

The Impact of After-School Programs
on Self-Efficacy of Elementary School Students

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Trenton D. Bennett

Ed.S., Valdosta State University, 2008
M.Ed., Valdosta State University, 2006
B.S.Ed., Valdosta State University, 2003

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This dissertation, "The Impact of After-School Programs on Self-Efficacy of Elementary School Students," by Trenton D. Bennett, is approved by:

**Dissertation
Committee
Co-Chairs**



Donald W. Leech, Ed.D.
Professor of Curriculum, Leadership, and Technology



Michael J. Bochenko, Ed.D.
Assistant Professor of Curriculum, Leadership, and
Technology

**Dissertation
Research Member**



Nicole M. Gibson, Ph.D.
Professor of Curriculum, Leadership, and Technology

**Committee
Member**



John D. Lairsey, Ed.D.
Superintendent, Charlton County Schools

**Dean of the
Graduate School**



James T. LaPlant, Ph.D.
Professor of Political Science

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ABSTRACT

The purpose of this study was to determine if after-school program participation affected elementary students' self-efficacy beliefs and better understand the relationship between elementary students' academic self-efficacy and GPA. This study used a causal-comparative research design. Archival data gathered included students' responses to the Morgan-Jinks Student Efficacy Scale (MJSES) (Jinks & Morgan, 1999) and students' GPA. The MJSES reports self-efficacy using three subscales: talent, context, and effort. No statistically significant differences were found in academic self-efficacy beliefs of elementary students participating in the after-school program. A statistically significant difference was reported for the *effort* subscale between those who participated in the after-school program and those who did not. Non-participants had higher effort than participants of the after-school program. Statistically significant positive correlations were found between elementary students' academic self-efficacy and GPA.

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Chapter I

INTRODUCTION

School districts, leaders, and teachers alike are facing increased accountability for the achievement of all subgroups, including at-risk students from economically disadvantaged and minority backgrounds. To fulfill the requirements of the federal Race to the Top school improvement initiative, the Georgia State Board of Education (2014) mandated all local school districts implement the Georgia Department of Education's (DOE) newly developed Leader Keys Evaluation System (LKES) and Teacher Keys Evaluation System (TKES) by the 2014-2015 school year. With the addition of the College and Career Ready Performance Index (CCRPI) annual K-12 school reports and updated evaluation systems in Georgia, school personnel are under additional pressure for students to perform in the classroom as they are being held more accountable for student success (Office of Assessment and Accountability, 2014). Under LKES and TKES, 40% of leaders' and 30% of teachers' annual evaluations is contingent upon student growth and academic achievement measures (Georgia State Board of Education, 2016).

Self-efficacy, or personal beliefs about one's ability to perform various tasks (Bandura, 1977, 1997), has been shown to be a reliable predictor of students' academic achievement (Bong, Cho, Ahn, & Kim, 2012; Galyon, Blondin, Yaw, Nalls, & Williams, 2012; Karaarslan & Sungur, 2011; McConney & Perry, 2010; Weiser & Riggio, 2010). Interviews with resilient students, or those resolving within themselves to achieve

personal goals despite life challenges, revealed self-efficacy was a major determinant in their decision to persevere through personal struggles and overcome the odds to graduate from high school (Lessard, Fortin, Marcotte, Potvin, & Royer, 2009). MacPhee, Farro, and Canetto (2013) found self-efficacy beliefs strongly predicted a student's intention to pursue higher education. After-school programs may assist school leaders in addressing the academic needs of underperforming at-risk students (Springer & Diffily, 2012).

The Southern Pines School District was recently awarded a 21st Century Community Learning Centers grant providing additional funding for at-risk students to participate in the after-school learning programs and recreational activities at the Boys and Girls Club which opened Fall 2014 (Southern Pines School District, 2014). During the academic year, after-school program services are offered through the organization for 170 contact days over the course of 34 weeks. A 6-week summer camp is offered for student participants as well.

Academic as well as enrichment activities are provided for a minimum of 3 hours Monday through Friday, for a total of 15 hours per week, at the center. Students receive reading, math, and science instruction daily from certified teachers. Standards-based instruction is provided in three 45-minute segments to increase student learning in these targeted academic areas. Homework assistance is also provided. Students are given 15 minutes for snack time and have an enrichment period of 30 minutes (Southern Pines School District, 2014).

Whereas students' self-efficacy has been shown to positively influence academic performance (Alivernini & Lucidi, 2011; Galyon et al., 2012; McConney & Perry, 2010; Niehaus, Rudasill, & Adelson, 2012; Weiser & Riggio, 2010), after-school programs may

be a critical link to further ensure all students succeed. After-school programs may serve a useful role in helping school leaders and teachers attain ever-increasing accountability benchmarks. This study sought to explore the effects of after-school program participation on elementary students' self-efficacy beliefs and determine if there was a relationship between elementary students' self-efficacy beliefs and grade point averages (GPA).

Statement of the Problem

Evidence of the influence of after-school programs on academic achievement has been inconsistent (Springer & Diffily, 2012). Although extensive research has been conducted on the relationship of after-school programs to academic achievement, a gap still exists in the current literature related to how after-school programs influence students' self-efficacy beliefs (Niehaus et al., 2012). As mentioned in Niehaus et al. (2012), further investigation is needed to determine the role after-school programs may play in developing at-risk students' self-efficacy beliefs as a means to further improve student achievement. This study explored the effects of after-school programs on elementary students' self-efficacy beliefs and provided additional insight on the impact of after-school programs by filling a void in the literature. A majority of the research pertaining to the effectiveness of after-school programs has focused on students in the middle and secondary grades while little research has been conducted at the elementary level.

Theoretical Basis of the Study

As students attend and participate in after-school program activities, it is proposed their self-efficacy beliefs may be impacted. Albert Bandura is a prominent scholar on

self-efficacy. Bandura (1977, 1997) identified four elements influencing students' self-efficacy beliefs: performance accomplishments, verbal persuasion, vicarious experience, and emotional arousal. Bandura argued past successes and failures shape a student's self-efficacy beliefs. He suggested success in any endeavor increases students' confidence in their abilities while failure weakens students' outlook with the impact being more severe when the timing of the successes or failures is at the start of an activity. By creating positive academic experiences for students, Bandura suggested their self-efficacy beliefs would be strengthened.

Another significant factor Bandura (1977, 1997) suggested as influencing self-efficacy beliefs is verbal persuasion. Verbal persuasion is encouragement and support given by others to strengthen individuals' expectations of success (Bandura, 1977, 1997). Bandura acknowledged verbal persuasion in itself is not enough when he wrote, "to raise by persuasion expectations of personal competence without arranging conditions to facilitate effective performance will most likely lead to failures that discredit the persuaders and further undermine the recipients' perceived self-efficacy" (1977, p. 198). After-school programs may offer such an atmosphere conducive to strengthening at-risk students' self-efficacy beliefs.

Self-efficacy beliefs are merely students' perceptions of performance and not indicative of what students can actually achieve (Bandura, 1977, 1997). Student opinions are often shaped by how they see themselves compared to others. Vicarious experiences are formed when students make observations and assessments based on peer comparisons.

Bandura (1977, 1997) contended emotional arousal was a source of students' self-efficacy beliefs. Bandura suggested students' emotional reactions to the environment could affect students' self-efficacy beliefs toward completing a task. Students' self-efficacy beliefs are positively or negatively reinforced by their successes and failures respectively. Students displaying negative emotions such as fear and anxiety when encountering a situation are more likely to avoid specific tasks altogether.

Purpose of the Study

The population of at-risk students in Georgia's public schools is steadily increasing as Georgia continues to undergo a demographic shift (Georgia Partnership for Excellence in Education, 2013). Economically disadvantaged students as well as students from minority backgrounds face many social disadvantages in life (Georgia Partnership for Excellence in Education, 2013). Despite these challenges, McConney and Perry (2010) found students with increased self-efficacy outperformed those students with less confidence in their academic abilities regardless of social class. Students' academic achievement was positively associated with a rise in students' self-efficacy beliefs.

When examining the relationship between socioeconomic status and self-efficacy beliefs, Karaarslan and Sungur (2011) found students' self-efficacy beliefs were positively related to the amount of books, household income, and regularity of purchasing a daily paper. The prevalence of these variables is more frequent in affluent home environments as opposed to economically disadvantaged households (Karaarslan & Sungur, 2011). Contextual factors influence students' achievement in school (Fan, Williams, & Wolters, 2012; McConney & Perry, 2010). Statistically significant

differences in achievement were noted for economically disadvantaged minority students compared to their peers (MacPhee et al., 2013). After-school programs may offer a lifeline to at-risk students by providing the additional support they need to be successful.

The purpose of this study was to further examine the impact of after-school program participation on elementary students' self-efficacy beliefs. This study also investigated the relationship between elementary students' academic self-efficacy and academic GPA.

Significance of the Study

Little research on after-school programs exists involving elementary school students. For this purpose, this study focused solely on students in Grades 3-5. Springer and Diffily (2012) stated after-school programs are not designed solely to ensure students succeed academically but rather are a means to address the developmental needs of the whole child. After-school programs may benefit at-risk students in a myriad of ways instilling confidence in their abilities and strengthening their self-efficacy. As a result, students will be more inclined to succeed academically and remain on the right track. This study shed more light on the relationship between students' self-efficacy beliefs and academic achievement as well as helped determine the impact of after-school programs on students' self-efficacy beliefs.

Research Questions

This study aimed to answer the following research questions:

Research Question 1. Is there a significant mean change in academic self-efficacy beliefs of elementary school students after participating in an after-school program?

Research Question 2. Is there significant mean difference in academic self-efficacy beliefs between elementary school students enrolled in an after-school program and those not enrolled in an after-school program?

Research Question 3. Is there a statistically significant correlation between elementary school students' academic self-efficacy and Grade Point Averages (GPA)?

Procedures

Approval for this study was obtained from the Institutional Review Board (IRB) at Valdosta State University (see Appendix A) and the Superintendent of Schools. Archival data, including Morgan-Jinks Student Efficacy Scale (MJSES) (1999) results and academic GPAs, were collected from the school system's Director of Student Information. Participants attended one of the four elementary schools in the Southern Pines School District participating in the 21st Century Community Learning Centers grant: Lakeshore, Marshside, Pineview, or Sunshine Elementary. The MJSES (1999) was administered during the 2 weeks prior to the students entering the after-school program and at the end of the second 9-week period thereafter examining students' self-efficacy beliefs. The treatment group consisted of students in Grades 3-5 participating in the 21st Century Community Learning Centers after-school program at the Boys and Girls Club. School counselors and homeroom teachers selected after-school program participants demonstrating the most need based on academic GPA, student discipline, and attendance data. Students not attending the after-school program but attending these respective schools participated in the study as well. A random sample of nonparticipants was selected having a cumulative self-efficacy score within the range (87 to 120) of the participants' scores, and neither the student ID number nor the cumulative self-efficacy

score was missing. Academic GPAs were obtained for all students in the sample at the end of the second 9-weeks grading period. A paired samples *t* test was used to answer Research Question 1, and a Mixed Design MANOVA was used to answer Research Question 2. For Research Question 3, a Pearson's correlation was calculated to determine the statistical significance of the relationship between academic self-efficacy and GPA.

Limitations of the Study

Sample size was the main limitation of this study. Participant selection was limited due to several factors. All participants in the sample were drawn from specified elementary schools within one school district in Georgia. These schools were selected based on their involvement with the 21st Century Community Learning Centers grant. Participants had to be enrolled in Grades 3-5. Limited seats were available in the Boys and Girls Club after-school program due to lack of funds. As a result, the number of participants in the treatment group was restricted. Participants had to be present during both administrations of the student survey. These factors diminished the generalizability of the findings of this study.

Definition of Terms

Academic GPA. A numerical score calculated by averaging the content area grades for English Language Arts, Math, Science, and Social Studies.

After-school Program. A program with an academic component provided outside of the normal school day by any organization other than the school system to help students master content standards in core subject areas (U.S. DOE, 2014).

Boys and Girls Clubs of America. An independent organization serving underprivileged youth in local communities. The club exists to offer boys and girls a safe environment after-school hours and provides at-risk students the opportunity for a brighter future. “Club programs and services promote and enhance the development of boys and girls by instilling a sense of competence, usefulness, belonging and influence” (Boys and Girls Clubs of America, 2015).

CCRPI. Georgia’s College and Career Ready Performance Index “is a comprehensive school improvement, accountability, and communication platform for all educational stakeholders that will promote college and career readiness for all Georgia public school students” (Georgia Department of Education, 2014).

Context. Students’ perceptions of the likelihood of socio-cultural or contextual issues leading to given outcomes (Jinks & Morgan, 1997).

Economically Disadvantaged. A subgroup referring to students who meet the criteria for the free or reduced meal pricing program (Governor’s Office of Student Achievement, 2015).

Effort. Students’ self-assessment of the influence of their efforts on task completion (Jinks & Morgan, 1997).

Elementary Students. For this study, students in Grades 3-5.

Minority. A student of non-White background (Georgia Partnership for Excellence in Education, 2013).

Race to the Top. A competitive grant process whereby states could receive funds from the American Recovery and Reinvestment Act of 2009 (ARRA). These funds were

to be allocated for school improvement, innovation, and reform initiatives (Georgia DOE, 2014).

Self-efficacy. A personal assessment of student self-beliefs involving the three factors of talent, context, and effort as measured by the Morgan-Jinks Student Efficacy Scale (1999). To aid the reader, necessary items were reverse coded for higher total scores to indicate higher self-efficacy.

Talent. Students' perceptions of their innate ability (Jinks & Morgan, 1997).

21st Century Community Learning Centers. This is a federal program supporting “the creation of community learning centers that provide academic enrichment opportunities during non-school hours for children, particularly students who attend high-poverty and low-performing schools” (U.S. DOE, 2014).

Organization of the Study

Chapter 2 provides a review of literature. The methodology of the study is outlined in Chapter 3 detailing study design, ethical considerations, participant selection, instrumentation, data collection and data analysis procedures, and limitations of the study. Research results and data analysis are reported in Chapter 4. Chapter 5 presents a final summary and discussion with suggestions and implications for future research based on the findings of the study.

Chapter II

REVIEW OF LITERATURE

Schools are increasingly partnering with community organizations to maximize learning opportunities accessible to students during out of school time (OST) (Anderson-Butcher, Stetler, & Midle, 2006). Through an award of the 21st Century Community Learning Centers grant, the Southern Pines School District was able to secure the necessary funding to partner with the community in establishing the local Boys and Girls Club. By offering academic learning support, increasing student engagement, and tackling social barriers, after-school programs are able to work in collaboration with schools fostering student success (Paluta, Lower, Anderson-Butcher, Gibson, & Iachini, 2016).

In 2015, President Obama signed into law the Every Student Succeeds Act (ESSA) reauthorizing the federal education law formerly known as the No Child Left Behind Act of 2001 or originally the Elementary and Secondary Education Act of 1965. After much debate among lawmakers, funding for the 21st Century Community Learning Centers (CCLC) program was maintained in the updated law. About one billion dollars in funding is allocated toward the program annually (U.S. DOE, 2014). The 21st CCLC program is the sole means the federal government provides to schools for funding after-school programs (Afterschool Alliance, 2015). When awarding funds, priority is given to local education agencies or school districts partnering with community or external organizations (U.S. DOE, 2014). The program makes it possible for schools

to provide additional academic support as well as family connection services to students. With the passage of the revised law, local school districts now have more discretion as to which students receive services whereas in the past funding was concentrated to those schools receiving Title I funds and having a large percentage of economically disadvantaged students. After-school programs operating before or after school hours, on weekends, and throughout the summer may qualify to receive funding (Afterschool Alliance, 2015).

As a result of a recent grant, the Southern Pines School District operates a 21st CCLC after-school program in connection with the Boys and Girls Club (Southern Pines School District, 2014). The after-school program operates 170 days out of the academic year as well as holds a 6-week summer camp. Students receive supplemental academic and enrichment activities during this time.

The Boys and Girls Clubs of America organization emphasizes the following three primary outcomes to gauge each child's success: Academic Success, Good Character and Citizenship, and Healthy Lifestyles (Boys and Girls Clubs of America, 2016). For the *Academic Success* component, the goal is for each child to remain on track to graduate high school prepared for college or career. With its focus on *Good Character and Citizenship*, the Boys and Girls Clubs strives to develop student leadership skills so the participants will grow up to be involved, engaged citizens possessing positive character traits. As part of the *Healthy Lifestyles* initiative, attendees are expected to lead healthy lives by making proper fitness and wellness choices. Five key elements for positive youth development guide and shape all facets of the Boys and Girls

Clubs program activities: a safe, positive environment; fun; supportive relationships; opportunities and expectations; and recognition.

This review of literature begins by examining the characteristics of quality after-school programs and the relation to student outcomes. The next section addresses the results of after-school programs on student achievement. The following sections focus on self-efficacy theory, the sources of self-efficacy beliefs, gender and grade-level differences related to self-efficacy, and the relationship of self-efficacy to academic GPA. A summary and rationale for additional research concludes the review of literature.

After-School Program Quality and Student Outcomes

All after-school programs are not created equal (Palmer, Anderson, & Sabatelli, 2009; Pierce, Bolt, & Vandell, 2010). While many studies in the field have suggested the various benefits of after-school programs to positive youth development and students' academic achievement, there is evidence indicating some programs have had no impact at all (Little, Wimer, & Weiss, 2007; Palmer et al., 2009). Whereas in the past, after-school program research has mainly centered on outcome-driven approaches, there is now a growing body of research seeking additional insight into program quality (Palmer et al., 2009). What makes some programs effective while others are not? This is a multi-faceted question, but quality-driven approaches are helping efforts to better define what works in effective after-school programs.

In their work with the Harvard Family Research Project, Little et al. (2007) identified several features common to effective programs: accessibility and program participation; quality programming, more specifically program structure and supervision as well as staff training; and supportive partnerships with all stakeholders. As it relates to

program participation, Lauer et al. (2006) found in their meta-analysis that programs involving over 45 hours throughout the school year had increased effect sizes for reading and mathematics. No significant gains were reported for programs with the longest duration, or those having over 210 contact hours, suggesting longer programs only produce outcomes to a certain degree before the effect is maximized. Lauer et al. noted this distinction could possibly be attributed to student motivation as student attendance could wane in longer programs. Hirsch, Mekinda, and Stawicki (2010) concurred with this argument in their analysis of after-school programs' quality stating, "Attendance is a necessary but not sufficient condition of participation." (p. 448). Durlak, Weissberg, and Pachan (2010) added, "attendance is only one aspect of participation" (p. 303).

It is important students are not only present, but engaged in program activities as well (Cross, Gottfredson, Wilson, Rorie, & Connell, 2010; Durlak et al., 2010; Hirsch et al., 2010; Lauer et al., 2006; Pierce et al., 2010). As Lauer et al. (2006) pointed out, student engagement becomes more of a concern with students in the upper grades. As children grow older, programs must offer a variety of appealing activities to maintain student interest and enthusiasm for learning. Cross et al. (2010) found the amount of time students attended an after-school program to not be connected to their experiences, but student engagement was linked to students' experiences.

In Pierce et al.'s (2010) study examining quality program features, student performance in Grades 2 and 3 was not related to programming flexibility, or students having the ability to choose program activities; they cautioned this program feature may become increasingly important after the third grade. Varied, developmentally appropriate enrichment activities were positively associated with student's math grades and work

habits in Grade 3, but no changes were evident in Grade 2. Negative changes in student grades and work habits occurred in Grade 1 when offered additional activities suggesting children are better equipped to adjust to more options as they mature and develop.

After-school programs must provide a safe, nurturing environment for students to excel and reach their full potential (Pierce et al., 2010). In their longitudinal study investigating program quality features, Pierce et al. (2010) found students in second and third grade, who regularly attended after-school programs with caring, supportive staff, outperformed those with less positive staff-child relations. In their review of after-school programs, Cross et al. (2010) found students' experiences to be closely connected with the implementation quality of the programs. As proposed by Cross et al., the effectiveness of after-school programs may very well depend on staff quality. Students attending programs staffed with highly trained personnel and experiencing low staff turnover rates reported having more positive program experiences.

Findings on whether the focus of program activities were academic or a combination of academic and social programming were mixed in regards to student achievement lending credence to the argument that out-of-school time programs do not need to be necessarily academic in nature to achieve positive outcomes (Lauer et al., 2006). Durlak et al. (2010) conducted a meta-analysis of after-school programs involving social skills training. The programs incorporating all four SAFE (Sequenced, Active, Focused, Explicit) best practices into the instruction reported positive results associated with school grades and achievement test scores while those incorporating none or only a few of the features produced no significant outcomes. SAFE programs provide for the sequential mastery of skills over time, offer students experiential active learning

opportunities, focus adequate time and energy on social skills development, and have clearly defined, explicit learning goals. By partnering with organizations like the Boys and Girls Club of America and offering programs focused on positive youth development, 21st CCLCs may have the potential to be an invaluable resource for schools in raising student achievement.

Paluta et al. (2016) investigated 21st CCLCs to determine stakeholder perceptions of program quality indicators and program outcomes as well as the relationship of program quality to outcomes. Positive perceptions were reported for all program areas with stakeholders viewing youth development as an area of strength and parent and family engagement least favorably in 21st CCLC programs. Although not the weakest area, stakeholders' perceptions revealed 21st CCLC programs could improve program quality in helping students achieve academic outcomes. Paluta et al. determined a significant correlation existed between program quality and outcomes with the parent and family engagement domain having the strongest correlation. Based on these findings, they suggested there is still much work to be done building relationships and partnering with students' families to improve the quality of after-school programs.

As Cross et al. (2010) so aptly said, "best practices research on ASPs [after-school programs] is still in its infancy" (p. 371). Implementation quality is just as important as program design to achieving maximum results (Cross et al., 2010; Hirsch et al., 2010). Hirsch et al. (2010) added, "programs, no matter how expertly designed, are only as good as their implementation....program design is only half the battle" (p. 450).

After-School Programs and Academic Achievement

Current research on after-school programs has been inconsistent and has yielded mixed results on the effect of after-school program participation on academic achievement (Fashola, 1998; Holstead & King, 2011; Huang, Leon, La Torre, & Mostafavi, 2008; James-Burdumy, Dynarski, & Deke, 2007; Jenner & Jenner, 2007; Leos-Urbel, 2015; Little et al., 2007; Mahoney, Lord, & Carryl, 2005; Palmer et al., 2009; Paluta et al., 2016; Pierce et al., 2010; Springer & Diffily, 2012). Many studies have suggested the positive academic outcomes of after-school programs (Anderson-Butcher, Newsome, & Ferrari, 2003; Durlak et al., 2010; Holstead & King, 2011; Huang et al., 2008; Jenner & Jenner, 2007; Lauer et al., 2006; Mahoney et al., 2005; Posner & Vandell, 1994; Springer & Diffily, 2012; Vandell, Reisner, & Pierce, 2007) while some have provided no evidence of after-school programs increasing students' academic achievement (James-Burdumy et al., 2007; Kane, 2004; Zief, Lauver, & Maynard, 2006).

Although there is a wealth of after-school program research concerning academic outcomes, many reviewers have warned the findings are inconclusive due to the research design utilized in the studies (Fashola, 1998; James-Burdumy et al., 2005; Scott-Little, Hamann, & Jurs, 2002; Zief et al., 2006). Most after-school program studies that have suggested academic benefits of after-school programs incorporate quasi-experimental or non-experimental designs (Zief et al., 2006) and cannot prove causation (Fashola, 1998; Scott-Little et al., 2002). Experimental designs are used sparingly due to costs and time factors (Scott-Little et al., 2002). In their meta-evaluation of after-school programs, Scott-Little et al. (2002) reported, "Results from the synthesis on after-school evaluations yielded encouraging, but certainly not conclusive, evidence for the effectiveness of after-

school programs....additional research is needed to draw firm conclusions about the impact of after-school programs” (p. 410).

Posner and Vandell (1994) investigated how after-school arrangements affected the academic achievement of 216 economically disadvantaged students. Relationships were shown between students’ grades and the type of after-school setting: formal after-school program, mother care, informal adult supervision, and self-care. The authors found students attending a formal after-school program had better reading and math grades than those under their mother’s care or other adult supervision. Increased grades in all other content areas were reported for students in formal after-school programs than those having other forms of after-school care. In a subsequent follow-up study, Posner and Vandell (1999) tracked these same students through fifth grade and found further evidence supporting their initial 1994 findings that students participating in after-school programs spent a greater amount of time in academic and enrichment-based activities compared to their peers in other after-school settings.

Anderson-Butcher et al. (2003) surveyed 139 youths ranging from 10 to 18 years old participating in a Boys and Girls Club of America after-school program. Students’ responses revealed improved academic achievement and better attitudes toward school as it related to enjoyment and effort due to club participation. As age increased, students expressed more dissatisfaction with school and self-reported having lower grades (Anderson-Butcher et al., 2003).

A longitudinal study conducted by Mahoney et al. (2005) investigated the academic outcomes of after-school program participation on underprivileged children. Mahoney et al. considered four types of after-school care categorized as after-school

program, parent care, parent/nonadult care, and other adult/nonadult care. They found students involved in after-school programs had significantly higher reading performance in comparison to the other after-school possibilities after controlling for pre-existing differences. These students experienced higher reading achievement as they progressed through the grades.

Lauer et al. (2006) performed a meta-analysis of Out of School Time research involving at-risk students. The authors used rigorous qualifications including the use of a control or comparison group design to select the 35 studies examined. They concluded although overall effect sizes were small for reading and math achievement, the findings suggest OST programs can produce positive academic outcomes for at-risk students.

A 2-year longitudinal study by Vandell et al. (2007) covering eight states and involving 1,796 third and fourth graders in 19 school or community-based programs found promising results for poor children attending high-quality after-school programs. Students were grouped into three different categories based on their level of participation in the after-school programs: Program Only, Program Plus, and Low Supervision. Students classified as *Program Only* attended an after-school program two to three times weekly and were not involved in other after-school activities. *Program Plus* students participated in other organized activities in addition to attending an after-school program two to three times per week. *Low Supervision* students did not attend an after-school program on a regular basis and lacked adult supervision one to three days per week. Over the 2 years, Vandell et al. found *Program Only* and *Program Plus* students significantly outperformed the *Low Supervision* group on standardized math test scores.

Jenner and Jenner (2007) evaluated 21st CCLC programs in the state of Louisiana to determine the academic effects on disadvantaged children using a quasi-experimental design. The study included students in third and fifth grade. Findings revealed program participants attending the program for a minimum of 30 days narrowed the achievement gap between them and nonparticipants. Spring ITBS standardized test scores increased significantly for program participants compared to nonparticipants. Further analysis indicated positive gains in the areas of language, reading, and social studies while math and science did not improve significantly. Jenner and Jenner found academic benefits from the 21st CCLC program increased in relation to program attendance. Over 4 years, Huang et al. (2008) studied two cohorts of students in LA's BEST after-school program in Los Angeles with similar findings for math but not English-language arts. Those students with higher levels of attendance of over 100 days experienced significant growth in their math performance in comparison to those with lower attendance rates, but the same did not hold true for English-language arts.

In their meta-analysis, Durlak et al. (2010) compared after-school programs based on program characteristics. Positive outcomes were reported in school performance only for after-school programs featuring the SAFE practices noted earlier. Significant gains were noted in school grades and achievement test scores for SAFE programs while those after-school programs that did not include all the recommended features did not show significant improvement in academic achievement.

Another study by Holstead and King (2011) focused on 6 high-quality 21st CCLC programs in the state of Indiana. The research involved 794 elementary students in third through fifth grade and compared the academic performance of students who attended

most frequently with those who did not attend a program at all. Results indicated underperforming students attending a program 60 or more days outscored matched students not attending a program on math and English/language arts standardized tests in the Spring and demonstrated greater growth than higher achieving students. Students passing both portions of the test in the Fall had lower results than nonparticipants.

Springer and Diffily (2012) studied elementary and middle school students who participated in a Boys and Girls Club after-school program and found after-school program participation significantly improved students' GPA. Program participation resulted in higher GPA's based on students' intensity in program activities. Springer and Diffily noted a strong, positive relationship was found between the two variables, especially for elementary students compared to middle school students. Elementary students' grades benefited from a wide exposure to program activities but only with high participation rates of 80% or above.

Another longitudinal study by Reisner, White, Russell, and Birmingham (2004) examined The After-School Corporation (TASC) after-school programs operating in New York City. At-risk, low-income, minority students were mainly served in the programs. After 1 year of attending TASC programs, elementary and middle school students showed a significant but not considerable difference in math achievement test scores over nonattendees. Student math gains increased markedly after 2 or more years of program participation when compared to students not participating. Significant academic differences were not found for English language arts/reading tests.

Although many studies have shown positive or mixed results, still others have found no academic benefits resulting from students attending after-school programs. In

his review of four different evaluations, Kane (2004) stated, “None of the evaluations under review reported a statistically significant impact on test scores at the end of a single year of participation” (p. 17). Kane attributed this to unrealistic expectations for statistical impact. Kane expounded, “We do not know whether after-school programs may be having more moderate, but nevertheless worthwhile, impacts on other academic performance measures.” (p. 22).

In a national evaluation of the 21st CCLC program, James-Burdumy et al. (2007) reported elementary students participating in the study experienced no significant academic benefits from the program. Null results were found for reading achievement on the Stanford Achievement Test-Version 9 with similar results for the treatment group (32.7 percentiles) and control group (32.4 percentiles). Students’ grades were comparable for most content areas.

A meta-analysis involving five experimental studies revealed no academic impact from after-school programs (Zief et al., 2006). Zief et al. (2006) found no support for after-school programs increasing students’ reading performance, but noted a slight insignificant difference in student grades could be attributed to after-school programs. Palmer et al. (2009) added, “Including so few evaluation studies may have limited the reliability of their findings” (p. 3). Based on these mixed findings, additional research is needed on the effectiveness of after-school programs increasing student achievement.

Self-Efficacy

Self-efficacy beliefs have been shown to influence the following factors associated with academic learning: choice of activities, effort, persistence, achievement, and emotional reactions (Bandura, 1977). While it is important to realize that these beliefs are simply personal assessments and not truly indicative of an individual's academic capabilities, it is suggested these beliefs do have an influence on students' motivation to learn (Margolis & McCabe, 2006). It is likely the students with low or negative self-efficacy beliefs will have low levels of motivation while students with high or positive self-efficacy beliefs will be highly motivated to see tasks through to completion. Schunk and Meece (2006) wrote, "Research supports the hypothesized relation of self-efficacy to academic motivation (effort, persistence) and achievement. Among students of different ages, significant and positive correlations have been obtained between self-efficacy for learning (assessed prior to instruction) and subsequent motivation during learning" (p. 79). Students with negative self-efficacy beliefs begin to approach their work haphazardly (Margolis & McCabe, 2006). They end up feeling hopeless and view themselves as a failure. They tend to give up and start to avoid tasks altogether thinking there is no use to try.

Students with high self-efficacy beliefs are more likely to seek out challenging, complex material to stimulate their learning (Margolis & McCabe, 2006). These students are willing to put forth the extra effort required from more rigorous tasks and demonstrate the persistence needed to figure out difficult tasks. High self-efficacy beliefs decrease crippling emotions such as doubt and worry. These students tend to perform better academically in school than students with low self-efficacy beliefs. Students with low

self-efficacy beliefs are less persistent and often give up when challenging tasks are presented. Low self-efficacy beliefs result in a lack of student motivation. As Margolis and McCabe (2006) put it, “Low self-efficacy beliefs, unfortunately, impede academic achievement and, in the long run, create self-fulfilling prophecies of failure and learned helplessness that can devastate psychological well-being” (p. 219).

Sources of Self-Efficacy Beliefs

Bandura (1977, 1997) proposed students obtain self-efficacy beliefs from four sources: enactive mastery, vicarious experiences, verbal persuasion, and physiological reactions or states. Enactive mastery is present when students demonstrate self-efficacy beliefs towards the subject matter based on their perceived successes or failures. Jinks and Morgan (1999) equated the relationship between low self-efficacy and student performance to a negative spiral by writing, “Low self-efficacy probably leads to less effort, which in turn would lead to lower success, resulting in even lower self-efficacy” (p. 224). Another source of self-efficacy, vicarious experiences, is evident when students’ performances are compared with those of their peers. Verbal persuasion is a powerful and effective technique adults can use to convince students they are capable of doing the work in order to help them overcome low self-efficacy. Physiological states refers to students’ emotions and feelings associated with a task. It is evidenced by students’ mental states as it pertains to the subject matter. All of these sources contribute to Bandura’s (1977, 1997) self-efficacy theory.

Students exhibiting low self-efficacy beliefs show no willingness to put forth additional effort to improve their performance (Margolis & McCabe, 2006). Students with low self-efficacy tend to give up, avoid, or resist tasks they perceive they will be

unsuccessful at accomplishing. Arslan's (2012) suggestion that self-efficacious students are resilient and able to persevere through challenges in life concurred with Lessard et al.'s (2009) findings that positive self-efficacy was a quality evident in the resilient students interviewed. Arslan (2012) implied students in the primary grades stand to benefit the most from interventions increasing students' self-efficacy beliefs. It is likely the impact of an after-school program will have greater benefits for students when implemented early on in their educational career (Arslan, 2012; Niehaus et al., 2012).

Gender Differences in Academic Self-Efficacy

Self-efficacy beliefs are domain specific (Schunk & Meece, 2006) and Bong et al. (2012) suggested students' self-perceptions of ability may differ based on academic content areas. Researchers investigating gender differences in students' self-efficacy beliefs have found mixed results depending on the academic domains being studied (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001; Huang, 2013; Meece, Glienke, & Burg, 2006; Schunk & Pajares, 2002; Webb-Williams, 2014). Boys typically are more self-efficacious in math and science compared to girls (Meece et al., 2006). The opposite holds true for reading and writing (Meece et al., 2006). Minimal evidence exists for gender differences in elementary school children with differences developing as students progress through the different levels of schooling (Pajares, 2002; Schunk & Pajares, 2002).

Huang (2013) conducted a meta-analysis of 187 studies examining a wide spectrum of academic domains: language arts, mathematics, science, social sciences, computers, general academics, and others. Most of the studies were performed in the U.S. with some taking place internationally. Participants ranged from elementary school

children as young as 6 years old to adults. Gender differences were found overall with males reporting higher academic self-efficacy beliefs compared to females. Further examination revealed academic content areas had an effect on academic self-efficacy beliefs. Males had higher self-efficacy in mathematics, computer self-efficacy, and social sciences while females had higher self-efficacy in language arts. These differences may be attributed to gender stereotypes prevalent within our society (Bandura et al., 2001; Griggs, Rimm-Kaufman, Merritt, & Patton, 2013; Huang, 2013; Lofgran, Smith, & Whiting, 2015; Meece et al., 2006; Pajares, 2002; Schunk & Pajares, 2002; Zimmerman & Martinez-Pons, 1990).

In her doctoral dissertation, Denton (1997) investigated students' self-efficacy beliefs. Denton found no significant gender differences existed among the first graders' self-efficacy beliefs. Students' socioeconomic status was examined as students were grouped by income. Results indicated socioeconomic status did not have an effect on students' self-efficacy beliefs.

A similar study by Webb-Williams (2014) involved 52 children between the ages of 10 and 12. The study took place in England at a primary school. It is important to note the grade designations at this school could possibly be different due to cultural differences. Reading, writing, and literacy skills were viewed most positively by students, whereas science received the lowest self-efficacy ratings. Girls' self-efficacy beliefs for general academics were significantly higher than boys in all measures. The researchers point out cultural differences may have played a role in the study's findings contrasting with previous results on gender differences (Huang, 2013; Webb-Williams, 2014).

In a study pertaining to motivational components, Pintrich and De Groot (1990) surveyed 173 seventh graders. Seventy-three boys and 100 girls completed the questionnaire. Gender differences in self-efficacy were found with boys reporting higher self-efficacy than girls (Pintrich & De Groot, 1990).

Zimmerman and Martinez-Pons (1990) found a main effect for students' gender in their investigation of academic self-efficacy. Boys were more self-efficacious in verbal efficacy than girls with similar perceptions of mathematical efficacy. These results conflicted with Huang's (2013) findings and typical gender stereotypes (Bandura et al., 2001; Griggs et al., 2013; Huang, 2013; Meece et al., 2006; Pajares, 2002; Schunk & Pajares, 2002; Zimmerman & Martinez-Pons, 1990).

Lloyd, Walsh, and Yailagh (2005) conducted a study in British Columbia involving 62 fourth-graders and 99 seventh-graders. When examining gender differences in mathematics self-efficacy, insignificant differences existed in students' total self-efficacy. Boys generally displayed overconfidence in their mathematics abilities in relation to their academic performance while girls underestimated their abilities. In another study by Pajares and Graham (1999) investigating math self-efficacy beliefs of 273 sixth graders, students did not show gender differences at the beginning nor end of the school term in their math self-efficacy beliefs.

Bandura et al. (2001) studied 272 children, 11 to 15 years old, and found no differences in students' global academic self-efficacy beliefs. Gender differences were shown in students' self-efficacy relative to content domain. Boys viewed themselves as being more capable at mathematics and geographic science whereas girls held stronger self-efficacy beliefs for language.

Fifth graders responding to Griggs et al.'s (2013) survey of math and science self-efficacy showed comparable results for math self-efficacy. Boys held higher self-efficacy beliefs than girls in science albeit a small variation. Further analysis revealed students held similar self-efficacy beliefs in both academic domains when controlling for students' anxiety levels.

In another study on science self-efficacy, Karaarslan and Sungur (2011) studied 145 Turkish elementary school students in fifth through eighth grade. Participants included 83 girls and 62 boys. Students showed no significant gender differences in their science and technology self-efficacy. In a similar study, Lofgran et al. (2015) investigated students' science efficacy in Grades 6-9 and found differing results. Results indicated girls were less efficacious in science than boys in all grades examined.

Studies analyzing writing self-efficacy beliefs have been inconsistent in the findings of gender differences (Pajares, Johnson, & Miller, 1999; Pajares & Valiante, 1997; Shell, Bruning, & Colvin, 1995). Shell et al. (1995) found significant gender differences for writing self-efficacy beliefs among students in fourth, seventh, and tenth grade, but no interaction effect was shown between gender and grade or achievement level. In contrast, Pajares and Valiante (1997) reported no significant differences for writing self-efficacy between fifth grade boys and girls. Girls held higher writing self-efficacy beliefs and were less apprehensive towards writing than boys in the study (Pajares & Valiante, 1997). Pajares et al. (1999) examined gender differences of third, fourth, and fifth graders' writing self-efficacy beliefs and concluded no gender differences existed in writing self-efficacy.

Grade-Level Differences in Academic Self-Efficacy

Self-efficacy is a context-specific belief by nature (Klassen, 2002) contrasting with more general self-constructs such as self-esteem and self-concept (Huang, 2013; Meece et al., 2006). Research on grade-level differences in self-efficacy beliefs thus far has yielded inconsistent results (Klassen, 2002; Schunk & Meece, 2006). Researchers have proposed these differences may be related to the specificity of self-efficacy measures (Huang, 2013; Klassen, 2002; Meece et al., 2006; Schunk & Meece, 2006). Pajares and Valiante (1997) explained, “the effects of low self-efficacy beliefs may differ by sex and by age, but they are likely to result in lessened effort, decreased persistence and perseverance, and lower optimism any time they are held” (p. 358).

Urduan and Midgley (2003) found a significant decline in self-efficacy beliefs when students transitioned from elementary to middle school. Lofgran et al. (2015) noted a decline in students’ science self-efficacy beliefs as students transitioned through the different levels of schooling: elementary, middle, and high school. This incremental decline only reached significance as students moved to ninth grade. Lloyd et al. (2005) indicated fourth graders held higher total self-efficacy beliefs than seventh graders. Most notably in mathematics, boys and girls have been shown to have similar self-efficacy beliefs in elementary school with girls becoming less efficacious as they enter middle school (Bandura et al., 2001; Meece et al., 2006; Pajares, 2002; Pajares & Graham, 1999; Schunk & Meece, 2006; Schunk & Pajares, 2002).

Conversely, a study performed by Shell et al. (1995) found grade level differences in the reading and writing self-efficacy beliefs of fourth, seventh, and tenth graders. Findings indicated task self-efficacy beliefs increased significantly through the grades.

Fourth graders reported lower task self-efficacy than seventh graders in both subjects. Also, seventh graders were less efficacious than tenth graders.

Likewise, Zimmerman and Martinez-Pons (1990) found increases in self-efficacy beliefs of students with development level. In their study involving fifth, eighth, and eleventh graders, grade-level differences were significant for verbal and mathematical efficacy. Results revealed students becoming more efficacious in verbal and mathematical efficacy as they progressed through the grades. However, the grade level differences between eighth and eleventh graders were insignificant for mathematical self-efficacy.

Yet, Karaarslan and Sungur (2011) found no significant grade level differences among students in Grades 5-8. In his narrative review, Klassen (2002) stated, “Taken as a whole, the results regarding grade level and self-efficacy are unclear – there are grade-level differences, but the results are difficult to define into trends” (p. 186). Regardless of age, self-efficacy beliefs have been found to be positively associated with higher academic achievement (Meece et al., 2006).

Self-Efficacy and Academic GPA

Domain specific self-efficacy is a better predictor of students’ academic achievement than more general self-constructs (Bong et al., 2012; Robbins et al., 2004). A meta-analysis of college studies by Robbins et al. (2004) identified academic self-efficacy as the optimal predictor of GPA out of nine motivational constructs having a moderate correlation of .496. After further analyses, Robbins et al. cautioned that insubstantial, positive biases might exist in the relationship between academic self-efficacy and GPA because their study only included published works.

Another noteworthy meta-analysis performed by Multon, Brown, and Lent (1991) also examined the relationship between self-efficacy and academic achievement. Unlike Robbins et al. (2004), Multon et al.'s study was largely comprised of elementary school students. The studies included used 19 different performance measures including standardized test scores, course grades, cumulative GPA, and other data. An overall moderate effect size of .38 was found between self-efficacy and academic achievement, but significant heterogeneity existed among the different categories. A slightly smaller effect size of .36 was reported for classroom-related measures such as grades and cumulative GPA while effect sizes for standardized tests and basic skills measures were .13 and .52, respectively.

In their work creating an additive risk model to predict the academic achievement of high school students, Lucio, Rapp-Paglicci, and Rowe (2011) found a statistically significant correlation between academic self-efficacy and cumulative GPA. Lucio et al. noted that academic self-efficacy had both risk and protective qualities. Students lacking in self-efficacy had a greater probability of having a low GPA while more self-efficacious students were more likely to succeed (Lucio et al., 2011).

In their study, Karaarslan and Sungur (2011) reported the relationship between students' science and technology self-efficacy and prior semester grade was significant. Weiser and Riggio (2010) concluded that general and academic self-efficacy were significant predictors of GPA for the 193 undergraduate students involved in their study. In another study involving seventh graders, Pintrich and De Groot (1990) found a positive correlation between self-efficacy and semester and full academic year grades. Although Niehaus et al. (2012) also found a positive relationship existed between self-

efficacy and GPA of Latino middle schoolers, the association did not reach the level of statistical significance.

In a comparison of low income to non-low income children, Denton (1997) found that academic GPA was not significantly related to students' self-efficacy beliefs in both groups of first graders. Galyon et al. (2012) did not find a significant relationship between GPA and self-efficacy of undergraduate students. Galyon et al. suggested these findings could be attributed to admission criteria at the college level.

Edman and Brazil's (2009) study of community college students revealed possible ethnic differences associated with academic self-efficacy and GPA. No correlations were found between self-efficacy and semester or cumulative GPA among Caucasians, African Americans, and Hispanics, but a positive relationship was found between semester and cumulative GPA for Asians (Edman & Brazil, 2009). As is evident by this review, the literature detailing the connection between self-efficacy and academic GPA reveals mixed findings at various educational levels.

Summary

With increasing accountability for student achievement in Georgia (Office of Assessment and Accountability, 2014), schools are working more in collaboration with community organizations to improve student outcomes (Anderson-Butcher et al., 2006). As the recipient of a 21st Century Community Learning Centers grant, the Southern Pines School District partnered with the Boys and Girls Club to offer an after-school program for at-risk students (Southern Pines School District, 2014). Research findings on the effects of after-school programs on student achievement have been mixed. Researchers

are increasingly focusing on program quality to better understand these differences in student outcomes (Palmer et al., 2009).

Self-efficacy is a stronger predictor of student achievement compared to more general self-constructs (Bong et al., 2012; Robbins et al., 2004). In his leading work, Bandura (1977) found self-efficacy to affect students' choice of activities, effort, persistence, achievement, and emotional reactions as it involves student learning. Bandura (1977, 1997) proposed students' self-efficacy beliefs are shaped by the following four sources: enactive mastery, vicarious experiences, verbal persuasion, and physiological reactions.

Self-efficacy research has yielded inconsistent results based on students' gender and grade level. Most self-efficacy data has predominantly been reported at the middle and secondary levels. The studies involved grade levels other than Grades 3-5. Mixed results have been found for the correlation between self-efficacy and academic GPA with differences among educational levels. These mixed findings indicate the need for further research at the elementary level to address the impact of after-school program participation on students' self-efficacy and define the relationship between self-efficacy and GPA.

Chapter III

METHODOLOGY

The purpose of this study was to examine if after-school programs affect elementary school students' self-efficacy beliefs and to determine if any significant relationship exists between elementary school students' academic self-efficacy beliefs and their Grade Point Averages (GPA). Archival data were collected using survey data and student information records from the Southern Pines School District. Quantitative data were collected using an ordered response survey, which was previously developed by other researchers. The researcher analyzed students' responses to the Morgan-Jinks Student Efficacy Scale (MJSES) as well as students' GPA (Jinks & Morgan, 1999).

For this study, quantitative methods were used to address the following research questions:

Research Question 1. Is there a significant mean change in academic self-efficacy beliefs of elementary school students after participating in an after-school program?

Research Question 2. Is there significant mean difference in academic self-efficacy beliefs between elementary school students enrolled in an after-school program and those not enrolled in an after-school program?

Research Question 3. Is there a statistically significant correlation between elementary school students' academic self-efficacy and Grade Point Averages (GPA)?

Research Design

A matching only pretest-posttest comparison group design was used in this study (Creswell, 2009). The research design utilized was causal-comparative in nature since the independent variable, group membership, was determined prior to the study (Fraenkel & Wallen, 2009). In particular, having a categorical variable made this study well suited to the causal-comparative design. This quantitative approach was chosen because the study sought to explore the effects based on participation in the 21st CCLC after-school program (Fraenkel & Wallen, 2009). The causal-comparative design was advantageous because it is less costly and more time effective compared to the experimental approach (Fraenkel & Wallen, 2009). However, the causal-comparative approach does not come without limitations. While the causal-comparative design can be used to identify relationships among variables, causation is not justified with this methodological approach (Fraenkel & Wallen, 2009). In addition, the researcher had less flexibility in the design structure than with other research designs (Fraenkel & Wallen, 2009). Manipulation of variables does not take place in causal-comparative studies because groups have already been formed (Fraenkel & Wallen, 2009). Lack of randomization was another weakness of the causal-comparative design (Fraenkel & Wallen, 2009).

Threats to Internal and External Validity

The use of purposive sampling, rather than random sampling, to select study participants was a threat to the internal validity of this study (Fraenkel & Wallen, 2009). Using a statistical matching technique, groups were matched on the dependent variable, self-efficacy beliefs, to help control for group differences on the post-test scores (Fraenkel & Wallen, 2009). Subject selection bias was still likely due to the lack of

control over other participant factors such as socioeconomic level of the family, race, and gender (Fraenkel & Wallen, 2009). The other main threats to internal validity of this study included location, data collector bias, instrumentation, and loss of subjects (Fraenkel & Wallen, 2009). To reduce the threats of location bias, principals provided the data collectors, homeroom teachers, at each location or school with a uniform set of written instructions to use during the survey administration testing window. The survey was given to students belonging to each group at the same time to control for data collector bias. Instrumentation threats were addressed by providing teachers with clear, concise instructions standardizing the administration of the survey to all students. The likelihood of loss of subjects was rather high due to the transiency of students within schools. This threat to internal validity could be controlled because most transient students transfer within the district between the schools participating in the study and could be accounted for over the time span of the study.

A threat to external validity was ecological generalizability. When interpreting the results of this study, caution must be exercised when generalizing its findings to other settings and locations that are not located in rural areas and schools with the same conditions (Fraenkel & Wallen, 2009). The population of this study included third, fourth, and fifth graders enrolled at the four elementary schools participating in the 21st CCLC grant. This population may not be representative of other schools in the district; therefore, the generalizability of the study findings is only applicable to these respective schools and care must be taken when generalizing to other populations and after-school programs. By choosing a sample representative of the population, the population generalizability threat was minimized (Fraenkel & Wallen, 2009).

Participants and Setting

This study took place in a largely rural community in southeastern Georgia. Participants in this study included 994 students at four K-5 elementary schools. For this study, Grades 3-5 were chosen based on their participation in the 21st CCLC grant. Each school contained a high percentage of students eligible for the federal free and reduced lunch program ranging from 68.5% – 82.2% and was similar in population size (Southern Pines School District, 2014). Table 1 displays gender and racial demographic information for each of the participating elementary schools.

Table 1

School Population in Grades 3-5 by Gender and Race

School	<u>Males</u>		<u>Females</u>		<u>Total</u>
	Minority	Nonminority	Minority	Nonminority	
Lakeshore	104	52	82	44	282
Marshside	61	98	49	98	306
Pineview	93	48	94	39	274
Sunshine	86	43	74	44	247
Total	344	241	299	225	1109

The treatment group was composed of all students in Grades 3-5 at these selected schools who participated in the 21st CCLC after-school program. Counselors at each of the schools recommended students in Grades 3-5 for participation in the 21st CCLC after-

school program based on poor academic performance. The 21st CCLC after-school program currently serves approximately five students from each grade level at each of the targeted elementary schools for a combined total of 60 students (Southern Pines School District, 2014). Non-participants of the 21st CCLC after-school program served as the comparison group. To obtain similar groups for comparison purposes, an equivalent number of students in the comparison group were purposefully selected and matched having an ID number and pre-test total self-efficacy scores within the range (87 to 120) of the participants' scores.

Instrumentation

The authors' permission was secured to use a previously developed instrument, Morgan-Jinks Student Efficacy Scale (1999), for this study. The MJSES has a readability level of early third grade based on Fry's Readability Graph (Jinks & Morgan, 1997). The ordered response survey consists of 30 items grouped into three subscales: Talent, Context, and Effort. There are 13 items each for the talent and context subscales and the remaining four items comprise the effort subscale. The following items are related to talent: 2, 6, 10, 11, 14, 16, 18, 19, 21, 25, 26, 27, and 30. Statements such as "I am a good science student," "My classmates usually get better grades than I do," or "It is not hard for me to get good grades in school" measure the talent construct. Examples of context items include: "I will quit school as soon as I can," "I go to a good school," and "No one cares if I do well in school." Context items are as follows: 3, 4, 7, 8, 12, 13, 15, 17, 20, 23, 24, 28, and 29. "I always get good grades when I try hard," and "I usually do not get good grades in math because it is too hard" are representative of effort items on the survey. Items 1, 5, 9, and 22 are intended to address effort.

The MJSES consists of a four-interval scale with the following response category labels: Really Agree, Kind of Agree, Kind of Disagree, and Really Disagree (Jinks & Morgan, 1999). The responses for items were coded 1 for really agree, 2 for kind of agree, 3 for kind of disagree, and 4 for really disagree. Items where lower scores indicated higher self-efficacy were reverse coded to help alleviate any possible confusion. All items except for items 4, 5, 15, 19, 20, 22, 23, 24, and 28 were reverse coded. These identified items were written in such a way that higher scores indicated higher self-efficacy. After reversing the necessary items, the higher a total score is, the higher the perceived self-efficacy.

Validity

The MJSES survey addresses each of the four key factors of Bandura's self-efficacy theory within the survey items: performance accomplishments, verbal persuasion, vicarious experience, and emotional arousal (Bandura, 1977, 1997). The survey has been field tested in a variety of demographic settings: urban, suburban, and rural (Jinks & Morgan, 1999). The MJSES has been field tested with populations having similar characteristics to the sample in this study.

Content validity has been established with separate panels reviewing each of the survey items (Jinks & Morgan, 1999). Experts, teachers, and students provided input and feedback during the revision process. The instrument has a Cronbach alpha reliability coefficient of .82 for the overall scale, and reported subscale alphas of .78 for the talent items, .70 for context items, and .66 for effort. A copy of the survey is included in Appendix B.

Procedures

This section discusses the procedures for completing the study. Approval was requested and obtained from the Institutional Review Board at VSU (Appendix A) as well as the Superintendent of Schools before data collection. The Southern Pines School District did not provide the researcher with names of students. Students' 5-digit student identification numbers issued by the school system were used to ensure confidentiality of the participants and be able to track participants. No attempt was made to identify specific individuals. Surveys as well as student GPA records were stored in a locked cabinet when the researcher was not entering data into the Statistical Package for the Social Sciences (SPSS) program. All data collected will be destroyed at the completion of the study.

In SPSS, the researcher coded the categorical variables as follows. For gender, a 1 was assigned to females and 2 to males. Grade levels were coded according to their corresponding number: Grade 3 - 3; Grade 4 - 4; and Grade 5 - 5. Race was coded 1 for Asian, 2 for Black, 3 for Hispanic, 4 for Multi-Racial, and 5 for White. Schools were coded using the following identifiers: Lakeshore Elementary - 1, Marshside Elementary - 2, Pineview Elementary - 3, and Sunshine Elementary - 4.

Archived Data Collection

The MJSES survey results were obtained from archival data available within the Southern Pines School District. Homeroom teachers administered the MJSES (1999) to all students in Grades 3-5 at each of the four elementary schools. The Director of Student Information provided the researcher with a list of students participating in the 21st CCLC after-school program identified only by a student identification number. Then, a

comparison group was selected having cumulative pre-test self-efficacy scores within the range of the after-school program participants.

Building principals at each of the four participating schools were given a 2-week window for the pre- and post-test administrations to allow ample time for homeroom teachers to administer the MJSES survey. Each homeroom teacher received a uniform cover letter stating directions for administering the survey. A sample item was read aloud and the teacher stated the four response categories to ensure students understood the process. Students were given the opportunity to ask questions if they were unclear about the directions given. Teachers read aloud each statement followed by each scoring category allowing students time to circle their response before reading the next item. The estimated time to complete the survey was approximately 20 minutes. Teachers returned completed surveys to their building principals. The pretest administration occurred at the beginning of the first semester during the first 2 weeks of school. The posttest was given at the end of the first semester.

Participants moving out of the district, absent on the day of survey administration, or having missing data were not counted in the data set. To be included in the data set, students must have taken both the pretest and posttest. The school system's Director of Student Information provided the researcher with academic GPAs for the treatment and the comparison group at the end of the second 9-weeks grading period using student information archival records. Archived survey results and academic GPAs were entered into the SPSS program for analysis.

Limitations

Sample size was a major limitation as this study only examined the 21st CCLC after-school program in one school district. Also, it is possible that some students have either attended the Boys and Girls Club or participated in the 21st CCLC after-school program in previous years. Students in later grades have a greater probability of having attended in the past. Students may have also participated in other after-school programs external to the school system. Furthermore, there are several uncontrolled variables such as socioeconomic status, race, gender, and grade level.

Data Screening and Analysis

The researcher used the SPSS program to enter the quantitative data. Using SPSS, self-efficacy scores were obtained by summing students' ratings across the Context, Effort, and Talent subscales to generate data on an approximately interval scale. Descriptive and inferential statistics were used to analyze the data collected. Means and standard deviations were presented for both the treatment and comparison groups. An estimate of effect size as well as statistical results were provided. Statistical significance was assessed at $\alpha = .05$. Tables were used to display information. Data were screened for missing data, outliers, and to ensure the assumptions of normality, linearity, and homogeneity of variance-covariance were not violated. Cronbach alpha reliability coefficients were computed for each subscale and overall to test survey internal consistency.

The data analysis procedures identify the primary method of analyzing the data for each research question. A paired samples *t* test was performed to answer Research Research Question 1, and Research Question 2 was answered using a Mixed Design

MANOVA to test for effects of membership. The dependent variable, self-efficacy (post), served as the within subjects comparison and the independent variable, 21st CCLC membership, as the between subjects comparison. A Pearson's r correlation was computed to analyze Research Question 3 in order to determine if a statistically significant relationship existed between academic GPA and students' self-efficacy beliefs as measured after completing the after school program.

Summary

This chapter provided details associated with the quantitative design approach used for the study. Specifically, research design, participants, instrumentation, and procedures for data collection and data analysis were discussed. The findings and analysis of the study are presented in Chapter 4. A summary of the study is given in Chapter 5, including conclusions and implications for future research.

Chapter IV

RESULTS

The purpose of this study was to determine if attending an after-school program affected elementary school students' self-efficacy beliefs and to investigate the relationship between self-efficacy beliefs and Grade Point Average (GPA) among elementary students. Paired samples *t* tests were used to evaluate statistical differences among group means of participants enrolled in an after-school program. Group means were compared for students' pretest and posttest self-efficacy beliefs. Self-efficacy beliefs were evaluated through subscales and cumulative scores as measured by the Morgan-Jinks Student Efficacy Scale (1999). A Mixed Design MANOVA was performed for a between-subjects statistical comparison of self-efficacy beliefs for participants and non-participants of the after-school program. Pearson's correlation coefficient was computed to determine the statistical relationship between academic self-efficacy and GPA of elementary students. This chapter begins with a description of the study's participants followed by data analyses and findings addressing each research question presented and concluding with a brief summary.

Participants and Setting

Southern Pines School District is a Title I system located in the southeastern United States. The district is situated in a rural, agricultural community in South Georgia. Approximately 7,400 students from different backgrounds attend

schools within the district. The student body is 50% White, 30% Black, 16% Hispanic, and the remaining four percent of students identify as Multi-Racial, Asian, or American Indian. Over three-fourths of the student population qualifies for free or reduced lunch services.

Eighty students participating in the after-school program along with 50 non-participants matched on pretest self-efficacy beliefs were selected for the study sample. Participants included 44 students (33.8%) from Lakeshore Elementary, 25 students (19.2%) from Marshside Elementary, 29 students (22.3%) from Pineview Elementary, and 32 students (24.6%) from Sunshine Elementary. Of the participants, 63 were female (48.5%) and 67 were male (51.5%). The racial composition of participants was 86 Black (66.2%), 9 Hispanic/Latino (6.9%), 9 Multi-Racial (6.9%), and 26 White (20%). The sample included 50 third graders (38.5%), 45 fourth graders (34.6%), and 35 fifth graders (26.9%).

Variables and Data Screening

The authors of the Morgan-Jinks Student Efficacy Scale (MJSES) designed the instrument to measure student self-efficacy using subscales for three constructs: talent, context, and effort. Lower scores or higher agreement with survey items indicates higher self-efficacy with the exception of items 4, 5, 15, 19, 20, 22, 23, 24, and 28. Based on the wording of these items, lower scores were indicative of low self-efficacy, and these items had to be reverse coded before scoring the instrument. To avoid the possibility of confusion and aid the reader when interpreting the results, the researcher chose to recode the instrument as evidenced by the term *revised* in the variables. All items were recoded except for the “reverse-coded” written items noted so higher scores would be indicative

of higher self-efficacy. Items 4, 5, 15, 19, 20, 22, 23, 24, and 28 did not have to be recoded because they were initially worded for higher scores to be representative of higher self-efficacy. The variables *revisedtalent_total*, *revisedposttalent_total*, *revisedcontext_total*, *revisedpostcontext_total*, *revisedeffort_total*, *revisedposteffort_total*, *revisedcumtotal_selfefficacy*, *revisedpostcumtotal_selfefficacy*, and *Term2_GPA* were used in the final analyses.

The variables *revisedtalent_total* and *revisedposttalent_total* measure the talent construct for pre- and post-administrations, respectively. Items 2, 6, 10, 11, 14, 16, 18, 19, 21, 25, 26, 27, and 30 comprise the talent subscale. All talent items with the exception of survey item 19 were recoded. The context subscale is indicated by the variables *revisedcontext_total* and *revisedpostcontext_total*. Context items include items 3, 4, 7, 8, 12, 13, 15, 17, 20, 23, 24, 28, and 29. Items 4, 15, 20, 23, 24, and 28 were not reverse coded before totaling the context subscale. The effort construct is represented by the variables *revisedeffort_total* and *revisedposteffort_total*. Effort was measured by summing items 1, 5, 9, and 22. Items 5 and 22 did not have to be recoded. *Revisedcumtotal_selfefficacy* and *revisedpostcumtotal_selfefficacy* were calculated by summing across the three subscales of talent, context, and effort depending on the administration window. The variable *Term2_GPA* was measured using each students' cumulative GPA, rounded to two decimal places, for the academic content areas of ELA, Math, Science, and Social Studies at the end of the second 9-weeks grading period.

Data were examined for missing data, outliers, and fulfillment of test assumptions. After checking for data entry errors, cases with missing values for variables were omitted from the analyses by SPSS default. Stem-and-Leaf plots and boxplots were

reviewed to identify univariate outliers. One non-participant, Case 21, having a value less than 30 was identified as an outlier for *revisedtalent_total*. Three participants identified as Cases 1, 43, and 61 were identified as univariate outliers having values less than 41 for *revisedcontext_total*. One participant, known as Case 67, with a value less than 8 was noted as an outlier for *revisedeffort_total*. Two participants, Cases 1 and 67, having values less than 88 were identified as outliers for *revisedcumtotal_selfefficacy*. Identified outliers for *revisedposttalent_total* were non-participant Case 59 with a value less than 22, and participant Case 32 with a value less than 26. Non-participant Case 48 having a value less than 39 as well as three participants having values less than 36 noted as Cases 32, 37, and 67 were *revisedpostcontext_total* outliers. Non-participant Case 120 with a value less than 8 was identified as an outlier for *revisedposteffort_total*. Two participants, Cases 32 and 67, having values less than 75 were identified as outliers for *revisedpostcumtotal_selfefficacy*. A statistical procedure known as Mahalanobis distance was performed, and chi-square critical values were examined identifying Case 83, having a value of 16.896, as a multivariate outlier with a chi-square value exceeding 16.266 ($df = 3, p < .001$). After further investigation, these cases were included in the final analysis after getting similar results when the outliers were eliminated.

Univariate normality was assessed for each variable by group. Normality plots showed some deviation from a straight line but all were fairly normal and linear in nature. Skewness and kurtosis values for some groups were slightly to moderately out of the normal acceptable range of +/- 1. Table 2 presents the skewness and kurtosis values as well as Kolmogorov-Smirnov statistics for each variable. The Kolmogorov-Smirnov tests of normality showed the hypothesis of normality was rejected for

revisedpostcontext_total and *revisedpostcumtotal_selfefficacy* for both groups. The Kolmogorov-Smirnov test also rejected the assumption of normality for participants with the *revisedcontext_total* variable. Normality was rejected among the non-participant group for *revisedeffort_total*, *revisedposttalent_total*, and *revisedposteffort_total*. Although data transformations were considered, none took place because there were no severe departures from normality.

Table 2

Tests of Normality Assumptions

Variable	Group	Skewness	Kurtosis	K-S	<i>p</i>
revisedtalent	Non-participant	-.230	.219	.090	.200
	Participant	.326	-.771	.116	.200
revisedcontext	Non-participant	-.059	-.682	.137	.144
	Participant	-1.328	1.571	.242	.000
revisedeffort	Non-participant	-.841	-.342	.271	.000
	Participant	-.892	1.014	.148	.102
revisedcumtotal	Non-participant	.135	-.327	.101	.200
	Participant	-.444	.330	.132	.200
revisedposttalent	Non-participant	-1.142	1.458	.195	.004
	Participant	-.898	.611	.144	.126
revisedpostcontext	Non-participant	-1.270	.987	.198	.003
	Participant	-1.505	1.546	.247	.000
revisedposteffort	Non-participant	-1.446	2.078	.278	.000
	Participant	-.595	-.056	.127	.200
revisedpostcumtotal	Non-participant	-.925	.030	.178	.013
	Participant	-1.703	2.660	.237	.000
Term2_GPA	Non-participant	-.648	1.079	.099	.200
	Participant	-.632	-.232	.133	.200

Note. K-S = Kolmogorov-Smirnov.

Multivariate normality was questionable with the scatter matrices being somewhat elliptical in shape. Homogeneity of variance is assumed since the Levene's test was not significant for any group: *revisedposttalent_total* ($p = .63$), *revisedpostcontext_total* ($p = .12$), *revisedposteffort_total* ($p = .21$), and *revisedpostcumtotal_selfefficacy* ($p = .72$). Multivariate homogeneity of variance was concluded from the Box's test ($p = .40$). To interpret the MANOVA results, the Wilks' Lambda test statistic was used since the Box test was not significant.

Cronbach alpha coefficients were computed to measure internal consistency reliability. The subscale alphas were .65 for *revisedtalent_total*, .53 for *revisedcontext_total*, .50 for *revisedeffort_total*, .69 for *revisedcumtotal_selfefficacy*, .82 for *revisedposttalent_total*, .55 for *revisedpostcontext_total*, .56 for *revisedposteffort_total*, and .84 for *revisedpostcumtotal_selfefficacy*. The reported Cronbach alphas for the MJSES were .82 for the cumulative scale and .78 for talent, .70 for context, and .66 for effort subscales respectively. Although some of the alphas were lower than the expected level of .65, the subscales were included in the analysis because the MJSES survey was found to be reliable and the alphas were not below .50. But, this sample may not be similar to the validity/reliability test group.

Findings

Research Question 1. Is there a significant mean change in academic self-efficacy beliefs of elementary school students after participating in an after-school program?

To address Research Question 1, student perceptions of academic self-efficacy were determined using survey responses and analyzed with descriptive and inferential

statistics. A mean and standard deviation was calculated for each group and are presented in Table 3.

Table 3

Pre and Post Self-Efficacy Score Means by Participation (with *SDs* in parentheses)

	Participant		<i>t</i>	<i>p</i>	<i>n</i>
	Pre	Post			
revisedtalent	43.15 (5.04)	42.63 (5.88)	.541	.592	41
revisedcontext	47.53 (3.98)	46.56 (4.71)	.893	.378	36
revisedeffort	12.98 (2.31)	13.28 (2.22)	-.784	.436	61
revisedcumtotal	104.86 (7.94)	102.59 (11.71)	.908	.372	29

A paired samples *t* test was calculated to compare the *revisedtalent* mean prescore to the mean postscore for after-school program participants. No significant difference from pretest to posttest was found, $t(40) = .541, p = .59$. A paired samples *t* test was calculated to compare the *revisedcontext* mean prescore to the mean postscore for participants. No significant difference from pretest to posttest was found for *revisedcontext*, $t(35) = .893, p = .38$. When comparing scores for *revisedeffort*, no significant difference was found, $t(60) = -.784, p = .44$, for the participant group with the paired samples *t* test. A paired samples *t* test was calculated to compare the *revisedcumtotal* mean prescore to the mean postscore for participants. No significant difference from pretest to posttest was found, $t(28) = .908, p = .37$. As can be seen in Table 3, there was no significant change in self-efficacy for students who participated in the after-school program for any variable.

Research Question 2. Is there significant mean difference in academic self-efficacy beliefs between elementary school students enrolled in an after-school program and those not enrolled in an after-school program?

To address Research Question 2, a Mixed Design MANOVA was calculated examining the effect of participation in an after-school program on elementary students' self-efficacy beliefs. The sample size differs from previous results because cases were not included if they were missing any values from any of the three subscales or were not present for either administration of the survey. A significant effect was found for participation, Wilks' $\Lambda(3, 77) = .859, p = .01, \eta^2 = .141$. Follow up univariate ANOVA results indicated *revisedposttalent*, $F(1, 79) = .074, p = .79, \text{partial } \eta^2 = .001$, and *revisedpostcontext*, $F(1, 79) = 2.643, p = .11, \text{partial } \eta^2 = .032$, self-efficacy scores did not differ significantly between those participating and not participating in the after-school program. A significant difference between the two groups was found for *revisedposteffort* scores, $F(1, 79) = 5.278, p = .02, \text{partial } \eta^2 = .063$. Although the nonparticipants scored higher on the effort subscale, the small effect size for the factor should be noted. Univariate ANOVA results indicated that cumulative self-efficacy post scores for *revisedpostcumtotal_selfefficacy* were not significantly influenced by participation, $F(1, 79) = .925, p = .34, \eta^2 = .012$. Table 4 presents means and standard deviations for self-efficacy subscales by participation.

Table 4

Means and Standard Deviations for Subscales by Participation

	Participant		Non-participant	
	M	SD	M	SD
revisedposttalent	42.06	6.02	41.68	6.40
revisedpostcontext	46.56	4.59	48.10	3.25
revisedposteffort	13.04	2.23	14.16	1.97
N	50		31	

Research Question 3. Is there a statistically significant correlation between elementary students' academic self-efficacy and Grade Point Averages (GPA)?

To address Research Question 3, a Pearson's correlation coefficient was computed to determine the relationship between elementary students' academic self-efficacy and GPA. As shown in Table 5, a moderate positive correlation was found, $r(79) = .360, p = .001$, indicating a significant linear relationship between the two variables, *revisedpostcumtotal_selfefficacy* and *Term2_GPA*. A weak positive correlation was found, $r(94) = .228, p = .026$, to exist for *revisedposttalent_total* and *Term2_GPA*. A significant moderate positive association was found between *revisedpostcontext_total* and *Term2_GPA*, $r(90) = .344, p = .001$. A moderate positive correlation was found, $r(107) = .386, p < .001$, between *revisedposteffort_total* and *Term2_GPA*. These positive associations suggest students with higher perceptions of self-efficacy usually have higher grades. The mean GPA for participants ($N = 80$) of the after-school program was 81.36

($SD = 7.21$) compared to the mean GPA for non-participants ($N = 50$) of 86.02 ($SD = 6.70$).

Table 5

GPA and Academic Self-Efficacy Pearson Correlation Coefficients

	revised posttalent	revised postcontext	revised posteffort	revised postcumtotal
Term2_GPA	.228	.344	.386	.360
<i>p</i>	.026	.001	.000	.001
N	96	92	109	81

Summary

Data analysis and findings of the study were presented in Chapter 4. Descriptive and inferential statistics were used to analyze archival data addressing the research questions. An overview and discussion of the findings follows in Chapter 5. Implications for future practice and recommendations for further research will be discussed.

Chapter V

SUMMARY AND DISCUSSION

In classrooms all across Georgia, teachers are tasked daily with teaching students who are increasingly becoming more diverse and growing up in poverty (Georgia Partnership for Excellence in Education, 2013). The Georgia Partnership for Excellence in Education (2013) report listed student demographics as one of the top ten issues affecting public education in the state. Much of the growth in Georgia's student population has been primarily from non-English speaking and other minority groups presented with many more educational challenges (Georgia Partnership for Excellence in Education, 2013; Paluta, Lower, Anderson-Butcher, Gibson, & Iachini, 2016). Although socioeconomic status has been shown to affect student achievement, McConney and Perry (2010) found more self-efficacious students performed better academically when compared to less self-efficacious peers from similar socioeconomic backgrounds.

In response to federal school improvement guidelines, Georgia adopted the Leader Keys Evaluation System (LKES) and Teacher Keys Evaluation System (TKES) with student achievement accounting for 40% of leaders' and 30% of teachers' annual evaluations (Georgia State Board of Education, 2016). Facing intensified pressure for student success, more schools are exploring after-school programs as an avenue to expand student learning opportunities outside of the school day and improve student achievement (Anderson-Butcher, Stetler, & Midle, 2006; Paluta et al., 2016). The

Southern Pines School District was awarded funding to implement an after-school program to better assist in meeting the academic needs of students.

The purpose of this study was to investigate how after-school program participation influenced elementary students' self-efficacy beliefs. The study examined the association between elementary students' academic self-efficacy and GPA. The study addressed the following three research questions:

1. Is there a significant mean change in academic self-efficacy beliefs of elementary school students after participating in an after-school program?
2. Is there significant mean difference in academic self-efficacy beliefs between elementary school students enrolled in an after-school program and those not enrolled in an after-school program?
3. Is there a statistically significant correlation between elementary school students' academic self-efficacy and Grade Point Averages (GPA)?

Related Literature

President Barack Obama maintained federal funding for after-school programs through the 21st Century Community Learning Centers (CCLC) program with the reauthorization of the Every Student Succeeds Act (ESSA) previously named the No Child Left Behind Act of 2001. After-school programs receive approximately one billion dollars annually from the federal government with precedence being given to programs emphasizing school and community partnerships (U.S. DOE, 2014). In spite of all this money, after-school programs vary in the quality of delivery of services (Cross, Gottfredson, Wilson, Rorie, & Connell, 2010; Hirsch et al., 2010; Palmer, Anderson, & Sabatelli, 2009; Pierce, Bolt, & Vandell, 2010; Paluta, Lower, Anderson-Butcher,

Gibson, & Iachini, 2016; Leos-Urbel, 2015). Six common themes emerging from program quality frameworks are helping to better define quality after-school programs. Such themes are: supportive relationships, intentional programming, strong community partnerships, promotion of youth engagement, physical safety, and continuous quality improvement (Palmer et al., 2009).

Studies on the effects of after-school programs on academic achievement have yielded mixed results. It is not clear how after-school programs may influence students' academic self-efficacy (Niehaus et al., 2012). Bandura's (1977, 1997) theory suggests students' self-efficacy is obtained from four sources: enactive mastery or task performance, vicarious experiences, verbal persuasion, and physiological reactions. Margolis and McCabe (2006) defined self-efficacy as a student's assessment of his or her capability to successfully complete a certain task, not their actual ability, based on Bandura's sources. Highly self-efficacious students exhibit positive learning traits such as increased motivation, persistence, and a willingness to approach new tasks (Bandura, 1997; Margolis & McCabe, 2006; Schunk & Meece, 2006).

Students' self-efficacy beliefs have been shown to be influential predictors of academic achievement (Bong et al., 2012; Galyon, Blondin, Yaw, Nalls, & Williams, 2012; Karaarslan & Sungur, 2011; McConney & Perry, 2010; Weiser & Riggio, 2010). The evidence on gender differences in self-efficacy is inconclusive, yet a connection between gender differences and developmental level becomes more apparent as students transition to the next school level, e.g., middle or high (Pajares, 2002; Schunk & Pajares, 2002). Students' self-efficacy beliefs tend to weaken during these transition periods (Lofgran, Smith, & Whiting, 2015; Schunk & Pajares, 2002; Urdan & Midgley, 2003).

Much of the literature on self-efficacy points to positive associations between self-efficacy and GPA.

Overview of the Study

Archival data, including student responses to the Morgan-Jinks Student Efficacy Scale (MJSES) (Jinks & Morgan, 1999) and student academic grade point averages, were gathered from the Southern Pines School District situated in rural Georgia. Student responses to MJSES (1999) were received for 994 students in Grades 3-5 attending the four elementary schools participating in the 21st CCLC after-school program. A unique 5-digit student identification number assigned by the school system was collected for each student participant along with the name of the school attended, gender, race, present grade level, and academic GPA. The information was entered into the SPSS database.

The study sample included a treatment group of 80 after-school program participants and a control group of 50 non-participants matched on pretest self-efficacy measures. The racial composition of the sample was disproportionate to the ethnic makeup of the population with Blacks (66.2%) represented substantially more than Whites (20%), Multi-Racial (6.9%), and Hispanics/Latinos (6.9%). Males (51.5%) were marginally represented more than females (48.5%). Percentages of students representing each grade level are as follows: third grade (38.5%), fourth grade (34.6%), and fifth grade (26.9%). Fifth grade was slightly less represented than the other grades.

This causal-comparative study used a matching only pretest-posttest comparison group design. A pre- and post-administration of the MJSES was given during a 2-week window at the beginning and end of the first semester. The MJSES measures students' perceptions of their self-efficacy beliefs using three subscales: talent, context, and effort.

The data were measured using individual subscales as well as collectively for a cumulative score.

The MJSES survey consisted of 30 items asking students to rate their degree of agreement with each statement. Participants answered all items using a 4-point ordered response scale of 1 = Really agree, 2 = Kind of agree, 3 = Kind of disagree, and 4 = Really disagree. All items on the MJSES were reverse coded with the exception of items 4, 5, 15, 19, 20, 22, 23, 24, and 28. The authors of MJSES originally designed the instrument so that lower scores indicated higher self-efficacy. As indicated by the term *revised* before each variable, the researcher sought to alleviate any confusion for the reader when analyzing and interpreting the data by reverse coding the instrument.

Descriptive as well as inferential statistics were used to examine quantitative data for significant differences between groups. Pre- and post-self-efficacy scores of after-school program participants were compared using a paired samples *t* test. A Mixed Design MANOVA was performed to identify any group differences in each of the subscales and cumulative scores between participants and non-participants. To assess the relationship between student self-efficacy and GPA, a Pearson's *r* correlation was calculated.

Summary of Findings

Research Question 1. Is there a significant mean change in academic self-efficacy beliefs of elementary school students after participating in an after-school program?

Research Question 1 examined whether there was a statistically significant difference between pre- and post-self-efficacy mean scores for after-school program

participants in Grades 3-5. This research question sought to determine the impact of after-school program participation on elementary students' self-efficacy beliefs. Paired samples *t* tests were calculated for the subscales of talent, context, and effort as well as an overall self-efficacy score. No significant differences were found for any of the variables: *talent*, *context*, *effort*, or *cumulative total*. As presented in Table 3, self-efficacy mean scores of after-school program participants declined albeit slightly for *talent*, *context*, and *cumulative total*. A positive difference in participants' mean scores of 0.3 points was shown for *effort*.

Table 3

Pre and Post Self-Efficacy Score Means by Participation (with *SDs* in parentheses)

	Participant		<i>t</i>	<i>p</i>	<i>n</i>
	Pre	Post			
revisedtalent	43.15 (5.04)	42.63 (5.88)	.541	.592	41
revisedcontext	47.53 (3.98)	46.56 (4.71)	.893	.378	36
revisedeffort	12.98 (2.31)	13.28 (2.22)	-.784	.436	61
revisedcumtotal	104.86 (7.94)	102.59 (11.71)	.908	.372	29

Research Question 2. Is there significant mean difference in academic self-efficacy beliefs between elementary school students enrolled in an after-school program and those not enrolled in an after-school program?

Research Question 2 was to determine if there was a statistically significant difference between participant groups concerning self-efficacy beliefs. A Mixed Design MANOVA was performed on the group means for *posttalent*, *postcontext*, *posteffort*, and

postcumulativetotal. For the MANOVA, a statistically significant result was found, Wilks' $\Lambda(3, 77) = .859, p = .01, \eta^2 = .141$. Follow-up with univariate ANOVA tests revealed a statistically significant difference between participants and non-participants for *effort*. No other significant differences were found between group means. Participants only reported higher group means than non-participants for *talent*.

Research Question 3. Is there a statistically significant correlation between elementary school students' academic self-efficacy and Grade Point Averages (GPA)?

Research Question 3 investigated the relationship between elementary school students' academic self-efficacy and GPA to determine if a statistically significant correlation existed between the two factors for 130 students. A Pearson's r correlation was computed to address this research question. Significantly positive associations were found for each variable and are provided in Table 5.

Table 5

GPA and Academic Self-Efficacy Pearson Correlation Coefficients

	revised posttalent	revised postcontext	revised posteffort	revised postcumtotal
Term2_GPA	.228	.344	.386	.360
p	.026	.001	.000	.001
N	96	92	109	81

A moderately positive correlation was found between cumulative post-self-efficacy beliefs and GPA. Weak to moderate positive correlations were found between academic GPA and the three subscales: *revisedposttalent*, *revisedpostcontext*, and

revisedposteffort. More self-efficacious students tend to make better grades in school. The mean GPA of participants was 4.66 points lower than non-participants.

Discussion

This research study sought to measure the influence of participating in an after-school program on students' perceptions of their academic self-efficacy beliefs and to determine the association between self-efficacy and GPA. The first research question considered whether elementary school students participating in an after-school program experienced a significant difference in self-efficacy beliefs. The second research question compared participants' measurement of their self-efficacy beliefs with non-participants to determine if significant differences were observed between the two groups. The last research question examined whether students' self-efficacy beliefs were significantly related to GPA.

Outcomes of after-school programs on internal characteristics like self-efficacy beliefs have not been explored extensively (Niehaus et al., 2012). No significant differences in self-efficacy beliefs were found for after-school program participants in this study. Niehaus et al. (2012) supported these results finding no significant relationship between program attendance and end-of-year self-efficacy scores. Durlak et al. (2010) differed somewhat from the findings of this study by reporting positive statistically significant increases on youths' self-perceptions only for after-school programs having specific programming features. Since the after-school program in this study was in its early stages, the results could have been attributed to a lack of program maturity even though the after-school program did reflect features indicative of quality programs (Kane, 2004). As self-efficacy is influenced by a variety of personal,

behavioral, and environmental factors, it may take several years before positive outcomes are realized from after-school programs (James-Burdumy et al., 2005; Kane, 2004; Mahoney et al., 2005; Palmer et al., 2009; Reisner et al., 2004).

A slight but not statistically significant improvement was observed in participants' self-efficacy perceptions of effort. This finding is consistent with Vandell et al.'s (2007) results of elementary school students participating regularly in an after-school program having experienced positive gains in work habits and task persistence. Anderson-Butcher et al. (2003) agreed stating youths attending after-school programs more frequently reported increased effort in school compared to those who did not attend on a regular basis. The present findings stand in contrast with James-Burdumy et al. (2005) who reported teachers noted a decline of effort for elementary students attending after-school programs. Students with higher self-efficacy beliefs typically exert more effort and persist longer (Margolis & McCabe, 2006). Results of the current study demonstrating minimal improvements in participants' perceptions of effort in such a short time frame could be promising and worthy of further study.

Higher group means for participants of the after-school program compared to non-participants solely in the area of talent might be explained by the big-fish-little-pond effect theory (Marsh et al., 2008). The big-fish-little-pond effect has found academic self-concepts of students decline in highly competitive environments. Students perceive their talents and abilities less favorably when among highly talented peers in school. Non-participants may have made comparisons to peers of all ability levels weakening their perceptions while participants could have compared their performance to only those peers participating in the after-school program of similar ability levels.

The results of the present study demonstrated a significant positive relationship between elementary school students' academic self-efficacy and GPA. Two studies involving students in the same grade span were found. Karaarslan and Sungur (2011) concurred in finding a significant association between student grades and self-efficacy. Additionally, a meta-analysis by Multon et al. (1991), largely composed of elementary school children, showed a moderate positive relationship between self-efficacy and performance measures including cumulative GPA. This is significant in that students' performance accomplishments have been found to be the strongest predictor of students' self-efficacy beliefs (Arslan, 2012; Bong et al., 2012; Pajares & Valiante, 1997). It is suggested as students begin to acquire the skills and knowledge needed to master a task successfully, the amount of effort needed to complete the same task will lessen over time, thus improving student confidence and leading to higher achievement.

Limitations

This study was not without limitations. The small sample size limited the generalizability of the findings to other populations. Another limitation was the sampling technique used in the study. Participants were limited to those students attending schools participating in the 21st CCLC after-school program located within the Southern Pines School District. Further limitations were placed on the study with the requirement of students being enrolled in Grades 3-5 as the study focused specifically on elementary grades. Non-participants of the after-school program were matched on pre-self-efficacy beliefs. As a result, these findings may not be representative of other students in the population.

The amount of missing data limited the availability of cases for each analysis. Different cases or participants were included in each analysis due to the lack of reliable archival data. In particular, some items had a higher rate of missing data. The participants' age may have contributed to students not answering all survey items.

Time constraints placed further limitations on the study. The duration of the study was limited to one semester or 18 weeks. Students had to be present for both administrations of the survey to be included in the sample. No makeups were given for absentees.

Another limitation of the study was the amount of time students attended the program was not taken into account. It is possible students could have attended the program in previous years. Third graders who were retained a year, as well as fourth and fifth graders, possibly could have been in their second year of attendance as the program was initiated in the 2014-2015 school year.

Recommendations for Further Research

This study provides a framework for further exploration of the influence of after-school programs on students' self-efficacy beliefs and the relationship between self-efficacy and academic GPA. Future research should focus on longitudinal studies to measure the impact of after-school programs on self-efficacy and student GPA over longer periods of time. As self-efficacy is a psychological construct, it may take longer to see a change in students' perceptions of their academic abilities. Additional studies should be conducted with a larger sample size. By including other after-school programs in the region or state, gender and grade level differences could be explored and added to the research literature. In longitudinal studies with more participants, researchers would

be able to take program attendance into account as another variable. The design of the survey used in this study may need to be changed to allow for more spacing between survey items to aid students in completing the survey and possibly reduce the amount of missing data for survey items.

Conclusion

Significant differences in academic self-efficacy beliefs were not found for elementary school students after participating in an after-school program. After-school program participants reported small insignificant gains in their perceptions of effort. A positive correlation was found between elementary school students' self-efficacy and GPA. As the amount of effort a student puts into learning is associated with self-efficacy, increased effort by students is anticipated. Furthermore, the academic and social support provided by an after-school program may, too, lead to improved academic achievement in the future.

REFERENCES

- Afterschool Alliance. (2015). *21st Century Community Learning Centers: Providing afterschool and summer learning support to communities nationwide*. Retrieved from http://www.afterschoolalliance.org/documents/21stCCLC%20Overview_FINAL_March2015.pdf
- Alivernini, F., & Lucidi, F. (2011). Relationship between social context, self-efficacy, motivation, academic achievement, and intention to drop out of high school: A longitudinal study. *The Journal of Educational Research, 104*(4), 241-252. doi:10.1080/00220671003728062
- Anderson-Butcher, D., Newsome, W. S., & Ferrari, T. M. (2003). Participation in Boys and Girls Clubs and relationships to youth outcomes. *Journal of Community Psychology, 31*(1), 39-55. doi:10.1002/jcop.10036
- Anderson-Butcher, D., Stetler, E. G., & Midle, T. (2006). A case for expanded school-community partnerships in support of positive youth development. *Children & Schools, 28*(3), 155-163.
- Arslan, A. (2012). Predictive power of the sources of primary school students' self-efficacy beliefs on their self-efficacy beliefs for learning and performance. *Educational Sciences: Theory & Practice, 12*(3), 1915-1920.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191-215.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: W.H. Freeman and Company.

- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (2001). Self-efficacy beliefs as shapers of children's aspirations and career trajectories. *Child Development, 72*(1), 187-206.
- Bong, M., Cho, C., Ahn, H. S., & Kim, H. J. (2012). Comparison of self-beliefs for predicting student motivation and achievement. *The Journal of Educational Research, 105*(5), 336-352. doi:10.1080/00220671.2011.627401
- Boys and Girls Clubs of America. (2015). Who we are? Retrieved from <http://www.bgca.org/whoweare/Pages/WhoWeAre.aspx>
- Boys and Girls Clubs of America. (2016). *Measuring the impact of Boys and Girls Clubs* (National Youth Outcomes Initiative Outcomes Report 2015). Atlanta, GA: Author.
- Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (3rd ed.). Thousand Oaks, CA: SAGE Publications.
- Cross, A. B., Gottfredson, D. C., Wilson, D. M., Rorie, M., & Connell, N. (2010). Implementation quality and positive experiences in after-school programs. *American Journal of Community Psychology, 45*(3/4), 370-380. doi:10.1007/s10464-010-9295-z
- Denton, K. L. (1997). *The relation of children's self-efficacy beliefs and teacher beliefs about children's abilities and effort to first grade children's academic achievement* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 9808596)
- Durlak, J. A., Weissberg, R. P., & Pachan, M. (2010). A meta-analysis of after-school programs that seek to promote personal and social skills in children and

adolescents. *American Journal of Community Psychology*, 45(3/4), 294-309.
doi:10.1007/s10464-010-9300-6

Edman, J. L., & Brazil, B. (2009). Perceptions of campus climate, academic efficacy and academic success among community college students: An ethnic comparison. *Social Psychology of Education*, 12(3), 371-383. doi:10.1007/s11218-008-9082-y

Fan, W., Williams, C. M., & Wolters, C. A. (2012). Parental involvement in predicting school motivation: Similar and differential effects across ethnic groups. *The Journal of Educational Research*, 105(1), 21-35.
doi:10.1080/00220671.2010.515625

Fashola, O. S. (1998). *Review of extended-day and after-school programs and their effectiveness* (Report No. 24). Baltimore, MD: Center for Research on the Education of Students Placed At Risk.

Fraenkel, J. R., & Wallen, N. E. (2009). *How to Design and Evaluate Research in Education* (7th ed.). New York, NY: McGraw-Hill.

Galyon, C. E., Blondin, C. A., Yaw, J. S., Nalls, M. L., & Williams, R. L. (2012). The relationship of academic self-efficacy to class participation and exam performance. *Social Psychology of Education*, 15(2), 233-249.
doi:10.1007/s11218-011-9175-x

Georgia Department of Education. (2014). CCRPI-Accountability. Retrieved from <http://www.gadoe.org/Curriculum-Instruction-and-Assessment/Accountability/Pages/default.aspx>

Georgia Department of Education. (2014). Georgia's Race to the Top (RT3) plan. Retrieved from <http://www.gadoe.org/Race-to-the-Top/Pages/default.aspx>

- Georgia Partnership for Excellence in Education. (2013). Our demographics: The changing face of Georgia's schools. In *Top ten issues to watch in 2013* (10). Retrieved from http://www.gpee.org/fileadmin/files/PDFs/Top_Ten_2013_Final.pdf
- Georgia State Board of Education. (2014). State Education Rule 160-5-1.37. Retrieved from <http://www.gadoe.org/External-Affairs-and-Policy/State-Board-of-Education/SBOE%20Rules/160-5-1-.37.pdf>
- Georgia State Board of Education. (2016). State Education Rule 160-5-1.37. Retrieved from <http://www.gadoe.org/External-Affairs-and-Policy/State-Board-of-Education/SBOE%20Rules/160-5-1-.37.pdf>
- Griggs, M. S., Rimm-Kaufman, S. E., Merritt, E. G., & Patton, C. L. (2013). The Responsive Classroom approach and fifth grade students' math and science anxiety and self-efficacy. *School Psychology Quarterly*, 28(4), 360-373. doi:10.1037/spq0000026
- Governor's Office of Student Achievement. (2015). Data sources, rules, and definitions. Retrieved from http://gosa.georgia.gov/data-sources-rules-and-definitions#field_related_links-103-5
- Hirsch, B. J., Mekinda, M. A., & Stawicki, J. (2010). More than attendance: The importance of after-school program quality. *American Journal of Community Psychology*, 45(3/4), 447-452. doi:10.1007/s10464-010-9310-4
- Holstead, J., & King, M. H. (2011). High-quality 21st Century Community Learning Centers: Academic achievement among frequent participants and non-

- participants. *Journal of Education for Students Placed at Risk*, 16(4), 255-274.
doi:10.1080/10824669.2011.611045
- Huang, C. (2013). Gender differences in academic self-efficacy: A meta-analysis. *European Journal of Psychology of Education*, 28(1), 1-35.
doi:10.1007/s10212-011-0097-y
- Huang, D., Leon, S., La Torre, D., & Mostafavi, S. (2008). *Examining the relationship between LA's BEST program attendance and academic achievement of LA's BEST students* (Report No. 749). Los Angeles, CA: National Center for Research on Evaluation, Standards, and Student Testing (CRESST).
- James-Burdumy, S., Dynarski, M., & Deke, J. (2007). When elementary schools stay open late: Results from the national evaluation of the 21st Century Community Learning Centers program. *Educational Evaluation and Policy Analysis*, 29(4), 296-318. doi:10.3102/0162373707309077
- James-Burdumy, S., Dynarski, M., Moore, M., Deke, J., Mansfield, W., & Pistorino, C. (2005). *When schools stay open late: The national evaluation of the 21st Century Community Learning Centers program* (Final report). Princeton, NJ: Mathematica Policy Research.
- Jenner, E., & Jenner, L. W. (2007). Results from a first-year evaluation of academic impacts of an after-school program for at-risk students. *Journal of Education for Students Placed at Risk*, 12(2), 213-237. doi:10.1080/10824660701261144
- Jinks, J., & Morgan, V. L. (1997). Students' sense of academic efficacy and achievement in science: A useful new direction for research regarding scientific literacy? *Electronic Journal of Science Education*, 1(2).

- Jinks, J., & Morgan, V. (1999). Children's perceived academic self-efficacy: An inventory scale. *The Clearing House*, 72(4), 224-230.
- Kane, T. J. (2004, January). *The impact of after-school programs: Interpreting the results of four recent evaluations* (Working paper). New York: William T. Grant Foundation.
- Karaarslan, G., & Sungur, S. (2011). Elementary students' self-efficacy beliefs in science: Role of grade level, gender, and socio-economic status. *Science Education International*, 22(1), 72-79.
- Klassen, R. (2002). Writing in early adolescence: A review of the role of self-efficacy beliefs. *Educational Psychology Review*, 14(2), 173-203.
- Lauer, P. A., Akiba, M., Wilkerson, S. B., Apthorp, H. S., Snow, D., & Martin-Glenn, M. L. (2006). Out-of-school-time programs: A meta-analysis of effects for at-risk students. *Review of Educational Research*, 76(2), 275-313.
- 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. doi:10.1177/0044118x13513478
- Lessard, A., Fortin, L., Marcotte, D., Potvin, P., & Royer, E. (2009). Why did they not drop out? Narratives from resilient students. *The Prevention Researcher*, 16(3), 21-24.
- Little, P. M. D., Wimer, C., & Weiss, H. B. (2007, November). After school programs in the 21st century: Their potential and what it takes to achieve it. *An issues and opportunities in out-of school time evaluation research brief from Harvard Family Research Project*. Cambridge, MA: Harvard Family Research Project.

- Lloyd, J. E. V., Walsh, J., & Yailagh, M. S. (2005). Sex differences in performance attributions, self-efficacy, and achievement in mathematics: If I'm so smart, why don't I know it? *Canadian Journal of Education*, 28(3), 384-408.
- Lofgran, B. B., Smith, L. K., & Whiting, E. F. (2015). Science self-efficacy and school transitions: Elementary school to middle school, middle school to high school. *School Science and Mathematics*, 115(7), 366-376. doi:10.1111/ssm.12139
- Lucio, R., Rapp-Paglicci, L., & Rowe, W. (2011). Developing an additive risk model for predicting academic index: School factors and academic achievement. *Child & Adolescent Social Work Journal*, 28(2), 153-173. doi:10.1007/s10560-010-0222-9
- MacPhee, D., Farro, S., & Canetto, S. S. (2013). Academic self-efficacy and performance of underrepresented STEM majors: Gender, ethnic, and social class patterns. *Analyses of Social Issues and Public Policy*, 13(1), 347-369. doi:10.1111/asap.12033
- Mahoney, J. L., Lord, H., & Carryl, E. (2005). An ecological analysis of after-school program participation and the development of academic performance and motivational attributes for disadvantaged children. *Child Development*, 76(4), 811-825. doi:10.1111/j.1467-8624.2005.00879.x
- Marsh, H. W., Seaton, M., Trautwein, U., Ludtke, O., Hau, K. T., O'Mara, A. J., & Craven, R. G. (2008). The big-fish-little-pond-effect stands up to critical scrutiny: Implications for theory, methodology, and future research. *Educational Psychology Review*, 20(3), 319-350. doi:10.1007/s10648-008-9075-6
- Margolis, H., & McCabe, P. P. (2006). Improving self-efficacy and motivation: What to do, what to say. *Intervention in School and Clinic*, 41(4), 218-227.

- McConney, A., & Perry, L. B. (2010). Socioeconomic status, self-efficacy, and mathematics achievement in Australia: A secondary analysis. *Educational Research for Policy and Practice, 9*(2), 77-91. doi:10.1007/s10671-010-9083-4
- Meece, J. L., Glienke, B. B., & Burg, S. (2006). Gender and motivation. *Journal of School Psychology, 44*(5), 351-373. doi:10.1016/j.jsp.2006.04.004
- Multon, K. D., Brown, S. D., & Lent, R. W. (1991). Relation of self-efficacy beliefs to academic outcomes: A meta-analytic investigation. *Journal of Counseling Psychology, 38*(1), 30-38. doi:10.1037/0022-0167.38.1.30
- Niehaus, K., Rudasill, K. M., & Adelson, J. L. (2012). Self-efficacy, intrinsic motivation, and academic outcomes among Latino middle school students participating in an after-school program. *Hispanic Journal of Behavioral Sciences, 34*(1), 118-136. doi:10.1177/0739986311424275
- Office of Assessment and Accountability. (2014). College and Career Ready Performance Index. Retrieved from <https://www.gadoe.org/CCRPI/Pages/default.aspx>
- Pajares, F. (2002). Gender and perceived self-efficacy in self-regulated learning. *Theory into Practice, 41*(2), 116-125.
- Pajares, F., & Graham, L. (1999). Self-efficacy, motivation constructs, and mathematics performance of entering middle school students. *Contemporary Educational Psychology, 24*(2), 124-139. doi:10.1006/ceps.1998.0991
- Pajares, F., Johnson, M. J., & Miller, M. D. (1999). Gender differences in writing self-beliefs of elementary school students. *Journal of Educational Psychology, 91*(1), 50-61.

- Pajares, F., & Valiante, G. (1997). Influence of self-efficacy on elementary students' writing. *The Journal of Educational Research, 90*(6), 353-360.
- Palmer, K. L., Anderson, S. A., & Sabatelli, R. M. (2009). How is the afterschool field defining program quality? A review of effective program practices and definitions of program quality. *Afterschool Matters, 1-12*.
- Paluta, L. M., Lower, L., Anderson-Butcher, D., Gibson, A., & Iachini, A. L. (2016). Examining the quality of 21st Century Community Learning Center afterschool programs: Current practices and their relationship to outcomes. *Children & Schools, 38*(1), 1-8. doi:10.1093/cs/cdv040
- Pierce, K. M., Bolt, D. M., & Vandell, D. L. (2010). Specific features of after-school program quality: Associations with children's functioning in middle childhood. *American Journal of Community Psychology, 45*(3/4), 381-393. doi:10.1007/s10464-010-9304-2
- Pintrich, P. R., & De Groot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology, 82*(1), 33-40.
- Posner, J. K., & Vandell, D. L. (1994). Low-income children's after-school care: Are there beneficial effects of after-school programs? *Child Development, 65*(2), 440-456.
- Posner, J. K., & Vandell, D. L. (1999). After-school activities and the development of low-income urban children: A longitudinal study. *Developmental Psychology, 35*(3), 868-879.

- Reisner, E. R., White, R. N., Russell, C. A., & Birmingham, J. (2004). *Building quality, scale, and effectiveness in after-school programs: Summary report of the TASC evaluation*. Washington, DC: Policy Studies Associates.
- Robbins, S. B., Lauver, K., Le, H., Davis, D., Langley, R., & Carlstrom, A. (2004). Do psychosocial and study skill factors predict college outcomes? A meta-analysis. *Psychological Bulletin*, *130*(2), 261-288. doi:10.1037/0033-2909.130.2.261
- Schunk, D. H., & Meece, J. L. (2006). Self-efficacy development in adolescence. In F. Pajares & T. Urdan (Eds.), *Self-efficacy Beliefs of Adolescents* (pp. 71-96). Greenwich, CT: Information Age Publishing.
- Schunk, D. H., & Pajares, F. (2002). The development of academic self-efficacy. In A. Wigfield & J. Eccles (Eds.), *Development of Achievement Motivation*. Retrieved from <http://vmarpad.shaanan.ac.il/efficacy/מעצמית/חוללות20SchunkPajares2001-The20Development20of20Academic20Self-Efficacy.pdf>
- Scott-Little, C., Hamann, M. S., & Jurs, S. G. (2002). Evaluations of after-school programs: A meta-evaluation of methodologies and narrative synthesis of findings. *American Journal of Evaluation*, *23*(4), 387-419.
- Shell, D. F., Bruning, R. H., & Colvin, C. (1995). Self-efficacy, attribution, and outcome expectancy mechanisms in reading and writing achievement: Grade-level and achievement-level differences. *Journal of Educational Psychology*, *87*(3), 386-398.
- Southern Pines School District. (2014). Georgia Department of Education 21st CCLC grant application.

- Springer, K., & Diffily, D. (2012). The relationship between intensity and breadth of after-school program participation and academic achievement: Evidence from a short-term longitudinal study. *Journal of Community Psychology, 40*(7), 785-798. doi:10.1002/jcop.21478
- Urdan, T., & Midgley, C. (2003). Changes in the perceived classroom goal structure and pattern of adaptive learning during early adolescence. *Contemporary Educational Psychology, 28*(4), 524-551. doi:10.1016/S0361-476X(02)00060-7
- U.S. Department of Education. (2014). 21st Century Community Learning Centers. Retrieved from <http://www2.ed.gov/programs/21stcclc/index.html>
- Vandell, D. L., Reisner, E. R., & Pierce, K. M. (2007). *Outcomes linked to high-quality afterschool programs: Longitudinal findings from the study of promising afterschool programs*. Report to the Charles Stewart Mott Foundation. University of California, Irvine.
- Webb-Williams, J. (2014). Gender differences in school children's self-efficacy beliefs: Students' and teachers' perspectives. *Educational Research and Reviews, 9*(3), 75-82. doi:10.5897/ERR2013.1653
- Weiser, D. A., & Riggio, H. R. (2010). Family background and academic achievement: Does self-efficacy mediate outcomes? *Social Psychology of Education, 13*(3), 367-383. doi:10.1007/s11218-010-9115-1
- Zief, S. G., Lauver, S., & Maynard, R. A. (2006). *Impacts of after-school programs on student outcomes*. Oslo, Norway: The Campbell Collaboration. doi:10.4073/csr.2006.3

Zimmerman, B. J., & Martinez-Pons, M. (1990). Student differences in self-regulated learning: Relating grade, sex, and giftedness to self-efficacy and strategy use. *Journal of Educational Psychology, 82*(1), 51-59.

APPENDIX A:

Valdosta State University Institutional Review Board Exemption

Valdosta State University Graduate School
Institutional Review Board Oversight Screening Form
for Graduate Student Research

Project Title: The Impact of After-School Programs on Self-Efficacy of Elementary School Students

Name: Trenton D. Bennett Faculty Advisor: Dr. Don Leech

Department: Curriculum, Instruction, and Technology Please indicate the academic purpose of the proposed research:

E-mail: [REDACTED] Doctoral Dissertation

Telephone: [REDACTED] Master's Thesis

Other:

1. YES NO Will you utilize *existing identifiable private* information about living individuals? "Existing" information is data that were previously collected for some other purpose, either by the researcher or, more commonly, by another party. "Identifiable" means that the identities of the individuals can be ascertained by the researcher by name, code number, pattern of answers, or in some other way, regardless of whether or not the researcher needs to know the identities of the individuals for the proposed research project. "Private" information includes information about behavior that occurs in a context in which an individual can reasonably expect that no observation or recording is taking place or information provided for specific purposes that the individual can reasonably expect will not be made public (e.g., a medical record or student record).
- Note: If you are using data that: (1) are publicly available; (2) were collected from individuals anonymously (i.e., no identifying information was included when the data were first collected); (3) will be de-identified before being given to the researcher, (i.e., the owner of the data will strip identifying information so that the researcher cannot ascertain the identities of individuals); or (4) do not include any private information about the individuals, regardless of whether or not the identities of the individuals can be ascertained, your response to Question 1 should be NO.*
2. YES NO Will you *interact* with individuals to obtain data? "Interaction" includes communication or interpersonal contact between the researcher and the research participant, such as testing, surveying, interviewing, or conducting a focus group. It does not include observation of public behavior when the researcher does not participate in the activities being observed.
3. YES NO Will you *intervene* with individuals to obtain data? "Intervention" includes manipulation of the individual or his/her environment for research purposes, as well as using physical procedures (e.g., measuring body composition, using a medical device, collecting a specimen) to gather data for research purposes.

If you answered YES to ANY of the above questions, your research is subject to Institutional Review Board oversight. Please discard this form and complete and submit an IRB application. Do not begin your research until your application has been reviewed by the IRB and you are informed of the outcome of the review.

If you answered NO to ALL of the above questions, your research is not subject to Institutional Review Board oversight. Stop here, sign below, secure your faculty advisor's signature, and submit this form to the Graduate School. Please remember that, even though your project is not subject to IRB oversight, you should still observe ethical principles in the conduct of your research.

STUDENT CERTIFICATION: I certify that my responses to the above questions accurately describe my proposed research.

Student's Signature: Trenton D. Bennett Date: 11/7/16

FACULTY ADVISOR CERTIFICATION: I have reviewed the student's proposed research and concur that it is not subject to Institutional Review Board oversight.

Faculty Advisor's Signature: [Signature] Date: 11/7/16

APPENDIX B:

Copy of Morgan-Jinks Student Efficacy Scale

Student ID (5-digit #): _____ School: _____

Gender: _____ Race: _____ Grade Level: _____

FIGURE 1
Morgan-Jinks Student Efficacy Scale (MJSES)

Statement	Really agree	Kind of agree	Kind of disagree	Really disagree	
1. I work hard in school.	1	2	3	4	
2. I could get the best grades in class if I tried enough.	1	2	3	4	
3. Most of my classmates like to do math because it is easy.	1	2	3	4	
4. I would get better grades if my teacher liked me better.	1	2	3	4	
5. Most of my classmates work harder on their homework than I do.	1	2	3	4	
6. I am a good science student.	1	2	3	4	
7. I will graduate from high school.	1	2	3	4	
8. I go to a good school.	1	2	3	4	
9. I always get good grades when I try hard.	1	2	3	4	
10. Sometimes I think an assignment is easy when the other kids in class think it is hard.	1	2	3	4	
11. I am a good social studies student.	1	2	3	4	
12. Adults who have good jobs probably were good students when they were kids.	1	2	3	4	
13. When I am old enough, I will go to college.	1	2	3	4	
14. I am one of the best students in my class.	1	2	3	4	
15. No one cares if I do well in school.	1	2	3	4	
16. My teacher thinks I am smart.	1	2	3	4	
17. It is important to go to high school.	1	2	3	4	
18. I am a good math student.	1	2	3	4	
19. My classmates usually get better grades than I do.	1	2	3	4	
20. What I learn in school is not important.	1	2	3	4	
21. I usually understand my homework assignments.	1	2	3	4	
22. I usually do not get good grades in math because it is too hard.	1	2	3	4	
23. It does not matter if I do well in school.	1	2	3	4	
24. Kids who get better grades than I do get more help from the teacher than I do.	1	2	3	4	
25. I am a good reading student.	1	2	3	4	
26. It is not hard for me to get good grades in school.	1	2	3	4	
27. I am smart.	1	2	3	4	
28. I will quit school as soon as I can.	1	2	3	4	
29. Teachers like kids even if they do not always make good grades.	1	2	3	4	
30. When the teacher asks a question I usually know the answer even if the other kids don't.	1	2	3	4	
31. What grade in math did you get on your last report card?	A	B	C	D	F
32. What grade in social studies did you get on your last report card?	A	B	C	D	F
33. What grade in science did you get on your last report card?	A	B	C	D	F
34. What grade in reading did you get on your last report card?	A	B	C	D	F