 2006). Academic Achievement was measured by looking at the percentage of reported "on mastered" ELA scores for each school, which consisted of students in third through eighth grade.
3. *Lottery for Education After School Program (LEAPs)* – LEAPs was defined as an after school program that is implemented all over the state of Tennessee, and it is funded by unclaimed lottery winnings in the state of Tennessee. LEAPs had over 200 locations

during the 2018-2019 school year, and LEAPS is implemented in schools, community-based organizations, faith-based organizations, and charity-based organizations. However, LEAPs seem to be more prevalent in Tennessee elementary schools where students are at an economically disadvantage such as classified Title I schools (TN Department of Education, 2016b). LEAPs participation was measured by obtaining a list of schools that were enrolled from the 2018-2019 school year by contacting the director of LEAPs.

4. *After school programs* – After school programs were defined as programs that take place during the after school hours, and as programs that promote personal/social development, academic development and career readiness (National Youth Violence Prevention Resource Center, 2001). These programs must include an academic component and participation is voluntary, although students may be required to participate under certain circumstances (i.e. to avoid retention in grade) (Community Preventive Services Task Force, 2015).
5. *Geographic location* – Geographic location was identified by the status set forth by the National Center for Education Statistics (NCES) (n.d.) as city, suburb, town, and rural. The geographic location for each school was measured by using the software provided by NCES and entering in each school individually and recording their location.
6. *City, Suburb, Town, Rural* – Additionally, in 2006, the NCES worked with the Census Bureau to create a new local classification system. According to the NCES website, a city was described as a territory inside an urbanized area inside a principle city. Suburb was described as territory outside a principle city and inside an urbanized area. According to the NCES website, a city and suburban are further divided up by size (large, midsize, and

small). Large was a population of 250,00, midsize was a population less than 250,000, and small was a population less than 100,000 (National Center for Education Statistics, n.d.). Finally, town was described as a territory inside an urban cluster, and rural is described as census-defined rural territory. Town was considered fringe (less than or equal to 10 miles from an urbanized area), distant (more than 10 miles and less than or equal to 35 miles from an urbanized area), or remote (more than 35 miles from an urbanized area), and rural was considered fringe (less than or equal to 5 miles from an urbanized area and less than or equal to 2.5. miles from an urban cluster), distant (5 miles but less than or equal to 25 miles from an urbanized area and 2.5 miles but less than or equal to 10 miles from an urban cluster), or remote (25 miles from an urbanized area and 10 miles from an urban cluster) (National Center for Education Statistics, n.d.).

7. *Community Eligibility Provision (CEP)* – The CEP was defined as a non-meal pricing service option for students and school districts in low-income areas (USDA Food and Nutrition Service, 2019). Schools that adopt CEP are reimbursed using through programs such as the SNAP and TANF. CEP participation was measured by using the database provided on the USDA Food and Nutrition Service website, selecting Tennessee as the state, and then using their list of schools that reported “yes” as participation and “no” as participation for the 2018-2019 school year. The CEP allows for school districts to serve breakfast and lunch at no cost to students without collecting household applications.
8. *Economically disadvantaged schools or at-risk students* – Economically disadvantaged students or at-risk students were defined as students who are located in areas that have high rates of poverty and households of low-socioeconomic status (National Center for School Engagement, n.d.; McCann & Austin, 1988). Additionally, these students may be

thought of as “problem students” and exhibiting behaviors such as skipping school or missing school excessively, displaying disruptive behavior, bullying or harassing other students, and fighting (National Center for School Engagement, n.d.). These students are often low-income and of minority status (Knopf et al., 2015).

9. *Title I school* – Title I schools were defined as schools that receive extra assistance in federal funds due to large numbers of low-income students, which in turn assists in helping students reach their educational goals (Johnston & Martelli, 2019). Title I schools was measured by obtaining a list located on the Tennessee Department of Education’s website of Title I schools that were recorded as being Title I for the 2018-2019 school year.

CHAPTER TWO: LITERATURE REVIEW

Overview

The components of this chapter are vital to this study because it lays the foundation for future research. For this reason, researchers alike must understand the theories that drive their research and recognize what has been done in the past regarding their topic. Being able to apply corresponding theories and past literature plays a major role in comprehending origin on a subject matter. This is particularly true in understanding the effects of after school programs on academic achievement. As a final point, comprehending and evaluating the past literature on the significance of after school programs on academic achievement are imperative for future research studies because it will in turn show originality and relevance to the research problem. Under these circumstances, the conceptual or theoretical framework has been explicitly evaluated, and past literature has been scrutinized.

Theoretical Framework

The rise and need of after school programs were mainly due to dual-career and single-parent families and a need for monitoring and supervision during out of school time (Smith & Bradshaw, 2017). After school programs or "youth development programs" as authors Roth and Brooks-Gunn (2016) have called them in their study, have been around since the 1900s. This was due to the development of many physiological theorists that discussed the processes of human development and the need for researchers, practitioners, and policymakers to improve the lives of youth. Additionally, an awareness of what to do with youth during the after school hours led to the expansion of after school programs. Under these circumstances, B.F. Skinner and Abraham Maslow have played major roles in the development and implementation of after school programs. By looking at B.F. Skinner's mythology of behaviorism and Maslow's

Hierarchy of Needs, educators can further understand why the implementations of these programs exist.

Behaviorism

Managing students' behaviors has always been an issue in our school systems – this is especially true for students with behavioral disorders (Franco et al., 2016). Educators are always seeking strategies to best manage students' behaviors and are often scavenging for the best method(s) to use with individual students (Ari et al., 2016). B.F. Skinner was a revolutionary phycologist who founded and termed *behaviorism.* The term *behaviorism* has gradually been left in the past because of many new theories that are readily available to discuss the ways in which students learn, but one could say that most behavior management theories are founded and rooted in by B.F. Skinner's *behaviorism* (Budiman, 2017). Although the term *behaviorism* may be considered old, it is still useful in teaching and explaining how students learn (Budiman, 2017).

Moreover, it is important that one understands that after school programs very much active in the same way as regular classroom time – in that they both promote environments for stimulating learning. However, one may say that after school programs provide an array of developmental outcomes in a less structured environment. More recently, founded on a behaviorist principle, a program that has been implanted in many schools across the nation is Class Dojo (Krach et al., 2017; Cetin & Cetin, 2018; Dillon et al., 2019). Florell (2015) described Class Dojo as an interactive program and/or app that allows teachers to take attendance and recognize student behaviors. Students as well as the whole class can be rewarded with points for good behavior (Florell, 2015). Students are given positive or negative feedback based on their hard work, insight, participation, and other desired behaviors (Florell, 2015). Finally, at any time

teachers can run analytics on their classes behaviors for further insights – this is particularly helpful when data gathering and analyzing the school's progress as a whole (Florell, 2015).

Interestingly enough, Class Dojo pairs nicely with B.F. Skinner's behaviorist principle of classical conditioning. According to Eelen (2018), the schematic representation for classical conditioning is "a conditioned stimulus elicits a conditioned response, provided this stimulus has repeatedly been presented together with an unconditioned stimulus that 'inherently' elicits an unconditioned response" (p. 196). Understanding behaviorist principles helps educators to better know why students do not immediately change their behaviors, but they also provide educators with the opportunity to shape those behaviors to lead to optimal academic achievement.

Maslow's Hierarchy of Needs

In a similar manner, Maslow's Hierarchy of Needs suggests that humans are driven by innate needs for survival, safety, love and belonging, esteem, and self-realization (Abulof, 2017). Additionally, it has been used in research to explain students' behaviors and act as a guide for teachers for understanding students' behaviors (Fisher & Royster, 2016; Crandall et al., 2019). Moreover, it has even been used as a means to understand leadership strategies (Soni & Soni, 2016). This may be particularly important when looking at ways in which after school programs are led. As previously mentioned, Maslow's Hierarchy of Needs plays a major role in understanding the community's needs for after school programs and why providing enrichment activities are important. Above all, Maslow's theory is associated with motivation in psychology and is comprised of a five-tier model of human needs. More importantly, when looking at this theory, it is important to understand that needs lower down on the hierarchy must be satisfied before individuals can attend to the needs higher up. Starting at the bottom and moving upwards, the needs are physiological needs; safety needs; love and belonging; esteem; and self-

actualization. Educators should understand that Maslow's Hierarchy of Needs may be used to understand students' behaviors, this can especially be true for at risk-students. If students do not have their physiological needs; safety needs; love and belonging; esteem; and self-actualization met, how can educators hold them accountable for their academic achievement? It can be said that students who score low on these needs are at a disadvantage over their peers.

Not to mention, establishing motivation in students is chief if one wishes to promote academic development amongst students. Under these circumstances, Freitas and Leonard (2011) studied Maslow's Hierarchy of Needs and student academic success. The exact number of participants was not identified; however, all participants were identified as "entry-level" nursing students (Freitas & Leonard, 2011). Although these researchers examined academic success as it relates to student nurses, this study should be applicable to all students. Maslow created his hierarchy by observing students' growth and development. The authors of this study used a survey methodology to obtain data from respondents – 15 items listed as "Importance" and 15 items listed as "Ability" on a Likert Scale (Freitas & Leonard, 2011). The results were gathered, and it was concluded that meeting the needs of students was important although educators were not able to always meet them (Freitas & Leonard, 2011). As a final reflection in discussing Maslow's Hierarchy of Needs, perhaps educators can provide after school programs in which fostering nurturing environments is paramount which in turn minimizes toxic social and biological conditions they face in their homes, communities, peer groups, or even schools (Smith & Bradshaw, 2017).

Related Literature

Before going further, while discussing the raw meaning of after school programs, the Every Student Succeeds Act (ESSA) and the No Child Left Behind (NCLB) should be

recognized because of both laws aid in the validity of the significance of after school programs (Sparks, 2019). The development of these laws has been resourceful in that they addressed areas where students have made progress and where they need additional support. One can see in the literature that precedes, that after school programs may go by many names – extended day, extended time education, expanding learning, free-standing programs, and out of school time (Noam & Triggs, 2017). Although many names for after school programs exits, the author has continued to refer to these programs as after school programs. When talking about after school programs and implementation, it is important that the school community comes together to discuss best practices for students (Jacobson et al., 2018). Even more so, educators should advocate and start developing a school community by asking students and their families what needs to happen so students can succeed in school and get ready for college, careers, and citizenship (Jacobson et al., 2018).

Economically Disadvantaged Schools or At-Risk Students and Academic Achievement

Low socioeconomic status and poverty will be used interchangeably throughout this discussion as both are closely related. The topics socioeconomic status and closing the achievement gap have been popular trends in education (Quinn et al., 2016; Dolean et al., 2019). Not only has this been analyzed abundantly by researchers, but also the implications of socioeconomic status and child development (Kent et al., 2018; Gellci, et al., 2019; Ride, 2019). As one will come to comprehend in the following review of the proceeding paragraphs, understanding the impact of socioeconomic status and the role of academic achievement has been a topic amongst educators in numerous research studies. This is particularly important amongst educators when discussing the ways to close the achievement gap (Lumpkin, 2016).

This has been and continues to be a concern for parents, educators, and policymakers alike (Lumpkin, 2016).

In the article by Farah (2017), the author investigates the neuroscience behind an individual's perceivable socioeconomic status. According to the author, human beings have been typically classified into two groups that society has termed as those that are either "worse off" and those that are "better off" (Farah, 2017). Those that are "better off" have more material resources and nonmaterial resources including an array of beneficial qualities such as more education, higher incomes, and better neighborhoods (Farah, 2017). Traditionally, one may speculate that students that come from families who are "worse off" may struggle more academically than their counterparts because they do not have the resources of those students who come from families that are "better off" (Farah, 2017). Thus, resulting in the meaning that students that come from disadvantaged or economically poor families are more likely to experience a variety of problems.

Students who are from low socioeconomic status possess fewer academic skills than their nonpoor peers which result in lower achievement, lower educational achievement, and lower economic stability in adulthood (Miller et al., 2019). Administrative data with longitudinal survey data was gathered on poor children from Kindergarten through second grade which resulted in 2,950 participants. The purpose of this research was to explore how differences in community-level resources and stressors across urbanicity explain variation in achievement (Miller et al., 2019). Results were gathered and it was determined that resource stressors increased in poorer communities where academic achievement was variant. Finally, providing policies that act as a buffer for poor children and families may be the best way to narrow achievement gaps (Miller et al., 2019). Interestingly, in a study by Betz and Kayser (2017),

researchers analyzed children's perceptions of academic achievement, poverty, and wealth. This was done by examining passages from qualitative interviews with elementary school children between the ages of eight and 10 (Betz & Kayser, 2017). After interview responses were gathered, it was determined that children had something to say in regard to societal matters. The students' interpretations of the matters are noteworthy in that students' perceptions of these topics could enable their academic achievement (Betz & Kayser, 2017). For example, students labeled in their interviews that if someone is rich than they have a great job and that if someone is poor, they do not have a great job. One student also explained that being poor is one own fault. The findings from the study by Betz and Kayser (2017) are extremely relevant in that students' perceptions of academic achievement, poverty, and wealth could enable them from succeeding academically in that they blame their socioeconomic status for their struggles. However, one should note that often one hears of the offspring of individuals with low socioeconomic status driving them to be more successful academically and financially than their families.

But just how many students are we looking at in terms of national averages? Williams et al. (2019) found that children and adolescents from low-income families now make up a majority of enrolled students at public schools nationally. With an increase in children from low-income backgrounds strengthens, so does the achievement gap between them and their wealthier peers (Wiliams et al., 2019). The researchers completed a phenomenological qualitative study that used telephone interviews to examine rationales in what schools can do to promote the academic achievement of low-income students. The recommendations from their study revolved around themes that involved to create a culture of hope, develop relational networks, and establish meaningful parent-school collaborations (Wiliams et al., 2019). Equally important, Garrett-Peters et al. (2016) examined the implications of household chaos in terms of understanding

relations between early poverty and children's academic achievement. More specifically, 1,236 households were studied with corresponding six through 58 months of cumulative household chaos and early family income poverty starting at six months and children's academic achievement in Kindergarten (Garrett-Peters et al., 2016). The mediators for this study were disorganized and instability. Garrett-Petters et al. (2016) found that household disorganization was associated with lower academic achievement and chaos convey some adverse longitudinal effects on academic achievement in early childhood. As a final point, it is important for educators to consider the roles in which poverty impacts education because it is a strong predictor of school failure and poor school achievement.

Perhaps, educators should seek to establish relationships with parents from low socioeconomic backgrounds as a way of intervention. While understanding these definitions, Barnes and Nolan (2019) conducted a study to evaluate the need of after school program staff as social support to low-income parents. The author's theory is that after school program staff can provide social support for disadvantaged parents who often lack social capital and sources of social support. Barnes and Nolan (2019) analyzed 23 staff interviews and 48 parent interviews across three after school programs. The findings in these interviews presented found parents developed strong social ties with staff for social support.

Meanwhile, society has been trying to implement actions in order to make equal access to education for all students regardless of their gender, race, or social background (Wiederkehr et al., 2015). In the article by Wiederkehr et al. (2015), the authors further reiterate that previous research has examined the impact of socioeconomic status on school performance – this is true for several other countries outside the United States i.e. China and Japan (Takashiro, 2017; Acar, 2018; Duan et al., 2018; Liu et al., 2019). In two distinct studies that measured teenaged

students' and children's self-efficacy, Wiederkehr et al. (2015) analyzed how the internalization of low social status impacted school performance. Wiederkehr et al. (2015) found that socioeconomic status affected both self-efficacy and school performance amongst students which may lead to poor academic performance. Even more interesting was a study by Editorial Projects in Education (2016), which evaluated survey data collected in 2014 from more than 30,000 parents and included 13,000 interviews that examined parents' thoughts on after-school and summer learning opportunities. These individuals that responded were living in poverty according to the United States Census tract with a 30% or higher poverty rate (Editorial Projects in Education, 2016). The survey found that 24% of children living in poverty areas participated in after school programs when compared with 18% nationally (Editorial Projects in Education, 2016). However, the survey found that 56% of children would participate in after school programs if it were available to them when compared to the average figure for the nation as a whole at 14% (Editorial Projects in Education, 2016).

After school programs are praised for promoting purposeful engagement with students as well as a supportive environment (Leos-Urbel, 2015). A study conducted by Leos-Urbel (2015) examined after school program quality, program attendance, and academic outcomes in low-income participants. After school programs are typically voluntary resulting in low program attendance. However, the author's findings suggest that students who participate in an after school program that provides proper engagement in a structured supportive environment will have improved in test scores across the domain (Leos-Urbel, 2015). The trend in literature can be seen in that after school programs are thought to be significant in those that live in an area of socioeconomic disadvantage. Not to mention, O'Hare et al. (2015) examined this phenomenon as well by performing a randomized controlled trial. Their study found that after school programs

must be designed, piloted, evaluated, and implemented with a high degree of care (O'Hare et al., 2015). One may speculate, what are students doing that are not enrolled in an after school program? The findings presented are as followed and a need for intervention has been described.

Students Who Are Not Involved in After School Programs

While understanding the outcomes for students who participate in after school programs is imperative to this discussion, understanding the outcomes of the students who do not participate is of equal importance. Engelen et al. (2015) conducted a study that examined screen time amongst students who do not participate in after school programs. The need for their study is imperative because seldom what students do outside of school is seldom described as it relates to published literature. Engelen et al. (2015) found that during after school activities that 25% participate in physical activity, 51% participated in sedentary activities, and 22% were spent on screen time. Sedentary activities may often lead to negative health outcomes such as obesity and compromised social skills for creative play (Engelen et al., 2015).

After School Programs and Students' Well-Being

In light of the previous study, some form of physical activity is a requirement in all after school programs thanks to the Healthy Eating and Physical Activity standards set forth by the Young Men's Christian Association (Beets et al., 2018). Staff is required to ensure that students participate in a minimum of 30 minutes of moderate to vigorous physical activity each day during the after school program (Beets et al., 2018). In a like manner, Economos et al. (2017) examined after school programs and health promotion. The authors made available an online survey and had 1,695 adult educators (enrichment providers and school sports leaders) severing five to 12-year-old students participate. The results found that after school programs were not serving students healthy snack during their participation in after school programs which then

indicated a need for individuals in charge of program implantation to become more aware of the snacks and beverages that they provide to the students during after school hours and provide opportunities for physical activities (Economos et al., 2017). These findings in the Economos et al. (2017) study were very similar in that Gustin et al. (2016) recognized that educating children about nutrition and physical activity is imperative to students' overall well-being. By the same token, Beets et al. (2015) discussed that after school programs represent an important opportunity to promote healthy eating. Researchers observed and recorded data of snacks that were served to 1,700 elementary school children in 20 after school programs (Beets et al., 2015). The purpose of this study was to evaluate compliance with nutrition policies. The findings of this study were that the quality of snacks failed to meet nutrition policies and was predominately high in sugar content and artificially flavored.

Equally, close attention should be given to ethnic minority children when discussing physical activity levels and school-based after school programs (Kim & Lochbaum, 2017). Researchers found that ethnic minority children living in high poverty neighborhoods are less likely to engage in physical activity during the school day in physical education and school-based after school programs. Beets et al. (2018) also found that when gathering research during the spring of 2015 that only 33% of boys and 17% of girls were meeting the standards set by the Yong Men's Christian Association and Healthy Eating and Physical Activity Standards. Program administrators and all educators alike should be aware of these statics in order to promote stimulating environments for children. After all, students who are active and engaged are more than likely to be more active and engaged in classroom tasks.

Poverty, Socioeconomic Status, and Child Development

Researchers have been obsessed with the topic of poverty and the way in which it affects individuals' lives. Interestingly, poverty has been closely linked to poverty in women because they tend to be primarily responsible for the care of children (McKinney, 2014). The approaches that have been used have tried to identify poverty in such a way that is absolute through relative, subjective, and multi-dimensional approaches (Hannum et al., 2017). Even more, some sort of measurement of poverty has been included in most international educational surveys (Hannum et al., 2017). Measuring poverty has been proven to be a pretty easy task considering researchers are able to use income, consumption, and capabilities as a way of measurement. For most, poverty has commonly been defined as individuals who are lacking sufficient material resources to satisfy basic physiological needs (Hannum et al., 2017). Understanding the role in which researchers have used to identify poverty is significant because it lays the foundation for most research studies that discuss the socioeconomic status and its implications on academic achievement.

Additionally, while examining the most recent articles on poverty and education, Silva-Laya et al. (2019) complied a systemic literature review on the manner. The authors reviewed 66 studies that were on the topics of educational conditions and the achievement of the urban poor. Some of the major highlights of their findings were that individuals who receive schooling do not guarantee their fully exercised right to education and inclusion is stratified (Silva-Laya et al., 2019). A common trend that has been noted is that the needs and interests of the urban poor are a challenge of the school culture (Silva-Lava et al., 2019). It was suggested by these researchers that perhaps coordinated action by various social actors can improve educational achievement (Silva-Lava et al., 219).

The previous literature marks on the prevalence of socioeconomic status being influenceable on academic achievement. Perhaps, by looking at the recent trends in socioeconomic status and child development, these topics should be up for discussion since child development acts as the "middleman" in this equation – socioeconomic status effects child development which in turn impedes academic achievement. A critical period during child development is the child's early years. Children who live in rural areas are especially subject to vulnerability and experiencing chaos in their homes due to economies of life in rural contexts such as fewer jobs, longer distances to work, and lack of valuable childcare.

While looking at the data, one may say that poverty and students' parents' marital status influence academic achievement (ElHassan et al., 2018; Jones et al., 2018). The researchers used a precursor to American College Testing called EXPLORE, which resulted in 525 eighth grade student participants (Jones et al., 2018). Researchers gained information regarding marital status, free/reduced lunch status, and EXPLORE test scores. Consequently, it was found that there was no statistically significant difference in marital status and poverty on academic achievement. However, Jones et al. (2018) discussed future implications for measuring poverty in schools. The researchers suggest that the best form of measurement for the significance of poverty is low-cost lunches in schools which may be important to recognize when data is obtained in the preceding chapters of this dissertation. In a more recent study, Ware (2019) also suggested that measuring socioeconomic status in schools is best used by examining how many students receive free or reduced-price lunch. However, Ware (2019) also suggests that property value is a convenient alternative or complement. The author completed a hierarchical linear modeling and regression analysis to compare socioeconomic status rational indicators like parent income, education, and

occupation. Math achievement needs with free-reduced lunch status. Ware (2019) found that property value is strongly related to math achievement and free-reduced lunch status.

In a unique but applicable study, ElHassan et al. (2018) examined the impact of prematurity and maternal social factors on academic performance on students in third through eighth grade. Information was gathered on whether the students were newborns, preterm, late preterm, and term infants. Neonatal and maternal variables were collected that included maternal insurance status and education level. The results from this study found that prematurity, social factors, gender, race, gravidity, and Apgar score were critical determinates of academic performance on students, especially while examining literacy and mathematic scores (ElHassan et al., 2018). Too, there were trends in differences in lower socioeconomic status mothers who were uneducated which were critical to a child's academic achievement.

Burneo-Garcés, et al. (2019) examined the socioeconomic status and cognitive development in children. The goal of their study was to see if these terms differed across age in children seven, nine, and 11. The children that participated were divided into two groups – medium socioeconomic status and low socioeconomic status. The finding provided by Burneo-Garcés et al. (2019) was that students from low socioeconomic status have a negative impact on their visual-motor coordination (this was also found true in a similar study by Ferreira et al. 2018), sustained attention, memory, language, and executive function. Overall, the implications of this study show a need for preventative strategies to aid poverty-stricken families. In a similar study, Doulabi et al. (2017) explored the socioeconomic status and child development. Children between the ages of 36-60 months were surveyed via cross-sectional and participants totaled in at 1,036 (Doulabi et al., 2017). The results were very similar to the previous study as well because Doulabi et al. (2017) discovered that children from low socioeconomic backgrounds should be

closely monitored and appropriate interventions should be applied in order to give these children a more productive life.

While interpreting these findings, it is apparent that socioeconomic status impacts child development in negative ways (Webb et al., 2018). Overall, it impedes physiological health, physical health (Garkal & Shete, 2015; Jin & Lu, 2017), family well-being (Zalewska-Łunkiewicz et al., 2016; Figlio et al., 2017; Gasa et al., 2019), and most importantly, in alliance with this dissertation topic, education – which is explained in-depth in the previous subheading. In understanding the role that poverty on learners' educational achievement, perhaps student teachers' perceptions are inherent of relevance. Ellis et al. (2016) took the answers of several student teachers' interviews and interactions with students to look at and discuss overall perceptions of students' level of poverty and their ability to read. While interviewing in focus groups and analyzing two cases, one student teacher said that while interacting with their student that she was disturbed by what the student did not know about literacy and this particular student's view of literacy was negative. Another student teacher recommended that educators need to know their children. Often, the child's home life goes unnoticed. At the conclusion of this study, Ellis et al. (2016) found that poverty and prospective teachers need to be attuned to noticing and addressing the needs of disadvantaged children. In a similar fashion, in a study by Thompson et al. (2016), researchers wished to understand teachers' perceptions of poverty and educational achievement in a college setting. Qualitative data was collected through the use of two whole course survey questionnaires. Data was gathered and it was determined that low achievement was strongly focused on family and cultural factors than with socio-economic or school factors. This shows that often teachers have limited understanding of the link between child poverty and educational achievement. According to McKinney (2014), if a school wishes

to operate at its best, the account for the whole child must always be the front of decision making. Thus, resulting in strong leadership from both official school leaders and teachers. Additionally, leadership must share a vision of productive learning that conjoins a shared vision and facilitates or co-facilitates all challenges to move towards productive pedagogies for the whole school (McKinney, 2014).

A Need for Intervention

Kurdi et al. (2018) discussed the need for supportive teaching practices for students that are of low socioeconomic status. The author's study included 424 students and 45 teachers from five elementary schools located in areas that were identified as low socioeconomic neighborhoods and were studied for two consecutive years (Kurdi et al., 2018). Their study found that teacher structure corresponds with higher student perception of competence; involvement agrees with higher relatedness in students; and students that are anxious and low achieving benefit from more teacher structured environments than others (Kurdi et al., 2018).

Just like the Kurdi et al. (2018) article discussed the significance of cautiously and innovatively handling instructional time with students of low socioeconomic status, Dietrichson et al. (2017) discussed the significance of providing academic intervention strategies for students of low socioeconomic status because socioeconomic status strongly correlates with educational achievement. The author's study was a systematic review and meta-analysis to identify effective academic interventions for elementary and middle school students (Dietrichson et al., 2017). The results from their study found that students from low socioeconomic status benefit from resources such as tutoring; feedback and progress monitoring; and cooperative learning (Dietrichson et al., 2017).

Interestingly, Browman et al. (2017) investigated the role and/or perceptions of socioeconomic mobility influence on academic persistence among low socioeconomic status students. When given the benefit of doubt, students who are from low socioeconomic status may maintain high levels of academic motivation and persist in the face of difficulty (Browman et al., 2017). The authors believe that low socioeconomic students displaying academic persistence can be a powerful academic motivator. If low socioeconomic students believe that socioeconomic mobility can occur in society, their desire to persist on the path to education should remain strong (Browman et al., 2017). However, if students with low socioeconomic status believe that socioeconomic mobility does not occur in society, these students should be less motivated to persist academically (Browman et al., 2017). The authors of this study provide support for this hypothesis in the conclusion of their study.

Perhaps, parental involvement may also play a major role in academic achievement and intervention. According to Yıldırım (2019), fostering self-confidence in students is important and mediates the impact of home educational resources and parental involvement at home on academic achievement. Additionally, Destin et al. (2019) examined students' mindsets and socioeconomic status. The authors of this study found that students' mindsets were significant, but a small factor in explaining the relationship between socioeconomic status and achievement. The existing cause of low socioeconomic status and academic achievement is driven in the United States by the root causes of inequality (Destin et al., 2019).

Likewise, Benner et al. (2016) examined parental involvement, socioeconomic status, and academic achievement. The author's study found that school-based involvement seemed to be particularly beneficial for more disadvantaged youth such as those with low socioeconomic status. However, students who were of higher socioeconomic status benefited from parents'

academic socialization. The conclusions from this study show that academic interventions are important and should be carefully implemented to pick the best form of support for that student. The reasoning behind this notion can be traced back to the understanding of Abraham Maslow's Hierarchy of Needs.

Falling under the many categories associated with this chapter, Pensiero and Green's (2017) study is beneficial to be discussed. The authors examined after school programs and their significance in reducing socio-economic gaps in education in academic achievement. The findings are that after school programs that are teacher lead compensate for previous social disadvantage and are moderately effective in improving the academic performance of students who have lower academic achievement. The future of after school programs according to Pensiero and Green (2017) is that program availability and incentives for participation should be considered as well as attention to the regional disparities.

After School Programs and Participation

After school programs have been known to not only support academic achievement outcomes, but also improve the overall health of the student (Sliwa et al., 2019). This is significant in that students must be overall "healthy" or "able" to put forth the best academic efforts in their studies in order to excel in the domain of academic achievement. The authors make it aware in this study that far too often the overall health of the student gets neglected when implementing and designing after school programs. While looking at data, most United States elementary schools have an after school program; however; in order to maximize the benefits of after school programs, strategies should be in place that recognizes the overall need for students practice personal health in conjunction with mandated physical activity and/or nutrition policy adaptation (Silwa et al., 2019). However, educators should do this with caution because Safron

(2019) discussed in their ethnography type study that students' personal beliefs about personal health during a scrapbooking activity in an after school program were less than ideal. The author found that students often have "blurred lines" when talking about physical activity and what is actually a healthy mindset (i.e. fit versus fat, informal versus formal, and youth versus adult) (Safron, et al., 2019).

Then again, after school programs do not have to focus solely on academic support and enrichment activities in order to be effective. A few other core elements that have been proven to be equally important in the implementation of after school programs are the adult-child relationships, cultural competence of staff, and creating a safe place (Again, here is one of Maslow's prized terms – a safe place.) (Murray & Milner, 2015). Corresponding with these findings, Murray and Milner (2015) found after school programs appeared to be particularly helpful for minority students who are African American – this is will come to light later in this chapter when after school programs meeting diverse students' needs are discussed. After school programs should meet the social, cultural, and academic needs of this cohort of students making them essential in the role of academic achievement. Murray and Milner (2015) arrived at these conclusions after visiting an urban after school program that has been implemented over the course of three decades and has engaged and supported African American middle and high school students who identify at living below the poverty line. Although their study was explicatively about African American students, the findings of their study are applicable to the general population of after school program attendees as well.

By the same token, involvement in an outside school activity has been seen as an effective way to help students become all-around better members of society. This has been noted as one of the many reasons why after school programs and after school activities exist –

participation leads to positive outcomes. In an additional study, Gordon et al. (2016) evaluated whether after school programs could provide social and emotional learning through teaching personal and social responsibility. The students that took part in this study were disengaged middle school boys who were at risk for dropping out of school. Gordan et al. (2016) found that implementing social and emotional learning through teaching personal and social responsibility during after school programs were positively correlated with optimistic outcomes for these at-risk students.

Qualities of after school programs are also important with respect to best practices. While discussing the implementation of quality after school programs, understanding stakeholders' opinions are important because they are responsible for funding after school programs. Paluta et al. (2016) examined stakeholders' opinions regarding the quality of after school programs as it relates to positive student outcomes. These authors understand the challenges that educators face in equipping students for a future in a multifaceted world and globalized economy. The stakeholders' perceptions were that parental engagement is significant and this should be an area in which program developers should consider in order to have a strong after school program (Paluta et al., 2016). Moreover, student development strategies, facilities, space, and equipment were also imperative in the discussion of quality after school programs.

Engagement from parents and staff is important in relation to implementing quality after school programs (Gordon & Cui, 2014). However, community poverty can make it more difficult for successful interactions to happen and can impair students' academic achievement (Gordon & Cui, 2014). This is because often students living in poor communities often have ill-educated parents who are unable to provide efficient support in helping with their child's homework, participating in school-related activities, and assisting them with school-related projects (Gordon

& Cui, 2014). For this reason, several bodies of literature exist, and some will be explained below that have examined the theory, benefits, and factors associated with parent involvement during the after school hours. Research has shown that teachers with higher degrees, more education in engaging parents, and more years in the classroom or after school program have higher success in creating welcoming environments. To further examine the phenomenon, Malm et al. (2017) used a theory proposed by Hoover Dempsey and Sandler's called a Five-Level Theoretical Framework. Two studies took place and the purpose of study one was to examine the factor structure of a measure of parental engagement developed and to test how after school programs site factors were associated with parent engagement in the program (Malm et al., 2017). The participants were 26 elementary school-based after school program sites across four school districts in a Midwestern city (Malm et al., 2017). The authors found that after school programs tend to be common in low-income, inner-city communities. This was significant and addressed the case of the need in evaluating after school programs in at-risk-youth. A total of 257 parents completed a survey when picking up their children from the after school program while two trained assessors collected data on program quality. Additionally, the purpose of study two was to confirm the factor structure of parent engagement and participation factors found in study one. Data was collected from nine elementary after school program sites in a large Midwestern city. Participants totaled in at 154 that completed surveys. The parent survey was the same as study one but was updated. The results from both studies confirmed that parent engagement and parent participation are important in promoting optimal successful after school programs.

By examining the previous literature, it is chief that after school programs help youth develop a sense of agency; thus, making a difference in the world. Not only has parental and

staff engagement been proven to be significant in after school programs, but according to Zimmerman et al. (2018), the community involvement might also play a large part. The authors developed a program called the Youth Empowerment Solutions program that was focused on skill and confidence-building activities to help youth think critically about their connection with their community and foster participation in designing and implementing a community change project (Zimmerman et al., 2018). This study employed an evaluation of this program by utilizing 367 middle school youth from a Michigan school district. A pre-test post-test design was used for measurement and descriptive statistics for all study measures were reported. The authors found that students who participated more in the program reported more phycological empowerment and prosocial outcomes and less antisocial outcomes than their counterparts (Zimmerman et al., 2018). Also, another example of improving and implementing a successful after school program can be found in the Iachini et al. (2017) article that has discussed the implications of maximizing the contributions to after school programs through their recognized and successful program called Girls on the Run.

Up to this present time, after school programs have been examined by Sanders et al. (2019) in regards to students' mental health needs. Just like Maslow's Hierarchy of Needs that was previously discussed, students can benefit in after school programs by targeting their personal, social, and emotional needs. This was significant in that anxiety disorders are the most common forms of diagnosed mental health issues found in children and adolescents (Sanders et al., 2019). The authors of this study evaluated an after school program that integrated a computerized cognitive behavioral therapy software program that was called Camp Cope-A-Lot. Students were assigned either in the treatment or control group and it was found that Camp Cope-A-Lot may ease the symptoms associated with anxiety or other behavioral problems. The

findings of this study were of significance because after school programs should strive to promote inclusive environments, so optimal outcomes may be retained in regards to academic achievement. While talking about after school programs and mental health, it should be important to look at the findings presented in the article by Hedemann and Frazier (2017). These author's study was focused on mental health promotion within an after school music program. The focus was on the youth's mental health needs and examined the feasibility of social-emotional activities delivered. One hundred sixty-two youth participated in activities, while 61 students and their parents provided the researchers with information on mental health needs (Hedemann & Frazier, 2017). The findings were that anxiety and depression systems were high and the students reported high satisfaction with the after school music programs providing social developmental skills (Hedemann & Frazier, 2017). Additionally, Plath et al. (2016) examined an after school program for young children with disruptive behaviors. The program was a school-based early intervention program called "Got it!" The results from this study found to be helpful to students who have early-onset conduct problems. The program incorporates universal and target components for children between the ages of five to eight years old with emerging conduct problems (Path et al., 2016). A mixed-method research design was implemented to gather data that included a pre- and a post-invention for 60 families who completed the targeted intervention as well as qualitative data that was the result of parent and guardian interviews (Path et al., 2016). Their findings presented were that 85% of children had improved overall grades and the delivery of the program was supported by engagement with families who would not otherwise be able to access these types of services (Path et al., 2016). This proves that the relationship between health and education is a fundamental component of after school programs.

This is to say after school programs have been used as a tool for academic success as long as best practices are implemented amongst the literature. Davis and Singh (2015) even investigated whether or not after school programs could be used as a form of high school credit for student participation. The researchers conducted focus groups with 43 students and interviews with 24 teachers and after school mentors as well as one college admissions director (Davis & Singh, 2015). The stakeholders believed that students could earn the credit by providing a trustworthy record of the skills and achievement that students gain through their participation; however, providing credibility to external audiences such as colleges and employers presented to be challenging because these individuals must be familiar with the program. Although after school programs may be able to be potentially used for high school credit, it seems as if after school programs are not quite there yet.

Geographic Location

To understand geographic location, one must first understand the meanings behind rural, suburban, and urban. Although these terms are often "thrown around" when discussing geographic location, individuals may have a hard time distinguishing between them. For this reason, rural has been defined as a countryside or location outside towns or cities; suburban has been defined as a mixed-use or residential area existing either as part of a city or urban area or as a separate residential community within commuting distance of a city; and urban has been defined as the region surrounding a city. Studying the geographic location of students in research has been a common phenomenon amongst educators who wish to analyze the impact of students' environments and how it impedes their academic success (Welton et al., 2016; Grigoriev et al., 2016; Jocson, 2018). Researchers have emphasized the need for teachers to be prepared to meet the needs of students regardless of their geographic location (Magaldi et al., 2018). This was

particularly true when addressing the need for school districts to provide sufficient resources for teachers to be able to help students succeed emotionally, personally, and academically. Far more than often, schools that are located in rural school districts have less funding than schools that are located in suburban and urban settings. For example, Wang et al. (2019) discussed in their journal article the lack of digital educational resources in rural school districts. When parents are choosing what schools their child should attend, educational quality is playing a significant role in their decision process. Rhodes and Warkentien's (2017) journal article discussed the challenges that parent(s) may face when living in an area where their child may not be eligible to attend their chosen school due to "zoned" geographic location; thus, resulting in the child being placed in a school that meets their expectations. Ultimately, this can create educational inequality among geographic locations because some students may be able to attend these "educationally equipped" schools based on special circumstances regardless of geographic location. Overall, one can gather that the discussion of geographic location is significant to any educational study.

Ethnicity

The United States Census Bureau reported in 2011 that a majority of births during this year resulted in the child being Latino, Asian, mixed-race, and/or African American (Cheng, Goodman, & The Committee on Pediatric Research, 2015). Additionally, Cheng et al. (2015) projected that by 2019 fewer than half of all children will be White, non-Latino and by 2050 it is expected to drop to 36%. The role that socioeconomic status has played in academic achievement has not gone unnoticed – it a worldwide phenomenon. For example, Berger and Archer (2018) found an association between students' socioeconomic status and their academic achievement goals. The authors completed focus groups of students who were attending a high and a low socioeconomic school in New South Wales, Australia. However, while wanting to

maintain multicultural competence about the topic of after school programs, one should understand that the relation between socioeconomic status and academic achievement may vary across different socio-cultural contexts (Liu et al., 2019), but after school programs have been known to be beneficial to students from all different backgrounds. More specifically, diverse students' needs have been discussed in the related literature regarding the implementation of after school programs. Interestingly, an abundance of literature exists regarding Latino, Japanese, and Chinese students. The findings of after school program significance, socioeconomic status, minority status, and academic achievement will be addressed in each subheading in relation to minority groups.

Interestingly, Park et al. (2015) examined the relationship between after school programs, academic outcomes, and behavioral developmental outcomes of Latino children from immigrant families. The highlights from this study were that there were no differences found between after school programs and non-after school programs on Latino children's behavioral problems and academic grades (Park et al., 2015). Additionally, gender and age were significantly related to children's academic and behavioral development and children from poor families exhibited more behavioral problems (Park et al., 2015). The major conclusion of this study was that after school programs need to be modified to meet the cultural needs of Latino children (Park et al., 2015). Overall, after school programs will function best when the programs' goals and logic models are set up and their key components are addressed. This is especially true in regard to structured supervised settings that are safe with high-quality experienced staff that administer meaningful activities, positive instruction, and involvement with communities and families (Park et al., 2015). This is just one of many studies that discuss the implications of afterschool programs and Latino children (Tichavakunda, 2019; Toyokawa & Toyokawa, 2019).

In the article by Kanefuji (2018), Japan's policy and procedures for after school programs are discussed. Interestingly, unlike the United States, the Japanese government calls theirs after school programs "community partnerships" (Kanefuji 2018). The author implies that these community partnerships are important in common effort to preserve future educational policies around the world (Kanefuji 2018). As a final point, Kanefuji (2018) reported that currently 1.22 million children attended after school programs in Japan, and they hope to increase this number to 1.5 million by the 2019-2023 fiscal years.

Next, China et al. (2016) evaluated the significance of after school programs in relation to helping Chinese students of migrant workers. The researchers completed qualitative research in order to explore after school programs in China. It was found that after school programs are particularly beneficial to Chinese vulnerable young people in providing successful outcomes. Chinese schools have been the topic of many articles in discussing after school programs and their use of being a resourceful tool in closing the achievement gap. Additionally, China is a developing country, and a large number of students are in basic education that is unified by the Ministry of education. Liu et al. (2019) expressed in their article how socioeconomic status is one of the main factors that influence academic achievement.

Additionally, Chung et al. (2017) examined Chinese students and socioeconomic status. However, their study specifically focused on early academic achievement in executive functioning and verbal interactions. Their overall findings were that a strong association does exist between socioeconomic status and academic achievement. Not only has after school programs been influential to this cohort of students but perhaps when evaluating after school programs, more attention should be given to students that are from strong racial and ethnic backgrounds.

Trends in Other Minority Groups

While seeking to understand how after school programs influence students in minority students, an abundance of literature exists regarding after school programs that are science, technology, engineering, and math inspired (Cutucache et al., 2016; Hargrave, 2015; Rochera et al., 2019). After school programs that are rich in science, technology, and math have been extremely beneficial to African American students in preparing them for post-secondary education (Hargrave, 2015). However, in a more recent article, when talking about students in general and their role in participating in science and technology activities, a drop of students choosing professions related to these knowledge areas is sparse (Rochera et al. 2019).

Poverty Status. Additionally, if students are made aware of science and technology and participate in related activities during after school programs, then they will be more likely to choose promising careers that spark specifics interests (Rochera et al. 2019). The author's Cutucache et al. (2016) provide an example of how after school programs can be used as a tool to improve the achievement of socioeconomically disadvantaged youth in science, technology, engineering, and math driven after school programs. However, according to a brief article provided by Editorial Projects in Education (2016), for African American families in poor communities, 27% present of black students participated in after school programs and 71% said they would attend such programs if they were available.

Historically race and ethnicity disparities in relation to academic achievement by poverty status have been a common trend in the literature for years (Paschall et al., 2018). One of the challenging processes of implementing after school programs is increasing engagement among adolescent youth, especially during middle and high school (Pelcher & Rajan, 2016). Additionally, other barriers include staffing, funding, resources, transportation, and space – these

faults can be even more challenging in areas of low socioeconomic status (Pelcher & Rajan, 2016). However, Editorial Projects in Education Inc. (2015) believed that schools can learn money-management skills they need to keep after school programs afloat. A study conducted by the Wallace Foundations that lasted four years examined two different fiscal-management training models at 25 Chicago nonprofits running after-school programs (Editorial Projects in Education Inc., 2015). One group received expensive and customized training while the other received modest, group-oriented professional development in financial management (Editorial Projects in Education Inc., 2015). Results were gathered and it was concluded that "long-lasting improvements" in both groups regarding money management skills (Editorial Projects in Education Inc., 2015).

After school programs have been known to promote positive youth development across a range of outcomes if organized efficiently. The establishment of high-quality standards is imperative in successful after school programs and literature suggests that the National Research Council's Committee on Community-Level Programs for Youth. Moreover, Simpkins et al. (2017) implemented a study designing culturally responsive organized after school activities. Literature exists regarding the significance of after school programs, yet little research exists regarding the growing ethnic and racial diversity within the United States. The proposed framework by Simpkins et al. (2017) suggested that culturally responsive organized activities in after school programs require continued specification through studies using quantitative and qualitative methods. According to Simpkins et al. (2017), these culturally responsive activities should aid this cohort of students by utilizing a universalistic approach, ethnic-specific approach, or model of multiculturalism. For this reason, Smith et al. (2017) completed research at 500 elementary schools where there participates were 49% White, 27% African American, 7%

Latino, and 17% mixed race. The authors of this study found that after school programs foster positive youth development when appropriately structured to engage in supportive interactions.

Cappella et al. (2018) examined after school programs in low-income communities of Latino and African American youth with and without social behavioral risk in regard to academic outcomes. The authors of this study performed multi reporter methods and multilevel analyses to gather data that led them to find a positive classroom ecology positively predicted academic skills and self-concepts across one year (Cappella et al., 2018). Students with social behavioral difficulties showed higher levels of academic skills when compared to students without social behavioral difficulties. However, students did not seem to differ in regard to the ecology of fall and spring academic engagement. Yet, students with initial social behavioral risk were more academically engaged in classrooms with positive ecology. Overall, the results suggest that after school classroom instructors should promote supportive interactions, which in turn will advance academic outcomes for youth.

ELA and Minority Students. When an individual first hears the term "minority student," an individual first associates the term with limited ELA proficiency. Individuals are also more than likely aware of the Test of English as a Foreign Language (TOEFL), which is a standardized test that measures mastery of the English Language. In the United States, representatives in education have made it a requirement that students take a course in another language that they are currently not proficient in. Lasagabaster (2017) discussed in his study that students learning other languages is also important in other counties as well – more specifically, in Spain. Immigrants have increased the demand for students to require a second language, and over the past decade, an influx of immigrants to society has made employers more readily to hire potential applicants who are proficient in other languages (Lasagabaster, 2017). Historically,

research amongst authors concerning ELA, minority students, academic success, and culturally competent responsiveness has always been a common phenomenon in journal articles (Coffey & Farinde-Wu, 2016; Martinez, 2017). This has been found particularly true when understanding the role that ethnicity plays in ELA development. For example, Greenfader et al. (2015) studied the oral language skills of young English learners who were from immigrant families. Their study emphasized that school districts with a high population of minority students (i.e. Hispanic or Asian) have language assistance programs within their schools to better aid this cohort of students. Overall, two key components of ELA and minority students are that (1) Greenfader et al. recognized that a child's English oral language skills in the early elementary years are critical to his or her future English reading comprehension and academic success, and (2) Bellows (2019) noted that students immigration status may affect student achievement through stress, income effects, or student mobility. Multicultural competence is also an important factor to consider when reflecting on minority students and ELA success. For this reason, Gu (2018) discussed in their study the importance of developing teachers' awareness of their cultural practices in relation to those of students as well as their ability to empower students to resist cultural hegemony. Reaching out to students swiftly with ELA difficulties and providing help at an early age is important in striving to close the achievement gap amongst these students (Relyea & Fitzgerald, 2018). As a final point, minority student data has been shown to be particularly important when evaluating state assessment data because understanding minority students' data helps educators close the achievement gap amongst these individuals (TN Department of Education, n.d.-c).

The Significance of Title I Schools

Title I of the Elementary and Secondary Education Act of 1965 was passed in order to improve the academic achievement of the disadvantaged (U.S. Department of Education, 2004). Its purpose was to ensure that all children have fair, equal, and significant opportunities to reach a minimum proficient on challenging state academic achievement standards (U.S. Department of Education, 2004). Title I has been labeled as the largest federally funded education program for elementary and secondary students, and without this funding, many schools would not be able to provide their students with these services. More so than often, the development and implementation of after school programs in Title I schools have been the result of Title I of the Elementary and Secondary Education Act of 1965 that was passed. More importantly, the study of Title I schools and their significance has played a major role in research numerous research studies because it acts as part of a mathematical equation for measuring outcomes of economically disadvantaged students (Ostayan, 2016; Bean et al. , 2018; Glewwe et al., 2018). Overall, Title I programs help schools maintain or initiate programs that target specific students. These programs may be particularly useful in closing the achievement gap.

Summary

Studying and understanding how humans learn has been a topic amongst theorists for decades. It can be said that after school programs are grounded in B.F. Skinner's theory of behaviorism and Abraham Maslow's Hierarchy of Needs. First, behaviorism can be used to understand the drive or motivation behind students' actions. It also acts as a buffer in explaining how students' behaviors impact their educational outcomes. Second, Malow's Hierarchy of Needs has best been used to understand human needs. It should be best understood that students from low socioeconomic backgrounds will lack in some or if not all of these needs -

physiological, safety, love and belonging, esteem, and self-actualization. These are just two of many other theorists and theories that may be used to explain the construction of after school programs and their significance. The related literature in this chapter left one to discover an abundance of scholarly information surrounding the main themes of (1) economically disadvantaged schools or at-risk students and academic achievement; (2) after school program participation; (3) geographic location; (4) and the significance of Title I schools. Even so, after examining the presented literature, one can conclude that studies examining the effects of after school programs and their significance amongst students who are of low socioeconomic status regardless of geographic location are sparse. Most researchers have failed to recognize the tether between social class and academic achievement. The trends in the literature suggest a need for continued research in the topic of after school programs and academic achievement because possessing the necessities for closing the achievement gap has continued to be a topic amongst educators and there is not a "one size fits all" answer.

Although the significance in literature may seem mixed in the outcomes it provides (Benner et al., 2016), there is no doubt that the topic of after school programs is a trending topic amongst educators. Understanding and interpreting the data found in the literature is important. This dissertation is similar to an analysis conducted by Sparks (2018) in that Sparks (2018) collected and analyzed data in a Tennessee school district, Sparks (2018) noted that detailed student data is helping Nashville's programs work in sync with public schools. Thus, understanding that sharing data helps the district responding more quickly to changing needs (Sparks, 2018). In all, this literature review has explained the significance after school programs and the effects of socioeconomic status on academic achievement in its entirety by analyzing the most recent literature surrounding the topic. This dissertation wishes to further explain the ideas

of the effects of an after school program on at-risk elementary students by examining students' academic achievement.

CHAPTER THREE: METHODS

Overview

The purpose of this predictive, correlational study was to determine how accurately TCAP ELA achievement scores can be predicted from a linear combination of LEAPs participation, geographic location, and CEP participation at Title I elementary schools in Tennessee. This study has entailed a multiple linear regression as an analysis whereas the predictor variables were LEAPs participation, geographic location, and CEP participation. Additionally, students who are located in a rural school district or enrolled in a Title I school tend to have a greater probability of being labeled as at-risk (Horn & Carroll, 1997). This chapter has revolved around the tenants of design, research questions, hypothesis, participants and settings, instrumentation, procedures, and data analysis.

Design

The design that has been utilized in this research was a predictive, correlational research method using multiple regression analysis to determine the impact of these predictor influence academic achievement in Title I elementary schools. A correlational design should be used when the researcher wishes to understand what kind of relationships naturally occurring variables have with one another (Gall et al., 2007). To put more simply, correlational research aims to determine if two or more variables are related and, if so, in what way. Interestingly, variables are often seen as topics of interest that can take on many different values. The criterion variable was *TCAP ELA achievement scores* while the predictor variables were *LEAPs participation, geographic location, and CEP participation*. The definitions were important in the discussion of the studies design; therefore, their explanations were significant in this chapter.

Definitions

TCAP

The TCAP was defined as a statewide assessment that was mandated by the 1992 Tennessee Education Improvement Act as a way to collect extensive data on students and to evaluate assessment scores across the state of Tennessee (Leuthold, 1999). The TCAP ELA score was measured by accessing the publicly available file located on the Tennessee Department of Education website where students in third through eighth grade scores were reported together as one sum (percentage) and represented individually for each school for the 2018-2019 school year.

Academic Achievement

Academic achievement was defined as marked completion of one's educational goals or achievements, in which, an example of this may be made by interpreting and evaluating students' standardized tests' scores (Mertens & Anfara, 2006). Academic Achievement was measured by looking at the percentage of reported "on mastered" ELA scores for each school, which consisted of students in third through eighth grade.

LEAPS

LEAPs was defined as an after school program that is implemented all over the state of Tennessee, and it is funded by unclaimed lottery winnings in the state of Tennessee. LEAPs had over 200 locations during the 2018-2019 school year, and LEAPS is implemented in schools, community-based organizations, faith-based organizations, and charity-based organizations. However, LEAPs seem to be more prevalent in Tennessee elementary schools where students are at an economically disadvantage such as classified Title I schools (TN Department of Education,

2016b). LEAPs participation was measured by obtaining a list of schools that were enrolled from the 2018-2019 school year by contacting the director of LEAPs.

After School Programs

After school programs were defined as programs that take place during the after school hours, and these programs promote personal/social development, academic development, and career readiness (National Youth Violence Prevention Resource Center, 2001). These programs must include an academic component and participation is voluntary, although students may be required to participate under certain circumstances (i.e. to avoid retention in grade) (Community Preventive Services Task Force, 2015).

Geographic Location

Geographic location was identified by the status set forth by the National Center for Education Statistics (NCES) (n.d.) as city, suburb, town, and rural. The geographic location for each school was measured by using the software provided by NCES and entering in each school individually and recording their location.

City, Suburb, Town, Rural. Additionally, in 2006, the NCES worked with the Census Bureau to create a new local classification system. According to the NCES website, a city was described as a territory inside an urbanized area inside a principle city. Suburb was described as territory outside a principle city and inside an urbanized area. City and suburban were further divided up by size (large, midsize, and small). Large was a population of 250,00, midsize was a population less than 250,000, and small was a population less than 100,000 (National Center for Education Statistics, n.d.). Finally, town was described as a territory inside an urban cluster, and rural was described as census-defined rural territory. Town was considered fringe (less than or equal to 10 miles from an urbanized area), distant (more than 10 miles and less than or equal to

35 miles from an urbanized area), or remote (more than 35 miles from an urbanized area), and rural was considered fringe (less than or equal to 5 miles from an urbanized area and less than or equal to 2.5. miles from an urban cluster), distant (5 miles but less than or equal to 25 miles from an urbanized area and 2.5 miles but less than or equal to 10 miles from an urban cluster), or remote (25 miles from an urbanized area and 10 miles from an urban cluster) (National Center for Education Statistics, n.d.).

CEP Participation

The CEP was defined as a non-meal pricing service option for students and school districts in low-income areas (USDA Food and Nutrition Service, 2019). Schools that adopt CEP are reimbursed using through programs such as the SNAP and TANF. CEP participation was measured by using the database provided on the USDA Food and Nutrition Service website, selecting Tennessee as the state, and then using their list of schools that reported "yes" as participation and "no" as participation for the 2018-2019 school year. The CEP allows for school districts to serve breakfast and lunch at no cost to students without collecting household applications.

Economically Disadvantaged Students or At-Risk students

Economically disadvantaged students or at-risk students was defined as students who are located in areas that have high rates of poverty and households of low-socioeconomic status (National Center for School Engagement, n.d.; McCann & Austin, 1988). Additionally, these students may be thought of as "problem students" and exhibiting behaviors such as skipping school or missing school excessively, displaying disruptive behavior, bullying or harassing other students, and fighting (National Center for School Engagement, n.d.). These students are often low-income and of minority status (Knopf et al., 2015).

Title I Schools

Title I schools was defined as schools that receive extra assistance in federal funds due to large numbers of low-income students, which in turn assists in helping students reach their educational goals (Johnston & Martelli, 2019). Title I schools was measured by obtaining a list located on the Tennessee Department of Education's website of Title I schools that were recorded as being Title I for the 2018-2019 school year.

Significance

Understanding the definitions that make up this study has been imperative and significant in understanding the foundation of this study. The after-school program sets this study apart from other studies in that LEAPs is federally funded by unclaimed lottery winnings. Grants are awarded to community-based, faith-based, and charity-based organizations in addition to school districts.

Research Question

This study attempted to answer the research question that was stated below.

RQ1: How accurately can TCAP ELA achievement scores be predicted from a linear combination of LEAPs participation, geographic location, and CEP participation at Title I elementary schools in Tennessee?

Hypothesis

The null hypothesis for this study was:

$H_0$1: There is no significant predictive relationship between TCAP ELA achievement scores and the linear combination of LEAPs participation, geographic location, and CEP participation Title I elementary schools in Tennessee.

Participants and Setting

The researcher examined the impact of TCAP ELA achievement scores amongst 100 Title I elementary schools that participated in LEAPs and 100 Title I elementary schools that did not participate in LEAPs. The purpose of Title I is to support school districts and to improve teaching and learning for students in high-poverty schools, so that these students meet the state's challenging content and performance standards. The research utilized data from the 2018-2019 school year. This means that elementary schools must have identified as Title I; disclosed as participating or not participating in LEAPs; disclosed their geographic location; and disclosed their CEP participation during the 2018-2019 school year. Although the TCAP ELA component is given to third, fourth, fifth, sixth, seventh, and eighth graders, this research specifically examined primarily elementary school students. It was important to note that some elementary schools in the state of Tennessee expand beyond fifth grade. There are 147 districts in the state of Tennessee, and 1,758 schools in the state of Tennessee. Of the 1,758 schools in Tennessee, 176 were Title I schools and 836 were CEP adopting. Title I schools that received extra assistance in federal funds due to large numbers of low-income students, which in turn assists in helping students reach their educational goals (Johnston & Martelli, 2019).

Table 1
Information on Schools in Tennessee

Demographics	Number
School Districts in TN	147
Schools in TN	1,758
Title I Schools in TN	176
CEP Adopting Schools	836

Note. TN = Tennessee; CEP = Community Eligibility Provision.

The researcher gathered the data that was available for public use on the Tennessee Board of Education as well as the NCES website. This included a list of Title I elementary schools found on the Tennessee Board of Education website; a list of economically disadvantaged schools that participate in CEP as identified by the Food Research & Action Center (FRAC) data base; and the geographic location reported on the NCES website. The researcher emailed the state's director of LEAPs and obtained a list of schools and organizations that were enrolled in LEAPs for the 2018-2019 school year. To achieve a medium effect size and statistical power of .7 at the .05 alpha level, the researcher gathered data on 256 Title I elementary schools (Gall et al., 2007). The researcher gathered TCAP ELA scores by taking the average of scores that was reported by the Tennessee Department of Education for the 2018-2019 school year. The sample demographic entailed a total of 200 Title I elementary schools with 100 that participated in LEAPs and 100 that did not participate in LEAPs. It should be noted that although 128 Title I elementary schools participated in LEAPs during the 2018-2019 school year, the researcher omitted 28 school due to the commonality of the schools' names and the inappropriateness of being able to distinguish the school. The researcher obtained a list from the director of LEAPs, who was in charge of LEAPs for the state of Tennessee. The researcher was able to see what schools participated in LEAPs for the 2018-2019 school year (See Appendix B); so, the researcher was able to distinguish between what Title I schools did not participate in LEAPs. The students' grade level was in the range from third grade to eighth grade because this is the cohort of elementary school students that take the ELA component of the TCAP. Throughout this discussion and to maintain autonomy, the students' names, schools' names, and the districts' names remained confidential. For the sample, 100 Title I elementary schools participated in LEAPs and 100 Title I elementary schools did not participate in LEAPs. One hundred and one

have adopted CEP, and 99 have not adopted CEP. Additionally, in regards to geographic location, 55 were city, 26 were suburb, 17 were town, and 102 were rural. Please see Table 2 for a depiction of demographic data (See Table 2).

Table 2
Demographics for Sample

Demographics	Number
Title I Elementary Schools	
LEAPs	100
No LEAPs	100
CEP Adopted Schools	101
Non CEP Adopted Schools	99
Geographic Location	
City	55
Suburb	26
Town	17
Rural	102

Note. LEAPs = Lottery for Education After School Programs; CEP = Community Eligibility Provision.

Figure 1
A Depiction of the Title I Elementary Schools that Participated in LEAPs

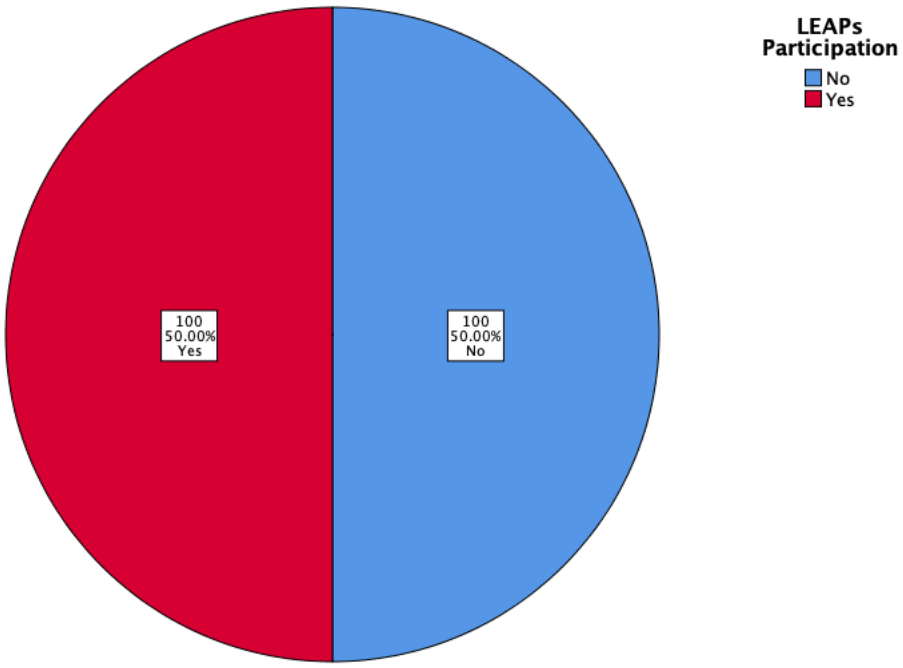


Figure 2

A Depiction of the Geographic Location of the Title I Elementary Schools

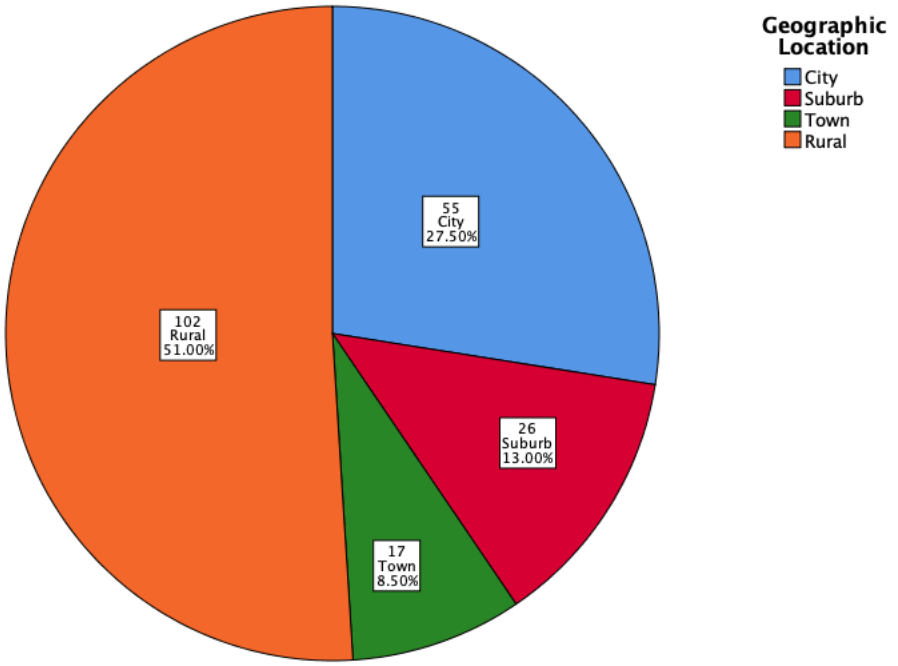
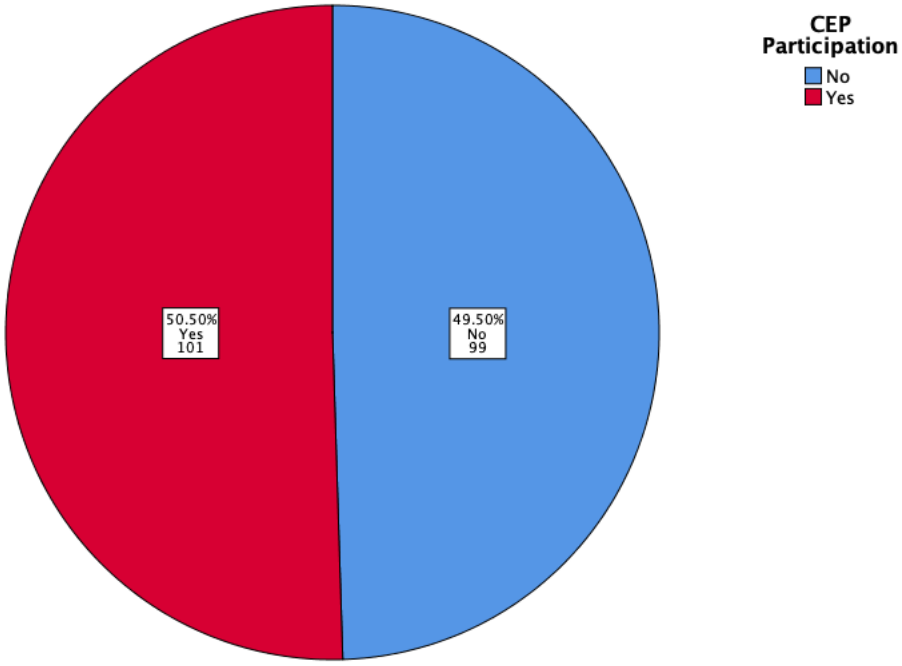


Figure 3

A Depiction of CEP Participation of the Title I Elementary Schools



Participant Selection

Title I elementary schools did not actively participate in this study. Instead, Title I elementary schools' publicly available data was explored. The participants' data for this study was drawn from a convenience sampling method because the researcher wished to obtain basic data and trends. Title I elementary schools that participated in LEAPs and Title I elementary schools that did not participate in LEAPs was chosen by random sampling in order to reach 100 schools to equally represent each group for a total of 200 schools. The researcher ensured that the elementary schools were adequately represented by choosing elementary schools that equally participated in the after-school program and did not participate in the after school program. Additionally, both groups of these elementary schools have met the standards set by the state to qualify at Title I. Schools were chosen during the Fall semester of the 2018-2019 school year, with 200 Title I elementary schools participating in the study – 100 that did participate in LEAPs and 100 that did not participate in LEAPs. Additionally, TCAP scores were analyzed from the Spring 2019 semester since the administration window is from April 15 – May 3, and the researcher began analyzing the data early May of 2020. To achieve a medium effect size and statistical power of .7 at the .05 alpha level, the researcher gathered data on 256 Title I elementary schools (Gall et al., 2007). The students' grade level was in the range from third grade to eighth grade because this is the cohort of elementary school students that take the ELA component of the TCAP. The sample's demographic entailed 100 Title I elementary schools that did participate in LEAPs and 100 Title I elementary schools did not participate in LEAPs. One hundred and one have adopted CEP, and 99 have not adopted CEP. Additionally, in regards to geographic location, 55 were city, 26 were suburb, 17 were town, and 102 were rural. Please see Table 2, *Figure 1*, *Figure 2, and Figure 3* for a depiction of demographic data. These groups will

be identified as naturally occurring because the groups are already groups.

Title I Elementary Schools Who Did Not Participate in LEAPs

Pinpointing other activities that Title I elementary schools may offer that are not involved in the after-school program is nearly impossible. This is because there are so many Title I schools in different districts and cities – providing a list of all the activities that elementary Title l schools offer would be exhausting. For this reason, Title I elementary schools may offer many other after activities during these hours – some may even offer alternative after school programs or no programs at all. While reflecting on the past literature, on what one has learned up to this point about what activities that individuals who do not participate in the after-school program may be involved in, one may speculate that these students are not using their time optimally in relation to the critical developmental years in adolescence (Mahoney & Parente, 2009) and are participating in sedentary activities (Engelen et al., 2015). The sedentary activities that students may be involved during after school hours may be reading, socializing, watching television, playing video games, or using a mobile phone/computer for several hours. It was important to note that these notions are not an all-inclusive list and are simply broad categories that have been mentioned by researchers (Mahoney & Parente, 2009; Engelen et al., 2015). To what extent some of these activities may be educationally related, it was thought to be unknown. Consequently, students who do not participate in after school programs that are in areas of low-socioeconomic status are thought to suffer more academically than their counterparts that do participate in the after school program (Halpern, 2003).

Instrumentation

With the enactment of the NCLB in 2002, accountability and statewide assessment requirements were dramatically increased for all states. Under NCLB Title I, a state must

develop academic content standards in the core academic areas, measure those standards, and define student proficiency levels in the core subjects (Tennessee Department of Education, 2018). Under these circumstances, the TCAP was the instrument used in this study and has been in use since 1988 (Tennessee Department of Education, 2018, p. 20). The TCAP assessed what students know and are able to do according to the state's standards, from elementary through high school, and in the content areas of math, ELA, science, and social studies. Students in grades fifth through eighth take the TCAP on a computer, while students in grades third through fourth grade take the TCAP on paper. The validity of the TCAP can be traced back to the development of the states' academic standards that have been set forth by Tennessee's Board of Education, which is consistently evaluated at a minimum of every six years (Tennessee Department of Education, 2018). These standards are the foundation for the TCAP because the job of the TCAP was to evaluate annually how much information students have learned in regards to math, ELA, science, and social studies achievement. When recognizing the reliability of an instrument, it was important for the researcher to locate a research statistic that validates the significance of their instrument (i.e. Cronbach's alpha). Questar, a testing service, was contracted by the Tennessee Department of Education to provide operational and reporting services for their already developed and administered TCAP. Questar, alongside Educational Testing Service (ETS), was contracted to provide all psychometric analyses and services for this test. According to their technical report provided in a Word Document by the Director of Data Use for the Tennessee Department of Education, during the spring of 2019, Cronbach's alpha for ELA was reported in at 0.87-0.90 for all students, which indicative of reliable instrument.

Additionally, in regard to the testing instrument itself, the TCAP has been determined to be reliable and valid as an assessment instrument by ETS, which established the face validity of

this summative measure of academic achievement (Educational Testing Service, 2019). In the state of Tennessee, 630,000 students have tested annually (Educational Testing Service, 2019) and ETS acts on a seven-step question selection procedure to ensure the reliability and validity of their instrument. ETS also houses state assessments for Tennessee's neighboring state, Virginia, as well as for the state of California and Texas. Scantron Performance Series Technical Report (n.d.) examined the concurrent validity of the TCAP as it relates to other state standardized assessments that are conducted around the US. The researchers found that the TCAP has a positive association between other standardized tests. For example, TCAP's reliabilities were calculated using Cronbach's alpha and ranged from $0.7<0.8$ across the board; thus, indicating a good and acceptable correlation of test reliability which indicates that measurement for error for this test is low (Scantron Performance Series Technical Report, n.d.). Interestingly enough, all standardized assessments that were reported in this study had a strong correlation with one another for the most part. By understanding this study, one can see that state assessments are comparable in that they tend to measure within the same properties to produce the same outcomes. As a final point, the norms for the TCAP were established in 1989 while Williams (1989) emphasized the reason behind that this norm-referenced model was created so that it has proper statistical characteristics of reliability; thus, ensuring adequate floors and ceiling and articulation across test levels. According to Shinkfield and Stufflebeam (1995), the significance of the TCAP can be compared to Tennessee's academic program in that the tendency of scores across the state of Tennessee will be approximate or slightly exceed the national norms in all subject areas and in grades. It is important to note that the material found within the TCAP is not the same every year and a limited number of items can only be carried over from one assessment to the next.

Additionally, the TCAP instrument has been used in numerous studies and the implications of utilizing assessment scores while conducting research have been proven to be paramount (i.e. Lee & Fitzgerald, 1996; Hopkins, 2005; Dennis, 2009; Miller et al., 2015). For example, Lee and Fitzgerald (1996) utilized Tennessee assessment scores in order to explore the relationship between student performance and certain aspects of school organization. The authors imply the significance of utilizing Tennessee assessment scores by stating that comprehensive student assessment test scores can be applied to examine an array of variables and in particular to this study, it was helpful to evaluate income, district size, and the extent of classroom crowding (Lee & Fitz, 1996). Additionally, a study that specifically utilized the TCAP was written by Hopkins (2005). In this study, the author examined the mathematics achievement of middle and high school students in Tennessee by assessing students' TCAP scores. Next, Dennis (2009) examined TCAP scores in regard to determining the significance of reading instruction. The author described in detail the worth of the TCAP and its service as an accountability device. Since the TCAP is a highly secured testing document, the Tennessee Department of Education does not give permission for the testing instrument to be printed for research purposes. In the most recent research regarding using the TCAP as a testing instrument, Miller et al. (2015) used the TCAP reading composite scores to measure the reading rate and comprehension curriculum-based measure to predict high-stakes achievement. The researcher utilized the TCAP because educators have always had an increased emphasis on standardized testing results (Miller et al., 2015). Finally, and even more recently, Pabilco et al. (2017) illustrated how TCAP scores have been used in the past to discuss the implications of providing differentiated instruction for students.

Overview of Testing in Tennessee

The TCAP was initially used in 1988 and is for students who are enrolled in grades third through eighth grade (TN Department of Education, n.d.-a). It includes domains that measure Math, English Language Arts, Social Studies, and Science. Alternate forms of this assessment are available for students with special needs such as Multi-State Alternate Assessment (MSAA) and Tennessee Comprehensive Assessment Program-Alternate (TCAP-ALT) (TN Department of Education, n.d.-a). To satisfy validity and reliability requirements, each item on the TCAP must address characteristics associated with curriculum standards for each grade level (TN Department of Education, n.d.-a). Additionally, the duration of the TCAP must be long enough to adequately measure these standards. The purpose and use of this assessment are to determine students' "true" understanding and just not basic memorization and understanding of Tennessee's state standards. The administration window for the assessment is April 13 through May 8 and raw data is provided to districts at the very end of the school year (TN Department of Education, n.d.-a). More importantly, the TCAP is valid and reliable in the sense that it aligns with curriculum standards and measures students' mastery of those standards, skills, and concepts (TN Department of Education, n.d.-a). Additionally, the test is scheduled to be administered before the end of the school year leaving room for scores to be reported in a timely manner (TN Department of Education, n.d.-a). Each school is responsible for administering the TCAP in their school with Local Education Agencies (LEAs) being responsible for training all personnel involved in the testing process. Proctors are also required in that they serve as additional monitors to help assure that the test is administered in a fair and ethical matter. Depending on the students' grade level, the data from the TCAP is sometimes used to help calculate final grades for report cards and state laws require TCAP scores to be included as a percentage of a student's

grade in grades three through eight. The duration for the TCAP varies on grade level; however, for the third grade, it takes approximately 180 minutes total; for the fourth grade, it takes 180 minutes total; for fifth grade, it takes 200 minutes total; for the sixth grade, it takes 230 minutes total; for the seventh grade, it takes 230 minutes total; and for eighth grade, it takes 230 minutes total (TN Department of Education, n.d.-a). According to the Tennessee Department of Education (2018), the TCAP is a standards-based, criterion-referenced test with items on the TCAP reporting on each subject using four levels that are as followed:

(1) Students demonstrate minimal understanding and nominal ability to apply the knowledge and skills as defined by the Tennessee Standards (Below).

(2) Students demonstrate approaching understanding and partial ability to apply the knowledge and skills as defined by the Tennessee Standards approaching (Approaching).

(3) Students demonstrate a comprehensive understanding and thorough ability to apply the knowledge and skills as defined by the Tennessee Standards (On Track).

(4) Students demonstrate extensive understanding and expert ability to apply the knowledge and skills as defined by the Tennessee Standards approaching (Mastered) (p. 70).

For the purposes of this dissertation, the researcher used the interpreted average of scores that was provided on the Tennessee Department of Education's website for each ordinal score. The researcher analyzed the cumulative raw interval/ratio score reported as "percent on mastered" for the TCAP ELA component for third through eighth graders. It should be understood that if students scored *below,* this means that the student did not answer enough questions correctly to satisfy the minimum Tennessee Standards requirements at that grade level.

The scale score range for these performance levels typically ranges from 200-450. The minimum scale score for each content area is 200 and the maximum scale score is 450 (the highest score for level 4). The exact number for these performance levels are recognized as "cut scores," and the exact number of these scores somewhat flex depending on the current years TCAP questions. Additionally, cut scores will vary among grade level and content areas of the TCAP. Furthermore, items on the TCAP go through multiple steps in the evaluation process before they are included in the preceding version. The department, teachers, and the test vending company create questions based on Tennessee's academic standards. These questions are then examined and evaluated – during this phase, the questions are subjected to be accepted, revised, or rejected. The questions are them complied by the educational department and the test vending company and are field-tested and reviewed for statistical validity before being added to the official assessment – TCAP (TN Department of Education, n.d.-a). The test items can range from multiple choice to written response or short answer. The Tennessee Department of Education scores the TCAP; therefore, their job includes receiving, scanning, and processing students' tests. By doing this, it shortens the time for reporting and saves the state millions of dollars each year by eliminating the cost of vendor scanning and initial scoring (TN Department of Education, n.d.a). However, the results are eventually sent to the vendor who produces score reports and makes them available to students, parents, systems, and schools (TN Department of Education, n.d.-a).

Predictor Variables

LEAPs Participation

LEAPs was developed and voted in by Tennesseans in 2002. The goal of LEAPs is to provide students with academic enrichment activities that reinforce grade completion. The

students who are enrolled in an after school program for this study will be enrolled in LEAPs. Unlike most after school programs that are for-profit, LEAPs are not-for-profit which means students do not have to pay to attend this program. According to the guidelines set forth by LEAPs, students must (1) be between the ages of 5-18 and be enrolled in elementary or secondary school and (2) 50% of students enrolled must meet one of the following: (a) qualify for free or reduced lunch, (b) be at risk of educational disadvantage and failure due to circumstances of abuse, neglect, or disability, (c) be at risk of state custody due to family dysfunction, (d) be enrolled in and attending public school, but failing to make yearly progress, (e) be attending a public school or public charter school, but failing to meet yearly progress as a result of parent choice, or (f) be at risk of failing more than one subject or grade level (by at least one year) (TN Department of Education, 2016b). "Students with special needs who attend targeted schools are eligible to participate in LEAPs Programs and agencies should plan accordingly; however, accommodating students with special needs should not cause undue hardship on program services to other participants" (TN Department of Education, 2016b, p. 7). All LEAPs must operate for 15 hours a week for a minimum of 180 days (TN Department of Education, 2016b) – hours are up to the discretion of school administrators. LEAPs participation from the schools was obtained by contacting the director of LEAPS for the state of Tennessee, who provided a list of schools that were awarded the grant for LEAPs during the 2018-2019 school year. The researcher was then able to use the public file on the Tennessee Board of Education website that lists schools that were classified as Title I schools for the 2018-2019 school year, and the researcher was able to determine what elementary schools corresponded with the list and what elementary schools did not correspond with the list.

Geographic Location

The NCES is known for providing reputable statistical data for schools and districts. This serves as an "evaluation arm" to the U.S. Department of Education. NCES strives to provide scientific evidence and to share this information in formats that are useful and assessable to educators, parents, policymakers, researchers, and the public. NCES provides education data sets, data tools, reports, educators practice guides, summaries of completed and in-progress research and evaluation projects, videos, infographics, and more. As a final point, NCES has a search tool where researchers may search for schools or districts and find out their geographical location as to whether they are considered city, suburb, town, or rural. City was described as a territory inside an urbanized area inside a principle city. Suburb was described as territory outside a principle city and inside an urbanized area. City and suburban have been further divided up by size (large, midsize, and small). Large was a population of 250,00, midsize was a population less than. 250,000, and small was a population less than 100,000 (National Center for Education Statistics, n.d.). Finally, town was described as a territory inside an urban cluster, and rural was described as census-defined rural territory. Town was considered fringe (less than or equal to 10 miles from an urbanized area), distant (more than 10 miles and less than or equal to 35 miles from an urbanized area), or remote (more than 35 miles from an urbanized area), and rural was considered fringe (less than or equal to 5 miles from an urbanized area and less than or equal to 2.5. miles from an urban cluster), distant (5 miles but less than or equal to 25 miles from an urbanized area and 2.5 miles but less than or equal to 10 miles from an urban cluster), or remote (25 miles from an urbanized area and 10 miles from an urban cluster) (National Center for Education Statistics, n.d.).

Economically Disadvantaged Schools and Community Eligibility Provision (CEP) Participation

To first understand what makes up economically disadvantaged schools, one must understand its underlying component – students. In the state of Tennessee, economically disadvantaged students are often classified as students who "are directly certified for specific state and federal assistance programs, and those who are identified as homeless, migrants or runaways" (Tennessee Comptroller of the Treasury, n.d., section economically disadvantaged students). These students are often eligible for free or reduced-price lunches and their families participate in the SNAP, TANF, or Head Start. To classify as an economically disadvantaged school, schools must meet the criteria set forth by the CEP. It has been a common practice to use eligibility for free or reduced priced meals as a key factor as determining measurement of economically disadvantaged students or schools (Domina et al., 2018; Viadero, 2018). The CEP is a non-pricing meal service for school districts that are located in low-income areas (USDA Food and Nutrition Service, 2019). Schools that adopt CEP are reimbursed using through programs such as the SNAP and TANF. This program allows the nation's highest poverty schools to provide breakfast and lunch to students at no cost to students (USDA Food and Nutrition Service, 2019). Schools must meet a certain threshold of poverty as measured by their identified student percentage. The FRAC (2019) obtained information from schools that have adopted community eligibility for the 2018-2019 school year from state agencies that administers the federal child nutrition programs. Federal guidelines required these findings to be published by May 1 of each school year, and the data for all 50 states and the district of Colombia can be found on the database (Food Research & Action Center, 2019).

Procedures

The researcher compared LEAPs participation, geographic location, and CEP participation to see if Title I TCAP ELA achievement scores can be predicted. The researcher wished to be granted consent from Liberty University's Internal Review Board (IRB). Once permission was granted (See Appendix A for IRB approval), the researcher was able to begin analyzing the public available data that was pertinent to this study and found on the Tennessee Board of Education website. The data for this study was drawn from the 2018-2019 TCAP, specifically for the domain of ELA. The data for Title I schools came from the 2018-2019 school year, and the list of schools enrolled in LEAPs came from the 2018-2019 school year. Two-hundred schools were chosen, and 100 have participated in the after school program and 100 have not participated in the after school program. A convenience sampling method was chosen because the researcher wished to obtain basic data and trends. The list of Title I schools is rather lengthy, so the schools that were chosen that did not participate in LEAPs were chosen via random sampling. Since all of the data is readily available for public use on the Tennessee Board of Education's website, the researcher did not need to contact anyone to be able to access the data needed for this study. However, an email was sent to the state's director of LEAPs to obtain a list of schools that participated in LEAP's for the 2018-2019 school year because this list is not available online (See Appendix B). These students that participated or did not participate in LEAPs were enrolled in third through eighth grade and between the ages of seven to 14 because these students are subjected to taking the ELA portion of the TCAP. Two-hundred Title I elementary schools represented the population, with 100 elementary schools that offered the after school program and 100 elementary schools that not did offer the after-school program. In order to participate in an after school program, students and schools must have met the criteria set forth

by LEAPs (TN Department of Education, 2016b) – see Participants and Setting. All variables were analyzed using Statistical Package for the Social Sciences (SPSS) and Excel to determine if the ELA TCAP achievement scores can be predicted by LEAPs participation, geographic location, and CEP participation. First, LEAPs participation was identified. The researcher took the 100 Title I elementary schools that participated in LEAPs and record it into an Excel sheet as yes ("1") for schools that participated in LEAPs. The researcher then gathered the 100 Title I elementary schools that did not participate in LEAPs and recorded it into an Excel sheet as no ("0") for schools that did not participate in LEAPs. These variables are classified as nominal. Second, geographic location was determined by the tool located on the NCES website. Title I elementary schools was reported by coding the Title I elementary schools' locations by city ("1"); suburb ("2"); town ("3"); and rural ("4"). These variables are classified as nominal. Third, CEP participation was coded as yes ("1") or no ("0"). The data was publicly available on the FRAC website; therefore, this is how the researcher accessed the data. The researcher analyzed CEP participation by selecting Tennessee as the state of interest and looking at corresponding Title I elementary schools. These variables are classified as nominal. Fourth, the researcher recorded the average cumulative reported "on mastered" TCAP ELA score for the cohort of students in third through eighth grade for each Title I elementary school into an Excel spread sheet. This information was publicly available on the Tennessee Department of Education's website. This level of measurement was classified as scale. Finally, an examination was made in SPSS, where the researcher completed appropriate tests to interpret the findings. During the data collection and interpretation stage, the data was stored on a password-protected computer and destroyed once the analysis was made and a successful dissertation defense was completed.

Data Analysis

For this study, the three predictor variables were present – LEAPs participation, geographic location, and CEP participation. Additionally, there was one criterion variable present, TCAP ELA achievement scores. The researcher aimed to determine if TCAP ELA scores can be predicted from the three predictor variables at Title I schools in Tennessee. Because the researcher wished to predict the outcome, a multiple regression was the best method to approach for analysis of the data. Warner (2013) discussed when to utilize a multiple regression in research. For example, a multiple regression should be used when there is more than one predictor variable is included un an equation to predict scores on a quantitative *Y* (Warner, 2013). Therefore, a multiple linear regression was more appropriate than a simple regression. Likewise, according to Gall et al. (2007), a multiple linear regression is best optimally fit amongst research that wishes to discover relationships between predictor and criterion variables. Additionally, a multiple regression is best used when there are more than two measurement variables, one dependent (TCAP ELA score) variable, and the rest are independent variables (LEAPs participation, geographic location, and CEP participation). According to Gall et al. (2007), a multiple regression equation can be used to compute a predicted posttest ELA score for each student. These scores are called residual gain scores or adjusted gain scores. Additionally, a multiple regression analysis has popularly been used by researchers that wish to discover relationships or predictions amongst at-risk students (Pitzer & Skinner, 2017; Gilstrap, 2019; Mei et al., 2019).

Students' data was compiled into SPSS and data was entered carefully to prevent any errors or misreadings (Green & Salkind, 2017). In order for this statistical test to be used effectively, the interval or ratio level of measurement and the observation was independent. All

the data that was entered was quantitative and at the ratio level of measurement. Each data value that was entered was unique, and any repeat values were removed before any analysis was conducted in SPSS. First, a linear regression was made to assess if the relationship between all the variables was linear. The researcher first assessed for bivariate outliers through a visual examination of one scatter plot for the criterion variable because its level of measurement was ratio. The researcher was unable to assess for outliers for the predictor variables because their level of measurement was nominal. The researcher assessed for any outliers for the one scatterplot, and if any were present, the researcher checked for accuracy of the data. The second linear regression analysis required all variables to be multivariate normal. However, establishing a linear relationship between the criterion and predictor varaibles was impossible due to absence of two continuous varaibles. The final linear regression assumed that there was little or no multicollinearity in the data. This was verified by calculating the Tolerance and Variance Inflation Factor (VIF). The researcher determined if any of the tolerance values approached zero, and if the VIF value approached 10, the researcher adjusted the multicollinearity variables. The hypotheses was tested at a 95% confidence interval, which corresponds with the alpha level of 0.05. The researcher evaluated the effect size by using Pearson's r^2, and the significance was determined by using an F-stat. The effect size can be small, medium, or large; however, the researcher needed at least a medium effect size in order to arrive at the conclusion that the test was statistically significant.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this predictive, correlational study was to examine if TCAP ELA achievement scores be predicted from a linear combination of LEAPs participation, geographic location, and CEP participation at Title I elementary schools in Tennessee. Specifically, this study sought to assess TCAP ELA achievement scores and determine how much variation in those scores be explained by the predictor or independent variables of LEAPs participation, geographic location, and CEP participation and the criterion or dependent variable TCAP ELA achievement scores. A multiple linear regression allowed the researcher to examine for predictive validity of the variables and determine how much each variable or set of variables uniquely contributed to the prediction of the criterion variable, TCAP ELA achievement scores. This chapter has encompassed a summary of the research question, null hypothesis, descriptive statistics, and conclusions for this study's hypothesis.

Research Question

RQ1: How accurately can TCAP ELA achievement scores be predicted from a linear combination of LEAPs participation, geographic location, and CEP participation at Title I elementary schools in Tennessee?

Null Hypothesis

$H_0$1: There is no significant predictive relationship between TCAP ELA achievement scores and the linear combination of LEAPs participation, geographic location, and CEP participation Title I elementary schools in Tennessee.

Descriptive Statistics

Descriptive statistics was obtained for each of the variables (LEAPs participation,

geographic location, CEP participation, and TCAP achievement scores) (See Table 3). The sample consisted of 200 Title I elementary schools in Tennessee. For TCAP ELA scores for percent on mastered, regardless of LEAPs participation, geographic location, and CEP participation, the average achievement score for percent on mastered was 30.89 for Title I schools in Tennessee.

Table 3
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
TCAP Score for Percent on Mastered	200	5	67	30.89	11.893

Note. LEAPs = TCAP = Tennessee Comprehensive.

Results

Assumption Testing

When preforming a multiple regression analysis, the assumption of linearity must be met. For this study, linearity was unable to be determined because the assumption of linearity applies to a relationship between two continuous variables. This study only had one continuous variable; therefore, linearity did not apply to this study. The researcher examined the criterion variable (TCAP scores), the only continuous variable in this study, for any outliers. No outliers were found, so the researcher proceeded with the analysis. When implementing a multiple regression analysis, the assumption of a bivariate normal distribution must be met. However, establishing a linear relationship between the criterion and predictor varaibles was impossible due to absence of two continuous varaibles in this study. A multiple linear regression is fairly robust in validity with slight deviations from multivariate normality, so the researcher determined to continue with the regression analysis (Warner, 2013). Multicollinearity is also an assumption that must be

tested in order to use a multiple regression analysis. A VIF test was conducted to test the absence of multicollinearity. This test was preformed because the researcher wished to further examine if a predictor variable is highly correlated with another predictor variable. If the VIF is considered too high or greater than 10, then multicollinearity is present. The acceptable values for this test are between one and five. For this specific study, all predictor variables were reported at one. Under those circumstances, the assumption of multicollinearity was met (See Table 4).

Hypothesis

The null hypothesis for this study was:

$H_0$1: There is no significant predictive relationship between TCAP ELA achievement scores and the linear combination of LEAPs participation, geographic location, and CEP participation Title I elementary schools in Tennessee.

A multiple linear regression was conducted to see if TCAP achievement scores could be predicted by LEAPs participation, geographic location, and CEP participation. While running a multiple linear regression analysis, the test automatically includes an Analysis of Variance. The researcher looked at the significance value of this table and determined if the significance value was less than 0.05. Given the null hypothesis and the statistical conclusions that were drawn from this study, the researcher rejected the null hypothesis because there was a significant ($p = .000$) difference and accept the alternative hypothesis (See Table 5). Overall, the results of this regression indicated that the model explained 15.6% of the variance, and the model was a significant predictor of CEP participation, $F(3,196) = 12.070$, $p = .000$ (See Table 5 and Table 7). The final predictive model was: TCAP achievement scores = 37.284 + (-8.862*CEP participation) + (-.199*geographic location) + (-2.713*LEAPs participation). Likewise, when running a multiple linear regression, the test automatically includes a series of *t*-tests or a

coefficients table (See Table 4). This additional testing that was carried out determines what predictor variable influenced the criterion variable (See Table 4). It was found that CEP participation could significantly predict TCAP achievement scores CEP participation ($p < 0.05$) while geographic location ($p > 0.05$) and LEAPs participation ($p > 0.05$) did not contribute to the model.

Additionally, the effect size for a linear regression is usually measured by Cohen's $f^2 = r^2 / (1-r^2)$ and can be interpreted as 0.02 = small, 0.15 = medium, and 0.35 = large. So for this study's results, Cohen's $f^2 = .156 / (1-.156)$ which produces Cohen's $f^2 = .156 / (0.844)$ will result in an effect size of 0.180 which is considered medium. By analyzing the coefficients, CEP participation significantly contributed to the model ($p = .000$) while geographic location ($p = .740$) and LEAPs participation ($p = .085$) did not contribute to the model (Table 4).

Table 4
Coefficients

	B	Sig.	Tolerance	VIF
CEP Participation	37.284	.000	.995	1.005
Geographic Location	-8.862	.740	.986	1.014
LEAPs Participation	-2.713	.085	.987	1.014

Note. LEAPs = Lottery for Afterschool Programs; CEP = Community Eligibility Provision.

Table 5
Analysis of Variance

	Sum of Squares	df	Mean Square	F	Sig.
Regression	4389.007	3	1463.002	12.070	.000
Residual	23757.513	196	121.212		
Total	28146.520	199			

Table 6
Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.395	.156	.143	11.010	1.873

CHAPTER FIVE: CONCLUSIONS

Overview

The contents of the chapter has entailed an overview of the study's findings that were presented in Chapter Four. The researcher has synthesized all the materials found in Chapter Four and criticized the findings for the conclusions for this study. Under these circumstances, Chapter Five has followed the sequence of (1) discussion, (2) implications, and (3) limitations. All facets of this study has been interoperated and applied.

Discussion

The purpose of this predictive, correlational study was to examine if TCAP ELA achievement scores be predicted from a linear combination of LEAPs participation, geographic location, and CEP participation at Title I elementary schools in Tennessee. The researcher analyzed the data form this analysis, and addressed the following research question: How accurately can TCAP ELA achievement scores be predicted from a linear combination of LEAPs participation, geographic location, and CEP participation at Title I elementary schools in Tennessee? Based upon the findings in Chapter Four, the researcher rejected the null hypothesis because there was a significant difference and accepted the alternative hypothesis. The focus of this section of analysis has entailed a merging of the results, literature, and theories as it relates to the research question.

The predictor variable for this study was LEAPs participation, geographic location, and CEP participation. LEAPs was defined as an after school program that is implemented all over the state of Tennessee, and it is funded by unclaimed lottery winnings in the state of Tennessee. LEAPs had over 200 locations during the 2018-2019 school year, and LEAPS is implemented in schools, community-based organizations, faith-based organizations, and charity-based

organizations. However, LEAPs seem to be more prevalent in Tennessee elementary schools where students are at an economic disadvantage such as classified Title I schools (TN Department of Education, 2016b). LEAPs participation was measured by obtaining a list of schools that were enrolled from the 2018-2019 school year by contacting the director of LEAPs. Geographic location was identified by the status set forth by the National Center for Education Statistics (NCES) (n.d.) as city, suburb, town, and rural. The geographic location for each school was measured by using the software provided by NCES and entering in each school individually and recording their location. The CEP was defined as a non-meal pricing service option for students and school districts in low-income areas (USDA Food and Nutrition Service, 2019). Schools that adopt CEP are reimbursed using through programs such as the SNAP and TANF. CEP participation was measured by using the database provided on the USDA Food and Nutrition Service website, selecting Tennessee as the state, and then using their list of schools that reported "yes" as participation and "no" as participation for the 2018-2019 school year. The CEP allows for school districts to serve breakfast and lunch at no cost to students without collecting household applications.

LEAPs Participation and Methodology Choice

In this study, LEAPs participation was not found to be a statistically significant predictor of TCAP ELA achievement scores, although previous research has found that after school programs influence students' academic performance (Davis & Singh, 2015). Because this study aligned with the conclusion that after school programs do not influence academic achievement, the other positive factors that stem from after school program participation should not go ignored. This study only examined academic performance as it relates to after school programs, but after school programs have been known to provide a safe place for students (Murray &

Milner, 2015) as well as put the overall health of students first (Hedemann & Frazier, 2017; Safron et al., 2019; Sanders et al., 2019). After school programs have also been thought of as voyages for students to become positive and active members of society (Gordon et al., 2016) and reduce negative behaviors (Path et al., 2016). Although the literature pointed to after school programs being costly outlets for students (Gordon & Cui, 2014), this was not the case for LEAPs because it is funded by unclaimed lottery winnings per the states' regulations. Perhaps, more involvement from parents and the community (Malm et al., 2017; Zimmerman et al., 2018) would aid LEAPs in being more successful in promoting TCAP ELA performance. A common occurrence with getting parents and the community involved and excited about their child's education is a challenging process because far too often do these individuals see themselves as being "too busy." However, maximizing the contributions to an after school program is a must in order to see optimal results (Iachini et al., 2017). The researcher can only speculate that this was one of the contributing factors for the lack of significance within this study because the results based upon the literature and this present study were inconclusive.

Geographic Location and Methodology Choice

In this study, geographic location was not found to be a statistically significant predictor of TCAP ELA achievement scores. However, the research that was discovered proved otherwise, because studying the impact of students' geographic location and academic success has been a common variable to study amongst researchers (Welton et al., 2016; Grigoriev et al., 2016; Jocson, 2018). Additionally, research has made it clear that educators need to be prepared to meet the needs of their students regardless of their geographic location (Magaldi et al., 2018). The literature has also discussed the challenges that parents face when selecting a school for their child to attend based upon lack of resources for their child (Wang et al., 2019). Far more than

often schools that are located in rural areas lack the resources for students to preform optimally (Rhodes & Warkentien, 2017). Although geographic location did not positively influence TCAP ELA achievement scores, it should be noted that Title I schools are located in areas of economic disadvantage and not all areas of economic disadvantage should be considered rural, although it is often always associated. Areas of economic disadvantage can be located in cities, suburbs, towns, and rural areas, and all of these locations have their pitfalls to some extent. Therefore, the researcher can speculate that that is why this studys' findings did not see a significant difference in one geographic location verses the other.

CEP Participation and Methodology Choice

In this study, CEP participation was found to be a statistically significant predictor of TCAP ELA achievement scores. Likewise, the literature encompassed that socioeconomic status plays an influential role on students' academic achievement (McKinney, 2014; Hannum et al., 2017; Silva-Laya et al., 2019). More importantly, one should understand that students inherit their parents' socioeconomic status at an early age (ElHassan et al., 2018; Jones et al., 2018) until they are able to provide for themselves financially. Jones et al. (2018) and Ware (2019) discussed in an article that poverty in schools is best measured by looking at how many students receive free or reduced-price lunch. It is apparent in the literature and in this studys' findings that socioeconomic status impacts child development in negative ways (Garkal & Shete, 2015; Jin & Lu, 2017), family well-being (Zalewska- Łunkiewicz et al., 2016; Figlio et al., 2017; Gasa et al., 2019) and may result in low assessment achievement scores. This is it why it is important that educators make sure they are meeting the needs of the students. Ellis et al. (2016) pointed out that often a student's home life goes unnoticed, and educators need to know their students not only academically but personally as well, especially in their early years of education. However,

the literature is clear that a lack of understanding between poverty and educational achievement still exists in society today (Thompson et al., 2016), so that is why this variable was considered an appropriate outlet to study. For schools to operated fully and at their best, they must account for the whole child (McKinney, 2014). Schools should constantly be evaluating and asking themselves the question: In what ways can our school meet the needs of our students? The findings from this study suggest that schools that consider operating in conjunction with a food assistance program that provides free meals to students are more likely to have higher percentages of academic achievement because basic needs are met. Not only should schools be concerned with meeting the biological needs of students but all other needs as well to the best of their abilities.

Implications

This study was driven by two theories, B.F. Skinner's theory of behaviorism and Abraham Maslow's Hierarchy of Needs. First, B.F. Skinner's theory of behaviorism can be used to further understand the results of this study. The results from this study show that students who have the opportunity to receive meals at school at no cost are more likely to perform better on state assessments. Reinforcers are responses from the environment that can increase the probability of a behavior being repeated and it can be either positive or negative. For example, when applying the behaviorist principle to this study, one may say that the idea of having food at no cost to students at school serves as a reinforcer for students to be more academically driven; in contrast, one may say that the idea of not having food at no cost to students at school serves as a reinforcer for students to not be more academically driven. This study has shown that students are able to learn better when they are well nourished which in turn results in higher state assessment scores. Second, Abraham Maslow's Hierarchy of Needs is a foundational tool for

understanding what students need in order to thrive in their learning environment (basic needs, psychological needs, and self-fulfillment needs) whether that be at school or at home. While understanding this hierarchy, it is important that one understands the lower level, which is psychological needs (food, water, warmth, and rest). The lower level must be completely satisfied and fulfilled before moving onto a higher pursuit. This is very important when analyzing the results of this study because the study found a positive correlation between schools' TCAP ELA scores and schools' CEP status. What is truly remarkable about the CEP participation is that it allows eligible schools to serve free meals to students regardless of income. Because a positive correlation was seen among schools' TCAP ELA scores and schools' CEP status, in conjunction with Maslow's theory, one can conclude that students *who do not have their psychological needs meet* will suffer academically, and students *who do have their psychological needs met* will not suffer academically. Conceivably students that are faced with the challenges of lack of resources especially in areas of poverty have more preoccupied thoughts about their psychological needs being fulfilled rather than their academic performance. A possible solution to this dilemma could be for all Title I schools to participate in CEP or to completely amend the cost of food for actively enrolled students.

Limitations

There were very few limitations and threats to internal and external validity with this study because the researcher used archival data only; however, it is important that what limitations were found are explained. One limitation for this study was that the researcher was unable to document what other programs the Title I elementary schools that did not participate in LEAPs offered to their students. Just because schools were recorded as not participating or participating in LEAPs, does not mean that the schools that did not participate in LEAPs offered

no other after school programs to their students. Additionally, another limitation of this study was that just because schools were classified as participating in LEAPs does not mean that all students participated in LEAPs at each school. LEAPs is not a mandatory after school program. Although LEAPs provides its students with academic enrichment opportunities that reinforce and complement the regular academic program, schools are not required to follow a set agenda for how these programs are carried out. This means that some schools may have access to better resources of academic and non-academic supports which may result in stronger programs in select schools. The researcher was unable to document what other types or if any other programs existed regarding meal price options for schools that did not participate in CEP. Although other programs do exits, it is important to note that the CEP allows for school districts to serve breakfast and lunch at no cost to students without collecting household applications. Schools that adopt CEP are reimbursed using through programs such as the SNAP and TANF.

This is particularly important when looking at geographic location for each school. For this study, a little over half of the schools were geographically located in rural areas, the other half were not. Finally, the last limitation of this study was that the researcher was unable to document what students were doing during the after school hours that did not participate in the after school program.

While addressing threats to internal and external validity, there were few threats to internal validity because the researcher did not manipulate the criterion variable or the predictor variables – the data was chosen via random sampling and the archival data was recorded, which resulted in no cofounding variables. However, because the data set was so large and their researcher did not have assistance with interpretating the data, there was a slight possibility that some of the data that was recoded could have been double keyed which could pose a threat to

internal validity. Likewise, in regards to external validity, the data was randomly selected, and the sample was composed of a homogenous population of Title I schools, so it was not open to selection bias. However, the results can be generalized and applied to other groups, situations, and events because it fits the realm of further understanding the implications of at-risk students mitigating academic achievement. The results from this study serves as a "stepping stone" for further investigating Title I schools and discovering the challenges in closing the achievement gap. Additionally, after school programs are prevalent in areas where a majority of individuals are identified as being of low-socioeconomic status, so it is applicable to most Title I schools even outside the state of Tennessee. After school programs are being implemented all over the United States, and the results from this study provide a glimpse into understanding after school programs.

Recommendations for Future Research

While evaluating recommendations for implications for future studies, there are areas worth notating. This study only examined one after school program that was being implemented in Title I elementary schools in Tennessee. However, there are other after school programs that are implemented in Title I elementary schools. It would be interesting to see similar studies that would be conducted that compared the different after school programs in the in the state of Tennessee. Secondly, there are other after school programs that do not take place at school. For example, LEAPs was implemented in community based, faith based, and charity based organizations in addition to school districts for the 2018-2019 academic school year. It would be interesting to see how the results compared to those being implemented in schools verses other organizations. Although the results from this study showed that after school programs were not an indicator of academic achievement of Tennessee Title I elementary schools, continued

research regarding after school programs is warranted because not all after school programs are the same. Research is needed to help determine what constitutes as quality instruction and a valuable program. Additionally, perhaps a much larger study that examined assessment scores over the course of five years would have yielded results in relation to academic achievement and after school program participation.

Consequently, much work still remains in the area of improving student achievement and understanding the achievement gap that exists amongst students of low-socioeconomic status. State standards have been established to document and measure students' progress – with state assessments being one of the most used tools for determination and documentation of students' progressions. More importantly, all educators can agree that they wish to provide students with the tools necessary to succeed in their academics as well as life itself, and most educators can agree that after school programs serve as a beacon to move struggling learner to areas of proficiency on assessments. However, the research presented in this dissertation is conflictive, because although the literature proved the significance of after school participation and academic achievement, the study produced results that did not agree with after school participation and academic success. Likewise, the literature presented notated schools that were located in remote areas were more subjected to academic challenges than any other geographic location. However, the results from this study showed that schools struggle in many different geographic locations, regardless of geographic location. Perhaps, socioeconomic status or poverty percentages in schools are worth investigating because it seems as if they may serve as key indicators of what schools' may be struggling the most in regards to lack of meeting students' needs. Educators will

need to continue to research and evaluate ways to address these challenges in hopes to remedify the achievement gap in low-achieving schools.

REFERENCES

Acar, Ö. (2018). Investigation of the science achievement models for low and high achieving schools and gender differences in Turkey. *Journal of Research in Science Teaching, 56*(5), 649-675. https://doi.org/10.1002/tea.21517

Abulof, U. (2017). Introduction: Why we need Maslow in the twenty-first century. *Society, 54*(6), 508-509. https://doi.org/10.1007/s12115-017-0198-6

Ari, E., Tunçer, B. K., & Demýr, M. K. (2016). Primary school teachers' views on constructive classroom management. *International Electronic Journal of Elementary Education, 8*(3), 363-378. https://files.eric.ed.gov/fulltext/EJ1096525.pdf

Baker, S. K., Kamata, A., Wright, A., Farmer, D., & Nippert, R. (2019). Using propensity score matching to estimate treatment effects of afterschool programs on third-grade reading outcomes. *Journal of Community Psychology, 47*(1), 117-134. https://doi.org/10.1002/jcop.22104

Barnes, C., & Nolan, S. (2019). Professionals, friends, and confidants: After-school staff as social support to low-income parents. *Children and Youth Services Review, 98*(C), 238-251. https://doi.org/10.1016/j.childyouth.2019.01.004

Bean, M. K., Spalding, B., Theriault, E., Dransfield, K., Sova, A., & Dunne Stewart, M. (2018). Salad bars increased selection and decreased consumption of fruits and vegetables 1 month after installation in title I elementary schools: A plate waste study. *Journal of Nutrition Education and Behavior*, *50*(6), 589-597. https://doi.org/10.1016/j.jneb.2018.01.017

Beets, M. W., Weaver, R. G., Tilley, F., Turner-McGrievy, G., Huberty, J., Ward, D. S.,

& Freedman, D. A. (2015). Salty or sweet? nutritional quality, consumption, and cost of snacks served in Afterschool programs. *Journal of School Health, 85*(2), 118-124. https://doi.org/10.1111/josh.12224

Beets, M. W., Glenn Weaver, R., Brazendale, K., Turner-McGrievy, G., Saunders, R. P., Moore, J. B., … Beighle, A. (2018). Statewide dissemination and implementation of physical activity standards in afterschool programs: Two-year results. *BMC Public Health, 18*(1), 819-14. https://doi.org/10.1186/s12889-018-5737-6

Bellows, L. (2019). Immigration enforcement and student achievement in the wake of secure communities. *AERA Open, 5*(4), 1-20. https://doi.org/10.1177/2332858419884891

Benner, A. D., Boyle, A. E., & Sadler, S. (2016). Parental involvement and adolescents' educational success: The roles of prior achievement and socioeconomic status. *Journal of Youth and Adolescence, 45*(6), 1053-1064. https://doi.org/10.1007/s10964-016-0431-4

Berger, N., & Archer, J. (2018). Qualitative insights into the relationship between socioeconomic status and students' academic achievement goals. *Social Psychology of Education, 21*(4), 787-803. https://doi.org/10.1007/s11218-018-9442-1

Betz, T., & Kayser, L. B. (2017). Children and society: Children´s knowledge about inequalities, meritocracy, and the interdependency of academic achievement, poverty and wealth. *American Behavioral Scientist, 61*(2), 186-203. https://doi.org/10.1177/0002764216689121

Biddle, C., & Azano, A. P. (2016). Constructing and reconstructing the "rural school problem:" A century of rural education research. *Review of Research in Education, 40*(1), 298-325. https://doi.org/10.3102/0091732X16667700

Browman, A. S., Destin, M., Carswell, K. L., & Svoboda, R. C. (2017). Perceptions of socioeconomic mobility influence academic persistence among low socioeconomic status students. *Journal of Experimental Social Psychology, 72*, 45-52. https://doi.org/10.1016/j.jesp.2017.03.006

Budiman, A. (2017). Behaviorism and foreign language teaching methodology. *Academic Journal of English Language and Education, 1*(2), 101-114. https://doi.org/10.29240/ef.v1i2.171

Burneo-Garcés, C., Cruz-Quintana, F., Pérez-García, M., Fernández-Alcántara, M., Fasfous, A., & Pérez-Marfil, M. N. (2019). Interaction between socioeconomic status and cognitive development in children aged 7, 9, and 11 Years: A cross-sectional study. *Developmental Neuropsychology*, *44*(1), 1-16. https://doi.org/10.1080/87565641.2018.1554662

Cappella, E., Hwang, S. H. J., Kieffer, M. J., & Yates, M. (2018). Classroom practices and academic outcomes in urban afterschool programs: Alleviating social-behavioral risk. *Journal of Emotional and Behavioral Disorders, 26*(1), 42-51. https://doi.org/10.1177/1063426617739254

Cetin, H., & Cetin, I. (2018). Views of middle school students about Class Dojo education technology. *Acta Didactica Napocensia, 11*(3/4), 89-96. https://doi.org/10.24193/adn.11.3-4.7

Chen, Y., Zheng, Q., Ji, S., Tian, F., Zhu, H., & Liu, M. (2019). Identifying at-risk students based on the phased prediction model. *Knowledge and Information Systems*, 1-17. https://doi.org/10.1007/s10115-019-01374-x

Cheng, T. L., Goodman, E., & the Committee on Pediatric Research. (2015). Race, ethnicity, and socioeconomic status in research on child health. *Pediatrics, 135*(1), e225-e237. https://doi.org/10.1542/peds.2014-3109

Chung, K. K. H., Liu, H., McBride, C., Wong, A. M., & Lo, J. C. M. (2017). How socioeconomic status, executive functioning and verbal interactions contribute to early academic achievement in Chinese children. *Educational Psychology, 37*(4), 402-420. https://doi.org/10.1080/01443410.2016.1179264

Cid, A. *(2017).* Interventions using regular activities to engage high-risk school-age youth: A review of after-school programs in Latin America and the Caribbean. *Prevention Science, 18(7),* 879-886. https://doi.org/10.1007/s11121-016-0708-6

Coffey, H., & Farinde-Wu, A. (2016). Navigating the journey to culturally responsive teaching: Lessons from the success and struggles of one first-year, black female teacher of black students in an urban school. *Teaching and Teacher Education, 60*, 24-33. https://doi.org10.1016/j.tate.2016.07.021

Community Preventive Services Task Force. (2015). Out-of-school-time academic programs are recommended to improve academic achievement and health equity. *Journal of Public Health Management and Practice: JPHMP, 21*(6), 609-612. https://doi.org/10.1097/PHH.0000000000000288

Crandall, A., Powell, E. A., Bradford, G. C., Magnusson, B. M., Hanson, C. L., Barnes, M. D., . . . Bean, R. A. (2019). Maslow's hierarchy of needs as a framework for understanding adolescent depressive symptoms over time. *Journal of Child and Family Studies, 1*(1), *1-9.* https://doi.org/10.1007/s10826-019-01577-4

Cutucache, C. E., Luhr, J. L., Nelson, K. L., Grandgenett, N. F., & Tapprich, W. E.

(2016). NE STEM 4U: An out-of-school time academic program to improve achievement of socioeconomically disadvantaged youth in STEM areas. *International Journal of STEM Education, 3*(1), 1-7. https://doi.org/10.1186/s40594-016-0037-0

Davis, K., & Singh, S. (2015). Digital badges in afterschool learning: Documenting the perspectives and experiences of students and educators. *Computers & Education, 88*(1), 72-83. https://doi.org/10.1016/j.compedu.2015.04.011

Dennis, D. V. (2009). "I'm not stupid": How assessment drives (in)appropriate reading instruction. *Journal of Adolescent & Adult Literacy, 53*(4), 283-290. https://doi.org/10.1598/JAAL.53.4.2

Destin, M., Hanselman, P., Buontempo, J., Tipton, E., & Yeager, D. S. (2019). Do student mindsets differ by socioeconomic status and explain disparities in academic achievement in the United States? *AERA Open, 5*(3), 1-12. https://doi.org/10.1177/2332858419857706

Dietrichson, J., Bøg, M., Filges, T., & Klint Jørgensen, A. (2017). Academic interventions for elementary and middle school students with low socioeconomic status: A systematic review and meta-analysis. *Review of Educational Research, 87*(2), 243-282. https://doi.org/10.3102/0034654316687036

Dillon, M. B. M., Krieger, K., Radley, K. C., Tingstrom, D. H., Dart, E. H., & Barry, C. T. (2019). The effects of tootling via ClassDojo on student behavior in elementary classrooms. *School Psychology Review, 48*(1), 18-30. https://doi.org/10.17105/SPR-2017-0090.V48-1

Dolean, D., Melby-Lervåg, M., Tincas, I., Damsa, C., & Lervåg, A. (2019). Achievement

gap: Socioeconomic status affects reading development beyond language and cognition in children facing poverty. *Learning and Instruction, 63*, 1-10. https://doi.org/10.1016/j.learninstruc.2019.101218

Domina, T., Pharris-Ciurej, N., Penner, A. M., Penner, E. K., Brummet, Q., Porter, S. R., & Sanabria, T. (2018). Is free and reduced-price lunch a valid measure of educational disadvantage? *Educational Researcher, 47*(9), 539-555. https://doi.org/10.3102/0013189X18797609

Duan, W., Guan, Y., & Bu, H. (2018). The effect of parental involvement and socioeconomic status on junior school students' academic achievement and school behavior in China. *Frontiers in Psychology, 9*, 1-8. https://doi.org/10.3389/fpsyg.2018.00952

Duncan, G. J. & Murnane, R. J. (2011). *Wither opportunity? Rising inequality, schools, and children's life chances.* Russell Sage Foundation.

Doulabi, M. A., Sajedi, F., Vameghi, R., Mazaheri, M. A., & Akbarzadeh, A. B. (2017). Socioeconomic status index to interpret inequalities in child development. *Iranian Journal of Child Neurology, 11*(2), 13. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5493825/pdf/ijcn-11-013.pdf

Economos, C. D., Anzman-Frasca, S., Koomas, A. H., Chan, G., Folta, S. C., Heck, J.… Sacheck, J. M. (2017). Snacks, beverages, and physical activity during volunteer-led out-of-school-time programs: A cross-sectional analysis. *BMC Public Health, 17*(1), 125-10. https://doi.org/10.1186/s12889-017-4040-2

Educational Testing Service (2019). *K-12 student assessment programs.* https://www.ets.org/k12/assessments/state-assessment-programs/

Editorial Projects in Education Inc. (2015). After-school programs; "The skills to pay the bills." *Education Week, 34*(25), 5.

Editorial Projects in Education. (2016). In poor areas, after-school programs are in demand; "America after 3pm special report: Afterschool in communities of concentrated poverty." *Education Week, 36*(3), 5. https://www.edweek.org/ew/articles/2016/09/07/in-poor-areas-after-school-programs-are-in.html

Eelen, P. (2018). Classical conditioning: Classical yet modern. *Psychologica Belgica, 58*(1), 196-211. https://doi.org/10.5334/pb.451

ElHassan, N. O., Bai, S., Gibson, N., Holland, G., Robbins, J. M., & Kaiser, J. R. (2018). The impact of prematurity and maternal socioeconomic status and education level on achievement-test scores up to 8th grade. *PloS One, 13*(5), 1-15. https://doi.org/10.1371/journal.pone.0198083

Ellis, S., Thompson, I., McNicholl, J., & Thomson, J. (2016). Student teachers' perceptions of the effects of poverty on learners' educational attainment and well-being: Perspectives from England and Scotland. *Journal of Education for Teaching, 42*(4), 483-499. https://doi.org/10.1080/02607476.2016.1215542CV

Engelen, L., Bundy, A. C., Bauman, A., Naughton, G., Wyver, S., & Baur, L. (2015). Young children's after-school activities - there's more to it than screen time: A cross-sectional study of young primary school children. *Journal of Physical Activity & Health, 12*(1), 8-12. https://doi.org/10.1123/jpah.2013-0075

Farah, M. J. (2017). The neuroscience of socioeconomic status: Correlates, causes, and consequences. *Neuron, 96*(1), 56-71. https://doi.org/10.1016/j.neuron.2017.08.034

Ferreira, L., Godinez, I., Gabbard, C., Vieira, J. L. L., & Caçola, P. (2018). Motor

development in school-age children is associated with the home environment including socioeconomic status. *Child: Care, Health and Development, 44*(6), 801-806. https://doi.org/10.1111/cch.12606

Figlio, D. N., Freese, J., Karbownik, K., & Roth, J. (2017). Socioeconomic status and genetic influences on cognitive development. *Proceedings of the National Academy of Sciences of the United States of America, 114*(51), 13441-13446. https://doi.org/10.1073/pnas.1708491114

Fisher, M. H., & Royster, D. (2016). Mathematics teachers' support and retention: Using Maslow's Hierarchy to understand teachers' needs. *International Journal of Mathematical Education in Science and Technology, 47*(7), 993-1008. https://doi.org/10.1080/0020739X.2016.1162333

Florell, D. (2015). The mojo of class dojo. *Communique, 43*(7), 34.

Food Research & Action Center. (2019). *Eligibility for community eligibility provision.* Retrieved from https://frac.org/community-eligibility-database/

Franco, C., Amutio, A., López-González, L., Oriol, X., & Martínez-Taboada, C. (2016). Effect of a mindfulness training program on the impulsivity and aggression levels of adolescents with behavioral problems in the classroom. *Frontiers in Psychology, 7*(1), 1-8. https://doi.org/10.3389/fpsyg.2016.01385

Freitas, F. A., & Leonard, L. J. (2011). Maslow's hierarchy of needs and student academic success. *Teaching and Learning in Nursing, 6*(1), 9-13. https://doi.org/10.1016/j.teln.2010.07.004

Gall, M. D, Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction* (8th ed.). Allyn & Bacon.

Garkal, K. D., & Shete, A. N. (2015). influence of nutrition and socio-economic status on intellectual development in school children. *National Journal of Physiology, Pharmacy and Pharmacology*, *5*(2), 145-148. https://doi.org/10.5455/njppp.2015.5.241120141

Garrett-Peters, P. T., Mokrova, I., Vernon-Feagans, L., Willoughby, M., & Pan, Y. (2016). The role of household chaos in understanding relations between early poverty and children's academic achievement. *Early Childhood Research Quarterly*, *37*(1), 16-25. https://doi.org/10.1016/j.ecresq.2016.02.004

Gasa, V., Pitsoane, E., Molepo, L., & Lethole, P. (2019). The effect of families' socioeconomic status on the self-concept development of learners. *Early Child Development and Care, 189(14)*, 2334-2346. https://doi.org/10.1080/03004430.2018.1454440

Gellci, K., Marusak, H. A., Peters, C., Elrahal, F., Iadipaolo, A. S., & Rabinak, C. A. (2019). Community and household-level socioeconomic disadvantage and functional organization of the salience and emotion network in children and adolescents. *Neuroimage*, *184*(1), 729-740. https://doi.org/10.1016/j.neuroimage.2018.09.077

Gilstrap, D. L. (2019). Understanding persistence of at-risk students in higher education enrollment management using multiple linear regression and network analysis. *The Journal of Experimental Education.* 1-16. https://doi.org/10.1080/00220973.2019.1659217

Glewwe, P., West, K. L., & Lee, J. (2018). The impact of providing vision screening and

free eyeglasses on academic outcomes: Evidence from a randomized trial in title I elementary schools in Florida. *Journal of Policy Analysis and Management, 37*(2), 265-300. https://doi.org/10.1002/pam.22043

Gordon, M., & Cui, M. (2014). School-Related parental involvement and adolescent academic achievement: *The role of community poverty. Family Relations, 63*(5), 616-626. https://doi.org/10.1111/fare.12090

Gordon, B., Jacobs, J. M., & Wright, P. M. (2016). Social and emotional learning through a teaching personal and social responsibility based after-school program for disengaged middle-school boys. *Journal of Teaching in Physical Education, 35*(4), 358-369. https://doi.org/10.1123/jtpe.2016-0106

Green, S., & Salkind, N. (2017). *Using SPSS for Windows and Macintosh: Analyzing and understanding data* (8th ed.). Pearson.

Greenfader, C. M., Brouillette, L., & Farkas, G. (2015). Effect of a performing arts program on the oral language skills of young English learners. *Reading Research Quarterly, 50*(2), 185-203. https://doi.org/10.1002/rrq.90

Grigoriev, A., Ushakov, D., Valueva, E., Zirenko, M., & Lynn, R. (2016). Differences in educational attainment, socio-economic variables and geographical location across 79 provinces of the Russian federation. *Intelligence, 58,* 14-17. https://doi.org/10.1016/j.intell.2016.05.008

Grogan, K. E., Henrich, C. C., & Malikina, M. V. (2014). Student engagement in after-school programs, academic skills, and social competence among elementary school students. *Child Development Research, 1*(1), 1-9. https://doi.org/10.1155/2014/498506

Gu, M. (2018). Teaching students from other cultures: An exploration of language teachers' experiences with ethnic minority students. *Journal of Language, Identity & Education, 17*(1), 1-15. https://doi.org/10.1080/15348458.2017.1381566

Gustin, L., Reiboldt, W., & Carson, D. E. (2016). Successes and challenges using a train-the-trainer approach: Educating children about nutrition and physical activity in after-school programs. *Journal of Family & Consumer Sciences, 108*(1), 55-61. https://doi.org/10.14307/JFCS108.1.55

Halpern, R. (2002). A different kind of child development institution: The history of after-school programs for low-income children. *Teachers College Record, 104*(2), 178-211. https://doi.org/10.1111/1467-9620.000160

Halpern, R. (2003). *Making play work: The promise of after-school programs for low income children.* Teachers College Press.

Hedemann, E. R., & Frazier, S. L. (2017). Leveraging after-school programs to minimize risks for internalizing symptoms among urban youth: Weaving together music education and social development. *Administration and Policy in Mental Health and Mental Health Services Research, 44*(5), 756-770. https://doi:10.1007/s10488-016-0758-x

Hannum, E., Hannum, E., Liu, R., & Alvarado-Urbina, A. (2017). Evolving approaches to the study of childhood poverty and education. *Comparative Education, 53*(1), 81-114. https://doi.org/10.1080/03050068.2017.1254955

Hargrave, C. P. (2015). Counter space: Analysis of educational structures of an after-school program that fosters black academic success narratives. *The Journal of Negro Education, 84*(3), 348-361. https://doi.org/10.7709/jnegroeducation.84.3.0348

Hedemann, E. R., & Frazier, S. L. (2017). Leveraging after-school programs to minimize

risks for internalizing symptoms among urban youth: Weaving together music education and social development. *Administration and Policy in Mental Health and Mental Health Services Research, 44*(5), 756-770. https://doi.org/10.1007/s10488-016-0758-x

Hopkins, T. M. (2005). If you are poor, it is better to be rural: A study of mathematics achievement in Tennessee. *Rural Educator, 27*(1), 21. https://doi.org/10.35608/ruraled.v27i1.501

Horn, L. J., & Carroll, D. C. (1997). Confronting the odds: Students at risk and the pipeline to higher education. *National Center for Education Statistics.* https://nces.ed.gov/pubs98/98094.pdf

Hurd, N., & Deutsch, N. (2017). SEL-focused after-school programs. *The Future of Children, 27*(1), 95-115. https://doi.org/10.1353/foc.2017.0005

Iachini, A. L., Bell, B. A., Lohman, M., Beets, M. W., & Reynolds, J. F. (2017). Maximizing the contribution of after-school programs to positive youth development: Exploring leadership and implementation within girls on the run. *Children & Schools, 39*(1), 43-52. https://doi.org/10.1093/cs/cdw045

Jacobson, R., Villarreal, L., Munoz, J., & Mahaffey, R. (2018). It takes a community: Everyone benefits when a school assumes responsibility for coordinating services that address the many nonacademic needs of students and their families. *Phi Delta Kappan, 99*(5), 8. https://doi.org/10.1177/0031721718754801

Jin, H., & Lu, Y. (2017). The relationship between obesity and socioeconomic status among Texas school children and its spatial variation. *Applied Geography, 79*, 143-152. https://doi.org/10.1016/j.apgeog.2016.12.008

Jocson, K. M. (2018). “I want to do more and change things:” Reframing CTE

toward possibilities in urban education. Urban Education, 53(5), 640-667. https://doi.org/10.1177/0042085915618714

Johnston, V., & Martelli, C. D. (2019). Reaching out to students from title I schools. *The Reading Teacher, 72*(4), 514-518. https://doi.org/10.1002/trtr.1763

Jones, K., Wilson, R., Clark, L., & Dunham, M. (2018). Poverty and parent marital status influences on student achievement. *Educational Research Quarterly, 42*(1), 62-80. https://eric.ed.gov/?id=EJ1205172

Kanefuji, F. (2018). Japanese policy for after-school programs: Education through school-community collaborations. *International Journal for Research on Extended Education, 6*(2). https://doi.org/10.3224/ijree.v6i2.09

Kent, G., Pitsia, V., & Colton, G. (2018). Cognitive development during early childhood: Insights from families living in areas of socio-economic disadvantage. *Early Child Development and Care, 1*(1), 1-15. https://doi.org/10.1080/03004430.2018.1543665

Kim, Y., & Lochbaum, M. (2017). Objectively measured physical activity levels among ethnic minority children attending school-based afterschool programs in a high-poverty neighborhood. *Journal of Sports Science & Medicine, 16*(3), 350-356.

Knopf, J. A., Hahn, R. A., Proia, K. K., Truman, B. I., Johnson, R. L., Muntaner, C., . . . Community Preventive Services Task Force. (2015). Out-of-school-time academic programs to improve school achievement: A community guide health equity systematic review. *Journal of Public Health Management and Practice: JPHMP, 21*(6), 594-608. https://doi.org/10.1097/PHH.0000000000000268

Krach, S. K., McCreery, M. P., & Rimel, H. (2017). Examining teachers'

behavioral management charts: A comparison of class dojo and paper-pencil methods. *Contemporary School Psychology, 21*(3), 267-275. https://doi.org/10.1007/s40688-016-0111-0

Kremer, K. P., Maynard, B. R., Polanin, J. R., Vaughn, M. G., & Sarteschi, C. M. (2015). Effects of after-school programs with at-risk youth on attendance and externalizing behaviors: A systematic review and meta-analysis. *Journal of Youth and Adolescence, 44* (3), 616-636. https://doi.org/10.1007/s10964-014-0226-4

Kurdi, V., Archambault, I., Brière, F. N., & Turgeon, L. (2018). Need-supportive teaching practices and student-perceived need fulfillment in low socioeconomic status elementary schools: The moderating effect of anxiety and academic achievement. *Learning and Individual Differences, 65,* 218-229. https://doi.org/10.1016/j.lindif.2018.06.002

Ladson-Billings, G. (2006). From the Achievement Gap to the Education Debt: Understanding Achievement in U.S. Schools. *Educational Researcher, 35*(7), 3–12. https://doi.org/10.3102/0013189X035007003

Lasagabaster, D. (2017). Language learning motivation and language attitudes in multilingual Spain from an international perspective. *The Modern Language Journal, 101*(3), 583-596. https://doi.org/10.1111/modl.12414

Lee, S. R., & Fitzgerald, M. R. (1996). Exploring the basis for parental choice in public education: Assessing school performance in Tennessee. *The Policy Studies Journal, 24*(4), 595-606. https://doi.org/10.1111/j.1541-0072.1996.tb01649.x

Lee, D. S., Dang, T. G., Ulibas-Pascual, J., Gordon Biddle, K. A., Heller de Leon, B.,

Elliott, D., & Gorter, J. (2017). Exploring the influence of efficacy beliefs and homework help in predicting reading achievement among underserved children in an afterschool program. *The Urban Review, 49*(5), 707-728. https://doi.org/10.1007/s11256-017-0418-9

Leitch, D., Yan, D., & Song, S. (2016). Increasing social inclusion for the children of migrant workers in shanghai, china: A four-year longitudinal study of a non-governmental, volunteer-led, after-school program. *Frontiers of Education in China, 11*(2), 217-249. https://doi.org/10.3868/s110-005-016-0016-9

Leos-Urbel, J. (2015). What works after school? the relationship between after school program quality, program attendance, and academic outcomes. *Youth & Society, 47*(5), 684-706. https://doi.org/10.1177/0044118X13513478

Leuthold, F. O. (1999). *Is the level of student academic performance in Tennessee public school systems related to the level of expenditures for school systems?* https://files.eric.ed.gov/fulltext/ED433978.pdf

Liu, D., Ku, H., & Morgan, T. L. (2019). The condition of poverty: A case study of low socioeconomic status on Chinese students' national college entrance exam and college enrolment. *Asia Pacific Journal of Education, 39*(1), 113-132. https://doi.org/10.1080/02188791.2019.1575794doi:10.1016/j.lindif.2018.06.002

Liu, J., Peng, P., & Luo, L. (2019). The relation between family socioeconomic status and academic achievement in china: A meta-analysis. *Educational Psychology Review, 1*(1), 1-28. https://doi.org/10.1007/s10648-019-09494-0

Lumpkin, R. B. (2016). School buildings, socioeconomic status, race, and student achievement. *Journal of Intercultural Disciplines, 15*(1), 170-185.

Magaldi, D., Conway, T., & Trub, L. (2018). "I am here for a reason:" Minority

teachers bridging many divides in urban education. *Race Ethnicity and Education, 21*(3), 306-318. https://doi.org/10.1080/13613324.2016.1248822

Mahoney, J. L., Larson, R. W., & Eccles, J. S. (2005). *Organized activities as contexts of development: Extracurricular activities, after-school, and community programs.* Lawrence Erlbaum Associates.

Mahoney, J. L., & Parente, M. E. (2009). After-school programs in America: Origins, growth, popularity, and politics. *Journal of Youth Development, 4*(3), 1-20. https://jyd.pitt.edu/ojs/jyd/article/view/250/236

Malm, E. K., Hufsteler, S. M., Dietz, S. L., Malikina, M. V., & Henrich, C. C. (2017). Associations of parent and staff factors with parent engagement in after-school programs. *Journal of Community Psychology, 45*(4), 473-485. https://doi.org/10.1002/jcop.21859

Martinez, D. C. (2017). Emerging critical meta-awareness among black and Latina/o youth during corrective feedback practices in urban English language arts classrooms. *Urban Education, 52*(5), 637-666. https://doi.org/10.1002/jcop.21859

McCann, R. A., & Austin, S. (1988). *At-risk youth: Definitions, dimensions, and relationships.* https://files.eric.ed.gov/fulltext/ED297196.pdf

McKinney, S. (2014). The relationship of child poverty to school education. *Improving Schools, 17*(3), 203-216. https://doi.org/10.1177/1365480214553742

Mei, Q., Li, C., Yin, Y., Wang, Q., Wang, Q., & Deng, G. (2019). The relationship between the psychological stress of adolescents in school and the prevalence of chronic low back pain: A cross-sectional study in china. *Child and Adolescent Psychiatry and Mental Health, 13*(1), 24-10. https://doi.org/10.1186/s13034-019-0283-2

Mertens, S. B., & Anfara, V. A., Jr. (2006, September). *Research summary: Student achievement and the middle school concept.* http://www.amle.org/Portals/0/pdf/research_summaries/Student_Achievement.pdf

Miller, K. C., Bell, S. M., & McCallum, R. S. (2015). Using reading rate and comprehension CBM to predict high-stakes achievement. *Journal of Psychoeducational Assessment, 33*(8), 707-718. https://doi.org/10.1177/0734282915574028

Miller, P., Votruba-Drzal, E., & Coley, R. L. (2019). Poverty and academic achievement across the urban to rural landscape: Associations with community resources and stressors. *RSF: The Russell Sage Foundation Journal of the Social Sciences*, *5*(2), 106-122. https://doi.org/10.7758/RSF.2019.5.2.06

Moore, P. J. (2019). Academic achievement. *Educational Psychology, 39*(8), 981-983. https://doi.org/10.1080/01443410.2019.1643971

Murray, I. E., & Milner IV, H. R. (2015). Toward a pedagogy of sociopolitical consciousness in outside of school programs. *The Urban Review, 47*(5), 893-913. https://doi.org/10.1007/s11256-015-0339-4

National Center for Education Statistics. (n.d.). Retrieved from https://nces.ed.gov

National Center for School Engagement. (n.d.). *Serving at-risk youth.* http://schoolengagement.org/school-engagement-services/at-risk-youth/

National Youth Violence Prevention Resource Center. (2001). *After-school programs fact sheet.* https://www.readingrockets.org/article/after-school-programs-fact-sheet

Noam, G., & Triggs, B. (2017). Out-of-school time and youth development: Measuring

social-emotional development to inform program practice. International Journal for *Research on Extended Education, 5*(1), 47-57. https://doi.org/10.3224/ijree.v5i1.03

Norman, O., Ault, C. R., Bentz, B., & Meskimen, L. (2001). The black–white "achievement gap" as a perennial challenge of urban science education: A sociocultural and historical overview with implications for research and practice. *Journal of Research in Science Teaching, 38*(10), 1101-1114. https://doi.org/10.1002/tea.10004

O'Donohue, W. T., & Kitchener, R. F. (1998). *Handbook of behaviorism.* Academic Press.

O'Hare, L., Biggart, A. Kerr, K., & Connolly, P. (2015). A randomized controlled trial evaluation of an after school prosocial behavior program in an area of socioeconomic disadvantage. *The Elementary School Journal, 116*(1), 1-29. https://doi.org/10.1086/683102

O'Meara, N., & Prendergast, M. (2019). Teaching mathematics after hours. *Journal of Curriculum Studies, 51*(4), 494-512. https://doi.org/10.1080/00220272.2018.1535666

Ostayan, J. R. (2016). Early literacy skills and english language learners: An analysis of students in A title I school. *Reading Psychology, 37*(8), 1097-1118. https://doi.org/10.1080/02702711.2016.1159634

Pabilco, P., Diack, M., & Lawson, A. (2017). Differentiated instruction in the high school science classroom: Qualitative and quantitative analyses. *International Journal of Learning, Teaching, and Educational Research, 16*(7), 30-54. https://s3.amazonaws.com/academia.edu.documents/54113461/957-3124-1-PB-1.pdf?response-content disposition=inline%3B%20filename%3DDifferentiated_Instruction_in_the_High_S.pdf&

X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAIWOWYYGZ2Y53UL3A%2F20190913

Paluta, L. M., Lower, L., Anderson-Butcher, D., Gibson, A., & Iachini, A. L. (2016). Examining the quality of 21st century community learning center after-school programs: Current practices and their relationship to outcomes. *Children & Schools, 38*(1), 49-56. https://doi.org/10.1093/cs/cdv040

Park, H., Lin, C., Liu, C., & Tabb, K. M. (2015). The relationship between after school programs, academic outcomes, and behavioral developmental outcomes of Latino children from immigrant families: Findings from the 2005 national household education surveys program. *Children and Youth Services Review, 53*, 77-83. https://doi.org/10.1016/j.childyouth.2015.03.019

Paschall, K. W., Gershoff, E. T., & Kuhfeld, M. (2018). A two decade examination of historical Race/Ethnicity disparities in academic achievement by poverty status. Journal of Youth and Adolescence, 47(6), 1164-1177. https://doi.org/10.1007/s10964-017-0800-7

Pelcher, A., & Rajan, S. (2016). After-School program implementation in urban environments: Increasing engagement among adolescent youth. *Journal of School Health, 86*(8), 585-594. https://doi.org/10.1111/josh.12411

Pensiero, N., & Green, F. (2017). Out-of-school-time study programmes: Do they work? Oxford *Review of Education, 43*(1), 127-147. https://doi.org/10.1080/03054985.2016.1240673

Plath, D., Croce, N., Crofts, P., & Stuart, G. (2016). Outcomes of a school-based program for young children with disruptive behaviors. *Children & Schools, 38*(1), 9-19. https://doi.org/10.1093/cs/cdv036

Quinn, D. M., Cooc, N., McIntyre, J., & Gomez, C. J. (2016). Seasonal dynamics of academic achievement inequality by socioeconomic status and Race/Ethnicity: Updating and extending past research with new national data. *Educational Researcher, 45*(8), 443-453. https://doi.org/10.3102/0013189X16677965

Rattan, A., Savani, K., Chugh, D., & Dweck, C. S. (2015). Leveraging mindsets to promote academic achievement: Policy recommendations. *Perspectives on Psychological Science, 10*(6), 721-726. https://doi.org/10.1177/174569161559938

Relyea, J. E., & Fitzgerald, J. (2018). Relationship between early word-reading and long-term reading-comprehension growth for language-minority learners compared to native-English-speaking students. *Reading Psychology, 39*(6), 499-536.

Rhodes, A., & Warkentien, S. (2017). Unwrapping the suburban "Package deal:" Race, class, and school access. *American Educational Research Journal, 54*(1), 168S-189S. https://doi.org/10.3102/0002831216634456

Ride, J. (2019). Is socioeconomic inequality in postnatal depression an early-life root of disadvantage for children? *The European Journal of Health Economics, 20*(7), 1013-1027. https://doi.org/10.1007/s10198-019-01073-y

Riiser, K., Haugen, A. L. H., Lund, S., & Løndal, K. (2019). Physical activity in young schoolchildren in after school programs. *Journal of School Health, 1*(1), 1-7. https://doi.org/10.1111/josh.12815

Rochera, M. J., Merino, I., Oller, J., & Coll, C. (2019). Children's and adolescents' specific interest in science and technology, participation in out-of-school activities and inclination to become scientists. *Journal of Science Education and Technology, 28*(4), 399. https://doi.org/10.1007/s10956-019-09776-w

Roth, J. L., & Brooks-Gunn, J. (2016). Evaluating youth development programs: Progress and promise. *Applied Developmental Science, 20*(3), 188-202. https://doi.org/10.1080/10888691.2015.1113879

Safron, C. (2019). Health, fitness, and affects in an urban after-school program. *Sport, Education and Society, 1*(1), 1-14. https://doi.org/10.1080/13573322.2019.1625318

Sanders, S., Lane, J. J., Losinski, M., Nelson, J., Asiri, A., Holloway, S. M. K., & Rogers, E. (2019). An implementation of a computerized cognitive behavioral treatment program to address student mental health needs: A pilot study in an after-school program. *Professional School Counseling, 22*(1), 1-9. https://doi.org/10.1177/2156759X19838462

Sanders, J., Munford, R., & Boden, J. (2018). Improving educational outcomes for at-risk students. *British Educational Research Journal, 44*(5), 763-780. https://doi.org/10.1080/10888691.2015.1113879

Scantron Performance Series Technical Report. (n.d.). *Reliability and validity.* https://www.ode.state.or.us/wma/teachlearn/testing/resources/scantronachievement_performance_validition.pdf

Shinkfield, A. J., & Stufflebeam, D. L. (1995). *Teacher evaluation: Guide to effective practice.* Kluwer Academic Publishers.

Silva-Laya, M., D'Angelo, N., García, E., Zúñiga, L., & Fernández, T. (2019). Urban poverty and education. A systematic literature review. *Educational Research Review, 1*(1), 1878-0385. https://doi.org/10.1016/j.edurev.2019.05.002

Simpkins, S. D., Riggs, N. R., Bic, N., Ettekal, A. V., & Okamoto, D. (2017). Designing culturally responsive organized after school activities. *Journal on Adolescent Research, 32*(1), 11-36. https://doi.org/10.1177/0743558416666169

Sliwa, S. A., Calvert, H. G., Williams, H. P., & Turner, L. (2019). Prevalence and types of school-based out-of-school time programs at elementary schools and implications for student nutrition and physical activity. *Journal of School Health, 89*(1), 48-58. https://doi.org/10.1111/josh.12710

Smith, E. P., & Bradshaw, C. P. (2017). Promoting nurturing environments in afterschool settings. *Clinical Child and Family Psychology Review, 20*(2), 117-126. https://doi.org/10.1007/s10567-017-0239-0

Smith, E. P., Witherspoon, D. P., & Osgood, W. D. (2017). Positive youth development among diverse Racial–Ethnic children: Quality afterschool contexts as developmental assets. *Child Development, 88*(4), 1063-1078. https://doi.org/10.1111/cdev.12870

Smith, L. D. & Woodward, W. R. (1996). *B.F. Skinner and behaviorism in American culture.* Lehigh University Press.

Soni, B., & Soni, R. (2016). *Enhancing Maslow's Hierarchy of Needs for effective leadership. Competition Forum, 14*(2), 259.

Sparks, S. D. (2019). After-school programs: After-school programs: A review of evidence under the every student succeeds act. *Education Week, 38*(25), 4.

Sparks, S. D. (2018). After-school programs keep learning going with student data; detailed student data is helping Nashville's programs work in sync with public schools. *Education Week, 38*(14), 9.

Taormina, R. J., & Gao, J. H. (2013). Maslow and the motivation hierarchy: Measuring satisfaction of the needs. *The American Journal of Psychology, 126*(2), 155-177. https://doi.org/10.5406/amerjpsyc.126.2.0155

Takashiro, N. (2017). A multilevel analysis of Japanese middle school student and

school socioeconomic status influence on mathematics achievement. *Educational Assessment, Evaluation and Accountability, 29*(3), 247-267. https://doi.org/10.1007/s11092-016-9255-8

Tennessee Comptroller of the Treasury. (n.d.). *Defining Tennessee education: A glossary of educational terms.* https://comptroller.tn.gov/office-functions/research-and-education-accountability/legislative-toolkit/glossary.html

Thompson, I., McNicholl, J., & Menter, I. (2016). Student teachers' perceptions of poverty and educational achievement. *Oxford Review of Education, 42*(2), 214-229. https://doi.org/10.1080/03054985.2016.1164130

Tichavakunda, A. A. (2019). Fostering college readiness: An ethnography of a Latina/o afterschool program. *Education and Urban Society, 51*(7), 922-945. https://doi.org/10.1177/0013124517727055

TN Department of Education. (n.d.-a). *Overview of testing in Tennessee.* https://www.tn.gov/education/assessment/testing-overview.html

TN Department of Education. (2016b, October). Lottery for education after school programs (LEAPs). *Program Manual.* https://www.tn.gov/content/dam/tn/education/cpm/leaps/leaps_program_manual.pdf

TN Department of Education. (n.d.-c). Data downloads & requests. *State assessments.* https://www.tn.gov/education/data/data-downloads.html

Tobin, E. M., & Colley, S. (2018). Getting back on track at twilight: A program that offers after-school for-credit classes helps 9th-grade students recover lost credits for failed courses. *Phi Delta Kappan, 100*(1), 29.

Toyokawa, T., & Toyokawa, N. (2019). Interaction effect of familism and socioeconomic

status on academic outcomes of adolescent children of Latino immigrant families. *Journal of Adolescence, 71*(1), 138-149. https://doi.org/10.1016/j.adolescence.2018.10.005

U.S. Department of Education. (2004, September 15). *Title I – improving the academic achievement of the disadvantaged.* https://www2.ed.gov/policy/elsec/leg/esea02/pg1.html

USDA Food and Nutrition Service. (2019, April 4). *Community eligibility provision.* https://www.fns.usda.gov/school-meals/community-eligibility-provision

Viadero, D. (2018). Poverty indicators; "is free and reduced-price lunch a valid measure of educational disadvantage?". *Education Week, 38*(5), 5.

Wang, J., Tigelaar, D. E. H., & Admiraal, W. (2019). Connecting rural schools to quality education: Rural teachers' use of digital educational resources. Computers in *Human Behavior, 101*, 68-76. https://doi.org/10.1016/j.chb.2019.07.009

Ware, J. K. (2019). Property value as a proxy of socioeconomic status in education. *Education and Urban Society, 51*(1), 99-119. https://doi.org/10.1177/0013124517714850

Warner, R. (2013). *Applied statistics: From bivariate through multivariate techniques* (2nd ed.). Sage Publications.

Warren, E. & Supreme Court Of The United States. (1953) *U.S. Reports: Brown v. Board of Education, 347 U.S. 483*. [Periodical]. https://www.loc.gov/item/usrep347483

Webb, S., Janus, M., Duku, E., Forer, B., Minh, A., Brownell, M., . . . Guhn, M. (2018). The shape of the socioeconomic gradient: Testing to functional form of the relationship between socioeconomic status and early child development. *International Journal of Population Data Science, 3*(4), 1. https://doi.org/10.23889/ijpds.v3i4.929

Welton, A. D., Diem, S., & Holme, J. J. (2015). Color conscious, cultural blindness: Suburban school districts and demographic change. *Education and Urban Society, 47*(6), 695-722. https://doi.org/10.1177/0013124513510734

Wiederkehr, V., Darnon, C., Chazal, S., Guimond, S., & Martinot, D. (2015). From social class to self-efficacy: Internalization of low social status pupils' school performance. Social *Psychology of Education, 18*(4), 769-784. https://doi.org/10.1007/s11218-015-9308-8

Williams, P. L. (1989). *Using customized standardized tests. ERIC Digest.* ERIC Clearinghouse on Tests Measurement and Evaluation.

Williams, J. M., Greenleaf, A. T., Barnes, E. F., & Scott, T. R. (2019). High-achieving, low-income students' perspectives of how schools can promote the academic achievement of students living in poverty. *Improving Schools*, *22*(3), 224-236. https://doi.org/10.1177/1365480218821501

Woodland, M. H. (2016). After-school programs: A resource for young black males and other urban youth. *Urban Education*, *51*(7), 770-796. https://doi.org/10.1177/0042085914549361

Yıldırım, S. (2019). Predicting mathematics achievement: The role of socioeconomic status, parental involvement, and self-confidence. *Education and Science, 44*(198), 99-113.

Young, J., & Young, J. (2018). The structural relationship between out-of-school time enrichment and black student participation in advanced science. *Journal for the Education of the Gifted, 41*(1), 43-59. https://doi.org/10.1177/0162353217745381

Zalewska-Łunkiewicz, K., Józefacka-Szram, N. M., Biskupek, L., Gryl, Ł., Sikora, M.,

& Suchowska, S. (2016). Cohesion, flexibility, communication and socioeconomic status of families and cognitive development in preschool and early school-age children. *Psychiatria I Psychologia Kliniczna*, *16*(4), 246-255. https://doi.org/10.15557/PiPK.2016.0033

Zimmerman, M. A., Eisman, A. B., Reischl, T. M., Morrel-Samuels, S., Stoddard, S., Miller, A. L., . . . Rupp, L. (2018). Youth empowerment solutions: Evaluation of an after-school program to engage middle school students in community change. *Health Education & Behavior*, *45*(1), 20-31. https://doi.org/10.1177/1090198117710491

Appendix A: IRB Approval

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

June 19, 2020

Jessilon Madison
Rebecca Lunde

Re: IRB Application - IRB-FY19-20-192 EXAMINING TITLE I ELEMENTARY SCHOOLS IN TENNESSEE: A QUANTITATIVE STUDY OF PREDICTED OUTCOMES

Dear Jessilon Madison, Rebecca Lunde:

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study does not classify as human subjects research. This means you may begin your research with the data safeguarding methods mentioned in your IRB application.

Decision: No Human Subjects Research

Explanation: Your study does not classify as human subjects research because it will not involve the collection of identifiable, private information.

Please note that this decision only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued non-human subjects research status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this determination or need assistance in determining whether possible modifications to your protocol would change your application's status, please email us at irb@liberty.edu.

Sincerely,

G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
Research Ethics Office

Appendix B: Email from the Director of LEAPs