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Examining the influence of the leader in me on school grades

Jennifer Lynn Wright
University of North Florida, jwright1522@gmail.com

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EXAMINING THE INFLUENCE OF THE LEADER IN ME ON SCHOOL GRADES

by

Jennifer Lynn Wright

A dissertation submitted to the department of Leadership, School Counseling, and Sports Management in partial fulfillment of the requirements for the degree of

Doctor of Education in Educational Leadership

UNIVERSITY OF NORTH FLORIDA

COLLEGE OF EDUCATION AND HUMAN SERVICES

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Dedication:

To my Michaels.
Acknowledgements

My high school guidance counselor once told me that college just wasn’t in the cards for a student like me. Now, what that guidance counselor meant by “a student like me” remains a mystery, but I do know that I have been fortunate to have many people in my life not share that same sentiment. I am forever grateful for their guidance, support, and encouragement.

I want to first thank my committee members. Matt, your passion for k-12 education and leadership development led me down this path in the first place, and I am so thankful for your willingness to share with me this passion. Also, your support was unyielding, and I thank you for always believing in me. My biggest trepidation when beginning the doctoral program revolved around the statistic courses I knew I had to conquer. Dan and Amanda, you both took abstract concepts, at least to me, and presented them in ways that actually made sense. I will forever be inspired by your ability to make these concepts accessible and exciting to this non-mathematical thinker. Georgette, when I chose the nonprofit management path for my cognate, I did so out of a passion for serving those in need of a kind heart and an open mind. At the time, I did not realize how applicable and necessary the tenants of leading a nonprofit organization would be in the k-12 world. I use the lessons you taught me daily in my school leadership position, and I thank you for providing me a different perspective.

I never would have arrived at this destination if it were not for the support, camaraderie, and wisdom of my cohort soul sister, Sarah. Through this process, you consistently pushed me, encouraged me, challenged me, and believed in me. We made a pact to not leave each other behind, and you held firm to your promise. Your friendship means as much to me as this degree.

Some of those who supported me through this feat did so in spirit. To my mom, grandmother, and grandfather who are no longer with me in body, I always felt your love and
support guide me through, especially during the uphill battles. I share this accomplishment with you.

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Abstract

School leaders face increasing demands related to student achievement. These demands involve annual data reporting related to overall student, school, and district success. In Florida, this accountability and transparency requirement is addressed through an annual school grading system. It is essential that leaders utilize successful programs that directly influence positive student outcomes and demonstrate high quality education. The purpose of this study was to examine the influence of a youth leadership development program, specifically The Leader in Me (TLIM) program, on school grades. Based on data obtained from 16 public elementary schools across Florida, a repeated measures ANCOVA analysis revealed that no statistically significant differences in the mean school grade percentages were observed between schools that implemented TLIM and schools that did not utilize the program. In addition, no significant differences were noted in the mean school-wide achievement scores on state mandated assessments in the areas of English/Language arts, mathematics, and science. Furthermore, regression analysis revealed that the percentage of students identified as minority, the percentage of students qualifying for free and reduced lunch, and the percentage of students reported as chronically absent significantly influence school grades. A review of the existing literature related to The Leader in Me, staff and student leadership, and the study variables follows, as well as a discussion of the findings and implications for future practice and research.
Examining the Influence of *The Leader in Me* Program on School Grades

**Chapter 1: Introduction**

Today’s public schools throughout the nation face immense pressure to ensure that all students are achieving at expected levels and making adequate learning gains on state mandated assessments (Kerr, Marsh, Ikemoto, Darilek, & Barney, 2006; Nichols, 2003; Sheldon, 2007). This pressure can create a school culture that seems to revolve around test-taking and not much more (Kingsbury, 2008). Instead of motivating students to do their best, the opposite can be true due to such high-stakes demands. Many in the educational field still believe that schools have a duty to provide more than just test-taking skills to our students. Children need to be prepared to face the multitude of challenges they will encounter when they enter the world beyond k-12. These challenges include seeking employment, navigating the social aspects of adulthood, and persevering through rejections and disappointments (Pellegrino & Hilton, 2012). This can be especially important for students with less access to opportunities, such as students from lower socioeconomic backgrounds and students from minority families. Research has shown that these groups of students face significant barriers to their academic achievement (Lumpkin, 2016). Schools are responsible for properly educating children from all backgrounds and must attempt to mitigate as many of these detrimental influences on student achievement as possible.

To identify students who may experience the impacts of lower socioeconomic hardships, educational researchers often rely on qualification for free and reduced meal plan programs as the measure of students’ socioeconomic status (SES). Siren (2005) identified three common
factors associated with SES: parental income; parental education; and parental occupation. For a student to be considered lower SES, that student’s parent or guardian typically has less income, less education, and a lower status occupation as compared to middle to upper class families (Harwell & LeBeau, 2010). In addition, these students often have less access to social and cultural capital as compared to their higher SES peers (Walpole, 2003). Since families must qualify for free and reduced meal plan programs at their children’s schools based on income guidelines, this reported variable serves as an indication of a student’s socioeconomic status. For example, in order for a family of four to qualify for a school’s free meal plan during the 2018-2019 school year, that family cannot receive more than $32,630 in income, which is 130% of the federal poverty level.

A student’s lower SES status has been linked to lower academic achievement in the research. This finding is due in part to less parental support with schoolwork, lower parental involvement with school staff, and less access to high quality education and schools (Sirin, 2005). In addition, students who come from lower SES backgrounds tend to have higher rates of absenteeism. Alfridi (2010) found that the availability of a hot meal at school each day through a free meal program increased student attendance rates amongst children in India. Also, children raised in homes with lower SES and higher prevalence for food insecurity, experience decreased academic achievement and increased difficulty with social-emotional development (Houston, Marzette, Ames, and Ames, 2013).

Surprisingly, Sirin (2005) found that the strength of these impacts decreased as the number of minority students increased in a school. This finding suggests that parent education level, income, and occupation status have less influence on academic achievement of minority students than non-minority students. Students whose ethnic/racial identity is strong tend to show
positive correlations with academic achievement. This finding could be due to a stronger sense of oneself and positive well-being, which acts as a protective coping mechanism against poor achievement in school (Costigan, Koryzma, Hua, & Chance, 2010).

Although this positive correlation exists in the literature, voluminous research also exists highlighting the negative correlations between minority status and academic achievement. This conundrum is often referred to as the “achievement gap” when comparing achievement results of minority students with white peers. Lower SES and poorer school conditions have been identified as contributing factors to this serious problem (Lumpkin, 2016). An additional compounding factor on the achievement of minority students, especially those from lower SES backgrounds, is the higher prevalence of chronic absenteeism.

Although all US states have established compulsory school attendance laws for students between the ages of 5 to 18 years old, chronic absenteeism continues to hinder student academic success. Research heavily sites the influence of regular school attendance on increased school performance. One study found that school attendance accounted for 60 percent of the variance on student achievement in 9th grade (Roby, 2003). In addition, students who attend school regularly have higher GPAs and score better on achievement test as compared to students who miss 10 percent or more of school annually (Gottfried, 2010). These results indicate that student achievement is significantly impacted on whether or not students attend school on a regular basis.

Attendance is also used as a measure of individual school and overall district performance. Many US states set attendance standards that schools and districts must meet to demonstrate high quality and performance. The attendance factor is critical on state standardized assessment days as the number of students sitting for exams is calculated into the overall school
grade earned each year. For example, the State of Florida has established an annual school grade designation that includes achievement results on the Florida State Assessment. For a school to earn an “A” grade, 95 percent of the students in the school had to have completed the assessments in reading and math that year (Florida Department of Education, July 2014). These overall school grade designations are accessed by parents and stakeholders to measure the quality of the school options available within a district. Research shows that these school grades influence where families choose to buy homes and which schools they desire to send their children (Figlio & Lucas, 2004; Schneider and Buckley, 2002). Parents view these grades as an indicator of the likelihood their children will succeed academically.

While academic achievement is paramount to a student’s future success, another topic of high importance in education today is encouraging students to become moral and ethical citizens of the future through the use of character building, collaboration, and leadership skills (Anderson, 2000). Youth view leadership as important to them, available to everyone, characterized by listening to and helping others, and much less focused on authority or power (Anderson & Kim, 2009; Culp and Kohlhagen, 2000; Mortensen, Lichty, Foster-Fishman, Harfst, Hockin, & Warsinske, 2014). Youth also report that the majority of their leadership development stems from the school environment, church, sports teams, and work (Anderson & Kim, 2009). These leadership experiences positively influence student behavior, attitude, outlook, and sense of community (Hawkes, 1999; McNae, 2011).

For students to receive maximum benefit, student leadership must also be connected to the improvement of student learning outcomes (Freeborn, 2000). In addition, the intrinsic value of developing student leadership skills has the potential to positively influence academic achievement and overall success in life (Kearnes & Stephens, 1999). One possible solution that
Schools are utilizing to successfully integrate crucial school, work, and life skills is by incorporating targeted leadership development into the curriculum through the implementation of Stephen Covey’s *The Leader in Me* (TLIM) program. TLIM is a school-wide intervention program aimed at developing student leadership skills to maximize student learning potential (FranklinCovey, 2011).

**Problem Statement**

Schools devote limited resources to various programs and curriculum aimed at improving various student outcomes. Adopting focused programs, such as the youth leadership development program TLIM, is often costly and time-consuming. It is important to ascertain the effectiveness of available programs so that school leaders can determine the value of such an investment of sparse time and money. It is also important to ascertain specific student populations and school sites that may benefit from such program adoptions. In addition, teachers are inundated with various curriculum and programs to implement in their classrooms. Too often these programs are not supported by strong empirical research demonstrating effectiveness. It is imperative that school leaders have available data to suggest that the devotion of limited time and resources is valuable and worthwhile (Kerr et al, 2006).

**Rationale for the Study**

In today’s educational climate, student achievement is measured by federal regulations that mandate state accountability measures. These state accountability measures often take the form of statewide high-stakes assessments. In the State of Florida, these assessments have changed throughout the years as the core curriculum and standards have evolved. Until 2015, all students attending public school in Florida participated in the Florida Comprehensive Assessment Test (FCAT) in grades 3 through 10 in the academic subjects of reading,
mathematics, science, and writing. More recently, this assessment has evolved into the Florida Standards Assessment (FSA). The FSA measures students’ achievement in English Language Arts (ELA), Mathematics, and high school End-of-Course (EOC) subjects. The Florida Department of Education (FLDOE) calculates the percentage of students in each school that scores at the proficient level each year. This percentage, along with other calculation factors that will be discussed, are calculated into schools’ overall school grade each year. Schools can earn a grade of A, B, C, D, or F annually.

Three factors that impact student performance and, in turn, influence a schools’ overall grade attainment, are as follows: socioeconomic status, as measured by free and reduced lunch status; minority status; and rate of school attendance. As research has shown, these three factors significantly influence students’ academic achievement (Finn & Rock, 1997; Roby, 2005; Sirin, 2005). The impact of socioeconomic status, minority status, and student attendance on FCAT/FSA scores, and on the number of students scoring at or above proficiency level, should be considered when evaluating a school for effectiveness. Each year, schools report the percentage of students receiving free and reduced lunch and the percentage of students identified as minority to the FLDOE so that the impact of these factors can be considered in the overall reflection of school and district achievement. Additionally, schools maintain data on the rate of attendance of enrolled students, and research indicates that attending school regularly impacts academic achievement (Roby, 2005). Since families and other stakeholders use school grade as a measure of a school’s effectiveness and overall instructional quality, it is important that schools work deliberately to positively influence their school grade (Figlio & Lucas, 2004). One way to do this is to implement targeted programs that seek to mitigate the negative influences of low socioeconomic status, minority status, and rate of attendance. In addition, it is vital that schools
implement these focused interventions for a minimum of three years if long-lasting, positive change is to become systematic and effective school wide (Fullan, 2000).

**Purpose of the Study**

The purpose of this study is to examine the influence of a youth leadership development program, specifically TLIM program, on school grades so that school leaders can identify specific school sites based on student demographics for which the implementation of the program will have the greatest positive impact on student achievement. Additionally, this study will examine the influence of key student demographics, such as free and reduced lunch rate, minority rate, and student attendance rate on school grades so that school leaders can understand the impact of these factors on overall school achievement and school grade attainment.

**Research Questions and Hypotheses**

This study aims to answer the following research questions:

1. What impact does the implementation of a youth leadership development program, specifically TLIM program, have on school grades over time?
2. What impact does the implementation of TLIM have on academic achievement as measured by the English/Language Arts, mathematics, and science FSA scores over time?
3. Which school environments may be most conducive to achievement growth through the implementation of The Leader in Me (TLIM) when examined through FL school grades and key student demographics?

The central hypotheses of this study are: the implementation of TLIM program will increase school grades over time; the percentage of students scoring at proficiency level or higher on state mandate assessments of students achievement will increase with the
implementation of TLIM; and as the free and reduced lunch rate, minority rate, and chronic absenteeism rate increases, the overall school grade will decrease.

**Significance of the Study**

The significance of this study is to aid school leaders by providing empirical data to support decisions related to program adoption, specifically, in identifying whether TLIM program impacts school grade designation, and in identifying schools based on student populations as possible candidate schools for the TLIM program implementation. Also, a large volume of research exists that examines the impact of low socioeconomic status, most often measured by free-and reduced lunch qualification in K-12 education, the impact of minority status, and the impact of regular school attendance on numerous student outcomes. Very little research exists that examines these impacts from a youth leadership perspective. This study aims to add to the literature research that examines the implementation of a youth leadership development program and the impact on school grades and academic achievement, as well as the impact of free and reduced lunch rate, minority rate, and attendance rate on school grades, which represents student academic achievement as measured by state mandated high-stakes assessments, as viewed through a youth leadership lens.

**Study Definitions**

**Attendance.** Being present at the assigned school during the prescribed count time when school is scheduled to be in session (Florida Department of Education, 2016). In the State of Florida, students who miss 21 or more days of school in an academic year are considered chronically or excessively absent. Florida schools and districts must report to the State annually the number and percentage of students that are chronically absent (Balfanz & Byrnes, 2012).

**Attendance rate.** The frequency at which students attend, or are present, at school.
**Free and Reduced Lunch/Meal Plans.** A federal meal plan program, named the National School Lunch Program (NSLP), regulated by the United States Department of Agriculture that provides nutritionally sound meals to students attending public schools, nonprofit private schools, and childcare institutions at a reduced or free rate based on family income guidelines (United States Department of Agriculture, 2017).

**Minority Status.** A student’s ethnic and/or racial family identity as reported by parents/guardians (Miller-Cotto & Byrnes, 2016).

**School Grades.** The assignment of an overall grade of “A,” “B,” “C,” “D,” or “F” by a State Department of Education to evaluate school effectiveness based on students’ performance on standardized assessments (Figlio & Lucas, 2004).

**Socioeconomic Status (SES).** The social and economic status of a student based on common factors, which include parental income, parental education, and parental occupation (Sirin, 2005).

**Student.** A child or young adult that attends a kindergarten to grade 12 school.

**The Leader in Me (TLIM).** A whole school transformation process that establishes a new paradigm for which school leaders and staff view student leadership development (Covey, Covey, Summers, & Hatch, 2014).

**Youth Leadership.** Leadership characteristics, qualities, experiences and/or activities as experienced by school-aged children and young adults.
Chapter 2: Literature Review and Framework

Organization of the Literature Review and Framework Chapter

This literature review chapter begins with the conceptual framework of TLIM, including a discussion on the central concepts and theoretical foundations of the program, and the application of the program in k-12 schools. The literature review section will follow with sections discussing the topics of staff and teacher leadership, youth leadership, school grades, socioeconomic status as measured by free and reduced meal plans, minority status, and school attendance. The chapter will close with a conclusion.

Conceptual Framework

Central Concepts of The Leader in Me

The Leader in Me (TLIM) is a whole school transformation process that establishes a new paradigm for which school leaders and staff view student leadership development (Covey, Covey, Summers, & Hatch, 2014). The central premise of this framework is that every child is a leader and capable of achieving greatness. FranklinCovey (2011) believes that TLIM program promotes the mindset that all people are cable of becoming a leader, that every person has genius, and that change starts at the individual level. The program approaches education from the stance that educators need to develop the whole learner as it relates to the mind, body, heart, and spirit (Covey et al., 2014). In addition, the program fosters the belief that leadership is not a hierarchical model of leader positions but rather a culture where every person has the opportunity
to assume leadership roles (Fonzi & Richie, 2011). This goal is accomplished through the empowerment of each student to meet his or her learning potential (FranklinCovey, 2011).

More specifically, TLIM is a program adapted to the school environment by Stephen R. Covey (1989) based on his bestseller, *The 7 Habits of Highly Effective People*. Covey believed that these habits, or guidelines for human behavior, should be at the core of everything we do and should guide our personal, professional, and spiritual aspects of our lives (Branham, 1997). In addition, these habits apply to people from all backgrounds, regardless of ethnicity, race, religion, age, gender, class, or disability (Covey et al., 2014). Covey’s seven habits are just that, specific habits for which people engage in their daily lives to maximize their full potential (Branham, 1997). Covey (1989, 2004) identified these habits as the following: (1) be proactive; (2) begin with the end in mind; (3) put first things first; (4) think win/win; (5) seek first to understand then to be understood; (6) synergize; and (7) sharpen the saw. TLIM program utilizes administrators’, school staff, and teachers’ innovation and creativity to infuse these seven habits into the curriculum, traditions, and culture of the whole school.

In an interview with Time magazine’s Kathleen Kingsbury (2008), Covey explained that the habits he teaches become a value system for the students that can be reinforced through the academic subjects. He believed that the needs of the whole child are ignored when such a strong emphasis is placed on passing state tests. Through TLIM program, critical social skills are acquired and character development is achieved. Also, by instilling the first habit of being proactive, for which Covey equates to accepting responsibility, this establishes a necessary foundation on which to build the remaining habits.

While the incorporation of the program into the school culture is meant to vary by individual school based on need and circumstances, the process for implementing the program
spans the same three-year process (Fonzi & Richie, 2011). The first year focuses on introducing
the 7 habits to the students and the staff. The second year involves introducing innovative and
creative tools and methods to promote the fundamental meaning of each habit and the application
of the habits throughout the school environment. This step is where teacher and staff innovation
and creativity are highly prized and necessary components of program implementation. The
final, third year focuses on follow-up training from FranklinCovey staff to renew and revamp the
habits and practices applied in the school setting.

Theoretical Foundations of TLIM

Researchers have analyzed existing literature to identify the theoretical foundations of
TLIM program. Fonzi and Ritchie (2011) identified two main theories as central to the
conceptual design of TLIM program. Those theories are related to systemic reform and social
and emotional learning. Systemic reform positions change as a system of the whole organization,
or in this case, the whole school. More specifically, new is not brought in to replace the old, but
rather the current system is reenergized through updated, innovative means of improving
multiple components of the whole (e.g., classrooms, teachers, students, administrators, schools)
(Carr-Chellman, 1998). TLIM promotes a whole, school-wide transformation process towards
positive change in students and in school culture.

Social and emotional learning focuses on improved behavior traits that positively
influence success both inside and outside of the school environment. Fredericks (2003)
conceptualized social and emotional learning as “the process through which people learn to
recognize and manage emotions, care about others, make good decisions, behave ethically and
responsibly, develop positive relationships, and avoid negative behaviors” (p. 4). These
characteristics of socially-emotionally evolved learners describe the overall aim of TLIM program towards all students achieving success and greatness through leadership experiences.

**Application of TLIM**

The FranklinCovey Center for Advanced Research (2011) investigated the outcomes of a school-wide implementation of TLIM program. The Fremont Elementary School in Salt Lake City, Utah serves a diverse student population, half of who qualify for free and reduced meal plans. The area houses a large number of immigrants who move to the neighborhood due to its relatively inexpensive housing market. The Fremont Elementary School and its district had not met Annual Yearly Progress (AYP) in five years when the auditors arrived. While the aim of the auditors was to discover the areas needed for improvement, the school was pleased to have been praised at the conclusion of their examination. The auditors attributed the school’s implementation of TLIM program as the main reason for the high performance. The specific areas noted as being high-performing were as follows: on-task behavior; positive learning climate; rapid student vocabulary growth; timely feedback to students; differentiated instruction; a 60 percent decline in disciplinary referrals; high academic expectations; parental satisfaction; teacher instruction; and use of instructional materials. Many of these outcomes have been linked to increased academic achievement in the research.

Other schools that have implemented TLIM program have also noticed increased performance in these same areas. Hollingsworth (2013) interviewed Emily Cross, the principal of Indian Trails Elementary just outside of Kansas City, Missouri. Cross had witnessed a decrease in student discipline referrals and an increase in students’ taking responsibility for his or her behavior. Cross explained that when a student is questioned about their misbehavior, the teacher specifically asks the student which of the habits could have helped the student in that situation.
Cross also added that students are deliberately assigned leadership roles and actively track their academic achievements in a leadership notebook. These are huge motivators for some students, claims Cross. Through the application of the seven habits, these students had tracked their successes and demonstrated the desire to continue their upward trend. This built their intrinsic desire to continue down the change path to becoming well-rounded, highly successful individuals.

Branham (1997) proposed that when considering how best to apply the seven habits in a school setting, whether it is with students or with groups of professionals working together, he borrowed from Covey and said it is best to keep the end goal in mind. Once decided how these habits will help to achieve the overall school goals, then it is time to prioritize how best to begin implementing the habits. He stressed the importance of being proactive in the process, which happens to be habit number one, and not waiting for the program to find the school, but for the school to seek out the needed resources. Finally, Branham reminded us to think win-win and examine how each of the key players can best utilize their skills and talents to help promote a successful implementation of the program.

While Branham discussed key points in implementing a more formal, school-wide initiative, it is equally as possible to implement the habits in an individual classroom. Anderson (2000) shared her more informal approach of implementing the habits in her class. Through a guided approach based on literature- and history-focused discussions, her elementary students discovered ties between the materials they were studying and the 7 Habits. At the end of the year, she asked the parents to complete a survey. The survey revealed that most parents viewed their child as being more serious about school, the children were more tolerant of others, and they were more persistent in keeping with a difficult situation. Some parents even reported that
their child seemed more positive and happy overall. Anderson attributed these gains to the student’s application of Covey’s 7 Habits in her classroom.

To understand how TLIM, a targeted intervention program focusing on youth leadership development, could potentially lead to positive student outcomes, such as increased academic achievement, a review of existing literature is required.

**Literature Review**

**Staff and Teacher Leadership**

For change initiatives to take hold, individuals at all levels of an organization must be involved, and fully engaged, in improvement efforts and leadership development (York-Barr & Duke, 2004; Smylie & Eckert, 2018). In school settings, these individuals may include principals, teachers, support staff, administrative assistants, custodians, and cafeteria staff. York-Barr and Duke (2004) asserted that leadership development of school staff members improved employee participation and increased commitment towards common organizational goals.

Smylie and Eckert’s (2018) research into organizational leadership development revealed the following observations: leadership development is a systemic process and is socially influenced; developing new leadership practices often involves establishing a new system for leadership development; leadership development must sit at the center of the organization and be fully integrated into the daily workings of the organization; and the practice of leadership must be present. These key factors of leadership development connect directly to the intent and process of TLIM.

Teacher leadership development, in particular, has been heavily researched and the benefits have been reported in the literature. It has been viewed as a catalyst for change efforts and is critical to implementing and sustaining curriculum and intervention initiatives within
schools (Sinha & Hanuscin, 2017). The central premise of teacher leadership development places teachers as central figures in the daily operation and success of the school (York-Barr & Duke, 2004). Smylie and Eckert (2018) proposed that, for a model of teacher leadership development to be successful, and perhaps successful for the development of leadership opportunities for all school staff, the process must be systemic in nature, placed at the center of school focus, provide ample practice of leadership skills, and should consider the implications for individuals and overall organizational change. By focusing on teacher leadership development specifically, school leaders aim to increase student academic achievement and other student outcomes through continued improvement of instruction and learning (York-Barr & Duke, 2004; Poekert, Alexandrou, & Shannon, 2016). Through an examination of literature related to teacher leadership development, best practices can be identified on growing leadership skills and opportunities for all school staff.

One important factor in teacher leadership development is the self-perception individuals’ hold regarding their own status as leaders (York-Barr & Duke, 2004; Hunzicker, 2017; Sinha & Hanuscin, 2017). Teachers, specifically, have reported that they do not believe themselves to be leaders within their schools. One reason as to why teachers may not view themselves as leaders is because leadership is a mind-set and a way of being, rather than specific behaviors or titles (Hunzicker, 2017). How teachers evolve their formal notions of leadership involves deliberate, focused development of leadership knowledge and skills, and increased opportunities to practice leadership within their school communities (Hunzicker, 2017; Sinha & Hanuscin, 2017).

Sinha and Hanuscin (2017) conducted a study with three teachers, all with varying years of teaching experiences, who participated in 300 hours of professional development across a three-year period, which targeted leadership development and opportunities for practice. These
researchers found that all three teachers expanded their views of leadership by the end of the study. Initially, these teachers viewed leadership as a formal position, with either a title or a position of authority, as a top-down hierarchy, or as taking-charge or action. One teacher viewed leadership as involving followers who accepted direction without question. By the end of the study, all three teachers changed their view of leadership to incorporate much less formal ideations of leadership. They also recognized that holding a position of authority did not necessitate the making of a leader. In addition to expanding their views of leadership, all three participants expanded their leadership practices and activities, and they transformed their ideas of leadership into a way of thinking and being. These leadership activities included opportunities to practice leadership both inside and outside of the classroom in new ways. When teachers, and other staff members, identify leadership as a mind-set and a way of being, and they recognize that they, too, are leaders within their school communities, they become aware of their role as change agents for the school and for increasing student outcomes (Poekert, Alexandrou, & Shannon, 2016; Flores, 2018).

Another important factor in teacher leadership development is the manner in which a school fosters leadership development. Flores (2018) surveyed 2,702 teachers and found that a key element of successful leadership development involved the use of a school-based program aimed at growing and developing leadership knowledge, skills, and opportunities for practice. A systemic effort towards school-wide improvement was also noted in a study conducted by Poekert, Alexandrou, and Shannon’s (2016). Their findings suggested that when teachers had adequate leadership development, ample opportunities for leadership practice, and a supportive school environment that fostered leadership growth and implementation on a systemic level,
these teachers became central to school-wide efforts of policy reform aimed at improving student outcomes and achievement through an emphasis on leadership development.

While theory and inference suggest potential links between teacher leadership development and improved student learning outcomes, little empirical evidence exists to connect the two in an undisputed way. An examination of two decades of research on teacher leadership conducted by York-Barr and Duke (2004) revealed that other relevant connections exist to suggest possible effects on increased student outcomes. One such connection relates to the creation of a more democratic learning environment. When schools value shared-decision making and leadership development, two significant democratic ideations, then students begin to believe in, act on, and sustain, those values, thus resulting in increased student engagement (Barth, 2001). A second relevant connection links student outcomes to teacher leaders as being positive influencers of other teachers and school personnel. Teacher leaders became a resource for other staff in regard to instruction, student issues, and program implementation. In addition, these leaders participated in school-wide policy and curriculum decision-making, which impacted positively the learning environment for students (Ryan, 1999). Additional connections were found between teacher empowerment and positive effects on student learning and school as a professional community. York-Barr and Duke (2004) conclude that, “teacher leadership is the process by which teachers, individually or collectively, influence their colleagues, principals, and other members of school communities to improve teaching and learning practices with the aim of increased student learning and achievement” (p.p. 287-288). This framework, and the results of this study along with the results of other studies discussed in this section highlight the benefits of active leadership development and practice, and support the use of a whole-school leadership
intervention that places leadership development at the center of the school, such as TLIM program.

**Youth Leadership**

Van Linden and Fertman (1998) viewed leaders as those who “think for themselves, communicate their thoughts and feeling, and help others understand and act on their own beliefs” (p. 17). While this seems like a relatively simple concept, in practice this mindset can be difficult to achieve, especially for youth. Youth are denied decision-making power and are often not permitted to represent their thoughts or beliefs freely (Lesko, 1996). Youth are reminded to respect authority and obey the rules set forth by their families, schools, and peer groups. When youth are afforded the opportunity to express their thoughts and act on their beliefs, positive outcomes have been noted in the research. Through participation in activities that promote leadership, positive relations have been found between these leadership opportunities and a sense of ownership, a connection between academic learning and real-world application, and a reduction in student boredom (National Research Council, 1988).

Research has shown that students believe that leadership is important to them, important in their school lives, and important for future career success (Anderson & Kim, 2009). These youth also place more importance and attention on the areas where they receive leadership education. Many students reported receiving the majority of their leadership experiences through the school environment, church, sports teams, and work (Anderson & Kim, 2009). It is important that researchers examine these settings to identify what works in leadership education and what aspects of leadership training are unsuccessful.

Participation in extracurricular activities has been a successful means of promoting leadership skills in adolescents. Approximately 83% of adolescents aged 12-17 participate in at
least one extracurricular activity at school (Moore, Hatcher, Vandivere, & Brown, 2000). Involvement in community activities lags behind participation in after-school activities, according to Anderson and Kim (2009). They reported that almost one-half of their 284 student participants reported having no involvement with community activities. These data demonstrate the need for ample opportunities for leadership skill development to exist in the school setting. Leadership experiences at school have also been found to improve students’ sense of self-worth and positive self-concepts in areas of social interactions and academics (Bloomfield & Barber, 2011). Increased school engagement and academic achievement has also been noted (Fredricks & Eccles, 2006). Eccles and Templeton (2002) found that as students had more opportunities to assume leadership roles, the stronger these positive associations were shown. These are promising results that support the notion that targeted youth leadership development programs, such as TLIM, could positively influence student academic achievement.

School is not the only environment that influences students’ acquisition of leadership skills; what occurs at home is also impactful. Parental support was found to be a significant predictor of students’ perceptions of their leadership skills (Hancock, Dyk, & Jones, 2012). This can be extended to include parental support of a student’s participation in extracurricular activities, as well. This finding can also apply to support stemming from coaches and adult mentors of these extracurricular activities. Also, positive leadership self-perceptions resulted when students were given leadership roles, such as team captain, in their activities (Hancock, Dyk, & Jones, 2012).

It is important to note that too much emphasis has been placed on awareness of leadership skills in the past as opposed to interaction and integration of leadership skills in real-world situations (Anderson & Kim, 2009). By promoting the use of leadership skills in everyday
situations, instructors can help increase student academic and civic engagement. Also, to foster leadership skills needed in adult life, curriculum should encourage youth-adult partnerships (Hancock, Dyk, & Jones, 2012). These partnerships could involve parents, coaches, mentors, and teachers. Researchers recommend utilizing a leadership education curriculum that emphasizes content and experiential learning (Anderson & Kim, 2009). Also, students should be afforded the opportunity to play an active role in developing their leadership through youth-driven activities and leader roles within those activities (Hancock et al., 2012). It is also important that curriculum be evaluated for comprehensiveness and effectiveness.

To engage students in leadership roles, we must first understand what leadership means to them (Mortensen, Lichty, Foster-Fishman, Harfst, Hockin, & Warsinske, 2014). This may, in turn, promote buy-in from youth and spark excitement and motivation in them to assume greater leadership roles. Culp and Kohlhagen (2000) found that the common leadership characteristics identified by youth are listening to others, being a good role model, and helping others. The researchers also found that adults typically identified the ability to speak confidently in front of people and being responsible as the main characteristics of a leader. If a leadership curriculum was to be developed around what adults consider to be important leadership characteristics, then the mark would be sorely missed.

Youth view leadership with much less focus on authority and power than do adults (Mortensen, Lichty, Foster-Fishman, Harfst, Hockin, & Warsinske, 2014). Mortensen et al. (2014) found that students most frequently conceptualized leadership as: available to anyone in any context; creating change; collective action; modeling and mentoring; and strong character. It could be reasonable to suggest that leadership programs consider students own perceptions of
leadership and incorporate those characteristics and concepts into future models for leadership education.

Research has supported the notion that students involved in leadership opportunities demonstrate qualities of caring and giving individuals (Hawkes, 1999; Lineburg & Gearheart, 2008; McNae, 2011). Student values and behaviors are influenced positively by leadership experiences (Hawkes, 1999). Also, students develop a sense of service towards other and towards the school community when they are actively involved with leadership education (McNae, 2011). Students feel they have a stake in decision-making when in the leadership process (Lineburg & Gearheart, 2008). Also, the student leaders become positive role models for young students and create an atmosphere of positive contribution to peers, the school, and the community.

Hawkes (1999) posited that student leadership has “the capacity to influence student values, attitudes, and behaviors with an effectiveness that school principals can only dream about” (p. 21). For this vision to be actualized, student leadership must also be connected to the improvement of student learning outcomes (Freeborn, 2000). In addition, the intrinsic value of developing leadership skills has the potential to positively influence academic achievement and overall success in life (Kearnes & Stephens, 1999). Student leaders become future problem solvers, decision-makers, and communicators, thus resulting in increased positive student outcomes.

Based on these data, it is possible that such focused approaches to fostering leadership development amongst youth, such as TLIM program, could lead to increases in students’ academic achievement. One common measure of student achievement, specifically in the core subject areas, is state mandated standardized assessments. Within the last 15 years, these test
scores have been used to evaluate the effectiveness of school programs nationwide. One method that has been used by some states is the assignment of an annual overall school grade.

**School Grades**

In 2001, the federal government enacted new legislation related to school accountability. The No Child Left Behind Act (NCLB) required states to evaluate school effectiveness based on students’ performance on standardized assessments (Figlio & Lucas, 2004). For some states, this resulted in school report cards and overall school grades based on student achievement on these statewide test measures. The federal government tied federal school dollars to this mandate and required states that received these funds to comply with the new legislation. In addition, NCLB required states to develop school choice options for schools that did not demonstrate proficiency on the measures of student achievement. These school report cards and school grades are published annually on state department of education websites, as well as available on school and district websites. Research has shown that parents, communities, and stakeholders use this school accountability data and school grades to evaluate the effectiveness of their neighborhood schools and to make educational decisions for their children.

Schneider and Buckley (2002) studied parents’ Internet searches as it related to preferences in school characteristics based on these published data. They examined the first five “moves” made on a district school’s website. They found that the top three attributes searched were student body, location, and test scores. These results support the idea that test scores and school location are primary concerns of parents seeking school placement for their children. The use of school grading systems allows parents to obtain that information quickly and use it to make education related decisions for their families.
School grades have influenced how families make decisions related to buying homes and how these decisions relate to specific school zones. In Florida, the mandated system of school accountability began as early as 1999. Governor Jeb Bush enacted his A+ education plan that assigned schools a letter grade of “A,” “B,” “C,” “D,” or “F” based largely on students’ performance on the state mandated assessment, the Florida Comprehensive Assessment Test (FCAT). Schools that scored an “A” were eligible for additional per pupil monies, while schools that scored an “F” twice within a four year period were required to offer school vouchers so parents could send their children to higher performing schools within the district (Figlio & Lucas, 2004). Figlio and Lucas (2004) questioned whether the Florida housing market was impacted by the assignment of these school grades. They examined similar elementary schools with similar attributes that earned grades of “A,” “B,” and “C.” They did not examine the lowest performing schools because they felt that the “D” and “F” schools, and the neighborhoods where those schools were located, were fundamentally different than the schools scoring at the top three levels. What they found was that immediately following the introduction of the school grades in 1999, homes in “A” school zones sold for roughly 19.5 percent more than did homes located in “B” school zones. Homes located in “C” school zones sold for 15.6 percent less than the homes sold in “B” schools zones. These findings support the notion that school grades influence the housing market and families’ decisions related to school placement.

Since better schools are often located in better neighborhoods, Black (1999) attempted to control for the variations in property tax rate and school spending by examining the housing market on opposite sides of school zone boundaries. What she found was that parents are willing to pay 2.1% more for a house if it will result in a 5% increase in elementary school test scores.
These results indicate that parents view higher test scores, and school grades, as representing better, higher quality schools.

Other states have implemented similar systems of accountability. When the Charlotte-Mecklenburg School district had to implement its first round of school vouchers in 2004 because of low performing schools, the district informed parents of the possible school choices and listed each schools’ average test score on the state mandated reading and math assessment. Hastings and Weinstein (2008) examined the outcomes of this district’s school choice plan and the distribution of this detailed information to families. The researchers found a significant increase of lower-income families choosing to move their children to the higher performing districts when they received the test score information. This finding supports the argument that parents use test score data to make informed decisions related to their children’s school placement.

Similar studies have occurred in other countries. Andrabi, Das, and Khwaja (2017) examined the impact of distributed school report cards and average test scores to parents in 112 villages across Pakistan. Half of the sample received this detailed school achievement information and half of the sample did not receive the information. The researchers found that parental knowledge increased and perceptions of school quality became linked to higher test scores. Additionally, learning improved across the villages that received the school report cards by 42 percent compared to the villages that did not receive them. Private school fees declined as a result because of the increased competition, and the overall school enrollment increased by 3 percent in the villages that received the school report cards. Also, private schools with the lowest test scores were more likely to shut down in the villages where parents received the information because those families chose other higher-achieving schools in the village. These results indicate that informed parents act on the information they receive, especially when it relates to their
children’s academic achievement. One factor that has the potential to negate this claim is a family’s socioeconomic status. Parents with lower levels of education, higher levels of poverty, and lower status occupations may have less access to vital school information, may have limited school options for their children, and may have weaker relationships with school personnel to ensure that their children are maximizing their learning potential.

**Socioeconomic Status as Measured by Free and Reduced Meal Plans**

The influence of socioeconomic status (SES) on academic achievement has been heavily documented in the research over the past century (Harwell & LeBeau, 2010). One hundred years of studies has shown that SES has been, and remains, a strong predictor of student academic success in the k-12 learning environment (Sirin, 2005). Researchers have debated the conceptual meaning of SES for some time; however, three common factors relate to a student’s SES, which include parental income, parental education, and parental occupation (Sirin, 2005).

To classify a student as “low” socioeconomic status typically refers to a student who lives in a household whose parent or guardian has less income, education, and occupational status as a student from a “high” socioeconomic status (Harwell & LeBeau, 2010). In addition, low socioeconomic students often have less access to social and cultural capital, which have been linked to students’ educational success (Walpole, 2003).

One way that schools measure SES is through the qualification for free and reduced meal plans. The United States Department of Agriculture oversees the National School Lunch Program (NSLP), that provides nutritionally sound meals to students attending public schools, nonprofit private schools, and childcare institutions at a reduced or free rate (United States Department of Agriculture, 2017). Families apply to the NSLP and must meet income
requirements to receive free or reduced school lunch (and breakfast) for their children. Table 2.1 shows the income guidelines for the current 2018-2019 school year.

Table 2.1

2018-2019 Annual Income Eligibility Guidelines for Reduced Meal Plans and Free Meal Plans for the 48 Contiguous States, District of Columbia, Guam, and Territories

<table>
<thead>
<tr>
<th>Household Size</th>
<th>Federal Poverty Guidelines (FPG)</th>
<th>Reduced Price Meals – 185% of FPG</th>
<th>Free Meals – 130% of FPG</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>12,140</td>
<td>22,459</td>
<td>15,782</td>
</tr>
<tr>
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<td>16,460</td>
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<td>20,780</td>
<td>38,443</td>
<td>27,014</td>
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<tr>
<td>4</td>
<td>25,100</td>
<td>46,435</td>
<td>32,630</td>
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<tr>
<td>5</td>
<td>29,420</td>
<td>54,427</td>
<td>38,246</td>
</tr>
<tr>
<td>6</td>
<td>33,740</td>
<td>62,419</td>
<td>43,862</td>
</tr>
<tr>
<td>7</td>
<td>38,060</td>
<td>70,411</td>
<td>49,478</td>
</tr>
<tr>
<td>8</td>
<td>42,380</td>
<td>78,403</td>
<td>55,094</td>
</tr>
<tr>
<td>For each additional family member, add</td>
<td>4,320</td>
<td>7,992</td>
<td>5,616</td>
</tr>
</tbody>
</table>


The use of free and reduced meals as a measure of SES is regularly used in research due to the relative ease of finding these data and the relation of qualification for the program to the federally established poverty guidelines, thus indicating low income status (Harwell & LeBeau, 2010). Harwell and LeBeau (2010) argued that the intent of the NSLP was to improve student nutrition amongst the poorest students to improve learning. Studies have shown the relationship between participation in the NSLP and students’ education. Hinrichs (2010) examined this relationship as it pertained to highest level of educational attainment. He suggested that increasing NSLP exposure by 10 percentage points increases years of educational attainment for both women and men by 0.365 years and almost 1 full year respectively. He
suggested the reason for this could be that receiving a guaranteed meal at school each day attracted students to attend more regularly.

Research supports the theory that student attendance increases with the provision of free or reduced meals. Afridi (2010) investigated the impact of India’s national free school meal program as it transitioned from raw food grains to free cooked meals on primary students’ participation rates as it related to school attendance and enrollment. He analyzed school attendance of 79 primary schools and 10 private schools and found an increase in attendance rate of girls in first grade by 12.4 percent in the schools that received the hot meals. The impact of boys’ attendance in grade one was statistically insignificant. An increase in enrollment was not observed in this particular study, but Afridi believed that free meal programs, specifically cooked meal programs, could be used to incentivize families to enroll their children in school, particularly the lower income families. These results suggest that the provision of free meal plans increases the daily attendance of students and could potentially motivate non-attending families to send their children to school because they feel secure knowing their children will be fed.

Food insecurity has been linked to lower academic achievement in the literature. Houston, Marzette, Ames, and Ames (2013) examined the relationship between food insecurity, participation in the NSLP, and academic achievement. They conceptualized food insecurity as the limited or uncertain availability of nutritious, safe food products due to limited financial resources. Children raised in these homes are at increased risk of lower academic achievement and increased difficulties in the areas of social and emotional development (Cook & Frank, 2008). The NSLP is one means of mitigating the negative impact hunger and poverty can have on students’ academic achievement. Houston et al. (2013) examined data available on the Georgia’s school report cards related to 5th grade students’ achievement on the state mandated
assessments and their low socioeconomic status as indicated by receiving free or reduced meal plans under the NSLP. The results of this study support other findings in the research that suggests as the student poverty rate increases, the achievement scores decrease. More specifically, they found that as the poverty rate increased by 1 percent, the achievement scores decreased by a multiplicative rate of 0.7692. In the year examined in this study, more than 57 percent of 5th grade students in Georgia were receiving free or reduced meals at school. This rate had a significantly negative effect on testing outcomes. The researchers summarized, “thus, the higher the percentage of children receiving free or reduced-price lunches, the lower was the percentage of children meeting standards on the Reading and Math sections of the Criterion-Referenced Competency Test” (p. 37).

This contention is supported in a large volume of research citing the impacts of SES on achievement in school. An examination of numerous studies and multiple meta-analyses revealed that one of the strongest predictors of academic performance is family SES. In addition, school level SES has an even greater impact on academic performance and student achievement (Sirin, 2005). Sirin (2005) discussed the reasons for these strong correlations. Family SES implies the level of support children receive at home in regards to learning and school tasks. The higher the SES, the more equipped parents may be to provide beneficial home support and additional practice. The lower the family SES, the less likely the parents are to have achieved high levels of education and socio-cultural capital. Family SES also predicts the type of learning environment available to the children. The higher the family SES, the greater the likelihood that the family resides in a high achieving school zone. Lower SES families have a high chance of residing in the lower performing school districts. High-SES schools and low-SES schools have been shown to have significant differences in teacher experience, available teaching and learning
materials, and student-to-teacher ratio limits (Wenglinsky, 1998). Finally, family SES impacts the relationship between home and school (Watkins, 1997). Lower SES families may not be as involved in the daily school routine as families from higher SES backgrounds, therefore impacting the relationship between parent and teacher.

The strength of these impacts decreased as the number of minority students increased (Sirin, 2005). This finding suggests that parent education level, income, and occupation status have less influence on academic achievement of minority students than non-minority students. Some studies have shown a stronger correlation between school SES and neighborhood on achievement of levels of minority students (Gonzales, Cauce, Friedman, & Mason, 1996). It is important that literature related to minority status as a separate factor is examined as a predictor of student academic achievement.

**Minority Status**

The identification of k-12 students as minority status is often tied to parent report of ethnic and/or racial family identity (Miller-Cotto & Byrnes, 2016). Byrd and Chavous (2009, 2011) argued that students’ ethnic and/or racial identity might be a predictor of academic achievement either directly or through such frameworks as motivation and engagement in the learning environment. For the purposes of this literature review, the constructs of ethnic and racial identity is combined into the single construct of ethnic/racial identity (ERI) as proposed by Umaña-Taylor, Quintana, Lee, Cross, Rivas-Drake, Schwartz, Syed, Yip, and Seaton (2014). Theses researchers believed this single construct is appropriate because there is much overlap between the concepts of ethnic and racial identity. For youth specifically, they do not tend to keep their ethnic or racial identities separate, but combine them into a single construct.
Students’ ERI has been linked to positive correlations with academic achievement in the literature. ERI is believed to foster a sense of oneself and positive well-being, which acts as a protective coping mechanism against poor achievement in school (Costigan, Koryzma, Hua, & Chance, 2010). The Mutli-group Ethnic Identity Measure (MEIM) was developed to assess an individual’s attached meaning and implications of ascribed ethnicity and one’s commitment to their ethnicity. This measurement tool has been used with adolescents to understand the relationship between ERI and self-esteem, self-efficacy, and pro-social attitudes. Phillips Smith, Walker, Fields, Brookins, and Seay (1999) found that the variables of ERI and self-esteem positively influenced adolescents’ self-efficacy related to academic achievement. These variables also correlated with increased pro-social attitudes related to optimistic perceptions of future academic and career possibilities. These results support Costigan et al.’s (2010) argument that students’ ERI correlate positively with academic achievement by fostering a sense of understanding oneself and an overall feeling of well-being.

Miller-Cotto and Byrnes (2016) conducted a meta-analysis of 47 studies examining the relationship between ERI and academic achievement. They reported that across studies, students who reported positive associates with their identified ethnic/racial group had higher academic achievement scores. Similar results were found amongst students who reported higher levels of explorations with their ERI. Finally, students who scored higher on the MEIM experienced higher levels of achievement in school. While these studies and results are promising for educators, they do not explain the whole story of ERI as it relates to student academic achievement.

Existing literature also highlights the negative correlation between minority status and academic achievement. The so-called “achievement gap” between white students and minority
students has been heavily documented across most areas of school performance and on multiple measures of academic achievement (Olszewski-Kubilius, Lee, Ngoi, & Ngoi, 2004). These achievement gaps have been found to follow students from k-12 schools through the college years (Williams, 2011). It is important to identify the contributing factors of low achievement amongst minority students so that remedies can be enacted to close the achievement gap.

Research suggests that minority students face barriers to learning that negatively impact their academic achievement disproportionately to their white counterparts (Lumpkin, 2016). Lumpkin (2016) identified two such barriers to achievement; that of low SES and poor school building conditions. Many minority students from low socioeconomic families have limited access to higher status neighborhoods and higher achieving schools. Many of these students reside in subsidized housing in neighborhoods with outdated, decaying school facilities. Lumpkin believed that a relationship existed between these older school buildings and the identification of students as SES and minority with student achievement scores. He examined data from 37 schools across North Florida related to SES, ERI, and achievement scores on the state mandated reading and math assessments from schools that moved from an outdated facility into a new school building. He found that students experienced learning gains after moving into new, updated school buildings, especially students from low socioeconomic backgrounds and minority students. The mean percent increases of students meeting proficiently on the state mandated assessments were 6.56 on the math test and 3.04 on the reading test. He attributed these increases to the more appealing surroundings and properly maintained school buildings.

The above-mentioned study, like many other studies, reveals findings related to between-group analyses. As is true with any field of study, it is equally as important to examine within-group analyses. Ramirez and Carpenter (2005) believed that within-group differences
could account for some of the factors related to low academic achievement amongst minority students. These researchers found that socioeconomic status and participation in English as a Second Language program were the most significant predictors of achievement for all analyses, but the correlation was even stronger within minority groups. For example, English speaking Latino students born in the United States from intact families who spent more time on homework scored as well as their white counterparts. However, significant achievement differences were noted within Latino groups where these differences persisted in language, family composition, and time spent on schoolwork. Similar results were identified amongst within-group analyses of white students. Very different results were obtained for African-American students. Significant achievement differences were found both between groups of African-American students and white students, and within-group analyses of African-American students. This study indicates that all students are vulnerable to the negative factors influencing academic achievement, such as SES, language barriers, and home and family circumstances; however some minority groups, such as African-American students, are especially susceptible to the damaging influences of these factors on overall academic achievement.

**School Attendance**

Beginning with Massachusetts in 1852 and concluding with Alaska in 1929, all US states have established and currently enforce compulsory school attendance laws (Williams, 2001). The majority of states require that all children, beginning at the ages of 5-7, relative to the state, attend school regularly. In addition, all states require that students attend up until the ages of 16-18, depending on the state of residence. Florida, for example, mandates that all children attend school beginning at age 6 and are required to maintain enrollment until the age of 16. These laws, however, do little to address the chronic absenteeism some students’ experience.
Most states have enacted truancy laws to address the problem but these laws can only enforce legal consequences onto students and families when too many school days are missed. Regardless of the enforcement of these laws, school leaders know all too well the negative consequences and positive outcomes of attending school on student achievement and overall school performance.

Habitual school attendance has been linked to increased student success in the research. When students attend school regularly, they experience improved performance on standardized assessments and other measures of academic achievement (Gottfried, 2010; Lamdin, 1996; Nichols, 2003). In addition, schools and districts that experience overall high student attendance rates demonstrate higher overall scores on mandated assessments of student achievement, thus indicating higher performing schools and districts (Ehrenberg, Ehrenberg, Rees, & Ehrenberg, 1991; Gottfried, 2010; Roby, 2003). These findings in the research support the examination of student attendance as a separate and distinct variable for measuring student and school outcomes.

When measuring overall school and district success, many states include school attendance in their metrics for determining quality schooling. Ohio, for instance, has set 93 percent as the measure for meeting the standard for average student attendance for each school building when evaluating for overall school performance (Roby, 2003). If equated to instructional hours missed at this percentage point, a school serving 800 students with 5 hours of instruction per day in a 180-day school year, would equal more than 50,000 instructional hours missed annually within a school meeting that 93 percent attendance standard (adapted from Roby, 2003). For every 1-percentage point drop in student attendance per school using the above example, 7,200 missed hours of instructional time yearly is experienced within that school. This amount of time missed in learning opportunities could significantly impact student achievement.
Studies have shown that the more hours of missed instruction a student experiences, the lower students score on tests of academic achievement (Gottfried, 2010). To determine whether attendance rates positively correlated to student achievement, Roby (2003) examined more than 3,100 Ohio schools for impact. For grades 4, 6, and 12, the study showed a moderate positive relationship with attendance accounting for between 29 and 32 percent of the student achievement variance. For grade 9, the results showed the largest impact with 60 percent of the variance on student achievement resulting from school attendance. These results indicate that student achievement is significantly impacted by whether or not students attend school on a regular basis so that maximum benefit can be gained from instructional time and hours engaged in learning activities.

The findings presented above represented aggregated data from the school and district level related to increased attendance as a predictor of school success. Similar positive correlations have been found from data available at the individual student level. Between the school years 1994-1995 and 2000-2001, Gottfried (2010) examined school records and neighborhood census data from 86,000 students in kindergarten through grade 8 in the Philadelphia School District. His study showed that students who attend school regularly have higher GPAs when compared to students with higher rates of absenteeism. This finding extends also to higher performance on standardized testing of academic achievement; students who attend school regularly score higher on standardized assessments of reading and math. These results suggest that school attendance is a “robust” predictor of GPA and standardized test performance at the individual student level (Gottfried, 2010, p. 459). These findings also suggest that school leaders must devote focused attention and targeted interventions aimed at improving student attendance and decreasing chronic absenteeism.
A plethora of factors contribute to chronic absenteeism, often defined as missing 10% or more of school within an academic year (Gennetian, Rodrigues, Hill, & Morris, 2018). Some root causes of increased absenteeism have been linked to negative family circumstances and instability, psychological distress and chronic illness, disengagement with school and learning, quality of residential neighborhoods, and availability of quality academic programs (Ehrenberg, Ehrenberg, Rees, & Ehrenberg, 1991; Gennetian, Rodrigues, Hill, & Morris, 2018; Lehr, Sinclair, & Christenson, 2004). In addition, when students’ struggle academically, their absentee rate increases. By the time these struggling students reach the end of their high school years, they are absent twice as much as they were in previous school years when they were receiving passing marks (Nichols, 2003). Nichols (2003) found that when he examined school records from high school students in Indiana, these failing students had accumulated more than 100 days of absences between the 1993 and 1999 school years. This pattern was even more problematic for lower-socioeconomic students and minority students (Gennetian, Rodrigues, Hill, & Morris, 2018; Nichols, 2003; Rumberger, 1995). Nichols (2003) found that for all students studied, academic achievement in the core subjects decreased as the students’ absences increased.

The rate of high school absenteeism can be predicted in elementary school. The prevalence of higher absenteeism in lower grade levels has been correlated in the research to higher rates of grade repetition and lower school retention rates during the high school years (Gottfried, 2010). As early as third grade, students’ attendance patterns can predict their likelihood of dropping out of school (Lehr, Sinclair, & Christenson, 2004; Lloyd & Bleach, 1972). Attendance records from the third grade could predict a student’s eventual dropout from high school with 66% accuracy (Barrington & Hendricks, 1989). In addition, students who eventually drop out of high school incurred twice as many absences in fifth grade as did their
graduating counterparts (Barrington & Hendricks, 1989). Students who miss more than 15% of school days also have a greater chance of dropping out of school (Rumberger, 1995).

Early identification and intervention implementation have been successful in curtailing the absenteeism problem (Williams, 2001). Schools that identify students with patterns of low attendance early have been able to provide counseling and other interventions to mediate the problem. Williams (2001) identified that schools with firm and enforced attendance policies have also been successful in decreasing student absences. She contended that successful efforts to keep children attending school regularly have involved holding parents and students accountable for attendance, as well as eliciting community support. The need to involve various stakeholders in the remediation of attendance concerns supports the contention that the implementation of a school-wide intervention, such as TLIM, may prove successful in addressing student attendance.

When researchers studied the use of a targeted program aimed at helping students attend school regularly by promoting student engagement in school through relationship building, monitoring key indicators of withdrawal, and active support of students and families, they found a 28% reduction in absences among disengaged students, or students who missed 10 or more days of school annually (Lehr, Sinclair, & Christenson, 2004). These findings support the idea that intervention programs focused on increased school engagement, such as TLIM program focused on student leadership development, can yield positive results in student outcome variables, including increasing school attendance and improving student achievement.

Conclusion

A review of the literature suggests a positive relationship between programs that promote student leadership development, such as TLIM, and increased outcomes on measures of student performance in multiple areas, such as behavior, self-esteem, caring, sense of ownership,
engagement, and motivation. In addition, possible connections can be made between these positive school outcomes and increased academic achievement. What remains to be known is the correlation between targeted leadership development programs, such as TLIM, and student academic achievement. An examination of schools that utilize TLIM is needed to ascertain the influence youth leadership development programs have on student academic achievement. A common measure of achievement in recent years has been the assignment of an overall school grade. By examining the relationship between school grades and participation in TLIM program, possible correlations to student academic achievement can be analyzed. Additionally, research has shown significant impacts from socioeconomic status, minority status, and attendance rate on school performance and achievement; therefore, an investigation into the influence of these variables on school grades of schools that have implemented TLIM program, as compared with schools that have not implemented the program, will be helpful in understanding the overall impact of these factors on school achievement. A model depicting the study concepts and connections can be found in Figure 2.1
Figure 2.1. Depicts study model.

- **Barriers**:
  - Minority
  - SES
  - Chronic Absenteeism

- **Intervention**:
  - TLIM (whole person-whole school leadership development)
  - Social-Emotional Learning

- **Impact**:
  - Students
  - Staff
  - School

- **Outcomes**:
  - Caring, ethical behavior; engagement; improved behavior;
  - Positive self-worth; responsibility; high expectations; improved staff perceptions; parent satisfaction; improved culture

**TLIM** (Whole Person-Whole School Leadership Development)
Chapter 3: Research Methods

Organization of the Research Methods Chapter

This chapter begins with the research question, research design, participants and data sources, and sample selection. Next, the variables will be discussed and, finally, the analytical procedures will be outlined.

Research Question

This study aims to answer the following research questions:

1. What impact does the implementation of a youth leadership development program, specifically TLIM program, have on school grades over time?

2. What impact does the implementation of TLIM have on academic achievement as measured by the English/Language Arts, mathematics, and science FSA scores over time?

3. Which school environments may be most conducive to achievement growth through the implementation of The Leader in Me (TLIM) when examined through FL school grades and key student demographics?

The central hypotheses of this study are: the implementation of TLIM program will increase school grades over time; the percentage of students scoring at proficiency level or higher on state mandate assessments of students achievement will increase with the implementation of TLIM; and as the free and reduced lunch rate, minority rate, and chronic absenteeism rate increases, the overall school grade will decrease.
Research Design

A quantitative, non-experimental research design will be employed. Quantitative methodology is appropriate to this study because it aims to examine the relationship between variables and seeks to determine if an intervention influences various outcomes (Creswell, 2014). A non-experimental design is appropriate for this study because it is using existing data as it appears in practice and the researcher is not manipulating the variables (Muijs, 2011). In addition, randomization is not possible due to the nature of the sample, which consists of schools in this study (Campbell & Stanley, 1963). More specifically, a time-series design with a nonequivalent control group will be used and is appropriate to this study because a comparison is being examined between groups, and the impact of an intervention over time is being analyzed within the experimental group (Campbell & Stanley, 1963). Campbell and Stanley (1963) contended that this design is particularly appropriate to utilize in environments where records are regularly kept on the outcome variables and when participants are repeatedly tested at regular intervals, such as with students who participate in annual state-mandated standardized assessments of achievement. These records and annual evaluations then become a natural part of the environment, which strengthens the use of the time-series design in this particular study (Campbell & Stanley, 1963). By adding a nonequivalent control group, this study design uses carefully selected comparison groups based on similar profiles, in this case schools’ percentage of students receiving free and reduced lunch, the percentage of students identified as minority status, and the percentage of students reported as absent more than 21 days, and infers the influence of an intervention on one group that received the intervention and one group that did not receive the intervention (Shadish, Cook, & Campbell, 2001). In addition, outcome measures were examined for both groups prior to the intervention, which in this study was the school grade
obtained by each school in both groups the year prior to the intervention group implementing TLIM program. Specifically, this non-experimental study seeks to determine if the implementation of the TLIM program influences school grade over time, which represents student achievement in English/Language Arts (ELA), mathematics, science, and social studies as measured by state mandated high-stakes assessments. Additionally, this study examines the influence of TLIM program on individual measures of student achievement in the subjects of ELA, mathematics, and science. Finally, this study will examine the influence of the confounding variables of socio-economic status as measured by free and reduced lunch, minority status, and chronic absenteeism on school grades.

This non-experimental design, specifically a time-series design, controls for multiple sources of internal invalidity. Campbell and Stanley (1963) discussed that the main source of invalidity inherent to this design is history. These researchers argued that this threat involves the influence of some extraneous variable on the outcome instead of the influence of the intervention employed; therefore, caution should lie in the interpretation of the findings when utilizing this non-experimental design. An additional possible threat to internal validity lies in changing instrumentation from year-to-year, which is a factor inherent to the Florida Standards Assessment (FSA) used as the central measurement used in calculating school grades (Campbell & Stanley, 1963). Also, a time-series design does not control for the external invalidity source of the interaction of testing and the intervention. It is not clear if the design controls for the external the external invalidity sources of reactive arrangements and the interaction of selection and the intervention (Campbell & Stanley, 1963).
Participants and Data Sources

The existing data used in this study were obtained by the Florida Department of Education’s (n.d.) Florida School Grades website. The state reports annually the percentage of students scoring at proficiency level, a level 3, or higher on the FSA by each school and each district in the areas of ELA, mathematics, science, and social studies for each grade that participates in its’ respective assessments. The state of Florida also reports annually demographic information for each school and district participating in the FSA. These data include percentage of students reported as receiving free and reduced lunch, the percentage of students identified as minority, and the percentage of students who were reported as absent for more than 21 days during the school year, thus resulting in chronic absenteeism.

The FranklinCovey Company, the parent organization of TLIM program, supplied data related to schools in Florida that participate in TLIM program. These data included names and locations of participating schools, first year of implementation for each school, and the number of years each school participated in the program. Across the State of Florida, 119 schools participated in the TLIM program for some duration between the years of 2010 and 2019. Muijs (2011) argued that using existing data, such as these, is an invaluable resource for educational researchers because these data provide an inexpensive and efficient way to answer some research questions.

Sample Selection

Research shows that for lasting change to take hold, new programs should be implemented for a minimum of three consecutive years (Fullan, 2000); therefore, schools with less than three years of TLIM program implementation were eliminated from the sample. Of the 119 schools participating in the TLIM program across the State of Florida, 17 schools
participated in the program for three years beginning after state testing in 2015. Since this study will examine the influence of a targeted intervention program, that of TLIM, on school grades, which is an accountability measure of student achievement as measured by the FSA, those schools not participating in the state mandated assessments were eliminated from the sample. In addition, schools identified as either private or religious-based, charter or academy schools, or middle and high schools were eliminated to keep the sample homogenous and focused on public elementary schools across Florida. This sample selection process resulted in a sample size of eight schools representing six counties across Florida.

An additional eight schools were selected in equivalent numbers from those same six counties to serve as the comparison group. For example, if two schools from county A participated in the TLIM program, then 2 additional schools from that county that did not participate in TLIM program were selected for the control group. Schools were selected from each county based on similar profiles in regard to percentage of students receiving free and reduced lunch, percentage of students identified as minority, percentage of students reported as chronically absent, and status as a Title 1 school. In addition, geographical location was considered to identify schools in similar neighborhoods. The combination of these two comparison groups yielded a total sample size of 16 Florida public elementary schools.

**Description of the Variables**

**TLIM.** The independent variable of this study is the intervention of the TLIM. The intervention group participated in TLIM program, while the nonequivalent control group did not participate in the program. This variable is categorical and serves as the between-subjects factor of the study.
**School grades.** The dependent variable, and the within-subjects factor, in this study is school grade, which represents student achievement as measured by state mandated assessments, specifically the FSA. This variable will be measured at three intervals over a three-year period. In addition, the school grades earned the year prior to the implementation of TLIM will be utilized to serve as the pre-test value, with time serving as the covariate of the study. Annually, Florida reports the scaled scores, the percentage of points earned, and the equivalent letter grade (A, B, C, D, F) for each school that participated in the state assessments. For the purposes of this study, the percentage of points earned will be utilized as that measure correlates to the letter grade designation.

Following each school year, the Florida Department of Education publishes a technical assistance report outlining how the school grades were calculated. For school years 2015 through 2018, students participated in the FSA assessment and substantial changes were made to the Florida school grading calculations as compared to previous years (Florida Department of Education, 2019). For the purposes of this paper, resources from the year 2018 were used as examples since the grading metrics had remained the same for all three years of data used in this study.

The Florida Department of Education (2019, January) described the procedures for calculating school grades for the 2017-2018 school year. For elementary schools, the school grade is comprised of seven assessment-based measures of student achievement. These seven measures are divided between three components of current-year performance as measured by the FSA subject areas and four components of student learning progress. Table 3.1 below depicts the seven components.
Table 3.1

The 2017-18 School Grades Model for Elementary Schools

<table>
<thead>
<tr>
<th>English Language Arts (ELA)</th>
<th>Mathematics</th>
<th>Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement (0%-100%)</td>
<td>Achievement (0%-100%)</td>
<td>Achievement (0%-100%)</td>
</tr>
<tr>
<td>Learning Gains (0%-100%)</td>
<td>Learning Gains (0%-100%)</td>
<td>Learning Gains of the Lowest (0%-100%)</td>
</tr>
<tr>
<td>Learning Gains of the Lowest 25%</td>
<td>Learning Gains of the Lowest 25%</td>
<td></td>
</tr>
</tbody>
</table>


The three measures of current-year student achievement for elementary schools were the FSA scores for ELA, mathematics, and science, and are each worth 100 points. These achievement components indicate the percent of students who achieved a proficient score, a level 3 or higher, on the assessment. The four measures of demonstrated student growth, or learning gains, were related to percent of students making learning gains in ELA and mathematics, and the percent of the lowest performing students who made learning gains in these same subject areas. Each of these components is worth 100 points. Students are considered demonstrating growth if they advance at least one level on the FSA assessment of ELA or mathematics. For students who have already achieved a Level 3 or higher, they demonstrate growth by improving their scaled scores. For each of the seven scoring components, the school earns one point for each percentage of students that meets the criteria for each component. The points for each component are added together and divided by the total number of points available, which yields the percentage of points earned by the school. This percentage is then compared to the School Grading Percentages scale depicted in Table 3.2.
Table 3.2

*2017-2018 Florida School Grading Percentages*

<table>
<thead>
<tr>
<th>Grade</th>
<th>Total Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>62% of points or greater</td>
</tr>
<tr>
<td>B</td>
<td>54% to 61% of points</td>
</tr>
<tr>
<td>C</td>
<td>41% to 53% of points</td>
</tr>
<tr>
<td>D</td>
<td>32% to 40% of points</td>
</tr>
<tr>
<td>F</td>
<td>31% of points or less</td>
</tr>
</tbody>
</table>


FSA validity evidence and reliability evidence are published annually. Internal consistency reliability was reported using Cronbach’s Alpha, which was between .88 and .92 for ELA and .90 to .95 for mathematics, depending on the grade level (Florida Department of Education, 2018). These values demonstrated high reliability. Internal Response Theory (IRT) was also used to indicate the variability of test scores amongst examinees. The IRT values were between .85 and .93, also indicating a high level of reliability. Criterion-related validity was examined using concurrent validity measures against the Stanford 9 assessment. Those values were between .76 and .85, indicating validity (Florida Department of Education, 2004). These tests of reliability and validity support the claim that the FCAT is a technically sound instrument.

A third-party company was hired to ensure the test items aligned with the intended Florida State Standards in ELA and mathematics. The results of this independent study revealed that the test items demonstrated a good representation of the standards and fully aligned.

**Free and reduced lunch rate.** The covariate of free and reduced lunch rate is represented as a percentage and is continuous in nature.

The United States Department of Agriculture oversees the National School Lunch Program (NSLP). Families apply to the NSLP and must meet income requirements to receive
free or reduced school lunch (and breakfast) for their children. Table 3.3 shows the income guidelines for free and reduced lunch qualification for the 2018-2019 school year.

Table 3.3

<table>
<thead>
<tr>
<th>Household Size</th>
<th>Federal Poverty Guidelines (FPG)</th>
<th>Reduced Price Meals – 185% of FPG</th>
<th>Free Meals – 130% of FPG</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12,060</td>
<td>22,311</td>
<td>15,678</td>
</tr>
<tr>
<td>2</td>
<td>16,240</td>
<td>30,044</td>
<td>21,112</td>
</tr>
<tr>
<td>3</td>
<td>20,420</td>
<td>37,777</td>
<td>26,546</td>
</tr>
<tr>
<td>4</td>
<td>24,600</td>
<td>45,510</td>
<td>31,980</td>
</tr>
<tr>
<td>5</td>
<td>28,780</td>
<td>53,243</td>
<td>37,414</td>
</tr>
<tr>
<td>6</td>
<td>32,960</td>
<td>60,976</td>
<td>42,848</td>
</tr>
<tr>
<td>7</td>
<td>37,140</td>
<td>68,709</td>
<td>48,282</td>
</tr>
<tr>
<td>8</td>
<td>41,320</td>
<td>76,442</td>
<td>53,716</td>
</tr>
<tr>
<td>For each additional family member, add</td>
<td>4,180</td>
<td>7,733</td>
<td>5,434</td>
</tr>
</tbody>
</table>


Families who qualify for this federal program receive reduced meals or free meals at their children’s schools. Each school reports the percentage of students who receive free and reduced lunch to the FLDOE annually, and these data are published on the Florida School Grades website and are available to the public.

**Minority rate.** The covariate of minority rate is represented as a percentage and is continuous in nature.

Minority status is self-reported by parents of students attending school in the state of Florida. Upon initial school registration, parents complete school registration forms and indicate on these forms the race of their children. Children identified by their parents as all races other than White/Caucasian are counted towards the minority rate of the school. District staff verify
student’s race and this verification is date recorded. Each school reports the percentage of students identified as minority to the FLDOE annually, and these data are published on the Florida School Grades website and are available to the public.

**Chronic absenteeism rate.** The covariate of chronic absenteeism rate is represented as a percentage and is continuous in nature.

Lehr, Sinclair, & Christenson (2004) described students who miss between 19-27 school days a year, or 11-15% of the time, as moderately disengaged in their schooling. Students who missed 15% or more of school have a greater risk of dropping out in middle or high school (Rumberger, 1995). Therefore, it is critical that students be identified as high risk for leaving school before graduation so that interventions can be implemented to help students attend school on a regular basis. Each Florida school reports the percentage of students who have missed more than 21 days of school, or roughly 12% of time, to the FLDOE annually, and these data are published on the Florida School Grades website and are available to the public.

**Procedures**

Since the purpose of this study is to examine the influence of TLIM program implementation on school grades over time, a repeated measures ANCOVA analysis will be utilized. The variables of free and reduced lunch percentage, minority percentage, and chronic absenteeism percentage were used to identify comparison groups. ANCOVA is useful when examining the differences in mean scores between groups, in this case, a control group and an intervention group, with the mean scores within groups while controlling for the effects of confounding variables, or covariates (Voigt, 2007; Muijs, 2011). By utilizing control variables that are known predictors of student achievement, such as the variables of percentages of minority, free and reduced lunch, and chronic absenteeism, this analysis will compare whether
the variance in the mean scores of school grades between the groups is larger or smaller than the mean scores of school grades within the groups, as well as the significance of the variance (Muijs, 2011). These measures will suggest whether or not the use of TLIM intervention influenced the school grades over time. In addition, mean differences in ELA, mathematics, and science FSA achievement between the control group and the intervention group will be analyzed. Finally, an analysis of the effect of the independent variables of percentage of minority, free and reduced lunch, and chronic absenteeism on the dependent variable of school grades will be explored.
Chapter 4: Analysis and Results

Organization of the Analysis and Results Chapter

The analysis and results chapter begins with a description of how the data were prepared, followed by the analysis sections. Descriptive and inferential statistics were used to analyze each research question. The results of these analyses are provided.

Preparing the Data

The eight schools that comprised TLIM group were selected based on the amount of years implementing TLIM and the initiation year, and these data were collected from the FranklinCovey Company, the parent company of TLIM program. As Fullan (2000) contended, lasting change requires a minimum of three years to take root; therefore, schools with three years worth of data were used. These schools initiated TLIM program at the beginning of the 2015-2016 school year.

An additional eight schools were selected in equivalent numbers from those same six counties represented by TLIM group to serve as the control group. Schools were selected from each county based on similar profiles in regard to percentage of students receiving free and reduced lunch, percentage of students identified as minority status, percentage of students reported as chronically absent, and status as a Title 1 school. In addition, geographical location was considered to identify schools in similar neighborhoods. The combination of these two comparison groups yielded a total sample size of 16 Florida public elementary schools.
Data were mined related to key demographics, school grades, and achievement on FSA assessments in the subjects of ELA, mathematics, and science from the Florida Department of Education accountability and reporting websites. These data were organized and entered into a spreadsheet.

**Data Analysis and Results**

**Research Question 1: What impact does the implementation of a youth leadership development program, specifically TLIM program, have on school grades over time?**

Descriptive statistics were examined for school grade percentages earn by each school in the sample beginning in the 2014-2015 school year, which served as the pre-test data, and examined three years worth of data, concluding with the post-test data from the 2017-2018 school year. The means and standards deviations are displayed in Table 4.1 below.

Table 4.1

*Descriptive Statistics for School Grades*

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014-2015 SY School Grade</td>
<td>16</td>
<td>60.06</td>
<td>9.86</td>
</tr>
<tr>
<td>Control</td>
<td>8</td>
<td>63.00</td>
<td>9.59</td>
</tr>
<tr>
<td>TLIM</td>
<td>8</td>
<td>57.13</td>
<td>9.83</td>
</tr>
<tr>
<td>2015-2016 SY School Grade</td>
<td>16</td>
<td>54.38</td>
<td>8.90</td>
</tr>
<tr>
<td>Control</td>
<td>8</td>
<td>56.13</td>
<td>10.34</td>
</tr>
<tr>
<td>TLIM</td>
<td>8</td>
<td>52.63</td>
<td>7.46</td>
</tr>
<tr>
<td>2016-2017 SY School Grade</td>
<td>16</td>
<td>57.38</td>
<td>9.07</td>
</tr>
<tr>
<td>Control</td>
<td>8</td>
<td>57.88</td>
<td>10.20</td>
</tr>
<tr>
<td>TLIM</td>
<td>8</td>
<td>56.88</td>
<td>8.46</td>
</tr>
<tr>
<td>2017-2018 SY Post-Test</td>
<td>16</td>
<td>54.69</td>
<td>9.35</td>
</tr>
<tr>
<td>Control</td>
<td>8</td>
<td>56.38</td>
<td>11.67</td>
</tr>
<tr>
<td>TLIM</td>
<td>8</td>
<td>53.00</td>
<td>6.68</td>
</tr>
</tbody>
</table>

*Note.* Data was obtained from a total sample size of 16 Florida public elementary schools. The dependent variable of school grade ranged from 0%-100% of points earned. Based on these percentages, school grades are assigned as follows: A = 62% of points or greater; B = 54% to
61% of points; C = 41% to 53% of points; D = 32% to 40% of points; and F = 31% of points or less.

These data show that in each of the school years examined, the control group earned higher school grade percentages than did the schools that implemented TLIM program for each school year examined. As the years progressed, both the control group schools and TLIM schools experienced and up and down fluctuation to the mean school grades percentages earned. These observations are depicted in Figure 4.1. When examining the standard deviations, the results suggest that the schools that implemented TLIM tended to have less deviation in scores within the group than did the control schools that did not utilize TLIM program. There was greater deviation in scores amongst the control schools. In addition, as school years progressed, the control schools’ deviation grew larger as compared to the schools that implemented TLIM, as those deviations tended, with one exception, to grow smaller over the years. Figure 4.2 depicts these observations.

Figure 4.1. Depicts changes in mean school grade percentages earned between the control group and TLIM group.
Figure 4.2. Depicts changes in standard deviations of mean school grade percentages earned between the control group and TLIM group.

To examine the difference in means, and to analyze pre-test test and post-test data over time, a repeated measures ANCOVA was selected. Repeated measures ANCOVA is suitable because this analysis examines if there is a difference on the dependent variable, in this case the school grades earned over a three year period, with the introduction of the leadership intervention, TLIM, while controlling for the effect of the pre-test scores, in this study, the school grade earned prior to the implementation of TLIM. This analysis has seven assumptions, and these assumptions were tested: independence of observations; homogeneity of variance; normality; linearity; independence of the covariate and the independent variable; covariate is measured without error; and homogeneity of the regression of slopes (Lomax & Hahs-Vaughn, 2012).

Independence of observations. These data sets met this assumption as no outliers were found amongst the school grades.
Homogeneity of variance. Levene’s Test was used and all pre-test and post-test school grade percentages were found to have $p$ values greater than .05, meaning these data met this assumption.

Normality. When testing for normality using the Shapiro-Wilk test, all pre- and post-tests were normally distributed, as all $p$ values were greater than .05.

Linearity. A scatterplot was run using the school grade data and a visual inspection of the plot showed linearity between the covariate, or the pre-test school grade percentage, and the dependent variables of each post-test school grade percentage.

Independence of the covariate and the independent variable. These data meet this assumption, as the covariate of the pre-intervention school grade percentage is not influenced by the TLIM intervention.

Covariate is measured without error. The covariate in this study is continuous in nature and is assumed to be measured without error.

Homogeneity of regression of slopes. There was homogeneity of regression of slopes as the interaction effect was not statistically significant between the pre-test school grade and the post-test school grades as indicated by the following results: post-test one yielded $p = .55$; post-test two yielded $p = .23$; and post-test three yielded $p = .08$.

Next, Pearson’s correlation was examined and indicated that there was an effect between the pre-test and post-test scores over time as all interaction effects yielded $p$ values of less than .05; therefore, a repeated measures ANCOVA was used to control for this effect. Repeated measures ANCOVA was run to determine if there were significant differences between the groups over time. This analysis adjusted for the baseline, as there was a positive significant correlation between the baseline and the post-test scores at years one, two, and three based on an
analysis of Pearson’s correlation. After adjusting for this correlation in repeated measures ANCOVA, it was found that there were no statistically significant differences in the mean school grades between the control group and TLIM group, as the analysis yielded, $F(1, 13) = .22$, $p = .65$, partial $\eta^2 = .01$. Table 4.2 depicts these results.

Table 4.2

Results of Repeated Measures ANCOVA Analysis of School Grades: Between-Subjects Effects

<table>
<thead>
<tr>
<th>Between-Subjects Comparison</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Group to TLIM Group</td>
<td>20.21</td>
<td>1</td>
<td>20.21</td>
<td>.22</td>
<td>.65</td>
<td>.01</td>
</tr>
</tbody>
</table>

Note. Control group n = 8 and TLIM group n = 8.

These results suggest that very little variance, or an estimated 1%, between the school grades earned by schools that utilize TLIM and schools that do not, can be explained by the implementation of TLIM program.

When examining within-subjects results, there was not a statistically significant difference in the mean school grades for the control group, or schools that did not implement TLIM program, over the school years examined as indicated by the following results: $F(2, 26) = 1.64$, $p = .21$, partial $\eta^2 = .11$. In addition, there was not a statistically significant difference in the mean school grades of schools that utilized TLIM program over the school years examined as indicated by the following results: $F(2, 26) = .68$, $p = .52$, partial $\eta^2 = .05$. These results are displayed in Table 4.3.
Table 4.3

Results of Repeated Measures ANCOVA Analysis of School Grades: Within-Subjects Effects

<table>
<thead>
<tr>
<th>Within-Subjects Comparison</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Group to Control Group</td>
<td>70.03</td>
<td>2</td>
<td>35.02</td>
<td>1.64</td>
<td>.21</td>
<td>.11</td>
</tr>
<tr>
<td>TLIM Group to TLIM Group</td>
<td>28.89</td>
<td>2</td>
<td>14.44</td>
<td>.68</td>
<td>.52</td>
<td>.05</td>
</tr>
</tbody>
</table>

*Note.* Control group n = 8 and TLIM group n = 8.

These results suggest that the covariance of time explains very little of the variance within the group means of school grades earned. In addition, only 5% of the mean differences in school grades for schools that implemented TLIM can be explained by the influence of the youth leadership program.

**Research Question 2: What impact does the implementation of TLIM have on academic achievement as measured by the English/Language Arts, mathematics, and science FSA scores over time?**

Since the implementation of TLIM did not significantly influence school grades over time, a closer examination of individual measures of student achievement was warranted. Florida schools report the percentage of students who earn proficient or higher on state mandated tests of academic achievement. Florida elementary schools participated in these state assessments for the areas of ELA, mathematics, and science during the school years examined in this study. To determine whether the implementation of TLIM influenced academic success on these state measures, repeated measures ANCOVA was run using the percent of students that scored proficient or higher on each of the three academic subjects tested for this same data set. The pre-test 2014-2015 school year percentages served as the covariate in the analysis.
ELA. Descriptive statistics were examined for ELA proficient score percentages earn by each school in the sample beginning in the 2014-2015 school year, which served as the pre-test data, and examined three years worth of data, concluding with the post-test data from the 2017-2018 school year. The means and standards deviations are displayed in Table 4.4 below.

Table 4.4

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014-2015 SY School Grade</td>
<td>16</td>
<td>57.13</td>
<td>11.85</td>
</tr>
<tr>
<td>Control</td>
<td>8</td>
<td>57.25</td>
<td>13.89</td>
</tr>
<tr>
<td>TLIM</td>
<td>8</td>
<td>57.00</td>
<td>10.41</td>
</tr>
<tr>
<td>2015-2016 SY School Grade</td>
<td>16</td>
<td>58.25</td>
<td>10.76</td>
</tr>
<tr>
<td>Control</td>
<td>8</td>
<td>59.50</td>
<td>12.14</td>
</tr>
<tr>
<td>TLIM</td>
<td>8</td>
<td>57.00</td>
<td>9.86</td>
</tr>
<tr>
<td>2016-2017 SY School Grade</td>
<td>16</td>
<td>61.69</td>
<td>9.97</td>
</tr>
<tr>
<td>Control</td>
<td>8</td>
<td>61.75</td>
<td>10.31</td>
</tr>
<tr>
<td>TLIM</td>
<td>8</td>
<td>61.63</td>
<td>10.32</td>
</tr>
<tr>
<td>2017-2018 SY Post-Test</td>
<td>16</td>
<td>62.25</td>
<td>9.57</td>
</tr>
<tr>
<td>Control</td>
<td>8</td>
<td>62.63</td>
<td>10.13</td>
</tr>
<tr>
<td>TLIM</td>
<td>8</td>
<td>61.88</td>
<td>9.66</td>
</tr>
</tbody>
</table>

Note. Data was obtained from a total sample size of 16 Florida public elementary schools. The dependent variable of students scoring proficient or higher on the ELA FSA percentage ranged from 0%-100%.

These descriptive statistics suggest that the control group schools had slightly more students score at proficient or higher on the ELA FSA as compared to TLIM group. Both groups experience in increase in the percentage of students scoring at proficiency or higher through the school years examined. These results are depicted in Figure 4.3. The control group had a higher deviation in their scores as compared to TLIM group. Both groups saw that score deviation become smaller over time, except for one instance where the TLIM group experienced a slight
rise in standard deviation at the end of the 2016-2017 school year. Figure 4.4 displays these observations.

Figure 4.3. Depicts changes in mean percentage of students scoring at proficiency level or higher on the ELA FSA between the control group and TLIM group.

Figure 4.4. Depicts changes in standard deviations of mean percentage of students scoring at proficiency level or higher on the ELA FSA between the control group and TLIM group.

Repeated measures ANCOVA was run to determine if there were significant differences between the groups over time. The data set met all assumptions associated with repeated measure
ANCOVA using the methods described in addressing the first research question. After adjusting for the effects of the pre-test, the analysis results indicated that there were no statistically significant differences in the mean percentages of students scoring at proficiency level or higher on the ELA FSA between the control group and TLIM group, as the analysis yielded, $F(1, 13) = .19, \ p = .67$, partial $\eta^2 = .01$. Table 4.5 depicts these results.

Table 4.5

Results of Repeated Measures ANCOVA Analysis of ELA FSA Achievement: Between-Subjects Effects

<table>
<thead>
<tr>
<th>Between-Subjects Comparison</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Group to TLIM Group</td>
<td>10.57</td>
<td>1</td>
<td>10.57</td>
<td>.19</td>
<td>.67</td>
<td>.01</td>
</tr>
</tbody>
</table>

*Note.* Control group n = 8 and TLIM group n = 8.

These results suggest that very little variance, or an estimated 1%, of the percentage of students scoring at proficiency or higher on the ELA FSA in schools between schools that utilize TLIM and schools that do not, can be explained by the implementation of TLIM program.

When examining within-subjects results, there was not a statistically significant difference in the mean percentage of students scoring at or above proficiency level on the ELA FSA for the control group, or schools that did not implement TLIM program, over the school years examined as indicated by the following results: $F(2, 26) = .01, \ p = .97$, partial $\eta^2 = .00$. In addition, there was not a statistically significant difference in the mean percentage of students scoring at or above proficiency level on the ELA FSA in schools that utilized TLIM program over the school years examined as indicated by the following results: $F(2, 26) = .49, \ p = .62$, partial $\eta^2 = .04$. These results are displayed in Table 4.6.
Table 4.6

Results of Repeated Measures ANCOVA Analysis of ELA Achievement: Within-Subjects Effects

<table>
<thead>
<tr>
<th>Within-Subjects Comparison</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Group to Control Group</td>
<td>.34</td>
<td>2</td>
<td>.17</td>
<td>.01</td>
<td>.99</td>
<td>.00</td>
</tr>
<tr>
<td>TLIM Group to TLIM Group</td>
<td>12.13</td>
<td>2</td>
<td>6.07</td>
<td>.49</td>
<td>.62</td>
<td>.04</td>
</tr>
</tbody>
</table>

Note. Control group n = 8 and TLIM group n = 8.

These results suggest that the covariance of time explains very little of the variance within the control group means of percentage of students scoring at or above proficiency level on the ELA FSA. In addition, only 4% of the mean differences in the percentage of students scoring at or above proficiency level on the ELA FSA in schools that implemented TLIM can be explained by the influence of the youth leadership program.

Mathematics. Descriptive statistics were examined for mathematics proficient score percentages earn by each school in the sample beginning in the 2014-2015 school year, which served as the pre-test data, and examined three years worth of data, concluding with the post-test data from the 2017-2018 school year. The means and standards deviations are displayed in Table 4.7 below.
Table 4.7

Descriptive Statistics for Percent of Students Scoring Proficient or Higher on Mathematics FSA

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014-2015 SY School Grade</td>
<td>16</td>
<td>63.63</td>
<td>10.33</td>
</tr>
<tr>
<td>Control</td>
<td>8</td>
<td>68.13</td>
<td>7.94</td>
</tr>
<tr>
<td>TLIM</td>
<td>8</td>
<td>59.13</td>
<td>10.93</td>
</tr>
<tr>
<td>2015-2016 SY School Grade</td>
<td>16</td>
<td>63.81</td>
<td>10.77</td>
</tr>
<tr>
<td>Control</td>
<td>8</td>
<td>67.00</td>
<td>11.71</td>
</tr>
<tr>
<td>TLIM</td>
<td>8</td>
<td>60.63</td>
<td>9.40</td>
</tr>
<tr>
<td>2016-2017 SY School Grade</td>
<td>16</td>
<td>65.94</td>
<td>11.34</td>
</tr>
<tr>
<td>Control</td>
<td>8</td>
<td>67.13</td>
<td>12.86</td>
</tr>
<tr>
<td>TLIM</td>
<td>8</td>
<td>64.75</td>
<td>10.35</td>
</tr>
<tr>
<td>2017-2018 SY Post-Test</td>
<td>16</td>
<td>65.63</td>
<td>11.00</td>
</tr>
<tr>
<td>Control</td>
<td>8</td>
<td>66.13</td>
<td>12.82</td>
</tr>
<tr>
<td>TLIM</td>
<td>8</td>
<td>65.13</td>
<td>9.72</td>
</tr>
</tbody>
</table>

Note. Data was obtained from a total sample size of 16 Florida public elementary schools. The dependent variable of students scoring proficient or higher on the mathematics FSA percentage ranged from 0%-100%.

These data show that the control group schools had more students score at proficiency or higher compared to TLIM schools. The control group scored lower as the school years progress, with just one negligible increase of .13% in the 2016-2017 school year. In contrast, TLIM schools scored had more students scoring at proficiency or higher as the school years progressed. These results are displayed in Figure 4.5. Aside from the pre-test year, the control group had a larger deviation in their percentages than did TLIM group. In addition, this deviation tended to expand through the years with the control group schools, while TLIM schools experienced an up and down effect throughout the school years examined. These observations are depicted in Figure 4.6.
Figure 4.5. Depicts changes in mean percentage of students scoring at proficiency level or higher on the mathematics FSA between the control group and TLIM group.

Figure 4.6. Depicts changes in standard deviations of mean percentage of students scoring at proficiency level or higher on the mathematics FSA between the control group and TLIM group.

Repeated measures ANCOVA was run to determine if there were significant differences between the groups over time. The data set met all assumptions associated with repeated measure ANCOVA using the methods described in addressing the first research question. After adjusting for the effects of the pre-test, the analysis results indicated that there were no statistically significant differences in the mean percentages of students scoring at proficiency level or higher.
on the mathematics FSA between the control group and TLIM group, as the analysis yielded,
\[ F(1, 13) = 1.20, \ p = .29, \ \text{partial } \eta^2 = .08. \] Table 4.8 depicts these results.

Table 4.8

\textit{Results of Repeated Measures ANCOVA Analysis of Mathematics FSA Achievement: Between-Subjects Effects}

<table>
<thead>
<tr>
<th>Between-Subjects Comparison</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Group to TLIM Group</td>
<td>193.52</td>
<td>1</td>
<td>193.52</td>
<td>1.20</td>
<td>.29</td>
<td>.08</td>
</tr>
</tbody>
</table>

\textit{Note.} Control group \( n = 8 \) and TLIM group \( n = 8 \).

These results suggest that little variance, or an estimated 8\%, of the percentage of students scoring at proficiency or higher on the mathematics FSA between schools that utilize TLIM and schools that do not, can be explained by the implementation of TLIM program.

When examining within-subjects results, there was not a statistically significant difference in the mean percentage of students scoring at or above proficiency level on the mathematics FSA for the control group, or schools that did not implement TLIM program, over the school years examined as indicated by the following results: \( F(2, 26) = 2.04, \ p = .15, \) partial \( \eta^2 = .14. \) In addition, there was not a statistically significant difference in the mean percentage of students scoring at or above proficiency level on the mathematics FSA in schools that utilized TLIM program over the school years examined as indicated by the following results: \( F(2, 26) = 1.71, \ p = .20, \) partial \( \eta^2 = .12. \) These results are displayed in Table 4.9.
Table 4.9

Results of Repeated Measures ANCOVA Analysis of Mathematics Achievement: Within-Subjects Effects

<table>
<thead>
<tr>
<th>Within-Subjects Comparison</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Group to Control Group</td>
<td>48.99</td>
<td>2</td>
<td>24.21</td>
<td>2.04</td>
<td>.15</td>
<td>.14</td>
</tr>
<tr>
<td>TLIM Group to TLIM Group</td>
<td>40.74</td>
<td>2</td>
<td>20.37</td>
<td>1.71</td>
<td>.20</td>
<td>.12</td>
</tr>
</tbody>
</table>

Note. Control group n = 8 and TLIM group n = 8.

These results suggest that the covariance of time explains little of the variance within the control group means of percentage of students scoring at or above proficiency level on the mathematics FSA. In addition, only 12% of the mean differences in the percentage of students scoring at or above proficiency level on the mathematics FSA in schools that implemented TLIM can be explained by the influence of the youth leadership program.

Science. Descriptive statistics were examined for science proficient score percentages earn by each school in the sample beginning in the 2014-2015 school year, which served as the pre-test data, and examined three years worth of data, concluding with the post-test data from the 2017-2018 school year. The means and standards deviations are displayed in Table 4.10 below.
Table 4.10

*Descriptive Statistics for Percent of Students Scoring Proficient or Higher on Science FSA*

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014-2015 SY School Grade</td>
<td>16</td>
<td>58.38</td>
<td>11.44</td>
</tr>
<tr>
<td>Control</td>
<td>8</td>
<td>61.00</td>
<td>11.56</td>
</tr>
<tr>
<td>TLIM</td>
<td>8</td>
<td>55.75</td>
<td>11.45</td>
</tr>
<tr>
<td>2015-2016 SY School Grade</td>
<td>16</td>
<td>57.88</td>
<td>13.28</td>
</tr>
<tr>
<td>Control</td>
<td>8</td>
<td>59.63</td>
<td>16.81</td>
</tr>
<tr>
<td>TLIM</td>
<td>8</td>
<td>56.13</td>
<td>9.40</td>
</tr>
<tr>
<td>2016-2017 SY School Grade</td>
<td>16</td>
<td>55.69</td>
<td>11.92</td>
</tr>
<tr>
<td>Control</td>
<td>8</td>
<td>55.38</td>
<td>14.51</td>
</tr>
<tr>
<td>TLIM</td>
<td>8</td>
<td>56.00</td>
<td>9.67</td>
</tr>
<tr>
<td>2017-2018 SY Post-Test</td>
<td>16</td>
<td>60.19</td>
<td>13.80</td>
</tr>
<tr>
<td>Control</td>
<td>8</td>
<td>61.75</td>
<td>16.79</td>
</tr>
<tr>
<td>TLIM</td>
<td>8</td>
<td>58.63</td>
<td>10.97</td>
</tr>
</tbody>
</table>

*Note.* Data was obtained from a total sample size of 16 Florida public elementary schools. The dependent variable of students scoring proficient or higher on the science FSA percentage ranged from 0%-100%.

These descriptive statistics suggest that, aside from the 2016-2017, the control group schools had more students score proficient or higher on the science FSA assessment as compared to TLIM group schools. The control group experienced a decrease the first two years after the pre-test school year. During the last school year examined, that of 2017-2018, the control group schools experienced an increase in the mean percentage. TLIM schools experienced an increased in percentage of students scoring at proficiency level or higher, with the exception on a decrease of .13% at the end of the 2016-2017 school year. Figure 4.7 displays these observations. Aside from the pre-test year, the control group school had a much larger standard deviation in the mean percentages as compared to TLIM school group. As the years progressed, the control group schools experienced an up and down change in their standard deviations, while TLIM schools saw a slight increase in standard deviations through the years, except for after the first year of
implementation. TLIM group experienced a decrease in standard deviation at the end of that 2015-2016 school year. These observations are displayed in Figure 4.8.

![Figure 4.7](image1.png)

*Figure 4.7. Depicts changes in mean percentage of students scoring at proficiency level or higher on the science FSA between the control group and TLIM group.*

![Figure 4.8](image2.png)

*Figure 4.8. Depicts changes in standard deviations of mean percentage of students scoring at proficiency level or higher on the science FSA between the control group and TLIM group.*

Repeated measures ANCOVA was run to determine if there were significant differences between the groups over time. The data set met all assumptions associated with repeated measure
ANCOVA using the methods described in addressing the first research question. After adjusting for the effects of the pre-test, the analysis results indicated that there were no statistically significant differences in the mean percentages of students scoring at proficiency level or higher on the science FSA between the control group and TLIM group, as the analysis yielded, $F(1, 13) = .42, \ p = .53$, partial $\eta^2 = .03$. Table 4.11 depicts these results.

Table 4.11

Results of Repeated Measures ANCOVA Analysis of Science FSA Achievement: Between-Subjects Effects

<table>
<thead>
<tr>
<th>Between-Subjects Comparison</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Group to TLIM Group</td>
<td>67.43</td>
<td>1</td>
<td>67.43</td>
<td>.42</td>
<td>.53</td>
<td>.03</td>
</tr>
</tbody>
</table>

*Note. Control group n = 8 and TLIM group n = 8.*

These results suggest that little variance, or an estimated 3%, of the percentage of students scoring at proficiency or higher on the science FSA between schools that utilize TLIM and schools that do not, can be explained by the implementation of TLIM program.

When examining within-subjects results, there was not a statistically significant difference in the mean percentage of students scoring at or above proficiency level on the science FSA for the control group, or schools that did not implement TLIM program, over the school years examined as indicated by the following results: $F(2, 26) = .06, \ p = .95$, partial $\eta^2 = .00$. In addition, there was not a statistically significant difference in the mean percentage of students scoring at or above proficiency level on the science FSA in schools that utilized TLIM program over the school years examined as indicated by the following results: $F(2, 26) = .29, \ p = .75$, partial $\eta^2 = .02$. These results are displayed in Table 4.12.
Table 4.12

*Results of Repeated Measures ANCOVA Analysis of Science Achievement: Within-Subjects*

<table>
<thead>
<tr>
<th>Effects</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Group to Control Group</td>
<td>6.39</td>
<td>2</td>
<td>3.19</td>
<td>.06</td>
<td>.95</td>
<td>.00</td>
</tr>
<tr>
<td>TLIM Group to TLIM Group</td>
<td>32.93</td>
<td>2</td>
<td>16.46</td>
<td>.29</td>
<td>.75</td>
<td>.02</td>
</tr>
</tbody>
</table>

*Note.* Control group n = 8 and TLIM group n = 8.

These results suggest that the covariance of time explains little of the variance within the control group means of percentage of students scoring at or above proficiency level on the science FSA. In addition, only 2% of the mean differences in the percentage of students scoring at or above proficiency level on the science FSA in schools that implemented TLIM can be explained by the influence of the youth leadership program.

**Research Question 3:** Which school environments may be most conducive to achievement growth through the implementation of The Leader in Me (TLIM) when examined through FL school grades and key student demographics?

To address this research question, a multiple linear regression (MLR) model was used to analyze the data. Muijs (2011) explained that regression analysis is useful because it allows the researcher to examine how well the independent variables, such as free and reduced lunch status, minority status, and chronic absenteeism, predicts the outcome of the school grade. In addition, the researcher can examine the influence of the individual predictor variables on the outcome variable. Since no significant differences in means were found in answering the first two research questions, and because schools in both groups, the control group and TLIM group, shared similar demographic characteristics, the sample as a whole was analyzed for each school
year examined. Specifically, the amount of variance in the dependent variable of the school grade due to the influence of the independent variables of the percentage of students classified as minority, as receiving free and reduced lunch, and as chronically absent was measured. The data set met the assumptions of MLR, which included a linear relationship of the variables as evidenced by initial scatterplots, as well as independence, distribution normality, and homogeneity of the errors (Lomax & Hahs-Vaughn, 2012).

**Overall model analysis.** Table 4.13 displays the results of the overall MLR model analysis for each school year examined.

Table 4.13

*Results of Regression Model, SY 2014-2015 through SY 2017-2018*

<table>
<thead>
<tr>
<th>All Variables</th>
<th>$R^2$</th>
<th>Adjusted $R^2$</th>
<th>df</th>
<th>$F$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014-2015 SY</td>
<td>.68</td>
<td>.60</td>
<td>3</td>
<td>8.47</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>2015-2016 SY</td>
<td>.67</td>
<td>.59</td>
<td>3</td>
<td>8.25</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>2016-2017 SY</td>
<td>.56</td>
<td>.45</td>
<td>3</td>
<td>5.15</td>
<td>.02</td>
</tr>
<tr>
<td>2017-2018 SY</td>
<td>.42</td>
<td>.28</td>
<td>3</td>
<td>2.93</td>
<td>.08</td>
</tr>
</tbody>
</table>

*Note.* Data was obtained from a total sample size of 16 Florida public elementary schools.

For the 2014-2015 school year, the model yielded an adjusted $R$ square value of .60. This finding can be interpreted as 60% of the variance in school grades can be explained by the influence of the variables of minority rate, free and reduced lunch rate, and chronic absenteeism rate. This result is statistically significant, as the model yielded, $F(3, 12) = 8.47, p < .05$.

For the 2015-2016 school year, the model yielded an adjusted $R$ square value of .59. This finding can be interpreted as 59% of the variance in school grades can be explained by the influence of the variables of minority rate, free and reduced lunch rate, and chronic absenteeism rate. This result is statistically significant, as the model yielded, $F(3, 12) = 8.25, p < .05$.

For the 2016-2017 school year, the model yielded an adjusted $R$ square value of .45. This finding can be interpreted as 45% of the variance in school grades can be explained by the
influence of the variables of minority rate, free and reduced lunch rate, and chronic absenteeism rate. This result is statistically significant, as the model yielded, $F(3, 12) = 5.18, p = .02$.

For the 2017-2018 school year, the model yielded an adjusted R square value of .28. This finding can be interpreted as 28% of the variance in school grades can be explained by the influence of the variables of minority rate, free and reduced lunch rate, and chronic absenteeism rate. This result is not statistically significant, as the model yielded, $F(3, 12) = 2.93, p = .08$.

These results suggest that, as time progressed, the effect of the variables of minority rate, free and reduced lunch rate, and chronic absenteeism became less influential on school grades for the school years examined. Figure 4.9 depicts this downward trend.

Figure 4.9. Depicts changes in the Adjusted $R^2$ values, which indicate the influence of the variables of minority rate, free and reduced lunch rate, and chronic absenteeism rate on school grades over time.

Influence of individual variables of minority rate, free and reduced lunch rate, and chronic absenteeism on school grades. Descriptive statistics were analyzed and are displayed in Table 4.14.
Table 4.14

Descriptive Statistics for Study Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2014-2015 SY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Grade</td>
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<td>60.06</td>
<td>9.86</td>
</tr>
<tr>
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<td>16</td>
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<td>16.73</td>
</tr>
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<td>16</td>
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<td>15.57</td>
</tr>
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<td>7.12</td>
<td>4.07</td>
</tr>
<tr>
<td><strong>2015-2016 SY Minority Rate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Grade</td>
<td>16</td>
<td>54.38</td>
<td>8.90</td>
</tr>
<tr>
<td>Minority</td>
<td>16</td>
<td>50.56</td>
<td>16.48</td>
</tr>
<tr>
<td>Free and Reduced Lunch</td>
<td>16</td>
<td>69.19</td>
<td>14.45</td>
</tr>
<tr>
<td>Chronic Absenteeism</td>
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<td>7.51</td>
<td>3.69</td>
</tr>
<tr>
<td><strong>2016-2017 SY Minority Rate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Grade</td>
<td>16</td>
<td>57.38</td>
<td>9.07</td>
</tr>
<tr>
<td>Minority</td>
<td>16</td>
<td>51.11</td>
<td>16.12</td>
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<tr>
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<td>16</td>
<td>68.76</td>
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<tr>
<td>Chronic Absenteeism</td>
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<tr>
<td><strong>2017-2018 SY Minority Rate</strong></td>
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<td></td>
</tr>
<tr>
<td>School Grade</td>
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<td>54.69</td>
<td>9.35</td>
</tr>
<tr>
<td>Minority</td>
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<td>17.12</td>
</tr>
<tr>
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<tr>
<td>Chronic Absenteeism</td>
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<td>4.24</td>
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</table>

*Note.* Data was obtained from a total sample size of 16 Florida public elementary schools. All variables ranged from 0%-100%. School grades are assigned as follows: A = 62% of points or greater; B = 54% to 61% of points; C = 41% to 53% of points; D = 32% to 40% of points; and F = 31% of points or less.

These descriptive statistics demonstrate that the average school grade fluctuated through the years examined, although the average of all sample schools maintained a letter grade assignment of B. The percentage of students identified as minority steadily increased as the school years progressed. The percentage of students receiving free and reduced lunch fluctuated as time progressed. In addition, the percentage of students reported as chronically absent
increased, aside from the 2017-2018, which experienced a slight decrease. Figure 4.10 depicts these trends.

![Graph showing changes in mean percentages of study variables over time.]

**Figure 4.10.** Depicts the changes in mean percentages of the study variables over time.

Next, MLR was run to examine the influence of the individual independent variables of minority rate, free and reduced lunch rate, and chronic absenteeism on school grades to ascertain which school environments may be conductive to achievement gains through the implementation of TLIM program. Table 4.15 reports the results of the analysis.
Table 4.15

Effects of Minority Rate, Free and Reduced Lunch Rate, and Chronically Absenteeism on School Grades

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>β</td>
<td>Sig.</td>
<td></td>
</tr>
<tr>
<td>Minority</td>
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<td>.07</td>
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</tr>
<tr>
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<td>.01</td>
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<tr>
<td>Chronic Absenteeism</td>
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<td>.03</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.09</td>
<td>.17</td>
<td>.51</td>
<td></td>
</tr>
<tr>
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<td>.01</td>
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<td>.18</td>
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<tr>
<td></td>
<td>.02</td>
<td>.04</td>
<td>.91</td>
<td></td>
</tr>
<tr>
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<td></td>
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<td>.18</td>
<td></td>
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<tr>
<td></td>
<td>-.18</td>
<td>-.34</td>
<td>.33</td>
<td></td>
</tr>
<tr>
<td>Free and Reduced Lunch</td>
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<td>.40</td>
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<tr>
<td>Chronic Absenteeism</td>
<td>-.86</td>
<td>-.39</td>
<td>.10</td>
<td></td>
</tr>
</tbody>
</table>

Note: Data was obtained from a total sample size of 16 Florida public elementary schools.

For the 2014-2015 school year, the combined influence of all three variables resulted in a decrease in school grades by roughly 3.29 percentage points as indicted by the slope values. The influence of the percentage of students identified as minority did not yield a statistically significant results, however, as evidenced by a p value of .07. The variable with the greatest influence on this decrease in school grade was free and reduced lunch, as the Beta value was -.57.

For the 2015-2016 school year, the combined influence of all three variables resulted in a decrease in school grades by roughly 1.21 percentage points as indicted by the slope values. The influences of minority rate and rate of chronic absenteeism did not yield statistically significant results, however, as evidenced by p values of .51 and .18, respectively. The variable with the
greatest influence on this decrease in school grade was free and reduced lunch, as the Beta value was -.82.

For the 2016-2017 school year, the combined influence of all three variables resulted in a decrease in school grades by roughly 1.55 percentage points as indicated by the slope values. The influences of minority rate and rate of chronic absenteeism did not yield statistically significant results, however, as evidenced by p values of .91 and .18, respectively. The variable with the greatest influence on this decrease in school grade was free and reduced lunch, as the Beta value was -.72.

For the 2017-2018 school year, the combined influence of all three variables resulted in a decrease in school grades by roughly 1.19 percentage points as indicated by the slope values. The influences of minority rate, free and reduced lunch rate, and rate of chronic absenteeism did not yield statistically significant results, however, as evidenced by p values of .323, .40, and .10, respectively. The variable with the greatest influence on this decrease in school grade was chronic absenteeism, as the Beta value was -.39.

These findings suggest that, for the school years examined and this sample population, the greatest influencer on school grades is the percentage of students receiving free and reduced lunch, followed by the percentage of students reported as chronically absent. In half the years examined, the percent of students identified as minority influenced positively the school grade percentage points earned, while in the other two years, this variable influenced the school grade negatively.
Chapter 5: Discussion and Implications

Organization of the Discussion and Implications Chapter

This chapter begins with a summary of the study. Next, a discussion of the findings related to the impact of TLIM on student achievement and specific school populations is presented. Limitations of the study are discussed, followed by implications for practice. A discussion of the implications for future research and inquiry conclude the chapter.

Summary of Study

This study aimed to examine the influence of TLIM, a school-wide youth leadership development program, on Florida school grades. The Florida Department of Education (FLDOE) calculates the percentage of students in each school that scores at the proficient level or higher each year on state mandated tests of student achievement. This percentage, along with other measurement factors, are calculated into schools’ overall school grade each year. Schools can earn a grade of A, B, C, D, or F annually. This school grade serves as a federally mandated accountability measure, and is perceived by communities, families, and other stakeholders as a measure of a school’s overall effectiveness (Schneider & Buckley, 2002; Figlio & Lucas, 2004).

Three factors that impact student performance and, in turn, influence a schools’ overall grade attainment, are as follows: socioeconomic status, as measured by free and reduced lunch status; minority status; and rate of school attendance. As research has shown, these three factors significantly influence students’ academic achievement (Finn & Rock, 1997; Roby, 2005; Sirin, 2005). The impact of socioeconomic status, minority status, and student attendance on state
mandated achievement tests, and on the number of students scoring at or above proficiency level, should be considered when evaluating a school for effectiveness. Each year, schools report the percentage of students receiving free and reduced lunch and the percentage of students identified as minority to the FLDOE so that the impact of these factors can be considered in the overall reflection of school and district achievement. Additionally, schools maintain data on rate of attendance of enrolled students, and research indicates that attending school regularly impacts academic achievement (Roby, 2005). Since families and other stakeholders use school grades as a measure of a school’s effectiveness and overall instructional quality, it is important that schools work deliberately to positively influence their school grade (Figlio & Lucas, 2004). One way to do this is to implement targeted programs that seek to mitigate the negative influences of low socioeconomic status, minority status, and rate of attendance. In addition, it is vital that schools implement these focused interventions for a minimum of three years if long-lasting, positive change is to become systematic and effective school wide (Fullan, 2000).

The purpose of this study was to examine the influence of a youth leadership development program, specifically TLIM program, on school grades so that school leaders can identify specific school sites based on student demographics for which the implementation of the program will have the greatest positive impact on student achievement. Additionally, this study examined the influence of key student demographics, such as free and reduced lunch rate, minority rate, and chronic absenteeism on school grades so that school leaders can understand the impact of these factors on overall school achievement and school grade attainment.

**TLIM Impact on Student Achievement as Measured by School Grades and FSA Scores**

No differences were found in student achievement, as measured by Florida school grades, between schools that implemented TLIM and schools that did not utilize the leadership program.
More specifically, TLIM accounted for only 2% of the variance in school grades between these groups. When examining the influence of TLIM over the three years of implementation within the schools that utilized the program, no significant differences were found, as well. In addition, only 5% of the mean differences in school grades for schools that implemented TLIM could be explained by the influence of the youth leadership program. These findings suggest that the implementation of TLIM program had little influence over school grade attainment over time.

In addition to these findings, no differences were found in student achievement, as measured by subject-level FSA scores, between schools that implemented TLIM and schools that did not utilize the leadership program. These results align with the findings related to the first research question, which is not surprising, as FSA scores account for three measurement components that comprise the overall school grade designation. Between 1% and 8% of the variance in the mean FSA scores on the individual subject assessments could be attributed to TLIM. When examining the influence of TLIM over the three years of implementation within the schools that utilized the program, again, no statistically significant differences were found, and between 2% to 12% of the mean differences in the percentage of students scoring at or above proficiency level on the individual FSA tests could be explained by the influence of the youth leadership program. These findings suggest that the implementation of TLIM program had little influence over achievement on the ELA, mathematics, and science FSA over time. Again, these results correlate to that findings related to the influence of TLIM on school grades over time.

The main objective of the study was to analyze the influence of TLIM on school grades and FSA scores over time to ascertain whether an investment in scarce financial resources and time would be warranted in adopting TLIM program. Based on the results of this study, and viewing this question through a student achievement lens, the answer would be no. School
leaders face immense pressure to implement curriculums and interventions aimed at increasing student achievement, and these leaders must accomplish this task with limited budgets and with only so much time at their disposal (Kerr, Marsh, Ikemoto, Darilek, & Barney, 2006; Nichols, 2003; Sheldon, 2007). It would not be prudent to invest these resources on programs that have not been proven effective in improving student achievement. If school leaders view the findings of this study through other lenses, such as those related to improving other aspects of student growth and development, then perhaps there is some justification based on the results of this study that support the consideration of implementing TLIM.

An examination of the descriptive statistics from this study revealed some positive trends that warrant further discussion. The results suggest that, while schools from both groups experienced fluctuating school grades over the years examined, schools that implemented TLIM program experienced less deviation in scores within the group than did the control schools that did not utilize TLIM program. There was greater deviation in scores amongst the control group schools. In addition, as school years progressed, the control group schools’ deviation grew larger as compared to the schools that implemented TLIM, as those deviations tended, with one exception, to grow smaller over the years. What these findings suggest is that a school program focused on a culture of leadership and greatness, such as TLIM, may have influenced student performance in some way, which is supported in the literature.

As discussed earlier, the central premise of TLIM is that every child is capable of becoming a leader and is capable of achieving greatness (FranklinCovey, 2011; Covey, Covey, Summers, & Hatch, 2014). The program approaches education from the perspective that educators need to develop the whole learner as it relates to the mind, body, heart, and spirit (Covey et al., 2014). In addition, the program fosters the belief that leadership is a school-wide
THE LEADER IN ME AND SCHOOL GRADES

A culture paradigm where every person has the opportunity to assume leadership roles and is directly involved in this transformation process (Fonzi & Richie, 2011). This goal is accomplished through the empowerment of each student to meet his or her learning potential (FranklinCovey, 2011). In addition, the theoretical foundations inherent to TLIM are related to systemic reform and social and emotional learning. Systemic reform theories position change initiatives as the central work of all individuals in the organization (Fonzi and Ritchie, 2011). TLIM promotes a whole, school-wide transformation process towards positive change in students and in school culture. Social and emotional learning theories focus on improving behavior traits that positively influence success both inside and outside of the learning environment (Fredericks, 2003). By focusing on improving social-emotional traits, such as managing emotions and behaviors, positive decision-making, and taking responsibility, positive student outcomes have been observed, and these outcomes have been connected to TLIM.

TLIM has been linked to this increase in various student performance and growth outcome measures. High performing indicators were noted in schools implementing TLIM and were related to on-task behavior, positive learning climate, rapid student vocabulary growth, timely feedback to students, differentiated instruction, a 60 percent decline in disciplinary referrals, high academic expectations, parental satisfaction, improved teacher instruction, the use of high quality instructional materials, and an increase in students taking responsibility for their behavior (FranklinCovey Center for Advanced Research, 2011; Hollingsworth, 2013). Many of these outcomes have been connected to increased academic achievement in the research. These performance indicators could be present in the schools in this study and may account, to some degree, for the differences in score deviations between the control group and the intervention group. Since TLIM group experienced less deviation in scores, meaning that extreme
performance differences amongst the percentage of students performing at proficiency level or higher on the state mandated assessments were not noted, perhaps a school culture of greatness and leadership contributed positively to student achievement.

An examination of the descriptive statistics related to student achievement as measured by FSA scores revealed some positive trends, as well. In schools that implemented TLIM, an impact of almost 12% was experienced on the mathematics FSA. In addition, as the years progressed, TLIM schools did experience more students scoring at proficiency level or higher on the ELA, mathematics, and science FSA, as well as a smaller deviation in scores as compared to the control group. Some positive influence may have been imparted due to the implementation of a school-wide leadership development program. Findings in the research do support this suggestion.

For change initiatives to take hold, individuals at all levels of an organization must be involved, and fully engaged, in improvement efforts and leadership development (York-Barr & Duke, 2004; Smylie & Eckert, 2018). TLIM is structured to accomplish this end goal. Teacher leadership development, in particular, has been viewed as a catalyst for change efforts and is critical to implementing and sustaining curriculum and intervention initiatives within schools (Sinha & Hanuscin, 2017). By developing teacher leaders, schools aim to increase student academic achievement and other student outcomes through continued improvement of instruction and learning (York-Barr & Duke, 2004; Poekert, Alexandrou, & Shannon, 2016). Teachers must first perceive themselves as leaders for the benefits of this development to be actualized (York-Barr & Duke, 2004; Hunzicker, 2017; Sinha & Hanuscin, 2017). TLIM places the belief that all individuals can be, and are, leaders at the center of focus. When teachers, and other staff members, recognize themselves as leaders, they become aware of their role as change
agents for the school and for increasing student outcomes (Poekert, Alexandrou, & Shannon, 2016; Flores, 2018). A key element of successful leadership development for this self-actualization to occur involves the use of a school-based program aimed at growing and developing leadership knowledge, skills, and opportunities for practice (Poekert, Alexandrou, and Shannon, 2016; Flores, 2018).

A targeted approach aimed at developing student leadership skill is also critical to improving student performance, growth, and development. Through participation in activities that promote leadership, positive impacts have been found between these leadership opportunities and a sense of ownership, a connection between academic learning and real-world application, and a reduction in student boredom (National Research Council, 1988). Students believe that leadership is important to them, in their school lives, and for future career success, and they place more importance and attention on the areas where they receive leadership education, such as in school, and through sports and other extracurricular activities (Moore, Hatcher, Vandivere, & Brown, 2000; Anderson & Kim, 2009). Leadership experiences at school have been found to improve students’ sense of self-worth and positive self-concepts in areas of social interactions and academics, and they have led to increased school engagement and academic achievement (Fredrick & Eccles, 2006; Bloomfield & Barber, 2011). These results support the notion that targeted youth leadership development programs, such as TLIM, could positively influence student academic achievement through the improvement of the whole student, and could explain the increase in students scoring at proficiency or higher on the ELA, mathematics, and science FSA in this study.
TLIM Impact on Specific Student Populations

The second main objective of this study was to identify which school environments might be most conducive to achievement growth through the implementation of TLIM when examined through FL school grades and key student demographics of minority status, low socioeconomic status, and chronic absenteeism. The findings revealed that the percentage of students identified as minority, as receiving free and reduced lunch, and reported as chronically absent significantly impacted school grades when measured together. The combined influence of these variables explained roughly 28% to 60% of the variance in school grades during the school years examined in the study. The only school year that did not yield statistically significant results was the final year examined, 2017-2018. Of note is the observation that, as time progressed, the effect of the variables of minority rate, free and reduced lunch rate, and chronic absenteeism became less influential on school grades for the school years examined, as each year the impact decreased. As the literature review chapter presented, ample evidence exists in the research that supports a strong correlation between these variables and student achievement. To ascertain which variable impacts school grade attainment the strongest, an examination of the effects of each individual variable on school grades was necessary.

When examining the impact of the individual variables on school grades, the analysis revealed that the variable with the greatest impact on school grades, for three of the four years examined, was that of socioeconomic status, as measured by free and reduced lunch qualification. The final year examined attributed the biggest influence on school grades to that of chronic absenteeism, which also served as the second strongest influencer on school grades for the other three years examined. The influence of minority status positively influenced school
grades for two years and negatively influenced school grades for two years. All these findings are supported in the research.

The impact of socioeconomic status, often measured in education as the qualification for free and reduced lunch, remains a strong predictor of student academic success in the k-12 learning environment (Sirin, 2005). Studies have linked improvements in student nutrition, hence the use of free and reduced lunch rate as a measure of socioeconomic status, to increased academic attainment and improved learning (Harwell & LeBeau, 2010; Hinrichs, 2010). In addition, student attendance increases as free and reduced meals become readily available (Afridi, 2010). Also, food insecurity has been linked to lower academic achievement and increased difficulties in the areas of social and emotional development (Cook & Frank, 2008; Houston, Marzette, Ames, and Ames, 2013). In addition, school level socioeconomic status has been shown to have an even greater impact on academic performance and student achievement due to level of family support, availability of high quality educational options, and availability of experienced teachers and quality learning materials (Watkins, 1997; Wenglinsky, 1998; Sirin, 2005).

Another strong predictor of student success, and a strong influencer of school grades per this study’s results, is that of regular school attendance. When students attend school regularly, they experience improved performance on standardized assessments and other measures of academic achievement (Gottfried, 2010; Lamdin, 1996; Nichols, 2003). In addition, schools and districts that experience overall high student attendance rates demonstrate higher overall scores on mandated assessments of student achievement, thus indicating higher performing schools and districts (Ehrenberg, Ehrenberg, Rees, & Ehrenberg, 1991; Gottfried, 2010; Roby, 2003). These research findings support the findings in this study that the second strongest influencer of school
grades was chronic absenteeism. Studies have shown that the more hours of missed instruction a student experiences, the lower students score on tests of academic achievement (Roby, 2033; Gottfried, 2010). In addition, students who attend school regularly score higher on standardized assessments of reading and math, and have higher GPAs when compared to students with higher rates of absenteeism (Gottfried, 2010). A multitude of factors contribute to chronic absenteeism, such as negative family circumstances and instability, psychological distress and chronic illness, disengagement with school and learning, quality of residential neighborhoods, and availability of quality academic programs (Ehrenberg, Ehrenberg, Rees, & Ehrenberg, 1991; Gennetian, Rodrigues, Hill, & Morris, 2018; Lehr, Sinclair, & Christenson, 2004). In addition, when students’ struggle academically, their absentee rate increases, and this pattern was even more problematic for lower-socioeconomic students and minority students (Gennetian, Rodrigues, Hill, & Morris, 2018; Nichols, 2003; Rumberger, 1995).

Related to the variable of minority status, the findings of this study revealed both a positive and negative influence on school grades. This duality is also seen in the research. A student’s ethnic/racial identity has been linked to positive correlations with academic achievement in the literature. This identity is believed to foster a sense of oneself and positive well-being, as well as increase self-esteem, which acts as a protective coping mechanism against poor achievement in school (Phillips Smith, Walker, Fields, Brookins, and Seay, 1999; Costigan, Koryzma, Hua, & Chance, 2010). In addition, a student’s ethnic/racial identity and self-esteem positively influenced adolescents’ self-efficacy related to academic achievement and increased perceptions of future academic and career possibilities (Phillips Smith, Walker, Fields, Brookins, and Seay, 1999). Finally, students who reported positive associates with their identified ethnic/racial group scored higher on measures of academic achievement (Miller-Cotto and
Byrnes, 2016). These findings could explain the positive impact minority status had on school grades in this study.

The negative correlations between minority status and academic achievement abound in the literature, a well. The “achievement gap” between white students and minority students has been heavily documented across most areas of school performance and on multiple measures of academic achievement (Olszewski-Kubilius, Lee, Ngoi, & Ngoi, 2004). Research suggests that minority students face barriers to learning that negatively impact their academic achievement disproportionately to their white counterparts, such as low socioeconomic status, poor school building conditions, limited access to higher status neighborhoods and schools, high prevalence of non-native English speaking families, and prevalence of negative family circumstances (Ramirez and Carpenter, 2005; Lumpkin, 2016). Based on these research findings, it is warranted to suggest that the continuance of the achievement gap may have resulted in a negative impact from the variable of minority status on school grade attainment in this study.

**Study Limitations**

The results of this study suggest that, while no statistically significant results were found related to the influence of the TLIM on school grades or on Florida state mandated assessments in the areas of ELA, mathematics, or science in the study population, some statistically significant results were found in relation to the impact of known predictors of student achievement, such as minority status, free and reduced lunch status, and chronic absenteeism, on school grades. There are limitations to the implications of these findings, however. One limitation of this study was that randomization was not possible due to the nature of the sample, which consists of schools in this study, and thus limits the external validity of the study and the ability to generalize outside the population (Campbell & Stanley, 1963). Another limitation of
this study was that it examined key school demographics from only one state. In addition, the sample size was small, with the study limited to 16 public elementary schools located across Florida. The reason for this limitation was to keep the sample population homogenous and examine only public elementary schools that participate in the FSA and state school grading accountability measure. An additional limitation of this study related to the school years examined. This study was limited to schools that initiated TLIM at the beginning of the 2015-2016 school year. This limitation allowed the researcher to examine the same measures over the four years sampled, as the pre-test year of 2014-2015 was the initial introduction of Florida’s revised state mandated assessment, the FSA. In addition, Florida’s school grading system and computation methods remained the same beginning in the 2014-2015 and continues through today. In regards to how TLIM was implemented within the schools that adopted the program, it is unknown whether the program was implemented with fidelity, and this unknown is a limitation of this study.

Implications for Practice

These study limitations aside, the results of this study do suggest implications for practice. Even though this study did not yield statistically significant results related to the influence of TLIM on student achievement, research findings do support the implementation of a youth leadership development program to address other aspects of student growth and development. TLIM, and other change initiatives aimed at leadership development, impact positively the school culture, staff perceptions of leadership, and student engagement and feelings of self-worth (York-Barr & Duke, 2004; Fredricks & Eccles, 2006; Bloomfield & Barber, 2011; Hunzicker, 2017; Sinha & Hanuscin, 2017). In addition, positive impacts have been observed in student behavior, student responsibility, parent satisfaction, and instructional
effectiveness with the implementation of TLIM (FranklinCovey Center for Advanced Research, 2011). Research suggests that leadership development be systemic in nature, placed at the center of focus, and have ample opportunities to practice (Smylie & Eckert, 2018). TLIM in me incorporates these factors in an authentic way. Since TLIM was designed to follow a three-year implementation plan, it is vital that schools implement the program with fidelity. This would involve incorporating the program into all facets of the school, and not just some. Since the program is meant to instill leadership skills, practice, and values in students and staff, it is important that the program be central to the whole school.

Since leadership is socially influenced, it is beneficial to consider programs that involve all school staff and personnel in the implementation process (Smylie & Eckert, 2018). Teacher leadership development is especially important for student success as teachers play a central role in the lives of students and in the overall success of a school (York-Barr & Duke, 2004). By fostering teacher leadership development alongside students, school leaders are allowing for increased improvements in student academic achievement and other student outcomes through continued improvement of instruction and learning (York-Barr & Duke, 2004; Poekert, Alexandrou, & Shannon, 2016). Through the implementation of TLIM, or other leadership development programs, school leaders are recognizing that school staff are catalysts for change and are critical to implementing and sustaining curriculum and intervention initiatives within schools (Sinha & Hanuscin, 2017).

A crucial task of any school leader is to examine the learning barriers students bring with them to school each day. Educators and researchers alike recognize the detrimental effects outside influencers have on student progress, such as the home environment and cultural differences. These study findings suggest that student achievement as measured through school
grades are influenced by the percentage of students identified as minority, the percentage of students receiving free and reduced lunch, and the percentage of students chronically absent from school. One analysis indicated that, for one school year examined, 60% of the school grade variance could be attributed to these factors. These results support the contention that school leaders must devote focused attention and targeted interventions aimed at mitigating the negative influences of these barriers to academic success. In particular, the effect of low socioeconomic status, as measured by qualification for free and reduced lunch, was found to have the greatest impact on school grades. School leaders may want to consider the implementation of TLIM in schools with the highest percentage of students’ receiving free and reduced lunch. Chronic absenteeism was also found to influence school grade attainment; therefore; school leaders may experience positive benefits from initiating TLIM in schools with higher percentages of chronically absent students.

**Implications for Future Research and Inquiry**

Several implications for future research and inquiry stem from the results of this study. Since this study focused on public elementary schools, an examination of middle or high schools across Florida may yield different results. In addition, an examination of another State’s school grade reporting process and measures may add to the literature any influence experienced from the implementation of TLIM. A larger sample size that is not limited to the 2014-2018 school years may also highlight any impact between key school demographics and TLIM. Many charter schools, religious-based schools, and private schools utilize TLIM program, as well. An investigation into the impact of this program on various measures of student achievement may contribute to the research. The examination of just one school-wide effort aim at increasing student outcomes cannot explain all the variance in school grades, or other measures of effective
schools, or results on state mandated assessments. Schools often initiate curriculum and change initiatives simultaneously and aimed at different targets. An examination into the different change efforts implemented in the schools in this study, and in other schools, could shed light on the topic of youth leadership development and the connections to improved student performance and achievement. Finally, future inquiry involving the lived experiences of staff and students participating in a youth leadership development program, such as TLIM, could contribute valuable insights into the perceptions and actualized benefits of focusing school resources on targeted intervention efforts geared towards improving student achievement and success, social and emotional well-being, and future opportunities as vibrant, contributing members of society. After all, those outcomes are what we, in education, strive for each and every day.
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Vita

Jennifer was born and raised around the Buffalo, New York area. She graduated from Erie County Community College in Orchard Park, New York with her Associate’s of Arts degree in Liberal Arts and Humanities. She obtained her Bachelor’s of Science degree in English Secondary Education from the State University of New York, College at Buffalo. She immediately entered the graduate program at Canisius College in Buffalo, New York and earned her Master’s of Science degree in Deaf Education. Next, she began her career teaching students identified as deaf/hard of hearing in Atlanta, Georgia at the Atlanta Area School for the Deaf. After one year, she relocated to St. Augustine, Florida and began a fifteen-year career at the Florida School for the Deaf and the Blind, where Jennifer was a teacher, IEP Coordinator, and Staffing Coordinator. While in St. Augustine, Jennifer earned her Master’s of Education degree in Educational Leadership from the University of North Florida, in Jacksonville, Florida. She went on to earn a graduate certificate in Nonprofit Organizational Management from the same university. Her passion for learning did not end there; in August 2019, Jennifer earned her Doctor of Education degree in Educational Leadership from the University of North Florida.

Jennifer currently lives in Colorado Springs, Colorado with her husband, Mike, and their son, Michael. She is currently the principal of the Employability Center, a high school-to-postsecondary transition program for students with hearing and visual impairments, at the Colorado School for the Deaf and the Blind. She and her family are passionate about traveling together, exploring the country in their camper, and relaxing at home together with their beloved pets.