EXAMINING THE ROLES OF MIDDLE SCHOOL STUDENTS’ LOCUS OF CONTROL IN OVERCOMING ACHIEVEMENT GAP AS PERCEIVED BY EDUCATORS AT A SCHOOL IN THE PUBLIC WALDORF MOVEMENT: A CASE STUDY METHODOLOGY

A thesis presented
by
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to
The School of Education

In partial fulfillment of the requirements for the degree of
Doctor of Education

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March 2019
Abstract

This case study reports the findings undertaken to address the roles of middle school students’ locus of control in closing the achievement gap as perceived by educators in a school in the Public Waldorf movement. Rotter’s social learning theory was used as the theoretical framework to guide the design and analysis of this study. The literature review on locus of control, students’ academic performance and Waldorf pedagogy informed this study. The overarching research questions for this study investigated educators’ perspectives on the role locus of control plays in overcoming achievement gap. Three primary research questions guiding this study are as follow: (1) What roles does locus of control play in overcoming achievement gap as perceived by educators at a school in the Public Waldorf movement for middle school students of low socio-economic status? (2) How are middle school students’ ability to learn reinforced by students’ locus of control, as perceived by their teachers? (3) How do environmental factors at a school in the Public Waldorf setting influence students’ locus of control and their learning experience, as perceived by the educators and students of the school? The findings indicated an internal locus of control in middle school students. The research concluded that teachers perceived locus of control as an important component to student learning and also acknowledged Waldorf methods as influential factors to student success. Furthermore, less emphasis is placed on academic achievement, and more on students’ social-emotional, artistic, creative and physical development as a measure of success. Parental support and school community are crucial to the sustainability of Waldorf method in a public school. The empirical evidence examines the implications, the significance, and limitations in terms of reducing the opportunity gaps.

Keywords: Waldorf curriculum, Waldorf public movement, academic achievement, academic gap, locus of control
Acknowledgments

This incredible accomplishment would not have been possible without the ongoing support from the best advisor one can ask for, Dr. Chris Unger. I am thankful for your knowledge and expertise in the field of education, for steering me in the right direction and for supporting me to get to the finish line. I am forever indebted for your guidance through this process.

I would also like to express my sincere gratitude to the experts who were involved in the thesis review for my research study, my second reader, Dr. Nancy Young and my third reader, Dr. Melanie Reiser. Thank you for your vital contributions. Without your help and devoted time, this could not have been successfully possible.

I wish to express my deepest gratitude to my parents. Your failures and successes in life immensely inspire me. You are my forever heroes. I must convey my very profound love to my siblings for being my greatest support system. You have seen me at my very best and worst. Through it all, you stuck with me. I hope I made you proud. Your love never failed me!

With gratitude, I acknowledge my tenacious cheerleaders, my dearest friends for your ongoing support. You never doubted my abilities and my commitment to pursuing my dreams!

A special note of appreciation goes to the school principal, the teachers and all the students who graciously agreed to participate in this study. I appreciate your availability and commitment to answering the interview questions and survey. Thank you for lending me your voice so I can share it with the world, my sincere gratitude to you all.

I want to thank my fellow doctoral colleagues for their feedback and friendship. For all the phenomenal mentors who have touched my life, thank you. To the late Mr. Richard Trifiro, (In Memoriam), you have considered me like a daughter since high school. You guided and
showed me the value of paying it forward. Your spirit will always live in me. To my favorite high school Math teacher and mentor, Mr. Jerry Howland, you saw my abilities even better I could explain them. Thank you for your passion and commitment to teaching. You have inspired me to work beyond the classroom settings.

Finally, I dedicate this work to my best friend who has been fighting an incredible battle. Throughout your ordeal, somehow, as unbelievable as it may sound, I gain strength from the way you fight with every fiber of your being. You will beat this!

To all the children I have ever worked with in some capacity throughout my career, this is for you too, for all the challenges you face every day and your continued inspiration. Thank you for reminding us that you deserve the best.
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Chapter I: Introduction

The Topic

Students’ academic successes are associated significantly with their learning environment, experiences, positive relationships with teachers, their ability and willingness to learn and improve. Notably, students’ academic performance can be examined by many theoretical lenses that provide a grounding base to help educators to explore phenomena that impact students’ learning. The common belief that students’ success is determined by policy reforms and school quality alone suggests that academic achievement is not impacted by students’ social and psychological constructs of learning.

The most apparent evidence of students’ success must be recognized by the learning opportunities provided by policy stakeholders, educators, and parents. Educators can tap into students’ potential and strengths to encourage learning. Danziger & Waldvogel (2000) assert the importance of giving students the opportunity to participate in decision making regarding their own learning by ‘their motivation to learn and their willingness to engage in productive learning activities’ (p. 153). A curriculum that does not seek alternative methods in valuing students’ social, emotional and cultural competence deviates from appropriate teaching and impedes student learning. The role of educational leaders in transforming schools depends greatly upon effective pedagogies but most importantly on teaching strategies that lead to efforts which can enhance students’ abilities, expectation, and motivation. As Gujjar & Aijaz (2014) state “no learning can take place without the interest of the learner” (p. 1). Conversely, students’ behaviors, beliefs, and attitudes frame how they approach learning. Learning takes place when students are engaged in the acquisition of skills and are also driven by internal and external
motives. Influential factors that lead to bridge achievement gaps and students’ progress are determined ultimately by students’ own ability.

Academic performance is also affected by school quality (Deming, Hastings, Kane & Staiger, 2011), school engagement and parental involvement (Hill & Tyson, 2009; Fan & Williams, 2010; Al-Alwan, 2014). Concerning high expectations for student achievement, educators and parents are advocating for schools that can support students' educational development through the rigor in the curriculum, the hiring of experienced teachers and a climate that can contribute to students' self-efficacy for their learning. As Choi and Kim (2006) assert “effective schools should be superior in both increasing students’ achievement levels and reducing the gap between high- and low-achieving students in the school” (p. 2). In other to accomplish such goals, educational leaders must apply educational approaches that cultivate students’ academic motivation and positive attitude. Ibrahim (1996) expounds “locus of control as a psychological construct that is believed to operate actively in educational settings as well as other behavioral settings which involve rewards and punishments” (p. 823). As it is defined by Rotter (1966), the concept of locus of control is a set of firm beliefs that predict performance in achievement contexts. Persons with an internal locus of control believe that their ability and efforts are essential for achievement, while those with an external locus of control view luck, chance, the influence of powerful others, and the difficulty of the task as the primary factors determining success or failure (as cited in Curtis & Trice, 2013, p. 817). Locus of control is a belief in response to individual belief, events, and circumstances. If students with an internal locus of control perform better academically, can learning be enhanced for those with an external locus of control? Gujjar & Aija (2014) describe locus of control as a personality trait that is concerned on whether people attribute responsibility for their own failure or success to internal
factor or external factor (p.2). Therefore, locus of control is socially and psychologically constructed in learning.

**Statement of the Problem**

Within the constraints of what educators face in closing the academic gaps, schools should utilize practical and holistic educational approaches to students to nurture their natural abilities, to recognize their adaptive behaviors, and to enhance their cognitive and emotional intelligence. Such skills will eventually guide them in life, education, and career. Educational models of learning should emphasize on the learner. Additionally, students’ social and psychological well-being ought to be fostered and closely examined as they are critical to their academic preparedness and attainment. Students are faced with the difficult challenge of managing their emotional and behavioral difficulties in the classroom, particularly those associated with childhood trauma, and environmental circumstances related to students' family limited support, inadequate resources and inequities in schools funding. This case study examined the roles of students’ locus of control in overcoming achievement gap as perceived by educators at a school in the Public Waldorf movement, heretofore referred to as City Community School (CCS). Low socio-economic status students have not been provided with the proper tools, the framework for curriculum and a nurturing learning environment. Multiple findings show that students from low socioeconomic backgrounds have lacked in equitable educational experience with a lead gap in achievement (Erford, House & Martin, 2007; Gordon 2006; Stone & Dahir, 2007). Betts & Fairlie (2001) report that African American and Hispanic students are underrepresented in private schools have low levels of parental education, lower income levels and less likely to attend private schools relative to their white and Asian natives (p. 32-34). While Grothaus & Rebekah (2010) indicate evidence of schools with a high percentage of
students from families with low income who often lack the resources and teacher expertise of more affluent schools (as cited in Bailey, Getch, & Chen-Hayes, 2007; Gordon, 2006; Warren, 2002).

The achievement gap between students of color and their white counterparts has been debated for years. Across the US, a large number of minorities who attend such schools and who are not receiving the appropriate education is alarming. Many factors impact low socio-economic students’ ability to learn effectively from a lack of funding in public schools, the disproportionate representation of low-income students in the lowest-achieving, dilapidated public schools, higher dropout rates and misconceptions of teachers toward low socio-economic students, all of these factors deepen the gaps in academic outcomes and achievement (Bankston & Cladus, 2002; Bauman & Graf, 2003; Flynn, 2007).

Simms (2012) examines the ongoing problem of the achievement gap as having severe long-term consequences due to the underlying historical race and economic issues which affect our education system. Although scholars and advocates have explored several options to address the student achievement gap, the underlying issues of poverty, charter school segregation, insufficient school resources, and the absence of positive influences and lack of high-quality schools persist. There are encouraging steps that have gained momentum over the years such as school choice through vouchers and charter schools. However, it is estimated that only 2.5% of charter students are represented in public school enrollment in 2007. Consequently, Frankenberg et al. (2011) confirm as the growing ranks of charter school attendees swell to include a disproportionately high number of Black students, troubling patterns of segregation emerge. Charter programs are more likely than traditional public schools to generate racially isolated learning environments for students of color, though in some communities they produce schools
of white segregation (p.3). Required by the U.S. Department of Education, failing schools are given a timeframe of five years to show signs of improvement and by given students the option to transfer to another school.

Meanwhile, the failing school continues to follow the required steps to achieve improvement in providing supplemental services such as tutoring or after-school programs to students, teaching training, curriculum implementation, and school restructuring. A public charter school is born out of such restructuring. According to Gleason, Clark, Tuttle & Dwoyer (2010), it is estimated that since 2009, more than 5,000 charter schools have served over 1.5 million students, comprising approximately three percent of all public schools students in 40 states and the District of Columbia based on the Center for Education Reform (p. 27).

Research demonstrated considerable gaps in achievement and social-emotional factors impacting disadvantaged students (Becker & Luthar, 2010), and social-emotional factors affecting achievement outcomes among disadvantaged students (Caldas & Bankston, 1997; Battle & Lewis, 2002; Becker & Luthar, 2002). A myriad of studies shows a relationship between locus of control and academic achievement (Bar-Tal & Bar-Zohar, 1977; Stipek & Weisz, 1981; Keith, Pottebaum & Eberhart, 1986; Landine & Stewart, 1998; Gujjar, & Aijaz, 2014). Furthermore, some studies revealed that high school students with higher GPA reported higher scores on internal locus of control (Shepherd, Owen, Fitch & Marshall, 2006) and a positive correlation between locus of control and students’ reading and writing achievement (Ghonsooly & Shirvan, 2011). Other reveal evidence on the relationship between achievement and perceptions of control are also found (Stipek & Weisz, 1981), and locus of control was found to be the greatest influence as a predictor to children's mathematics and science scores (Martin, Meyer, Nelson, Baldwin, Ting & Sterling, 2007). These researches corroborate locus of control
as a significant contributor to academic achievement in various areas. Without using locus of control as a variable, several studies indicated a relationship between high school students’ beliefs and responsibility for their academic successes (Crandall, Katkovsky & Crandall, 1965; Bandura, 1993; Pajares, 1996; Zimmerman, 2002; Usher & Pajares, 2006; Patrick, Ryan & Kaplan, 2007; Pajares, 2008; Usher & Pajares, 2008; and Sun & Shek, 2012), and students’ resiliency contributing to their academic success (McMillan & Reed, 1994, Finn & Rock, 1997; Martin, 2002; Morales, 2010).

From a broader context, locus of control has been studied in several countries, particularly for college students, teachers, and children. Previous research of at-risk middle-school and high school students with behavioral problems showed that locus of control predicted achievement (Caldwell & Ginther, 1996; Post, 1999; Anderson, Hattie & Hamilton, 2005). They also reveal existing factors such as motivation, self-efficacy, and self-esteem influencing students’ academic successes or failures as well as instances where students with behavioral problems exhibited external locus of control (Miller, Fitch & Marshall, 2003). For instance, in one study, Nunn (1995) showed at-risk middle school students’ GPA improved with decreased external locus of control, while Nowicki & Duke (1992) tested elementary school children's abilities on locus of control and academic achievement and to decode emotions in facial expressions and tones of voice showing they were more internally controlled and have higher academic achievement scores. Another study by Yong (1994) examined locus of control in addition to the self-concepts and Machiavellianism of gifted and African-American middle-grade students identified as gifted in which self-concept was significantly and positively correlated with an internal locus of control and with low Machiavellianism. Limited and recent studies were found to address locus of control as a social and psychological influence of disadvantaged
middle school students, and no research was found using specifically Waldorf as an alternative pedagogy. The lack of research in this area provides further inquiries to investigate locus of control as a potential contributor to students’ academic achievement in a Waldorf setting.

This study examined the essential role locus of control plays in student learning and achievement. As a psychosocial influence, locus of control can be used in academic contexts in developing educational tools and methods that educators can use to engage low-achieving students to improve their perceptions, attitudes and ultimately their academic progress. As a change agent, this research aimed to alter the external locus of control in behaviors and perceptions into promoting hard work, resilience, and motivation in students from a holistic approach.

**Significance of the Problem**

From the theory of social learning, Rotter (1966) defines locus of control as a generalized expectancy of the extent to which a person perceives events in one's life as consequences of one's behavior. People, described as “internal,” believe that they exercise more control over events and outcomes affecting them. In contrast, “externals” tend to believe that they have little control over what happens to them. These expectancies are perceived to be the result of many past experiences (as cited in Boss & Taylor, 1989).

Several studies have shown a relationship existing between academic achievement and personality traits (Ravi, 2008; Camps & Morales-Vives, 2013; Mikael, 2015). An individual’s personality is distinctively characterized by sets of values, skills, patterns of thoughts, feelings, and behaviors. Sociologists, psychologists, and educators explore aspects of human personality, and cognitive intelligence which are crucial in understanding human behavior, and learning. Many childhood developmental factors that seem to influence human perspective manifest
themselves later through thinking, feeling and acting. Additionally, environmental, cultural, and socio-economic conditions shape human’s fundamental beliefs. Dweck (2008) states that “focusing on people’s beliefs, as opposed to their simple preferences and habits or broad personality traits, helps us answer in more precise ways questions like: What personality factors allow people to function well in their lives that is, to grow and learn, sustain satisfying relationships, achieve well in school and careers, be caring toward others, or recover from setbacks? This is because beliefs can typically be defined very precisely, measured very simply, and altered through interventions to reveal their direct impact” (p. 392).

This study examined the roles locus of control plays as part of students’ personality in distinguishing for positive and negative response to psychosocial and academic stressors. Locus of control is considered to be an important aspect of personality. Phares (1968) considers locus of control as “a personality concept that has evolved out of Rotter’s 1954 social learning theory” (p. 649). Rotter (1966) discusses locus of control as a personality variable, social learning theory as a personality theory and other scales that were developed to measure locus of control. At City Community School (CCS) where the study took place, the methods used are developmentally focused to uniquely shape children’s intellectual, emotional, physical and spiritual capacities. This study also intended to show that such an educational approach can enhance students’ abilities for higher achievement.

At the macro level, administrators, educators, and school counselors can promote educational tools to enhance locus of control in appropriate programs and curricula geared toward the acquisition of psychosocial skills to bridge academic gap. Researchers and practitioners can bring awareness of students’ academic barriers and how they are able to respond constructively through locus of control, motivation, and resilience. Such findings are
paramount for scholar-practitioners to examine and measure locus of control as a significant factor contributing to academic outcomes. While locus of control is not a revolutionary concept, it remains crucial to explore the characteristic traits of low socio-economic students such as locus of control and the overarching impacts on low-achievement gaps. Part of the social, cultural and psychological influences of negative attitudes and perceptions of academic success are deeply embedded in students.

From the social capital perspective, this study has the potential to engage educators about the complex psychosocial issues affecting students in the classroom and outside of the classroom, to give students access to think critically, to be able to regulate their beliefs and attitudes in productive coping strategies when it comes to learning and ways to achieve academic progress. Holistic schools such as Waldorf offer a curriculum that is different from the traditional public schools. Students are more likely to be socially nurtured, and to be intellectually challenged. Low-economic students are financially isolated and unable to attend such schools. Multiple findings show that students from low socioeconomic environments have lacked in equitable educational experience with a lead gap in achievement (Erford, House & Martin, 2007; Gordon, 2006; Stone & Dahir, 2007). Disadvantaged students are often stigmatized based on the environment they grow (Sampson & Raudenbush, 2004), their academic performance (Steele, 2004), and their social circumstances (Zirkel, 2005). These stereotypes trigger negative perception and socio-psychological distress in students. This study took part in the creation of institutional change at both micro and macro level in challenging the status quo about students’ response to social and cultural contexts, in empowering educators to shape and improve educational practices, in deconstructing the truth and knowledge about achievement gap in low-socioeconomic students and in positively motivate students and engage parents. The barriers
around these psychosocial issues must be deconstructed for students to feel empowered and for educators to constructively contribute to each student’s learning. This study could help change the culture of the educational system bringing to surface these critical and challenging questions which ultimately produce awareness that can impact the culture of education at all levels.

Positionality Statement

Educators are faced with the challenges that influence student achievement gap. Besides other circumstances that affect academic failures; lack of effort, motivation, and expectations impede students’ academic goals strongly. Many studies indicate the impact of academic achievement on students’ self-esteem, motivation and confidence (Carbonaro, 2005; Mann, 2013, Ghilay & Ghilay, 2015). Students are largely guided by their sense of worth, beliefs, and perception. These general aspects of students’ personality shape desirably or undesirably their decisions as they relate to academic performance. Locus of control falls into an aspect of students’ personality, attitudes and behaviors. The purpose of this research was to examine the roles of middle school students’ locus of control in closing the achievement gap as perceived by educators at a school in the Public Waldorf movement.

It is critical for school leaders, teachers, parents, and students to facilitate the development of pedagogical practices through academic engagement, social empowerment and moral responsibility to create opportunities to recognize academic failure and promote positive impact. The concept of locus of control is rooted in students’ beliefs and abilities. Therefore, the influence of the school attended, the curriculum used, the teachers’ perceptions, efficacy, and instructions can ultimately foster positive academic outcomes. As educators, I believe together, we can develop goals that are measurable to serve our students better. There is a significant need
to strengthen and diversify children educational models as well as bridging achievement gaps among low socio-economic students.

Coming from a middle-class family who migrated to Boston at a young age in search of a better educational opportunity, I did not escape the realities of ethnic and language barriers. However, I did flee from a temporary illusion that my sheltered childhood, my strong upbringing, and conviction, my sense of pride and independence would protect me against the stigmatization, implicit and explicit innuendo that I experienced as a black immigrant. I was marginalized because of ethnic biases which ultimately affected my self-esteem on a personal and professional level. I continue to dismiss my fear and uncertainty which stemmed from the demystification of students of color and lack of validation from certain teachers and my school counselor who did not play their part in changing the status quo. My parents never installed in my siblings and me a sense of dependency or shame. On the contrary, they pushed for resiliency, social and personal responsibility and a strong sense of pride. Consequently, I challenged myself to look past these feelings to achieve academic accomplishments.

I firmly believe in alternative teaching and learning which originated from my experiences having worked as a pre-school teacher in a Montessori school. Students were guided and allowed to grow toward independence, social responsibility, and competence. I noticed with this approach, children exhibit exceptional creative skills which reinforced my beliefs that with invested, alternative method, children excel progressively. I assumed when and if students are provided a stable environment where their intellectual, emotional, social and physical needs are met, ultimately, they will be able to function as healthy individuals and excel academically.

Such beliefs were reinforced when I was chosen to conduct social policy research in Kent, England as part of an International Staff Exchange Program with a Boston company I
worked for. I looked at strength-based and community programs that focused on a holistic approach and built skills through educational resources and training. The strength-based approach identifies and emphasizes the strengths of children, families, schools, and communities instead of the problems resulted in a child welfare system. This exchange program was instrumental in widening my perspectives on alternative schools. My research was conducted at a school in the Public Waldorf movement which offers a pedagogy in which students are taught through their natural sense of wonder, imagination, intuition, inspiration, and curiosity. Waldorf curriculum is an innovative concept that could possibly affect gaps in achievement at public schools for underserved students.

According to Larrison, Daly & VanVooren (2012), “the empirical research on Waldorf education is surprisingly limited given its nearly 100-year history. However, the available studies suggest a positive impact of Waldorf on many cognitive and social outcome measures. These outcomes are aligned with some of the more recent initiatives in education to promote greater creativity and critical thinking in students” (p. 2). I believe my research could potentially serve as a roadmap in regards to alternative pedagogy for underserved students. The answers to my research questions may likely support my hypothesis of a positive impact between Waldorf-style pedagogy, locus of control and students’ academic performance. In concert, school practitioners and educational leaders should emphasize heavily on reducing academic deficits and in improving students’ learning through practical measures. The distinction between academic success and locus of control can play a more significant role in capturing various learning styles, beliefs and attitudes in students concerning their education.

My positionality concerning achievement gap is based on a social justice framework that aims to promote diversity, culturally relevant pedagogy and learning that empower students,
particularly marginalized ones. I firmly believe that such an approach should be encouraged inside and outside the classroom. I hold biases that low socio-economic students may feel alienated based on Waldorf’s institutional culture, teachers’ deficit thinking and lack of cultural competence that undoubtedly impact students’ confidence and sense of worthiness. For a school in the Public Waldorf movement to be considered effective, a comprehensive knowledge gap of teachers’ perceptions and attitudes, use of instructional strategies, job satisfaction and sense of self-efficacy (Wei & Young, 2014) must be understood to strengthen immensely underserved students’ educational needs. I am also concerned that such schools may not provide accessibility for underserved students in an attempt to maintain their reputation. School administrators may wish to admit a minimal number of students as window dressing. Therefore, underserved students may not fully integrate and feel alienated because they are not inclusive of such schools. Additionally, parents might not see the values for their children to be taught alternative methods when such schools may be perceived as too elitist. The cultural heritage and the historical landscape will need to be examined closely in terms of the positionality of one’s accurate perceptions coming from the privileged, i.e. both parents and teachers’ views of the students’ family background (Briscoe, 2005).

As a scholar-researcher, to avoid biases and assumptions, possible influences of educational practices regarding teachers’ approaches, learning strategy and parents’ support that influence students’ beliefs in learning will be carefully evaluated. When faced with life challenges, students respond differently to learning strategy that may affect their motivation. The amount of responsibility and confidence they exercise for learning depends greatly on their home and school environment. Waldorf schools hold the reputation of fostering high achieving students. I believe an individual cannot add value to him/herself if he/she is not motivated to
apply learned skill sets. The underlying perceptions as to why certain individuals do not pursue their goals may relate to situations and challenges they face or their unwillingness to achieve success. Naturally, we are all prone to motivate, learn and grow. These three steps can only happen if we set specific goals to achieve success. Various aspects of students’ academic development concerning their locus of control must be closely looked at both the micro and macro level. As well intended as I am, to challenge the biases that may impede the results of my research, I must avoid misinterpreting and representing students as ‘the other” from a privileged position throughout the investigation of my problem of practice. Briscoe (2005) supports a notion of capital as a valuable social, cultural and symbolic currency that I need to consider from my participants. Each participant brought something useful to this research. I hope it generates additional awareness into innovative pedagogy such as Waldorf and locus of control as a critical concept into students’ personality and learning styles.

**Research Question**

The achievement gaps that often exist for low-socioeconomic students may have argued from the psychosocial and academic stressors they may face within their learning environment and based on their experiences and conditions. Poor academic performances are the results of disproportionate and historical inequities in underperforming public schools, lack of funding, higher dropout rates and misconceptions of teachers toward low socio-economic students which deepen the gaps in academic outcomes and achievement (Bankston & Cladus, 2002; Bauman & Graf, 2003; Flynn, 2007). The neglectful interests to invest in these schools contribute to the socioeconomic disparities, the psychological traumas and the growing educational gap that low socio-economic students encounter. Such realities constitute how at-risk students internalize and externalize the world around them. Their personal view of success and failure may be attributed
by the lack of their own efforts, skepticism, difficulties faced at home and at school as well as their own drive to strive regardless of their current circumstances. At the heart of a quality education lies useful and long-lasting reform, innovative and culturally relevant curriculum and the collective support from all educational stakeholders. To examine the roles of middle school students’ locus of control in overcoming achievement gap, a case study at a school in Public Waldorf movement as conducted. Hence, the research questions are:

1. What roles does locus of control play in overcoming achievement gap as perceived by educators at a school in Public Waldorf movement for middle school students of low socio-economic status?

2. How are middle school students’ ability to learn reinforced by students’ locus of control, as perceived by their teachers?

3. How do environmental factors at a school in a Public Waldorf setting influence students’ locus of control and their learning experience, as perceived by the educators and students of the school?

The primary objective of this research was to explore locus of control as a potential factor that influences the academic outcomes of students. Academic success and failure are determined by how learning is constructed. Factors that guide students’ choices potentially play a significant contribution to their learning, educational decisions, and future career. The secondary objective of this study attempted to explore Waldorf curriculum methods as a possible impact on students' learning style. The Waldorf movement has largely influenced mainstream education. As an alternative option to traditional schools, its pedagogical approach is regarded as integrated and practical. Waldorf pedagogy may possibly change students’ perception of learning and coping strategies. Waldorf as a pedagogical model emphasizes on the specific developmental stages of
the child from grade kindergarten through twelve. Its child-centered curriculum encourages students to absorb the materials using artistic means, creative thinking, and inherent natural abilities.

From this analysis, the Waldorf pedagogical model places value on the emotional, intellectual, artistic and physical aptitudes of the child needs, thus, the whole child. Ogletree (1996) states “the approach is not only nonintellectual but holistic. The task of the Waldorf teacher is to help the child to realize his potential capacities in each of the domains psychomotor, emotional and cognitive. The Waldorf curriculum, which is sequenced per the child's unfolding stages of development, provides the child with competencies and skills in art, music, crafts, languages, speech, geometry, and the academic areas. Essentially, every subject taught in the Waldorf Schools is pervaded by artistic activity. Every subject area, including drawing, painting, crafts, and music, is taught as a developmental skill, not as an isolated subject” (p. 5-6). Waldorf unique curriculum and approach apply learning strategies that are designed to contribute to academic success.

**Theoretical Framework**

While this study of interest aimed to explore locus of control as a significant factor that influences the academic outcomes of students, it would also provide a deeper understanding and potential relationship between locus of control, academic achievement, and Waldorf pedagogy. It is significant to understand the experiences of students in a Waldorf environment, the impact of educators as agents of change and locus of control in the outcomes of students' achievement.

**Social Learning Theory.** Rotter’s social learning theory was used to guide this study as it is constructed within four fundamental concepts of behavior potential, expectancies, reinforcement value, and the psychological situation. The theoretical framework of this study is
based on reinforcements which are determined by the individual’s attitudes and beliefs (Rotter, 1966). Thus, locus of control is created from the expectation, the product of action and the influence of events. As Rotter (1966) states, in social learning theory, “a reinforcement acts to strengthen an expectancy that a particular behavior or event will be followed by that reinforcement in the future” (p.3).

Additionally, Aker and Lee (1996) attest that “social learning is a complex, ongoing behavioral process, and the sequence of events is a variable dependent on the particular behavior and individual in question” (p. 322). Locus of control in students plays a significant role in their academic resiliency (Cappella & Weinstein, 2001). A plethora of socio-emotional factors indicates academic failure for low socio-economic students (Connell, Halpem-Felsher, Clifford, Crichlow & Usinger, 1995; Becker & Luthar, 2002; Diaz, 2003). Research indicates an external locus of control is often associated with students who believe events affect the academic choices they make while an internal locus of control is characterized by hard work and motivation (Rotter, 1975; Slavin, 1994; Akin, 2007).

Influenced by Bandura's social learning theory, Rotter (1989) recognizes a distinction about people’s personal beliefs, the control held, consequences of their action and the impact of their environment. Tran (2013) asserts that social learning theory “takes into account how imitable behaviors are affected by cognitive constructs, such as attention, retention, production and motivation” (p. 108). Rotter (1989) refers to “the internal versus external control of reinforcement, as locus of control” (p. 489). Social learning theory has received considerable attention as a framework for understanding fundamental aspects that can be applied to teaching and learning (Bandura & Huston, 1961; Zimmerman, 2000; Hill, Song & West, 2009); health behaviors (Bandura, 1978; Nutbeam, 2000; Chen, Wang & Hung, 2015), deviant behaviors such
as drugs, delinquency, violence (Akers & Lee, 1996; Tittle, Antonaccio & Botchkovar, 2012), in the fields of psychology (Bandura, 1961; Mischel, 1973; Bandura, 1974) and sociology (Bandura, 2002).

Bandura (1977) explains social learning theory in these terms: “man is neither driven by inner forces nor buffeted helplessly by environmental influences. Rather, psychological functioning is best understood in terms of a continuous reciprocal interaction between behavior and its controlling conditions” (p. 2). Research underlines the fundamental principles of social learning theory by providing a rich literature based on self-efficacy as a critical component in social cognitive theory (Bandura & Cervone, 1983; Pajares, 1996; Bandura & Locke, 2003), modeling which influences and promotes personal and social change (Bandura, 1986, 1997), and personality (Bandura, 1999). Social learning theories can be broadly understood in terms of stimuli & responses, learned behaviors by direct experience and through reinforcement (Bandura, 1977).

Many of the research in the body of this literature emphasize on learning strategies, health promotion, deviant behaviors and teacher-student relationship which encompass both social learning perspective that can explain behaviors and social experiences. For instance, Zimmerman & Pons (1986) support the argument of self-regulated learning strategy in which actions, skills, purpose, and self-perceptions were identified. Zimmerman & Pons (1986) cite Bandura (1982) about the use of self-regulation in academic achievement as “one realm where self-regulated learning processes are assumed to be crucial” (p. 615). To measuring student use of self-regulated learning strategies, structured interviews were conducted to l0th-grade students from a high achievement and lower achievement track of a suburban high school. The results indicate during classroom, and non-classroom environments, 14 classes of self-regulated
behaviors, were shown as learning strategies including goal settings and planning, keeping records, seeking information and social assistance. The high achievement group demonstrates greater use of all self-regulation strategies comparing to low achievement group which informs self-regulated learning strategies that exhibit a significant correlation with academic achievement.

This study provides evidence of teacher-student relationships and students’ social and emotional skills as potential predictors of students’ emotional and behavioral difficulties with the use of the social and emotional learning theory as a theoretical framework. Poulou (2015) surveys 962 participants from 25 state elementary schools, the result shows that students’ social and emotional skills are influenced negatively or positively based on teachers’ dissatisfied or leadership behavior. Social learning theory was strongly supported in this study. Akers, Krohn et al. (1979) offer an explanation in testing deviant behavior in social learning theory with 3065 adolescents as participants. As predicted by the social learning theory in deviant behaviors which is based on social reinforcement principles such as imitation and modeling, the adolescents use alcohol and drugs because such behaviors are reinforced by association. As a result, both marijuana and alcohol abuse are strongly related to the social learning variables (p. 650).

Social cognitive theory also encompasses behavioral and response patterns toward health. Bandura (2004) identifies a number of determinants for effective health practices to address the health promotion and disease prevention approach. It includes “knowledge of health risks and benefits of different health practices, perceived self-efficacy that one can exercise control over one’s health habits, outcome expectations about the expected costs and benefits for different health habits, the health goals people set for themselves and the concrete plans and strategies for realizing them, and the perceived facilitators and social and structural impediments to the
changes they seek” (p. 144). Bandura (2004) posits beliefs of personal efficacy as a key determinant to affect health behavior.

The research provided insight into self-efficacy as an aspect of Bandura’s social cognitive theory. Using the premise of three specific factors that are considered possible predictors of this theory, through questionnaires, Schwarzer & Renner (2000) assess and measure seven variables which include coping self-efficacy, risk perception, outcome expectancies, action self-efficacy, intentions, low-fat dietary intake, and high fiber dietary intake. The results show the individuals with more self-efficacy have better nutritious behaviors.

For this problem of practice, the research questions were argued from a constructivism-interpretivism’s paradigm of inquiry in which the fundamental objective is to construct meaning and interpret an individual’s experiences. As Schwandt (1994) states “the constructivist or interpretivist believes that to understand this world of meaning one must interpret it. The inquirer must elucidate the process of meaning construction and clarify what and how meanings are embodied in the language and actions of social actors” (p. 222). With this paradigm, a qualitative methodology through a case study was conducted. A select number of teachers, and student participants, as well as the school principal were interviewed, observed and surveyed. Through a constructivism-interpretivism’s perspective, the experiences and perception of the participants were captured which provided significant knowledge regarding locus of control, Waldorf education, and academic achievement. The constructivism-interpretivism researcher approached this study to interpret the potential influences that locus of control might have on the academic performance of students, to improve the research participant’s experiences and to share the social and historical power structures that affect change in education. Based on the social learning theory, the theoretical framework of this study was designed to recognize potential biases,
advocate to improve the educational conditions of students and to give an empowered voice to low socio-economic students.
Chapter II: Literature Review

Educators, administrators and school reformers integrate various strategies to close the achievement gap and identify factors that contribute to the challenges that students face as well as concepts that guide schools to achieve success of students effectively. Closing the achievement gap is determined by many factors such as learning, teaching and curriculum development. In the ongoing debate to reform the educational system, standardized tests are examined, administered and scored for predicting students’ future performance and evaluating schools’ effectiveness. On each side of the spectrum, both supporters and opponents of standardized tests show valid concerns (Ravitch, 2010; Cizek, 2001; Mulvenon, Connors & Lenares, 2001; Phelps, 2006). While schools’ success is determined by student performance on standardized achievement tests (Wiliam, 2010), educators, teachers and parents are searching to define and measure effectiveness through school quality, student-teacher relationships, teacher’s training, within the perception of learning through other means such as the social environment, emotional and behavioral aspects.

Considerable research has been conducted to explore what motivates and influences students to learn (Shannon, Salisbury-Glennon & Shores, 2012; Long, Ming & Chen, 2013; Loima & Vibulphol, 2016) including several studies that have found a relationship between personality traits and learning styles which together contribute to academic performance (Chamorro-Premuzic & Furnham, 2003; Duff, Boyle, Dunleavy & Ferguson, 2004; Komarraju, Karau et al, 2011; Jensen, 2015). Rotter (1966) asserts common themes pertaining to locus of control such as chance, fate, luck, or ability and effort attributing to expectations, reinforcement or outcomes of behavior. Students’ locus of control and their perception of learning play a significant role in their academic performance; according to Stipek & Weisz (1981), “perceived
control of events is one motivational variable that appears to affect children's academic achievement” (p. 101). Rotter (1966) states “the belief in internal versus external control of reinforcements is related to a need for achievement” (p. 3). Locus of control intensively is relevant and significant in the usefulness of student academic learning and performance.

A substantial body of literature highlights locus of control, students’ academic performance, and Waldorf pedagogy. Student academic success depends greatly upon different measurement criteria such as standardized assessments, progress tools, student portfolios, effective pedagogies, and teaching strategies. Important factors in students’ influential beliefs, behavior, abilities, expectation, and motivation can also enhance academic progress. This literature review addresses three strands. First, it examines locus of control as it relates to academic success and failure, motivation, efficacy, resilience, and persistence. Secondly, it investigates academic achievement and the various ways that it is measured based on the standardized test scores compared to the holistic approach such as Waldorf measure of success. Finally, a collection of literature addressing Waldorf education, approach and locus of control on Waldorf schools is discussed. The implications, limitations, and recommendations for additional research will necessitate further dialogue in the pursuit of satisfying this inquiry.

**Definition of Locus of Control**

Locus of control is a well-known psychological trait that has been widely researched on specific issues of health, aging, leadership style, job, and learning performance. Besides, various aspects of individuals’ sets of beliefs, feelings, and behaviors have been the focus of numerous studies as they relate to locus of control. It has also played a central role in predicting academic outcomes, academic self-efficacy, academic aptitude, beliefs, and perceptions. Locus of control is shown to be a determining factor in children academic success or failure. Research has found
strong correlation between locus of control as it relates to academic achievement (Galejs & D'Silva, 1981; Ryan & Connell, 1989; Uguak, Elias et al., 2007; Ogunmakin & Akomolafe, 2013; Gujjar & Aijaz, 2014), student learning (Arlin & Whitley, 1978; McLeod & Adams, 1980, Sadi, & Çakiroglu, 2014) and their behaviors (Akça, 2012; Rinn & Boazman, 2014). As a component of personality psychology, research between locus of control and certain human traits and beliefs such as self-esteem, self-efficacy, resilience, and motivation have been found to contribute to academic achievement. How children perceive outcomes and events affecting them impacts their coping skills, emotional stability, and educational experience. Seemingly, locus of control is a significant factor in education that can positively promote effective behaviors, social and cognitive perspective that impacts the quality of education with an overarching goal in improving student learning, and teaching method. Examining the roles of middle school students’ locus of control in overcoming achievement gap as perceived by educators at a school in the Public Waldorf movement played an important role within the complexities of students’ learning, cognition, personality, and education.

Locus of control offers a psychological insight to researchers and educational leaders in understanding what reinforces an individual’s behaviors and attitudes. Social learning theory was first conceptualized by behavioral psychologist, Albert Bandura who emphasizes cognitive learning, and social behavior. His theory was later changed to social cognitive theory to bridge the theoretical framework; behaviorism and cognitivism. According to Bandura (1986, 1999), “social cognitive theory explains psychosocial functioning in terms of triadic reciprocal causation. The term “causation” is used to mean functional dependence between events. In this model of reciprocal causality, internal personal factors in the form of cognitive, affective, and biological events; behavioral patterns; and environmental events all operate as interacting
Rotter’s (1966) social learning theory is modeled after Bandura's ideas in which he incorporated the concept of locus of control to define “a generalized attitude, belief, or expectancy regarding the nature of the causal relationship between one's behavior and its consequences” (p. 2). Social learning theory provides the general theoretical background for this conception of the nature and effects of reinforcement. In social learning theory, a reinforcement acts to strengthen an expectancy that a particular behavior or event will follow by that reinforcement in the future (Rotter, 1966, p. 2).

The key concept within this theory is locus of control which is described by Rotter (1966) as “when the reinforcement is perceived by the subject as following some actions on his own but not being entirely contingent upon his actions, then it is typically perceived as the result of luck, chance, fate, as under the control of others, or as unpredictable because of the great complexity of the forces surrounding him. When the event is interpreted in this way by an individual, we have labeled this a belief in external control. If the person perceives that the event is contingent upon his own behavior or his own relatively permanent characteristics, we have termed this a belief in internal control” (p. 1). In other words, internal or external locus of control refers to an individual’s abilities, perceptions, beliefs, thoughts, and attitudes of what forces influence his/her own environment. Thus, the power held upon one’s life and decisions are learned based on the responses to which reinforcements such as rewards and punishments occur throughout one’s life.

On the other hand, Ahlin & Antunes (2015) raise a critical point due to minimal “scholarly work that addresses what factors influence the establishment of an internal versus an external locus of control. Without this knowledge, it is difficult to identify or encourage practices that support the development of an internal locus of control orientation.” Locus of control is
learned. Therefore, it can be shaped in terms of what “we have control over and what we do not, as well as learning what choices are available to us” (p. 1804).

Wilson & Corpus (2001) review multiple studies about rewards and punishments on students' academic performance and how intrinsic and extrinsic reward systems are used to motivate middle school students by looking at different theories of cognition and behavior including locus of control. The research shows evidence that extrinsic motivation yields short-term effects and impacts students negatively while intrinsic motivation, belief, and persistence are not undermined by rewards. Self-efficacy, self-regulation and student’s interest in learning are the determining factors of success. The authors emphasize that intrinsic motivation and internalized extrinsic motivation through instructional practices such as giving students choice, feedback, interpersonal involvement, acknowledgement of feelings, celebrations rather than rewards, real-life models, cooperative learning and meaningful tasks along with teachers’ positive attitude should be more promoted.

**Locus of Control and Academic Achievement**

Academic failure is looked at closely in relation to other complexities that affect students’ academic performance. To close the achievement gap, numerous educational strategies are implemented to address factors that impede learning. Family dynamics often cause student failure and lack of support, socioeconomic background of students, inequality in the education system, and lack of teacher training to name a few. To better comprehend students’ academic needs, researchers have explored other social and psychological causes of student failure including student personality traits, lack of self-esteem, motivation, and locus of control.

Prior research identified a positive relationship between achievement and locus of control. Findley & Cooper (1983) review multiple studies on locus of control seeking correlation
with academic achievement examining characteristics of gender, age, race, and socioeconomic level in participants. Methods of measurement for both locus of control and academic achievement were also noted as the results vary based on the type of scales used. Although stronger effects were found to be associated with specific locus of control measures and with standardized achievement or intelligence tests, this review concludes that locus of control and academic achievement are significantly related. Similarly, Shepherd, Fitch, et al. (2006) examine the relationship between internal locus of control and academic achievement from diverse samples of ethnic students from all grades of high school, in a higher GPA and lower GPA group on locus of control scores. This study has resulted in a significant relationship between locus of control and academic achievement. In further analysis, more internal control is evident in groups of higher academic achievement by grade, ethnic group, and sex. Self-reports were used to obtain locus of control and students’ achievement which are potentially biased. In addition to other limitations of this study were outside influences or variables such as socioeconomic status and community support that change the effect of students' achievement. Banks (1988) states that “higher socioeconomic status students tend to be more internal in their orientations than are lower socioeconomic students. Research rather consistently indicates a relationship between social-class status, internality and academic achievement” (p. 461).

This relevant research by Barón & Cobb-Clark (2010) examines the relationship between young people’s sense of locus of control over their lives and their investments in education. Data such as personality and locus of control, family welfare history, socio-economic background, parental education, and parents' investments in the education of 18-year old participants were collected. The results showed that the socio-economic disadvantage creates significant gaps in the educational attainment and academic achievement of young people. The results also show
that young people with a more internal locus of control have a higher probability of finishing secondary school and university. There is a negative relationship between growing up in a disadvantaged environment which influences educational outcomes, however, “such effects do not appear to operate indirectly by increasing the likelihood of having a more external locus of control” (Barón & Cobb-Clark, 2010, p. 3). Therefore, no significant relationship between family welfare history and young people's locus of control were found. The question for policy interventions to promote adolescents' sense of control was raised as well as lack of evidence that academic achievement can be improved by programs that specifically target adolescents' non-cognitive skills such as locus of control. The recommendation for policymakers to target parenting skills directly may contribute to adolescents' sense of control (2010, p. 24-25).

Ahlin & Antunes (2015) corroborate family management strategies, parental supervision at home and family socioeconomic status as consistent predictors of an internal locus of control. To determine the various predictors of an internal locus of control, nine hypotheses were tested. Data from the Project on Human Development in Chicago Neighborhoods (PHDCN), a longitudinal individual-level survey of children, youth, and their primary caregivers living in Chicago and community survey as well as interviews with a diverse sample of Hispanic, African American and White were collected. This study reveals that various family management strategies such as parenting practices within and outside the home shape locus of control orientation and these strategies are “more prominent determinants of an internal locus of control than peers, neighborhood context, or individual characteristics” (p. 1803). Further understanding of other factors influencing internal locus of control is encouraged as well as future research and youth development programs to train parents to use practices supportive of an internal locus of control.
Locus of Control and Motivation

In social and behavioral sciences, Rotter’s locus of control falls into one of the most critical motivation theories. From a cognitive and behavioral construct, motivation is said to be “intimately linked with learning because it postulates that learners set goals and employ cognitive processes (e.g., planning, monitoring) and behaviors (e.g., persistence, effort) to attain their goals” (Schunk, 2012, p. 346). Ryan & Deci (2000) define motivation in these terms; “to be motivated means to be moved to do something. A person who feels no impetus or inspiration to act is thus characterized as unmotivated, whereas someone who is energized or activated toward an end is considered motivated. (p. 54). This inquiry explores motivation as it plays a key role in student achievement and locus of control. As Koca (2016) states “motivation is considered an important, if not the most important, factor influencing student learning” (p. 5). Researchers have studied the links between motivation and student achievement (Adedeji, 2007; Mega, Ronconi & De Beni, 2014), fear of failure and student disengagement (De Castella, Byrne & Covington, 2013), standards-based achievement outcomes (Meyer, McClure, et al, 2009), low-stakes examinations (Abdelfattah, 2010) and locus of control (Serhat & Ahmet, 2014). The latter study examines the effect of two internal motivational factors; metacognition and locus of control to find that there is a positive association with internal academic locus of control while a negative correlation of an external academic locus of control exists with academic success. Similarly, intrinsic motivation can reduce amotivation as it is significantly associated with lower academic achievement (Taylor, Jungert, Mageau, et al., 2014).

While considering that negative attitude, lack of interest in a subject, home environment or methods of teaching may impact student motivation, it is important to note that parents and teachers also contribute to student’s presence or absence of motivation. As exemplified in this
study, Bansal, Thind, & Jaswal (2006) validate that the quality of home environment plays an essential role in determining achievement motivation and internal locus of control for high level of academic achievement. Factors that shape the quality of home environment were examined such as control, protectiveness, conformity, punishment, reward, social isolation, deprivation of privileges and rejection which result as the most significant in instilling high level of achievement motivation and internal locus of control for ensuring high level of academic achievement (p. 256). Motivation from teachers is also an important aspect for effective learning. There is evidence that students who have peers and teachers as positive motivators have a high school self-concept or beliefs and report higher levels of socio-motivational support than students with a low school self-concept (Bakadorova & Raufelder, 2016). Therefore, teachers should support students’ self-concept in encouraging achievement motivation.

Arens, Morin, & Watermann (2015) substantiate the importance of classroom management in maintaining appropriate behavior of students for their achievement and motivational outcomes. In their study, they examine the relations between classroom disciplinary problems, achievement, and motivation using three dimensions of students' motivation such as competence self-perceptions, test anxiety, and engagement. There exist direct relations between classroom levels of disciplinary problems and classroom levels of achievement and motivation. Thus, classroom disciplinary problems are both directly and indirectly associated with students' motivational outcomes, at home and classroom levels (p. 187).

Teachers’ competence in soft skills such as perception and motivation also tend to affect students' desired learning outcomes (Vibulphol, 2016). Several studies demonstrate the improvement of teacher practices through social and emotional learning program (Castillo, Fernández-Berrocal & Brackett, 2013); teacher beliefs and practices (Polly, McGee, Wang, et al.,
and teachers’ self-directed learning readiness in considering their personality traits and locus of control (Balaban Dagal & Bayindir, 2016). The effectiveness of teacher-student relationships in keeping students engaged in learning is recognized to strengthen students’ academic and social development. Subsequently, students attain higher levels of achievement when teachers encourage classroom motivation (Cheon & Reeve, 2015). Through a review of the literature on the importance of young children’s motivation and the effects of the quality of teacher-student relationships to motivate, Koca (2016) raises valid questions by asking “what moves students to learn? What influences the quantity and quality of the effort they invest? What choices do students make? What makes them persist in the face of hardship? How is student motivation affected by children’s relationships with significant adults? How does motivation develop? How does the school environment affect it” (p. 2)?

Motivation from teachers is an important aspect for effective learning. There is evidence that students who have peers and teachers as positive motivators have a high school self-concept or belief and report higher levels of socio-motivational support than students with a low school self-concept (Bakadorova & Raufelder, 2016). Therefore, teachers should support students’ self-concept in encouraging achievement motivation. Arens, Morin, & Watermann (2015) support the importance of classroom management in maintaining the appropriate behavior of students for their achievement and motivational outcomes. In this study, the relations between classroom disciplinary problems, achievement, and motivation were examined using three dimensions of students’ motivation such as competence self-perceptions, test anxiety, and engagement. There exist direct relations between classroom levels of disciplinary problems and classroom levels of achievement and motivation. Thus, classroom disciplinary problems are both directly and
indirectly associated with students’ motivational outcomes, at home and classroom levels (p. 187).

Countless research has explored locus of control and motivation with key personality variables such as metacognition and self-efficacy to determine any relationship with academic achievement. For instance, Landine (1998) conducts a study to emphasize the relationship between metacognition, motivation, locus of control, self-efficacy and academic achievement. Although there appears to be a positive correlation between all four variables as they relate to academic achievement, only motivation is a significant contributor in predicting positive student learning outcome. Lai (2011) acknowledges both positive and negative effects that studies show when it comes to ways motivation can be manipulated using instructional practices, types of rewards and punishments, collaborative or cooperative learning approaches and supportive classroom environment as a guide to assess motivation (p. 10-33).

**Locus of Control and Self-efficacy**

Within Bandura’s and Rotter’s social-cognitive theories of personality, self-efficacy and locus of control are both psychological constructs that contribute to students’ learning success as they relate to their social behaviors and cognitive processes. Self-efficacy is a significant concept of social cognitive theory which was initially introduced by Bandura. Bandura (1995) defines self-efficacy beliefs as “the product of a complex process of self-persuasion that relies on cognitive processing of diverse sources of efficacy information conveyed enactively, vicariously, socially, and physiologically. Once formed, efficacy beliefs contribute importantly to the level and quality of human functioning” (p. 11). In the same vein, Bandura (1997) and Pajares (2008) were cited in Cook & Artino (2016) to indicate that physiological and emotional information shape self-efficacy beliefs, when enthusiasm and positive emotions typically enhance self-
efficacy, negative emotions diminish it. Other key contributors to academic self-efficacy are Pajares, Schunk, and Zimmerman. Self-efficacy and locus of control are widely acknowledged as driving forces that individuals use to achieve goals and overcome obstacles.

There is a wealth of empirical evidence on locus of control and self-efficacy as they relate to health (Roddenberry & Renk, 2010; Cascio, Magnano, Elastico, et al., 2014), employee performance (Malik, Butt & Choi, 2015; Chen, Li, & Leung, 2016) and academic achievement (Adeyinka, Adedeji, Olufemi, 2011; Joo, Lim, & Kim, 2013; Yesilyurt, 2014; Cassidy, 2015). Although self-efficacy has been studied in various areas, in defining it, Zimmerman (2000) examines its role in academic motivation and students’ capabilities to learn. The study reasserts Bandura’s role in providing “guidelines for measurement of self-efficacy beliefs for different domains of functioning such as individuals’ physical or psychological characteristics” (p. 83) and ways in which “self-efficacy beliefs differ conceptually and psychometrically from closely related constructs such as locus of control (p. 84). Zimmerman (2000) also affirms that self-efficacy is a closely associated construct to locus of control in predicting a variety of academic outcomes based on previous research (p. 85-86).

Schunk (1991) indicates that “self-efficacy is not the only influence on behavior; it is not necessarily the most important. Behavior is a function of many variables. In achievement settings, some other important variables are skills, outcome expectations, and the perceived value of outcomes” (p. 209). As Bandura (1999) states “perceived self-efficacy plays an influential role in motivation through outcome expectations” (p. 28). Through a broad literature review of self-efficacy, Gecas (1989) analyzes the nature and development of self-efficacy. The author viewed it through lenses of “motivational theories, which conceptualize self-efficacy in motivational terms and tend to see it as a fundamental human need and a basic element in one's
sense of self; and cognitive theories, which conceptualize self-efficacy in terms of expectancies and perceptions of control. However, more emphasis is placed on beliefs and perceptions of causality, agency, or control and less on the motivations to hold such beliefs” (p. 292-293). In describing self-efficacy this way, Gecas (1989) points out the relevance of “self-attributions that individuals make with regard to personal control over events that affect them” such as their internal and external locus of control (p. 293).

Students’ academic success is a reflection of their hard work, knowledge, commitment, attitudes, and beliefs. Asides from external forces they cannot control, ultimately the outcomes of their effort will pay off. As a key component to their academic achievement, students’ locus of control alone cannot contribute to their entire success. Akomolafe and Ogunmakin (2013) study secondary school students’ academic performance which has indicated that academic self-efficacy and locus of control both predicted academic performance, while locus of control alone was not a good predictor. Three hundred and sixty-four students were randomly selected for the study. The findings suggest students who use self-efficacy as an influential force set goals, work hard and believe in their abilities and efforts to overcome difficulties. The justification for not finding a significant relationship between locus of control and academic achievement was due to the instruments used. It is important to note this current study points out one research that finds no significant relationship between locus of control and academic achievement and three studies that are inconsistent with their findings (Akomolafe & Ogunmakin, 2013, p. 574).

A number of research has examined how anxiety can affect self-efficacy (Galla & Wood, 2012; Aydin, Yesim Capa, Uzuntiryaki et al., 2011; Chiesa, Massei & Guglielmi, 2016). Bandura (1999) maintains that “the stronger the sense of coping efficacy the bolder people are in tackling the problems that breed stress and anxiety and the greater is their success in shaping
their environment to their liking” (p. 30). In particular, Galla & Wood (2012) seek to find whether individual differences in emotional self-efficacy are protected against anxiety-related impairments in standardized math. A racially and ethnically group of 139 students in elementary school participates in this study. The results show that anxiety is negatively associated with performance on math assessments and students with a high perceived ability to cope with negative emotions were protected from anxiety-related math impairments. Based on this study, it is suggested that students with high emotional self-efficacy do not exhibit anxiety in the test performance. Another study by Ersanli (2015) seeks to find out a relationship between the academic self-efficacy levels and language learning motivations of 257 8th graders from several different secondary schools. This study implies that high-levels of self-efficacy contribute to students’ academic success. Variables including gender and parental education level do not show a significant difference in the students’ academic self-efficacy. High expectations and parental standards might play a role in this reasoning. The finding reveals a low-level negative correlation between English language learning motivation and self-efficacy beliefs of students in Grade 8.

This study selects randomly between 12-15 years old students to participate in this study to which Adeyinka, Adedeji, Olufemi (2011) explore locus of control, self-efficacy, and interest in schooling as predictors of academic achievement. The observations made from this study indicate that locus of control, interest in education and self-efficacy significantly correlate with academic achievement. Locus of control was the most impacting factor in academic achievement while self-efficacy and interest in schooling follow suit. Educational implementation by policymakers is encouraged to support and help students to build internal motivation, goal setting skill, and appropriate learning style from early on and throughout their academic years.
The influence of self-efficacy and locus of control on student learning have captured the attention of education researchers. These studies suggest that locus of control and self-efficacy often create positive academic outcomes. A low level of emotional self-efficacy produces anxiety-related performance impairments (Galla & Wood, 2012). Students’ academic and emotional abilities depend on how efficient they are to set and achieve goals, to handle stressful events and to maintain healthy behaviors. According to Bandura (1977), self-efficacy beliefs are based on four major sources of information: performance accomplishments, vicarious experience, verbal persuasion, and physiological states to create the expectation of mastery (p. 195). Both locus of control and self-efficacy are significant predictors of academic achievement (Pintrich & Schunk, 1996; Kalechstein & Nowicki, 1997; Pajares & Schunk, 2004) primarily because high self-efficacy relates to strong beliefs in controlling the outcome of events; whereas individuals with a strong internal locus of control believe they have control over a situation. There is certainly a need for additional research on self-efficacy beliefs and locus on control and how they shape students' academic achievement.

Locus of Control, Resilience and Academic Achievement

Resilience has been the focus of many studies as it originates in psychology, medicine and education (Hanewald (2011). Previous research has shown that resilience influences positively academic achievement (Amrita & Arora, 2012; Abolmaali & Mahmudi, 2013; Mwangi, Okatcha, & al, 2015) whereas no correlation was found between academic resilience and academic achievement of secondary school students (Hafiz, Muhammad, et al., 2010). Hafiz, Muhammad et al. (2010) define “resilience as a way for students to successfully deal with academic setbacks, stress and study pressures during the learning process” (p. 19). Knight (2007) presents various literature that explores the concept of resilience as a state, a condition, and a
practice. In general term, Becker, Cicchetti & Luthar (2000) explain resilience as “a dynamic process encompassing positive adaptation within the context of significant adversity” (p. 1). As resilience is analyzed within its historical construct, Becker, Cicchetti & Luthar (2000) consider resilience a complex construct and probe into four broad categories of the term such as its “ambiguities in definitions and terminology, its variations in interdomain functioning and risk experiences among ostensibly resilient children, its instability in the phenomenon of resilience, and its theoretical concerns, including questions about the utility of resilience as a scientific construct” (p. 2). As a solution to addressing these criticisms and misunderstanding, it is proposed that further investigations are made concerning risk and protective processes affecting at-risk individuals as well as continued research on resilience with sound theoretical frameworks.

Cutcher & Stride (2015) concur that resilience does not have a universal definition within the educational and psychological literature. However, it is determined by protective and risk factors. It is important to note that individuals respond to adversity based on their social and emotional competence particularly with children from socioeconomic disadvantage and associated risks. Resilience serves as a buffer against difficulties (Cakar & Karatas, 2011). Hanewald (2011) describes protective factors as they relate to the child’s three primary systems such as family, school and community. Other sets of protective factors were cited as personality features such as autonomy, self-esteem, and positive social orientation; the family cohesion, warmth and an absence of discord; and, the availability of external support systems that encourage and reinforce a child’s coping efforts including school, caring teachers and a strong social support networks (p. 21).

Downey (2014) administers two types of interviews with 50 children facing personal, social, and academic challenges. It is argued that children’s views on factors that impact their
academic success in the face of adversity are paramount to their academic achievement. This research examines students’ beliefs, perspectives and personal experiences about school environment, teacher practices, and student characteristics such as intelligence, motivation, competence, and self-efficacy. Many protective factors were identified such as intelligence, feelings, behaviors, home environment, family assistance, school support, community connections, and organized programs to improve academic performance. The results also suggest that stakeholders listen to the perspectives of children and take responsibilities to foster their academic achievement. As cited in Hanewald (2011), Willms (2002) concur that “the more protective factors exist in a child’s life, the more likely the child will be resilient” (p. 21).

Regardless of students’ backgrounds, their resilience may alter negative attitudes and improve academic outcomes for urban and minority youth. As demonstrated in Wasonga, Christman and Kilmer’s (2003) study, protective factors such as home, school, peer and community predict resilience and academic achievement. The Youth Development Conceptual Model (YDCM) model was used as a framework to determine which protective factors predict resilience and academic achievement using four main protective factors. The results show that the relationships that students build with adults and peers are better predictors of resilience and academic achievement for urban high school students. However, this study takes into account that gender, in particular girls exhibit more protective factors in terms of positive connections with their teachers comparing to boys. To improve resilience and academic achievement for urban and minority students, this study recommends reforms to establish secondary or high school education into communities that are supportive to students.

Similar research by Edwards, Catling & Parry (2016) found among 161 students between the ages of 16 and 21 that students’ relationship with their parents or guardians and locus of
control are significant predictors of resilience. Although the study shows that locus of control is more important in predicting resilience than an individual’s exposure to adversity. However, some significant relationships were identified including adverse situations. The greater number of stressful events significantly plays a part in the amount of adversity within students’ relationship with their parents or guardians. Therefore, protective factors such as an internal locus of control and positive relationships with parents are encouraged to promote resilient outcomes in young people.

Furthermore, adolescents with self-esteem and hopelessness are a good predictor of resilience (Cakar & Karatas, 2011). This research considers several internal characteristics that are associated with resilience such as self-esteem, self-efficacy, perseverance, internal locus of control, coping and adaptation skills. However, locus of control is not mentioned as a characteristic that contributes to resilience in this research. As protective factors, self-esteem and hopelessness are the main two variables that contribute to resilience. The results also indicate as self-esteem contributes positively to resilience, hopelessness shows a negative aspect as it relates to resilience. This view implies as adolescents attempt to cope with risks factors that affect their developmental stages, they find ways to recover from their struggles. This research shows a correlation between adolescents' self-esteem, hopelessness and resilience levels.

Mampane (2014) finds adolescents attribute their resilience to individual and environmental factors, such as self-confidence, an internal locus of control, a tough personality, commitment, achievement performance, and social support. Using students from Grade 8 to 10, this study identifies locus of control, confidence, social support, toughness, commitment, and achievement orientation as resilient factors. Several of the participants have experiences violence, at home and school. A majority of them cope with various stressors including academic
challenges, being from low socioeconomic status, living in a demographically, racially segregated and densely populated South African townships and schools; the students identify fighting in school as a risk factor with the highest statistical significance that contributes to their resilience.

It is important to note that the protective factors positively impact students despite their risks and they are essential to promote academic performances and resilience in students. Through these reviews, resilience is associated with protective and risks factors, and it is preferably a process instead of an individual trait (Luthar, Cichetti & Becker, 2000). These studies also demonstrate that protective factors contribute to children’s educational resilience. Once strengthened, nurtured and promoted; students can cope and adapt successfully in the face of adversity and challenges. Using this frame of reference, students can demonstrate resilience through internal and external protective factors.

While a common thread in this literature review demonstrates the important roles resilience plays in the learning process and academic achievement, protective factors attribute to the development of resilience such as internal locus of control (Arif & Mirza, 2017) and achievement through psychological, family, and school factors (Gutman & Midgley, 2000; Burchinal, Roberts, Zeisel, & Rowley, 2008). Both internal locus of control and achievement are predictors of resilience. While it can be agreed that protective factors mitigate or eliminate risk when faced stressful events, Smokowski, Reynolds & Bezruczko (1999) explicate resilience as nonexistent without risk factors. As stated, “under low risk or no risk circumstances, there is, by definition, no possibility or need for resilience” (p. 426). The implementation of adaptive practices, policies, and resources particularly in students’ disadvantaged communities and schools should encourage academic resilience.
Locus of Control, Persistence and Academic Achievement

For this literature review, the focus was on persistence and how it may affect or improve academic achievement and if there is any relationship with locus of control. In the analysis of persistence, several studies focus on college students’ retention (Anumba, 2015; Stewart, Lim & Kim, 2015; Hall, 2017) and teachers and teaching strategies that engage students in learning (Huntly & Donovan, 2009; Cenberci & Beyhan, 2016; Shirrell & Reininger, 2017). Clarke, Roche et al. (2014) define persistence as “student actions that include concentrating, applying themselves, believing that they can succeed, and making an effort to learn” (p. 3). In this study, teacher perceptions on strategies were obtained to encourage persistence on challenging mathematics tasks from fifty-seven primary and secondary teachers. Several sequences of tasks were developed as strategies for students to solve mathematics. As a result, teachers’ decisions in the planning and teaching process significantly contribute to the level of persistence in students.

The literature identifies motivation as a critical aspect that impacts academic achievement and influences students’ learning persistence (Allen, 1999; Jozsa & Morgan, 2014; Huang, 2015). According to Lens, Lacante et al. (2005), “persistence is a straightforward and linear indicator of people’s strength of motivation” (p. 276). For instance, Allen (1999) conceptualizes a model that asserts certain factors such as background variables, student motivation to persist in finishing college, and existing models of college persistence that influence minorities and non-minorities. This research shows a motivational effect for minorities in their desire to finish college coupled with the background variables such as precollege academic ability, parents’ education, and financial aid that had an impact on academic performance or persistence. This study also provides an example that motivation contributes to persistence.
Jozsa & Morgan (2014) conduct a study in which age changes in cognitive persistence from the fourth grade to eighth grade between the ages of 10 and 14. This study indicates that the students who were the most motivated in grade 4 are not necessarily the most motivated ones in grade 8. The motivation of all individual students did not change the same way. The study surveys the relationships between the changes in cognitive persistence, school achievement, and background variables in school-age children. The level of cognitive persistence in grade 4 correlates with the level of cognitive persistence in grade 8 was found. While the level of correlation confirms individual changes in cognitive persistence, it shows the more motivated students were in grade 4; the more their motivation declined by grade 8. Therefore, the motivation of individual students changes in diverse ways. The other variable such as the parent educational level shows influence students’ academic achievement.

On the other hand, Huang (2015) examines the relationship between low-SES students’ effort and persistence, SES and achievement. The primary focus was on student’s effort, time spent on study and persistence related to their achievement instead of their external factors such as school or parental support. The conceptual framework of Bronfenbrenner’s microsystem was used to guide this study and to understand student achievement. The results indicate that persistence and learning time in school were significantly and positively related to students’ achievement. The results also show a difference in achievement across the SES groups. Students were able to improve their performance within their microsystems. In spite of this finding, the data did not support a conclusion that low-SES students alone could close the achievement gap without considering the factors that impede negatively academic achievement. While evidence suggests that motivation relates to persistence and academic achievement, minimal work has been done to investigate locus of control and persistence.
According to Joo, Joung, & Sim (2011), “no previous studies have empirically examined the relationship between internal locus of control and learning persistence or that between institutional support and learning persistence” (p. 715). This research on persistence and locus of control by Strain & Mink (1993) conveys a relationship between multiple predictor variables including locus of control and persistence for low-achieving college students. Locus of control was not the strongest predictor of persistence; grade point average was. Locus of control was the second strongest contributor as a motivational variable in persistence. Strain & Mink (1993) reveal that “no comparison can be made with later studies because no studies were found that included locus of control as a variable in studies of persistence for low-achieving students” (p. 80). Concerning internal academic locus of control and motivational persistence, Saricam (2015) finds a causative relationship that exists between the academic locus of control and motivational persistence in adolescents. There are no relevant studies on the effects of both loci of control and persistence on low-achieving students.

**Locus of Control and Waldorf Education**

Despite the benefits of locus of control and academic achievement (Crandall, Katkovsky & Crandall, 1965; Findley & Cooper, 1983; Nowicki & Duke, 1992; Shepherd, Owen, Fitch & Marshall, 2006; Karaman & Watson, 2017), there appears to be lacks in research literature concerning a relationship between locus of control and Waldorf education. Future research should be considered for possible correlation on the effects of Waldorf pedagogy on students’ locus of control if any. Apart from its controversies in Steiner philosophy, Waldorf education shows effectiveness in bridging achievement gaps as a potential pedagogical approach that needs to be explored particularly in the context of influential forces guiding students’ educational success.
Waldorf Education

The literature provides insight research-based evidence into Waldorf education, history, methods and curriculum (Foster, 1984; Juul & Maier, 1992; Uhrmacher, 1995; Schmitt-Stegmann, 1997; Rawson & Richter, 2000; Schieffer & Busse, 2001; Oberman, 2008). Rudolph Steiner, an Austrian scholar, engineer, and social philosopher embraced science and the spiritual world to introduce his theoretical and pedagogical work. Steiner is considered as the founding father of Anthroposophy, a philosophy in the Waldorf School movement. As cited in Juul & Maier (1992), Trosli (1988) describes the central concept of anthroposophy in Waldorf approach which entails to “free will, an education that is perceived as an art, a science and a religion, in which the teacher strives to nourish and draw forth what is inherent in the child; to develop the capacity to think clearly and independently; to feel deeply; to be sensitive to the beauties, joys, and sorrows of the world; and to have compassion for others” (p. 211). One questions the significance of Anthroposophy and its teaching methods as a spiritual science and not a religion (Rhea, 2012) while Uhrmacher (1995) discusses anthroposophy as a “heretical” movement that offers an unconventional education to mainstream society. Pearce (2017) argues about common schools’ spiritual education in Steiner schools. Through in-depth interviews and observations, teachers do not necessarily promote Anthroposophy. Some avoid it while others are aware that their beliefs could influence their teaching (p. 8).

Through the observation of Waldorf, Foster (1984) provides an introduction to Waldorf education and recounts what influenced Steiner’s thinking in regards to Anthroposophy through editing the scientific works of Goethe, a German writer, and natural philosopher. Steiner was influenced by Goethean science and expanded on Goethe’s position with a spiritual and mystical
stance. Steiner, then, founded the Anthroposophical Society in 1913 and published many of his ideas ‘in many fields, ranging from organic farming to architecture to education’ (p. 229).

Uhrmacher (1995) gave a historical overview of Steiner's work as the founder of Anthroposophy and the first Waldorf school in Germany. The roots of Waldorf education were examined in order to better understand current Waldorf schools and their teacher training programs as well as the importance of Anthroposophy. According to Uhrmacher (1995), after World War I, a time of low morale, financial crisis, and an imminent German civil war, Rudolph Steiner emerged as an inspiring individual to Emil Molt, director of the Waldorf-Astoria cigarette factory. Molt and Steiner co-founded the first Waldorf school for the children of his workers. Steiner presented a lecture on the three spheres of social life which are spiritual-cultural, legal-political and economic from his book The Threefold Commonwealth at the factory in Germany in 1919, and argued on the importance of education, and on the development of natural talents (p. 383). Subsequently, Steiner was asked to start a school independent from the government’s funding with a similar concept for the children of the factory’s workers with the purpose to bridge social classes.

Uhrmacher (1995) discusses the early experiences that shaped Steiner’s theory from his love of geometry, spiritual encounters and exposure to esoteric theology to the scientific works of Goethe (p. 384-385). According to the Association of Waldorf Schools of North America website, today, there are more than 900 Waldorf schools in eighty-three countries, and there are now over 250 schools and fourteen teacher training centers in some level of development. It is estimated that there are thirty publicly funded schools servicing an approximate of 5,000 to 6,000 students. With the growing number of such schools in urban, suburban and rural areas, diverse student populations can take advantage of such education.
Steiner developed three stages of child development called imagination, inspiration, and intuition as they relate to Steiner’s spiritual science, hence eurythmy was developed as a new spiritual art (p.385-387). Uhrmacher (1995) offers an overview of Steiner’s theory which is constructed using anthroposophy that shapes Waldorf schools to this day. Anthroposophy is considered “the key to understanding Waldorf education” (Uhrmacher, 1995, p. 382) and is referred as “an outgrowth of Theosophy and the term used to denote the path of spiritual development from which Waldorf education springs” (p. 385). Using three perspectives from Max Weber, Neil Postman and Morris Berman, Uhrmacher (1995) concludes that Anthroposophy has survived through interpretations which “bring meaning to the movement and which influence Waldorf curriculum, pedagogical methods, forms of evaluation, school structure and aesthetic foundation” (p. 392). Other researches support this notion as the emphasis focuses on Anthroposophy’s conceptual application in spirituality, philosophy and education and teachers' roles in guiding such curriculum (Juul & Maier, 1992; Armon, 1997; Pearce, 2017).

Waldorf schools are based on stages to build appropriate curriculum. Waldorf teachers are trained in Steiner’s theories and receive a certificate that qualifies them to teach in a Waldorf school (Greenstein, 2017). The goal of education, as Steiner defined, is to educate the whole child: head, heart, and hands (Howard, 1983). Schmitt-Stegmann (1997) probes into the child development of a Waldorf education where the emphasis on the child is “unique Self who is often called the ‘third factor’ in Steiner's developmental insight” is what separates Waldorf from other pedagogies. As stated, the “Waldorf curriculum and the creative methodology aim to address the developing child in such a way as to unlock the true potential living in each child, the true Self” (p. 2). Steiner’s curriculum is an age-specific approach based on seven-year developmental stages from birth to age 21 years. A multi-sensory experience is described to
stimulate the child's imagination in kindergarten, while for the second seven-year phase, the child experiences a stage of perception, understanding natural and human environment. The child begins academic learning through rhythmic activity, story-telling, writing and reading in grade 1 through 3. From grade 5 onwards, the child moves to practical activities, Mythology, and History. Furthermore, Schmitt-Stegmann (1997) describes the integration of arts within the Waldorf curriculum in all subjects which “stimulate the creativity and imagination of the students” (p. 10) and ultimately Waldorf curriculum and teaching to develop independent thinking, thoughtful and socially responsible adults. Elementary education emphasizes on developing artistic expression and social capacities while secondary school is on developing critical reasoning and empathic understanding (Steiner, 1919, 1976).

Amrine (2011) ascertains “Steiner’s pedagogy is as much about the self-development of the teacher as the education of the student. But the heavy demands of teaching also bring great personal rewards and deep relationships with students that can last a lifetime” (p. 15). Waldorf teachers “loop with the same group of children, usually from grades one through eight” (p. 15). Waldorf curriculum is instructed in block lessons using looping where teachers remain with the students as they transition yearly to the next phase. The literature validates looping which creates a lasting relationship between teachers, students and parents (Black, 2000; Hitz, Somers, & Jenlink, 2007; Friedlaender, Beckham, Zheng & Darling-Hammond, 2015). Others consider looping ineffective on achievement gains and teaching instructions (Nichols & Nichols, 1999; Williams-Wright & Thomas, 2013). In educating the whole child, Ogletree (1991) asserts that “Waldorf teacher is to help the child to realize his latent capacities in the psychomotor, emotional and cognitive domains” through the use of regular subjects and others such as ‘gardening, surveying, mechanics, bookbinding, weaving, spinning’ (p. 7). Nordlund (2013)
investigates Waldorf school art experiences through in-depth narratives from fifteen Waldorf graduates within seventeen different Waldorf schools across the United States. These “forms of artistic expression are seamlessly integrated into student curriculum as well as the teaching methods,” including arts training, certification and professional development coursework aligned to Waldorf philosophies for Waldorf teachers (p. 15). Art is used as the central role in Waldorf curriculum (Juul & Maier, 1992). Through eurhythmy, teachers develop students’ artistic skills with handwork, crafts, gardening, natural studies, cooking arts, and storytelling (Rhea, 2012, p. 1099). Waldorf allows teachers to have the freedom in creating unique curriculum materials to develop creative expression in students.

**Standards-Based Reform Movement**

This literature review investigates academic achievement, various ways of measurement, the movement towards standardized testing, standardized compared to a holistic approach, and the Waldorf measure of success. Curriculum science reform emerged in response to the threats the Russians posed when Sputnik 1, the first artificial Earth satellite, was launched in 1957. Fast-forward twenty-six years later, the United States and the educational stakeholders became alarmed about the failing educational system. To compete with the new world economy with ‘a well-trained workforce’ and ‘to assure our security in the face of international terrorism,’ the publication of A Nation at Risk by the National Commission on Excellence in Education initiated standards-based reform on education in 1983 (Marx & Harris, 2006, p. 467-468). A Nation at Risk was also the beginning of an evolution in achievement testing and standards-based education reform (Jorgensen & Hoffmann, 2003, p. 3). Showing support to standards-based reform for the first time, a wave of reforms by federal government with the reauthorizations of the Elementary and Secondary Education Act in 1994 (The Improving
America’s Schools Act) and in 2001 (the No Child Left Behind Act or NCLB) (TESOL International Association, 2013, p. 2). Lee & Wu (2017) list key component of standards-based reform such as content standards, performance standards, and opportunity-to-learn standards (p. 4). The term standards-based reform carries different interpretations. According to Hamilton, Stecher & Yuan (2008) to policymakers and educators, standards-based reform has taken other names such as “systemic reform,” “standards-based accountability” and “curriculum alignment.” However, “all conceptions of standards-based reform incorporate some or all of the following six features: academic expectations for students, aligned system components, student assessments, decentralized authority, coordinated state and district support and accountability” (p. 11). This report summarizes the history of the standards-based reform movement, discusses what is known about how this movement has shaped educators’ practices and student outcomes and puts forth recommendations for improving these policies in the future.

Concerning the state of the nation’s education, Buttram & Waters (1997) critique the need to improve schools through standards-based education. Various national reports and polls on education have often alarmed policymakers to raise standards based on the performance of U.S. students in which the emphasis is on inputs rather than results. As stated, “this switch in emphasis from inputs to results set the stage for the delineation of standards, or what students should know and be able to do” (p. 2). Educators responded with more publications on curriculum and evaluation standards in various disciplines in mathematics, science, history, civics and government, geography, health, English, foreign languages, and fine arts as an attempt to define essential knowledge and skills (p. 2). As a result, “fifteen states have set standards in all core subjects that are clear and specific enough to lead to a common core curriculum and thirty-one states had students’ assessments linked to standards” (p. 2).
The First Wave of Education Reform

Resnick (1980) reviews historically, socially and institutionally the factors on the district and state level that shaped the standardized educational movement since the early 1960s. There were pressures such as equal educational opportunity through the civil rights movement in the early 1960's, promotion of compensatory education in the public schools after the 1964 elections, and financial assistance and special services for low-income students and districts for which the Elementary and Secondary Education Act of 1965 (ESEA), Title I was created. The decision-making sprung from pressures at the federal level to ‘oblige the states to assume their responsibility for the provision of educational opportunity’ (p. 7). Consequently, the states enacted laws and required the school districts to report performance evaluations. In addition, the federal government prepared the states to ‘examine achievement in ten learning areas, to spot changes in level of achievement over the years and to apply the implication of those changes to national educational policy for a role in evaluation by contracting in 1969 with the Education Commission of the States to create the National Assessment of Educational Progress (NAEP)’ (p. 7).

Furthermore, the federal government with the Department of Defense and in other branches of government ‘promoted management approaches to budgeting which stressed objectives, cost-benefit analysis, and production outcomes,’ an ‘approach that spread out to public and private agencies across the nation’ which gave way to ‘accountability legislation in the states, of which minimum competency testing in education was one expression’ (p. 8). Resnick (1980) elaborates as well on different types of pressures including civil rights litigations of cases of Robinson v. Cahill in 1972; San Antonio v. Rodriguez in 1973 and Milliken v. Bradley in 1977 that forced the states to assume financial responsibilities, more equitable
protection and distribution of school resources for minimal skills and minimum standards for student performance (p. 8).

Horn (2002) explains the waves of reform by citing Murphy (1990) who “identifies the three waves in 1980 per year; Wave 1 (1982-1985), Wave 2 (1986-1988) and Wave 3 (1988 and into the 1990s). Also, Horn (2002) cites Boyd (1990) who saw the first wave as an emphasis on centralized control by the state governments and the second wave as an attempt to create teacher autonomy, supported by efforts to professionalize teaching through the restructuring of schools. The third wave is defined as a move to more nationalizing and centralizing forces” (p. 58). Dee (2002) summarizes the ‘first wave reforms as consisted of a test-based performance standard, minimum competency testing (MCT), and a process standard, course graduation requirements (CGR) that mandated the number of academic credits that must be earned in core academic areas’ (p. 2). Dee (2002) describes these reforms, their implications for student outcomes and the consequences of an earlier state-level standard. However, the reform also plays a role in teacher burnout and morale. According to Dworkin (2001), the “goal of the first wave of reforms was to guarantee that only competent teachers were in the classroom and that only educated students graduated from school” (p. 72). “The waves of reform exacerbated burnout on all teachers either by years of experience, race, or gender” (p. 73).

Minimum Competency Testing

Coates & Wilson-Sadberry (1994) indicate that the minimum competency testing was established as an attempt to address the decline in educational standards within subject areas such as science, mathematics, and reading. This article investigates five central questions about the efficacy of minimum competency testing. The minimum competency testing has a dual effect affected high and low achievers because it positively and negatively impacts academic
performance. Its graduation requirements help decrease student scoring in the lowest and highest academic categories (p. 183). Asian American students benefited at reducing the likelihood of low academic performance more so for Hispanic and African American students due to the presence of remediation. With the MCT implementation, there is an increased tendency of dropping out of school. The recommendation stipulates using MCT as a diagnostic tool to identify and correct deficiencies without the graduation requirements (p. 183).

According to Resnick (1980), “the minimum competency testing was legislated mainly by legislators, school boards, corporate employers, and local taxpayers instead of associations of school administrators, teachers, or psychologists” (p.17). Resnick (1980) concludes that the minimum competency testing “is likely to be remembered as the movement that called attention to the problems of our high schools, for having raised concerns about the literacy required for work, the appropriateness of the school-leaving age, the rising costs of public education and as utopian in its expectation that publicly acceptable standards of performance could be used to grant or withhold the diploma” (p. 25).

According to Beard (1986), four areas of controversies were raised from the minimum competency testing which are accountability, social issues, instructional implications, and psychometric issues. Students who would fail minimum competencies would receive a certificate instead of their high school diploma. Opponents view a refusal of high school credential as racism since minorities had a greater academic gap than white students. Some of the instructional implications were discussed such as ‘instructional validity, remedial instruction to be made available to all students and such remedial programs typically incorporate the use of behavioral objectives, diagnostic testing, efficient and focused instructional programs’ (p. 2). In regards to
the psychometric issues, the testing programs should confirm with the standards of quality and follow each criterion for the minimum competency tests.

**The Second Wave of Education Reform**

Dee (2002) explains that the ‘second-wave of reform stressed decentralized improvements like school-based management, teacher professionalism, and school choice and is sometimes viewed as a response to the failure of the first wave’ (p. 4). Dworkin (2001) further elaborates on the second wave of reforms which was characterized as being a ‘decentralized with localized accountability. That is, if teachers and principals were to be given more authority and more autonomy from the central district, they should also be held accountable for student learning outcomes’ (p. 72).

Thompson (1986) discusses the Carnegie report recommendations and its impact on the administration of public schools which occurred around the second wave of educational reform, a time ‘perceived as bringing more fundamental changes to American education far into the future’ (p. 6). A Nation Prepared: Teachers for the 21st Century is a report, called the Carnegie Task Force on Teaching which “gives a bold new outline for improving teachers' roles in the schools by greatly strengthening their decision-making role and advocating a much more decentralized school organization” (p. 6). Thompson (1986) elaborates on the key issues from the report such as the importance of restructuring schools, the reorganization of schools using a free choice model, improving teachers’ roles in the schools and the training of future administrators. Thompson (1986) also believes some of the policy implications in the report including the establishment of a National Professional Standards Board will impact school level administration significantly.
School Culture

School leaders play a pivotal role in the policy-making and reform process to improve the education system. Demir (2015) defines school culture as “one of the most important and complex aspects of education” (p. 623). Welch (1989) highlights the culture of the school as one of the educational changes brought by the second wave of reform. The school as a culture is ‘impacted by the implementation of educational innovation including the formal and informal authority and leaders as well as external and internal organizational constraints’ (p. 538).

Although the article does not focus on any specific innovative changes, however, it does address the second wave of educational reform from the angle of the school culture and the process of change. To avoid the previous mistakes of reform from the past and based on similar research in the topic of school culture, Welch (1989) contends ‘change for educational reform’ must be met from a culturist approach, and with altruistic motivations. From the culturist perspective, changing the culture of the school would entail to ‘specific system of values, attitudes, norms, and beliefs that have been inherited as a means of establishing the scope of social organization’ (p. 538). Welch (1989) debates that the altruistic motivation should be related to students with special needs and ‘teacher receptivity to change’ through participation ‘in developing personnel preparation programs in which systems change is part of the curriculum’ (p. 540).

Arguably, the framework of culture is also situated on the impact of professional development on student performance. If students gain from teachers’ professional development, the assumption dictates continuous teacher’s professional development that can sustainably affect student performance. This study emphasizes on the length of participation in professional development (PD) to gain more growth in student performance over time. This is an approach that speaks of commitment and ownership to personal and professional development, and ‘a
conception of development’ which can be adapted into what Brofenbrenner’s (1979) refers as “the content by what is perceived, desired, feared, thought about and acquired as knowledge because of a person's exposure to and interaction with the environment” (p. 9). This similarity can be further evaluated by looking at professional development as a leadership decision in which the knowledge is acquired to improve self and the environment. One can also disputes against the notion of teacher professional development as a ‘single-shot, one-day workshop’ in which Ball & Cohen (1999) state that professional development should not be “intellectually superficial, disconnected from deep issues of curriculum and learning, fragmented, and noncumulative” (p. 3-4). A degree of positive school climate emphasizes personal and professional development as an investment to be further evaluated, quantified and proven to impact teacher and school efficacy.

In a systematical review of previous research studies on school-level environment, Cohen, McCabe, Michelli, and Pickeral (2009) establish four aspects of the school-level environment. They are physical and social-emotional safety, quality of teaching and learning between individuals at a school, relationships and collaboration, and the structural environment. A powerful association between aspects of school-level environment and teachers’ outcomes such as teaching efficacy, teacher stress, and job satisfaction has been found in recent research studies (Collie et al., 2012; Fisher & Fraser, 1990). In addition, the school-level environment has relationships with professional and organizational commitment (Tarter, Hoy, & Kottkamp, 1991), and teacher retention (Miller, Brownell, & Smith, 1999). A positive school environment results in an increase in teaching efficacy and teachers’ job satisfaction (Taylor & Tashakkori, 1995), and a decrease in stress included student behavior stress and workload stress (Collie et al., 2012).
At a micro level, teachers contribute enormously to the experiences of students in the classroom. Such an atmosphere of learning is dictated by many factors such as teaching and learning approach, personal connections, availability, and mutual expectations between teachers and students. High-quality teacher-student interactions are characterized by many as consistent, stable, respectful, and fair interactions where students are more likely to engage in help-seeking behaviors that positively correlate with student achievement (Gardiner & Kosmitzki, 2008). In addition, rich communication in instructional exchanges between the teacher and student (Cabell, DeCoste, LoCasale-Crouch, Hamre, & Pianta, 2013; Pianta, 1999) and emotional support also increase student achievement and academic motivation (Pianta, La Paro, Payne, Cox, & Bradley, 2002).

Demir (2015) investigates the effect of the level of trust of primary school teachers towards their organization based on a culture of teacher leadership. When the trust level of teachers shows positive and significant results because of the culture of teacher leadership, such school exhibits trust in colleagues as the highest correlations with teacher collaboration and supportive work environment. These findings indicate that trust in leaders creates a positive school climate.

Privatizing Initiatives in Public Education: Charter Schools and Its Impacts

The literature review explores various studies of charter schools’ impacts on students’ achievement and the relevance of Waldorf education in the public charter school. Iorio & Yeager (2011) examine charter and magnet schools in a historical review of the U.S. school reform movements in which school choice was discussed. As stated, “charter schools typically are organized to carry out a particular teaching pedagogy or set of rules for students’ behavior” (p. 22). Although they vary in organizational structure, some of the characteristics of charter schools
are detailed as autonomous in operation, open enrollment to all students, culturally integrated with a No Excuses approach (Cheng, Hitt, Kisida & Mills, 2017). With the establishment of charter schools since its inception in 1991, educators and policymakers see the needs to adopt a specific pedagogy to improve student achievement and improve curriculum through a learning model such as Waldorf movement. The No Child Left Behind Act offers students from underperforming schools the option to transfer within their district to another school or charter schools as choices. Molnar & Garcia (2007) refer to school choice as “market for supplemental education services” since “NCLB requires schools, in return for federal education aid, to conduct standardized testing annually in grades 3 through 8. If failed to demonstrate Adequate Yearly Progress (AYP), such schools face a series of corrective actions which include privatizing options to reopen as a charter school and contract with an outside organization to manage the school” (p. 12). Molnar & Garcia (2007) assert that “No Child Left Behind” Act (NCLB) has accelerated the three-decade-long trend toward private, for-profit activities in public education” (p. 11).

Schools that failed to make AYP for two or more years are given transfer options to low-income students (Kim & Sunderman, 2004). Failing school continues to follow the required steps to achieve improvement in providing Title I supplemental educational services (SES) such as “tutoring or other academic support services offered outside the regular school day, at no charge to students or their families” (Deke, Dragoset, et al., 2012, p. xiii). According to Gleason, Clark, Tuttle & Dwoyer (2010), it is estimated “since 2009 more than 5,000 charter schools served over 1.5 million students approximately three percent of all public school students in 40 states and the District of Columbia based on the Center for Education Reform” (p. 27).
The literature has shown a positive relationship between charter schools and students’ achievement (Abdulkadiroglu, Angrist, Cohodes, Dynarski, Fullerton, Kane, et al., 2009; Blazer & Miami-Dade County Public Schools, 2010; Chabrier, Cohodes & Oreopoulos, 2016). The literature also indicates mixed results of positive effects, negative effects, and no effects on achievement (Silvernail & Johnson, 2014; Bifulco & Ladd, 2006). In examining a recent study on charter schools’ impact, Booker, Gill, Sass, & Zimmer (2014) investigate the effects of charter high schools on postsecondary attainment and earnings. The assumption is based upon the likelihood of charter high schools’ long-term impact in producing positive effects on educational attainment and earnings. This study reveals higher earnings, suggesting that charter high schools are teaching students skills that are useful for success in high school graduation, college enrollment, and career-high earning. Further research is proposed to understand the income and educational attainment of charter students after graduation.

Bifulco & Ladd (2006) give a different perspective on negative effects of achievement gaps. The impact of charter schools in North Carolina on the math and reading performance of students in grades 4 through 8 were evaluated. Collected from the North Carolina Education Research Data Center, the study reveals that students in North Carolina make smaller test score gains in charter schools than in traditional public schools which could be attributed to high rates of student turnover. As an adverse side effect of school choice, high turnover could also impact student achievement peer effects, resource inadequacies, or inefficiencies which need to be further investigated.

Through further investigation, Angrist, Cohodes et al. (2013) examine Boston charter high schools on randomized admissions lotteries which comparison between urban and nonurban charter schools was analyzed. The result demonstrates that gains in Math and ELA test scores in
urban charter middle schools and no achievement gains in nonurban middle schools. In addition, gains in math and ELA were similar to the statewide results for middle schools while compared to high school lottery.

Evidence of low-achieving students not performing well in charter schools (Lauen, 2009; Eberts & Hollenbeck, 2001; Solmon, Paark & Garcia, 2001) raise concerns which reflect certain aspects in charter school policy that may or not influence the performance of low socio-economic students. Recognizing that Black and Hispanic students are becoming over-represented in charter schools, such studies (Logan & Burdick-Will, 2016; Hess & Finn, 2004) shed light on charter schools as ‘places of substantial racial isolation,’ and disparities due to racial composition, poverty status, and test outcomes. Frankenberg (2011) debates the inequitable educational opportunities that minority students face in charter school’s choice options that limit curricular options for English Language Learners or students with disabilities and lack of transportation to address ‘the new civil rights issue.’ The abundant literature on charter schools impacts student achievement based on charter school policies, student admissions lotteries effects, and inequitable educational opportunities. Within NCLB mandated policies, school choice and test-based accountability impact the educational outcomes of at-risk students showing comparable results which vary between high and low-performing charter schools based on charter students’ achievement.

**Waldorf Education in the Public Charter School**

Throughout this literature review, Waldorf pedagogy in public schools is explored. In 1992, Milwaukee Urban Waldorf School was established in Minnesota as the first charter school in the public Waldorf movement in the United States. Since then, the numbers grew to approximately 40 public charter schools in the public Waldorf movement (Lamb, 2015). It is
evident that Waldorf methods play an important role in both private and public schools (Henry, 1992; Easton, 1997; Dahlin, 2010; Rosenbloom, 2013; Beaven, 2016). Waldorf pedagogy can be a useful tool to low socio-economic students in the public charter schools and has its relevance as public school reform.

As it relates to the Waldorf school movement, Lamb (2015) examines the discord between independents schools belonging to the Association of Waldorf Schools of North America (AWSNA) and charter schools using methods inspired by Waldorf methods. Some of these controversial points are listed as “the migration of students and faculty from independent Waldorf schools to public charter schools; the conversion of independent Waldorf schools to charter schools; AWSNA’s decision to limit its membership to independent schools and teacher training institutes; the protracted negotiations over the use of the term “Waldorf” between the Alliance for Public Waldorf Education and AWSNA, which holds the service mark rights for the use of the names “Waldorf” and “Steiner;” and the question of whether the public charter school movement in general is a step toward, or a major threat to, educational freedom as outlined in Rudolf Steiner’s ideas on a threefold social organism” (p. 52-53). There is an existing concern that Waldorf methods cannot be exercised fully in public schools since such schools must meet the criteria required by the particular school district and the state to operate (The Association of Waldorf Schools of North America & the Institute for Social Renewal, 2007). Therefore, public charter Waldorf schools are considered schools in the public Waldorf movement (Lamb, 2015) and its administrators and teachers lack the freedom and flexibility to create a curriculum based on Anthroposophy; the spiritual nature of human being. Anthroposophy is a concept that has some controversial response and its influence on testing to close the gap.
More recently, in 2015, AWSNA and The Alliance for Public Waldorf Education (APWE) came to an agreement whereby APWE can designate schools that complete a self-study and peer review as Public Waldorf schools (Personal Communication with Melanie Reiser, Ph.D., Executive Director of Membership of Association of Waldorf Schools of North America). Public charter schools using Waldorf methods are not considered Waldorf schools because teachers are required to restrain from applying Steiner’s anthroposophic ideologies and standardized testing which are absolute to sustain funding. However, lack of evidence on public schools in the public Waldorf movement is scarce, particularly for low socio-economic students.

Martin (2002) describes educational alternatives and eight types of schools such as democratic, free schools, folk education, Quaker schools, Homeschooling, Krishnamurti schools, Montessori schools, open schools, and Waldorf schools. Whether or not Waldorf is one of these choices that parent make for best alternative education, the assumptions stipulate that more school choices are a predetermination to increase student higher performance, higher rate in graduation, retention and college admission. Martin (2002) also states that “across educational alternatives, we find that traditional subjects such as reading, writing, and math are not always taught separately but integrated into students' overall learning. With some exceptions such as Waldorf, Montessori, and Sudbury-model schools, most philosophical alternatives tend toward less rigidity in how each school creates itself from the dynamics of the local community and the values, beliefs, and experiences of current members” (p. 5). According to Jelinek & Sun (2003), “parents and educators are showing a growing interest in the Waldorf method because they believe it more successfully engages students and supports meaningful learning than do mainstream methods” (p. 1).
Waldorf education has been applied in different public schools serving students from low socioeconomic status SES. Although limited, there is research in Waldorf public schools showing a positive impact on student achievement (Oberman, 2007; Schieffer & Busse, 2001). Schieffer & Busse (2001) conducted a study of students of low socioeconomic status (SES) in which achievement scores from national assessments were taken from 4th graders at an urban school in the Public Waldorf movement showing higher performance comparing to similar traditional schools. One cross-cultural study by Ogletree (1996) examines data on the effectiveness of its teaching methods and on students’ achievement which suggests that Waldorf students were more creative than their state school peers. The findings showed that cross-culturally, Waldorf students score higher in creativity than their state school peers. The only exception was that lower-socioeconomic state students scored higher on verbal originality than their Waldorf peers. Although the results were not significant to determine a correlation between Waldorf private schools and urban public schools in influencing performance, eleven years later Oberman (2007) uses multiple methods to collect a variety of data which include student-achievement data from four public schools in the Waldorf movement in which students outperform the top ten schools based on the California Standards Test (CST) in both English and Mathematics.

Sharing similar comparable findings, Henry (1991) surveyed two independent schools in which one was a Waldorf school examining a symbolic model of representation and the schools’ culture, and the other was a traditional college preparatory school. Although the study supports the notion of choices in public schools toward “equal opportunity, diversity, and plurality,” the attention on each school’s characteristics, their philosophical values, pedagogy and curricula were emphasized. As an interpretive study, the assumptions for public schools and alternative
schools were noticed. The study’s findings indicate that the ‘Waldorf school practices a symbolism of democratic and egalitarian values where knowledge is taught in wholes, not parts, and through storytelling not abstractions’ (p.18).

The results of the literature reviewed have limitations on lack of current explorations into the practices of Waldorf pedagogy into public charter schools. When weighing its relevance to impact achievement gaps, the results are also limited in terms of all subjects. Waldorf methods gain popularity and interest because of its curriculum, teacher’s role, and teaching methods. Concerns of different educational practices in the private Waldorf vis-à-vis the public charter schools need further investigation as well.

**Waldorf Education and Academic Achievement**

This literature attempts to address Waldorf education in bridging the achievement gap. A body of research shows that Waldorf pedagogy has taken roots and many are showing interest in its academic impact (Ogletree, 1996; Prager, 2004; Larrison, Daly & VanVooren, 2012; Friedlaender, Beckham et al., 2015) while De Bilde, Van Damme et al. (2013) do not show a positive effect of alternative education such as Waldorf on school engagement in their study. Through a comprehensive analysis of public Waldorf schools in the United States, standardized test measures were compared through various data. Larrison, Daly, and VanVooren (2012) reveal that Waldorf students performed more poorly in early grades, however, Waldorf 6th, 7th and 8th graders significantly outperformed compared to district scores. The study suggests that “the overall measure of student outcome in Waldorf schools are grossly underrepresented and further call into question the current use of standardized testing as an accurate measure of school quality” (p. 15).
According to Oppenheimer (1999), “despite Waldorf students' unfamiliarity with standardized tests, their SAT scores have generally come in well above the national average, particularly on verbal measures” (p. 72). Some consideration into Waldorf pedagogy is implemented in urban public schools based on encouraging results of student achievement and research that have been conducted. Prager (2004) suggests a replica of additional Waldorf-inspired urban elementary schools such as the Urban Waldorf School in Milwaukee that was studied as an exemplary model. This study sheds light on Waldorf curriculum including the integration of the arts with academic work, practices such as looping and the relationships built between the teacher and student that are contributing factors to the school success. Waldorf pedagogy may give possible explanations and contribute to bridging the achievement gaps for low socio-economic students.

Various frameworks of the curriculum are used by different private and public schools to quantify achievement, based on their requirements, funding and standardized measures set by the state and federal government. Regardless of the theoretical models used to bridge the gap, students are evaluated academically based on many factors. In contrast, Watterson (2006) state that although each “Waldorf methods are designed individually to include specific aspects of Waldorf education, this individuality creates ambiguity in how the methods are applied, the extent to which standards are being integrated, and an uncertainty of how Waldorf methods can be used in public education” (p. 6).

**Goals 2000: Educate America Act**

As the reauthorization of the Elementary and Secondary Education Act (ESEA), with the reform of Goals 2000, “22 states had adopted the standards, and only 15 of the states required a minimum competency test for graduation. The states that adopted the Goals 2000 did not provide
meaningful additional funding or significantly change their teaching practices. Consequently, by
the year 2000, most of the states had not achieved the Goals 2000 mandate” (Iorio & Yeager
education goals to be met by the year 2000. As stated, “The proposal was made to overhaul the
existing curricula of state-controlled elementary and secondary schools to meet the six national
education goals” (p. 32B). The argument of Goals 2000 as a federal mandate is debated on both
sides as to more or less federal regulations to be imposed on of state and local governments when
it comes to curriculum, teacher performance, instructional materials, school spending and access
to professional training. Some view this national curriculum on states as the new ‘voluntary’
national standards while opponents called it more of “federal interference in state education
policies” (p. 32B). Odland (1993) suggests that education reform should be less federally
regulated to give greater freedom to school districts.

Under President Clinton, the Goals 2000 Educate America Act signed into law in 1994
with the purpose to ‘revitalize education.’ These goals were described as mockery, scam and
laudable by Schwebel (1994) who harshly critiques this reform addressing the main concerns of
performance, disparity, global competitiveness, crime, and drugs. The blame falls on the
legislators who ‘make such outlandish promises.’ The premise under which this act was
formulated calls into question the accountability and reliability since many of the goals were not
achievable by 2000. For instance, Schwebel (1994) raises the concerns of Goals 2000 that
“United States students will be first in the world in mathematics and science achievement” when
the 1991 International Assessment of Educational Progress in mathematics shows that US
students trailed and ranked fourteenth out of fifteen behind other nations. Other concerns of
Goals 2000 that “all children in America will start school ready to learn” was disputed that
children cannot be ‘physiological ready’ when ‘20 percent of them live below the poverty level, whose mothers are not receiving adequate prenatal care and when low-income children do not have access to high-quality and developmentally appropriate preschool programs’ (p. 591).

**No Child Left Behind (NCLB)**

The body of literature emphasizes on No Child Left Behind Act (NCLB), its impact on school accountability and student achievement. It also offers a comprehensive examination of NCLB possibilities as a sustainable reform and its negative impact as a questionable policy that debates its failure to affect disadvantaged students. To some, NCLB considered as “the most far-reaching education policy initiative in the United States over the last four decades” (Dee & Jacob, 2011, p. 149). To others, such reform is “probably the most ambitious federal education legislation the United States has ever enacted with its goal of reaching every school-age child in the country” (Marx & Harris 2006, p. 268.) However, one can ponder if this legislation fulfills its policy delivery. In an attempt to answer this question, studies have looked into student assessment-based state standards such the AYP (Adequate Yearly Progress) to identify failing schools (Dee & Jacob, 2011; Holbein & Ladd, 2017). Under NCLB, states were required to have 100% proficiency among students by 2014 (Wong, Wing & Martin, 2016, p. 1). Research provides evidence for NCLB high stakes accountability policy on student achievement (Coburn, Pearson & Woulfin, 2010, Dee & Jacob, 2011), on the significance of educational equity (Kim & Sunderman, 2005), school performance and classroom practices (Linn, 2005; Hannaway & Hamilton, 2008; Forte, 2010).

Jorgensen & Hoffmann (2003) highlight the history of the (NCLB) which was signed into law by President George W. Bush in 2002. It is the reauthorization of the Elementary and Secondary Education Act (ESEA) which was enacted in 1965, as a component of President
Johnson's War on Poverty. Jorgensen & Hoffmann (2003) state “with NCLB, a new era began where accountability, local control, parental involvement, and funding what works became the cornerstones of the nation’s education system” (p. 5). This research provides insight into the significant shifts of standards-based assessments since A Nation at Risk report was published. Additionally, it outlines NCLB regulations in terms of the requirements from states for accountability for students to be assessed in reading and mathematics. States also have more ‘flexibility and control over federal funds for English language learners’ programs, teacher retention, professional development, and technology training’ (p. 6).

Since NCLB enactment, some of the significant controversies, limitation and resistance include issues with funding (Jones, 2010; Gius, 2012), the requirements to make schools more equitable for low income students (Fusarelli, 2004; Evans, 2009; Forte, 2010) and in general the politics of NCLB (DeBray-Pelot & McGuinn, 2009; Hess & Petrilli, 2005). To address the impact on students, teachers, and schools, Dee & Jacob (2011) examine NCLB’s influence on student achievement, education spending, instructional practice, and school organization. Based on the complexity and the nature of its implementation, this study was not able to locate specific factors that can improve student achievement.

The discourse about the opportunities, challenges, and risks that No Child Left Behind (NCLB) poses also relates in some respect to its accountability which influences science education, the teaching, and learning of science (Marx & Harris, 2006). This study articulates the importance of science education in the face of global and economic competition and the United States position as the world leader with the emphasis for more science, technology, engineering, and mathematics fields. Based on NCLB accountability, Marx & Harris (2006) discuss these four areas of science education which include standards, instruction, teachers, and curriculum for
elementary and middle school students and solicit a reconsideration of NCLB accountability from the AYP issue which impacts minority student and low-performing schools particularly. Other recommendations entail to a call “to develop accountability assessments that align with standards and measure the rich science understanding called for in national science reforms” (p. 475) and to design science instruction into a standards-based curriculum in elementary schools and invest in recruiting and training science teachers.

As a supported argument for multiple test in order to reach proficiency within an academic year instead of one annual yearly progress (AYP) that NCLB requires, reviews of minimal empirical studies detailed in this literature did not find states’ implementation of NCLB policies, and the impact of these policies on student outcomes (Wong, Wing & Martin, 2016). With such policies affected schools’ AYP failure rates, a database of AYP rules for each state and year from 2003 to 2011 was created to examine proficiency in students, cell sizes and other performance metrics of subgroups in schools. As a result, Wong, Wing & Martin (2016) note that differences in test difficulty across states were not addressed.

To draw from the previous research, some argue for multiple test policy which could potentially provide the accountability and reliability while increasing student proficiency. With such option given, students in grades 3-8, for both mathematics and reading tests participated in this statewide testing program conducted by Nese, Tindal, Stevens & Elliott (2015). Advocates of multiple test administrations assert that student characteristics were associated with numerous testing which this study found particularly true for White, non-free or reduced lunch program, non- limited English proficient, general education, and students close to the proficiency score (p. 8). However, all retested students are negatively affected by a single administration. The argument for such results is based on retesting which can be used as an opportunity for
instructional support and learning to bring student proficiency up to par to meet AYP policy in NCLB. However, additional research is needed in that area of interest.

The literature primarily addresses the perceptions of educational leaders and classroom leaders as they relate to No Child Left Behind Act. According to Gosnell-Lamb, O’Reilly & Matt (2013), “principals across the country identified negative impacts from NCLB” (p. 214). AYP seems to be a common thread based on principals’ perceptions and reactions as AYP is not considered a positive indicator of individual student growth. It is important to recognize from the responses given, educational leaders and classroom teachers seek ‘alternative measures of educational practice and student outcomes’ in response to NCLB. The survey indicates in recent years, principals’ priorities change from leading to promote excellence through teacher support than managing NCLB standards compliance during its inception.

From the reviewed studies of No Child Left Behind (NCLB), the prevalent theme seems to navigate toward concerns of fundamental divergence between federal mandates and state resistance, meeting AYP goals versus student proficiency in all subjects, accountability and bridging gaps in educational disparity. While some studies focus on NCLB as a challenge in reform, referring to it as a one-size-fits-all, research provides evidence for school choice provision that NCLB implements for students to transfer to other public schools such as public charter schools. NCLB was meant to close the gap in educational achievement between affluent and disadvantaged students (Marx & Harris, 2006). Overall, this literature allows for a better understanding of No Child Left Behind (NCLB) accountability as a high-stakes testing, and ways educational leaders are considering to more significant improvement in academic achievement for disadvantaged students (Hess & Finn, 2004; Hastings & Weinstei, 2008) and fundamental policy and practice changes (Shapiro & Thompson, 2008; Schoen & Fusarelli, 2008).
Common Core State Standards

Getting pressure by the Obama administration to design content-area standards for all high school graduates for college and career readiness, the Common Core standards were developed in 2009 by the National Governors’ Association and the Council of Chief State School Officers (NGA/CCSSO). Federal Title I aid would be withheld from states that do not adopt comparable standards. As a result, 48 states ended up applying for the uniformly high standards (Mathis, 2010) which resulted in the release of Common Core English Language Arts and Math Standards in 2010 (Kornhaber, Griffith & Tyler, 2014).

The goal of the Common Core State Standard (CCSS) is to make sure students are college and career ready, to provide systemic change and to ensure that American students are held to the same high expectations in mathematics and literacy as their global peers regardless of zip code or circumstances (MetLife, 2013). Kornhaber, Griffith & Tyler (2014) argue that equity has a vital meaning beyond zip code, college, and career ready. “Common Core State Standard (CCSS) encompasses equity aim to provide all students with the same high standards and graduate them without the need for remediation” (p. 4). In particular, high-needs populations are faced with disparities in educational resources and “require different instructional, curriculum, or personnel resources to educate their students and prepare them to perform well on the assessments” (p. 3).

The argument suggests the Common Core represents changes seeking to improve the education system, therefore the standards need to “align curriculum materials, instruction, assessment, and professional development and the schools need to be provided with the resources, flexibility, and responsibility to enable students to meet higher standards” (p. 10). Interviews with eleven Common Core policy entrepreneurs who helped shape the reform as a
response to NCLB were collected in 2011 at the start of the Common Core’s implementation process. With several objectives in mind, the leaders of the Common Core share conceptual views on equity which signal that policies and resources are needed to provide more equitable chances of success for children from disparate backgrounds to close achievement gaps. MetLife (2013) present implementation of the CCSS and what is required of a school leader to provide effective learning and success of mathematical and literacy skills across grades for all students. MetLife (2013) contends that “state assessments were never intended to be an indicator of college or career readiness, at least not for 21st-century careers” (p. 4). The adoption of these standards means that all, not just some, students should be on the pathway to college and career readiness’ (p. 3). Therefore, “school leaders have learned a hard truth; college eligible does not mean college ready” (p. 4).

This study analyzes the relationship between socioeconomic status on middle grades students and student achievement on high-stakes assessments such as the Common Core State Standard using secondary data analysis. The study by Dotson & Foley (2016) disputes the “one-size-fits-all” notion that standardized tests should be given to all students because they ‘fail to take into consideration the varied backgrounds of students.’ Many recommendations were provided including school funding increased, small school and class size and reevaluate course syllabi to close the academic gap to address issues that impact students with low socioeconomic status.

Such achievement gaps will widen without considering the rigor of proficiency standards for English language learners (ELLs), their peers, and ill-equipped teachers. With the ‘considerable autonomy in the CCSS implementation, professional development planning, and the allocation of financial resources’ provided to school districts, Johnson & Wells (2017)
recommend some necessary steps which would ensure English language learners and teachers to prepare for the literacy demands of the CCSS. Those include in-service, pre-service and professional development that focus on pedagogical language knowledge and multicultural sensitivity training for teachers as well as evaluation with a holistic approach that are not limited to those of the state districts across the country (p. 12). Santos, Darling-Hammond, & Cheuk (2012) state that “all teachers of ELLs need to increase their language and literacy development skills to design and deliver curriculum, instruction and assessment in core content areas” (p. 8).

Opponents of Common Core hold different positions. Richardson & Eddy (2011) categorize such views in three camps. As stated, “those with concerns about what standardization will do to the curriculum, those who believe such efforts are aimed at standardizing the students themselves, and those who believe that a national standardized core is a form of oppression” (p. 281). Mathis (2010) also points out some of the common objections of the CCSS which include the concern that ‘standardization diminishes schooling,’ the ‘caution against locking children into a one-size-fits-all model of education’ and the ‘worry that common standards would reduce teaching to only a narrow range of testable information and would not produce the knowledge, flexibility and creativity needed for a new and uncertain age’ (p. 2-3).

What is equally important to note, Lee & Wu (2017) raise important concerns in their analysis of the Race to the Top issue and any influential factors that CCSS have on all 50 states’ performance standards, on school program alignment and student achievement in reading and math. This study tracks all 50 states’ reading and math proficiency standards under NCLB, including years before and after the adoption of the CCSS. This study also raises concerns about implementation challenges and limitations in bridging the gap between CCSS policy and
practice. Lee & Wu (2017) state that “the Common Core has helped America race to the top for performance standards, but not for performance outcomes yet” (p. 14).

**Standardized Based-measure vs. Waldorf Measure of Achievement**

Measuring student’s academic performance depends on the types of assessments used such as standardized test scores and performance-based assessments. Performance outcomes serve as indicators to measure academic achievement for schools’ accountability (Schwartz, Hamilton, Stecher & Steele, 2011). Lam (1995) asserts that “assessment for its intended purpose is unfair if students are not provided with equal opportunity to demonstrate what they know” (p. 2). Assessment should be equitable and fair. “Assessment serves many purposes and can be implemented in many forms” (Glazer, 2014, p. 276). Teachers seek the best assessment to test students’ understanding of a task or subject. Research shows many attempts to find a comprehensive definition of the concept of assessment. According to Abdallah (2016), “educational assessment refers to norm, criterion, formative, summative, traditional, standardized, authentic, alternative, performance, balanced, etc.” (p. 212). “Assessment is a key component in the learning cycle and should be valid, reliable, and transparent” (Glazer, 2014, p. 277).

There are many ways to measure and evaluate students’ learning effectively. This literature review includes analyses of formative and summative assessment in highlighting the foci of the various methods of testing. Formative assessments are considered low stakes such as quizzes, portfolios, feedback, reflection journals, or observations. Self-assessment, peer instruction, student journal reflections, Socratic seminar, pencil-paper tests are also formative assessments for student learning and performance. Whereas summative assessments are high
stakes in which student learning can be evaluated such as standardized tests, midterm exams or final projects.

Standardized assessments are considered summative to improve learning while evaluations are formative to measure quality. As defined by James R. Squire Office of Policy Research. (2014), “the term standardized tests are often heard along with high-stakes. Standardized tests are administered, scored, and interpreted consistently, so that the performances of large groups of students can be compared. They are not in themselves high-stakes, but they are often used for high-stakes purposes such as determining which students will pass or graduate, which teachers are fired or given raises, and which schools are reorganized or given more funding” (p. 1). Other ways academic performance is also measured include benchmark assessments, student portfolios, teacher observation (Shaha & Glassett, 2015); and a myriad standardized test by states.

Many of the criteria for standards-based reforms involve the required accountability in educators’ practices concerning classroom practices and quality of instruction. DeLuca & Bellara (2013) discuss the alignment of teacher education policies, teacher standards for educational assessment, and learning expectations of preservice assessment course syllabi across content focus, depth of knowledge, and range of knowledge. Teacher assessment represents a fundamental part of the current accountability and standards-based context of U.S. public education. In regards to assessment standards and classroom practices, there are several factors to consider such as pre-service and in-service teacher education program (Özdemir-Yilmazer & Özkan, 2017), preservice assessment education (Falter Thomas & Sondergeld, 2015). DeLuca & Bellara (2013) advocate for teacher preparation and professional development through scaffolded feedback. Falter Thomas & Sondergeld (2015) define scaffolded feedback as an “all-inclusive
process that involves instructor models which allow preservice teachers to apply and practice in a simulated context, then apply to a real-world situation” (p. 89). Scaffolded guided-instruction proved to be an effective method with preservice teachers. Falter Thomas & Sondergeld (2015) note modeling is effective more than lecturing as it gives preservice teachers several opportunities to practice in a simulated environment by providing feedback to middle school students as participants. Through the feedback received, ‘preservice teachers learn and gain the confidence to practice these skills in real life contexts with students’ (p. 105).

This study emphasizes the impact of deliberate and scaffolded instruction as an approach to give high-quality feedback. Perceptions of both teachers and middle school students on feedback were surveyed. The impact of trained preservice teachers’ feedback on middle school students’ perceptions of feedback and performance were also analyzed. The impact of providing feedback shows improvement in the authenticity, appropriateness, and critical refining skills for teachers and the opportunity for students to reflect on feedback to improve throughout the learning process.

With the high demands of underrepresented minority students in Science, Technology, Engineering, and Mathematics (STEM), seeking non-traditional performance-based approaches are encouraged by educators in an attempt to achieve academic success. Using an inquiry-based approach as a theoretical framework to guide this research, Deksissa, Liang, Behera & Harkness (2014) employ several teaching and learning strategies that include inquiry-based and problem-based active learning, integrated course design, nurturing curiosity at the beginning of the course, teaching scientific method, reflection, and peer-based learning with the purpose of analyzing the effects these approaches have on students learning. This study was conducted at a Historical Black College and University in an experiential science course; the model shows that a
combination of hands-on activities, scientific inquiry, group project, teaching critical thinking, and frequent feedback improve student’s learning in the application of science. Both formative and summative assessments were utilized in this study. It is concluded that “appropriate course design, engaging students and teaching critical thinking using hands-on and inquiry-based problem-solving activities improve student’s cognitive learning skills and are effective in attracting and preparing underrepresented minority students in sciences and technologies” (p. 19).

Tropman (2014) elaborates on given an open book or take-home quizzes as an important activity to learning, and writing which often consists of one or two brief questions on the reading. In response to criticism, Tropman (2014) rejects such objection that “reading quizzes harm students’ learning-oriented motives” (p. 145). On the contrary, quizzes positively affect students’ intrinsic motivation to read. While examining quizzes as a useful teaching technique, in this study, Tropman (2014) supports frequent reading quizzes in the classroom which encourage reading, class attendance, discussion and participation which are ultimately critical as an effective tool to student learning.

Deschenes, Cuban & Tyack (2001) underscore valid points relevant to the standards movement that capitulate the history of education. “Most efforts have concentrated on fitting the student to the school rather than looking at institutional factors to explain failure. Broader social inequalities must be addressed in conjunction with failure and discrepancies in schools to give students their best shot at success. Reforms have mostly been piecemeal and disconnected rather than comprehensive and coordinated” (p. 541). Deschenes, Cuban & Tyack (2001) assert that “the standards movement similarly uses schools and academic achievement as indicators of the country's health” (527). Educators are challenged by a multitude of systemic issues that cannot
accurately be assessed without exploring the academic achievement gap. Elias, White & Stepney (2014) raise concerns by asking “how do we improve the test scores of disadvantaged groups when it is their disadvantage that is influencing their performance on standardized tests” (p. 15)? The results of their research suggest that socio-economic students (SES) and race continue to impact school level test scores, schools with greater Black and Latino populations who experience an especially challenging educational climate. Simms (2012) also listed other factors of achievement gaps that affect school quality such as the percentage of fully credentialed teachers, years of teaching experience, number of computers per student, class size and state benchmarks of school quality. The role of educational leaders in transforming schools depends greatly upon effective reforms but most importantly on strategies that lead to efforts to enhance students’ academic achievement.

Educators, administrators and school reformers have focused heavily on several types of assessment to improve academic performance. Over time, they integrate strategies and practices to close the achievement gap by identifying factors that contribute to the challenges that students face as well as learning and academic standards that guide schools to achieve the success of students effectively. Other informal evaluation tools such as classroom exams, portfolios or observations coupled with teaching practices are also used to identify students’ strengths and weaknesses.

Waldorf Methods of Achievement

A plethora of studies (Ogletree, 1991; Uhrmacher, 1995; Armon, 1997; Ogletree, 1998; Sagarin, 2004; Rhea, 2012) has explored Waldorf teaching practices, curricula, and Anthroposophy, Rudolf Steiner's philosophy, as a worldwide movement. According to Pappano (2011), “the number of Waldorf-inspired public schools has risen quickly, from a dozen in 2000
to 45 in 2010, with another 30 expected to open this year” (p. 1). Such numbers provide insight into the challenges that schools in the Public Waldorf movement face adapting to standardized testing. This literature review emphasizes on measures of achievement that are formative assessment and integral to Waldorf education. Uhrmacher (1995) affirms that “Steiner encouraged formative rather than summative types of evaluations, even though reports of students were given yearly in the spring (p. 395). Consistent with prior research, Watterson (2006) probes into Waldorf methods to teach 6th-grade geometry standards by integrating California’s academic content standards into a Waldorf methods school. The outcome of this study is evident in the teaching approach which is similar in both Waldorf standards and the California academic content standards.

Waldorf offers an arts-based curriculum which emphasizes “teaching through rhythms, stories, and images, having students express themselves imaginatively through main lesson books, and evaluating students through formative styles of evaluation that speak to the students’ best selves and guide them gently with humor” (Uhrmacher, 1995, p. 401). In addition, Lash, Monobe, Kursun Koptur & Black (2016) assert that “in terms of assessment, Waldorf education utilizes parent and graduate testimonials along with descriptive progress information, collaborative performances, and portfolios” (p. 240). Chauncey (2006) describes the challenge of evaluating Waldorf education using traditional testing assessments. In this study, comments by parents of Waldorf and non-Waldorf schools were compared. Responses from Waldorf schools were associated with greater frequency of responses relating to aspects of holistic education when compared to demographically similar charters and public schools. A holistic approach is suggested as a possibility in a public setting even in the era of accountability. Parents raised negative comments in regards to fitting Waldorf into the current standardized testing culture. It is
recommended to ‘change both public opinion and national policy in ways a school is measured based only on test scores if Waldorf is to be able to succeed in the public sector’ (p. 15-16).

**Child study.** Assessment methods used in Waldorf schools are referenced such as Child Study, a tool used to gain a comprehensive picture of the student and his/her development. Friedlaender, Beckham, Zheng & Darling-Hammond (2015) provide an explanation to Child study as an assessment that ‘requires each teacher, over three weeks, in a very structured way to quietly observe a particular child’ for a particular concern. Suggestions are then offered to support the student (p. 64). Swindell, Flummer & Carones (2012) concur that Child study “is at the heart of the teachers’ work in all Steiner schools and is the basis for all curriculum development. Although not unique to Steiner schools, “it is now so embedded within the Steiner-Waldorf methodology that it is appropriate to acknowledge its central place as an assessment tool” (p. 5).

**End of year report.** A summary of the student’s academic experience called End of year report is written at the end of the school year by the class teacher. The purpose of this report is descriptive, comprehensive and summarizes the student’s achievement and level of learning. New tasks are also set for the future (Swindell, Flummer & Carones, 2012).

**Class two screening.** Swindell, Flummer & Carones (2012) also discuss this diagnostic assessment that is used in many Waldorf schools particularly in European schools. This tool evaluates students’ development based on their primitive reflexes, laterality, and dominance, bodily coordination, fine and gross motor skills, balance, symmetry, language, and numeracy skills (p. 7). A school in the Public Waldorf movement may need to comply with state requirement laws for testing or assessments. Since it is considered as such, some aspects of
Steiner’s educational philosophy may not be integrated into such schools. Further investigation is encouraged to determine such assumptions.

**Student portfolio assessment.** As an assessment method, student portfolio became well known during the late 1980s as a result of standardized testing reform. The goal of testing was shifted to students' performance for accountability purposes. Therefore, ‘assessment was modified to match classroom experiences’ as recommended (Moeller, 1994). Different from traditional methods, portfolio assessment offers the opportunity to observe students in a broader context: taking risks, developing creative solutions, and learning to make judgments about their own performances (Paulson, Paulson, & Meyer, 1991, p. 63). The purpose of a student portfolio aims to evaluate efforts, learning, and academic progress through self-reflection which are presented in many forms. Grotewell & Burton (2008) identify the showcase portfolio for instructional purposes that allow children significant autonomy for learning; the documentation portfolio comes in the form of checklists, observations and narrative records which document student’s progress and the evaluation portfolio is most appropriate for programs and has less input from the student (p. 244).

Stiggins & Chappuis (2006) define portfolios as a purposeful collection of student work that exhibits the student’s efforts, progress, and achievements in one or more areas. The collection must include student participation in selecting contents, the criteria for selection, the criteria for judging merit, and evidence of student self-reflection (p. 60). It is a portfolio when a student is a participant in, rather than the object of assessment (p. 63). A list of guidelines was offered as well as examples of writing portfolios and their importance was explained as “an interaction of both instruction and assessment” (p. 61). Portfolio assessment is considered a self-assessment and self-reflection tool. Mokhtaria (2015) identifies several types of portfolios
comprising of teaching, working, professional, electronic, showcase and course (p. 170). The issues in implementation such as ‘the lack of knowledge or training necessary for implementing portfolio-based student assessment,’ the reliability, validity as a scoring system, its practicability in terms of feasibility, cost-effectiveness, and acceptability during the assessment process’ and its depth and the interpretation of results (p. 171).

The implementation of portfolio assessment leads to feedback received as an essential tool for improvement. Segers, Gijbels & Thurlings (2008) attempt to seek a relationship between students’ approaches to learning and their perceptions of portfolio assessment practice. This study contends that feedback results in motivation and enhancement of learning. While a positive correlation exists between a deep approach to learning and what students do with the feedback they receive, what remain significant are students’ perceptions of the portfolio assessment and their approach to learning. By reading the feedback carefully and critically, they can make improvement based on the suggestions made. Hattie & Timperley (2007) assert that “when feedback is combined with effective instruction in classrooms, it can be very powerful in enhancing learning” (p. 104). Thus, “feedback is a consequence of performance” (p. 81).

Moeller (1994) state that “portfolio assessment is a holistic assessment that allows students to demonstrate what they can do through high-quality, performance-based, meaningful, authentic tasks” (p. 111). O'Shiel & O'Flynn (1998) examine the curriculum and the methodology of Waldorf and describe portfolio assessment as one of the characteristics of Waldorf education. In this case, portfolios are used in primary school as notebooks prepared by the teacher. Such portfolios are based on students’ own learning experiences. (p. 346). In the Waldorf settings, portfolio assessment is considered an alternative assessment form as well as a method that is more appropriate for Waldorf curriculum’s assessment (Eyyam, Menviş, &
In addition, Nicholson (2000) concur that ‘portfolio assessment is used also as a text in Waldorf schools in which students compile their work in a main lesson book’ (p. 578).

O'Shiel & O'Flynn (1998) describe Waldorf methods of assessment in these terms: “There is no end of term examinations, no grades are given, assessment is continuous and based on a wide variety of intelligences, projects, and portfolios. The Class teacher writes a detailed holistic evaluation of the child at the end of each school year (p. 347). Waldorf schools assess the effectiveness of teaching and students’ development using different means. One barrier to the relevance into the public school environment is that Steiner-Waldorf practitioners do not consider assessments and testing as good indicators of performance. Investigations into these assessments need to be studied further.

**Summary**

The 1954’s Brown vs. the Board of Education decision has not provided the equitable victory for all students. Superintendents, principals, teachers, educational advocates, and parents should promote change through policies and practices, to engage in meaningful dialogue to address the factors of low-achievement gaps while transforming schools and the lives of each student. The literature discusses many factors that impede improvements in student achievement related to implementing policies for the most vulnerable students. The accuracy of the content material, assessment tools and student’s knowledge in specific subject areas represent indicators of student performance. On the other hand, educators also center on administration costs, test preparation, test materials, and class size for accountability purposes. Furthermore, mandatory standardized testing in schools stipulates policies that determine teachers’ jobs, salaries and school closure.
In Waldorf pedagogy, according to Sliwka (2008), “standardized testing is considered problematic, especially in the elementary years, because it is believed that such testing does not measure valuable attributes of children such as curiosity and initiative, creativity and imagination, goodwill and ethical reflection (p. 9). Students can also learn through creativity, intuition, observation and critical thinking. Lee (2006) discusses some of the pressures schools face in these terms, “particularly in low-income schools judged as failures, there often is a tendency to move into highly formulaic and rigidly programmed curriculum, boring to both students and teachers, and, worse yet, to spend time not on teaching their subjects but on drilling on test-taking strategies” (p. 7). Education must continue to be re-examined as academic success and failure are also determined by how learning is constructed. Scholar-practitioners, educational leaders and educators must continue to consider other educational models that impact academic achievement for underserved students. The historical academic gaps that exist between learning and teaching must be deconstructed in order to effectively reform and transform the educational process necessary for every student.
Chapter III: Research Design

Methodology

The investigation of locus of control takes into account many aspects of individuals’ perceptions, beliefs, and decisions dictated by their own decisions or outside forces. It is conceptualized by two attributes: internal and external locus of control. Hence, the primary objective of this study is to examine the role of middle school students’ locus of control in closing the achievement gap as perceived by educators at a school in the Public Waldorf movement. The research questions guiding this study are as follows:

1. What roles does locus of control play in overcoming achievement gap as perceived by educators at a school in the Public Waldorf movement for middle school students of low socio-economic status?

2. How are middle school students’ ability to learn reinforced by students’ locus of control, as perceived by their teachers?

3. How do environmental factors at a school in a Public Waldorf setting influence students’ locus of control and their learning experience, as perceived by the educators and students of the school?

In the construction of this study, the researcher considered the research design, methodology, the epistemology, axiology, ontology and the theoretical perspectives. This inquiry was conducted as a case study method and grounded in a constructivism-interpretivism lens. Ponterotto (2005) defines this paradigm as having “multiple, constructed realities rather than a single true reality” (p. 130). Because it brought validity from the individual’s mind, the researcher’s position was subjective. Merriam (1991) agrees that such realities cannot be measured but can be interpreted. Beliefs, personal experiences, and perceptions take precedence
over facts. What separates this paradigm from the positivist paradigm, is the fact that the researcher becomes part of the “story or the truth” being investigated. Butin (2010) suggests that researchers document such truth.

Merriam (1991) states that in this paradigm, “reality is not an object that can be discovered and measured but rather a construction of the human mind. In this view, beliefs rather than facts form the basis for perception” (p. 48). The theoretical paradigm for this study is appropriate to investigate middle school students, and Waldorf educators to gain their perspectives, understanding, and knowledge. From the ontological position, participants possessed different perceptions of locus of control, Waldorf pedagogy and academic achievement based on their belief systems. From the epistemology aspect, the knowledge about students’ locus of control and their perception of learning, Waldorf pedagogy, and educators’ perception on locus of control as it relates to academic success and failure were validated based on how they make sense of this reality. In addition, the diverse experiences of students at a school in a Public Waldorf movement were beneficial to understand better this pedagogy and its impact to students and ways educators can transplant the effective practices for underserved students in other educational settings. Creswell (2013) also states that “the philosophical assumptions are embedded within interpretive frameworks” and as a well-developed approach to constructing a qualitative research (p. 22).

The constructivism-interpretivism paradigm guided the investigation to explore the complex challenges that educators and students face through the understanding of closing the achievement gap and to explore locus of control as a motivational factor that impacts students’ learning. That is undoubtedly one aspect in this paradigm that takes a central place in understanding the human experience and in being socially constructed based on what individuals
believe in. Based on its definition, constructivism-interpretivism emphasizes on meaning
construction. As Ponterotto (2005) corroborates “the researcher and her or his participants jointly
create (co-construct) findings from their interactive dialogue and interpretation” (p. 129). The
constructivism-interpretivism paradigm is structured to help shape the research question.

To consider such a paradigm for the research questions, interactive dialogue,
interpretation, and interviews are advised according to Ponterotto (2005) who states that we
would gain valuable information from the participants. As researchers, our job is not meant to
seek other researcher consensus nor change our participants’ “truth.” Instead, Ponterotto (2005)
recommends that we accept all meanings and interpretations as the participants’ reality. The
advantage of using the constructivist-interpretivist paradigm lies in the emotional connectedness,
personal values, and experiences between researchers and participants. As a relationship of
respect, trust, and inclusiveness is developed between each participant, reporting their “truth” to
the academic world is significant. Ponterotto (2005) defines researchers who use constructivist–
interpretivist paradigm as grounded theorists and encourages researchers to explain biases and
expectations in their research. For this paradigm to be valid in this research, every participant
input was greatly valued. Additionally, factors such as Waldorf influence, students’ locus of
control and their learning experience in achieving academic success, the quality of the student
and family environment that promote students’ intellectual, emotional, physical, cultural and
spiritual needs were investigated in order to comprehend the deeper structures of Waldorf.

Briscoe (2005) cautions while most current scholars agree that positionality affects one’s
perceptions, some question whether more accurate perceptions come from the privileged,
especially in regards to the representation of the other (p. 25). To be able to interpret the
knowledge gathered, the researcher thoroughly examined the possible influence that might
impact the research process such as her positionality and biases as well as educators’ deficit thinking. The researcher hopes to bring to surface issues such as teachers’ deficit in their understanding and thinking that are critical to analyzing biases. In regards to the socio-economic, ethnic, cultural, gender-critical aspects of students, and teachers; an objective stance for equitable and diverse representations of each group, and accurate perceptions were examined carefully to avoid exclusive representation.

The ability to recognize and mediate potential conflicts in the research through the lens of the researcher to clear any uncertainties requires an analytical approach. Ponterotto (2005) validates that there is “a distinguishing characteristic of constructivism which is the centrality of the interaction between the investigator and the object of investigation” (p. 129). Although Ponterotto (2005) also cautions about “a fallacy to even think that one could eliminate value biases in such an interdependent researcher-participant interaction” in reference to the constructivist-interpretivism paradigm (p. 131), this research approach was socially constructed and exercised transparency. The possible influence that could have impacted this research process revolves around the makeup of what constitute biases. The cultural heritage and the historical landscape were examined in terms of the positionality of one’s accurate perceptions coming from the privileged, for instance, teachers’ views of the student. Through “deep insights” and “empathy,” the researcher “advocated a transactional and subjectivist stance that maintains that reality is socially constructed and, therefore, the dynamic interaction between researcher and participant is central to capturing and describing the “lived experience” of the participant” (Ponterotto, 2005, p. 131).
Research Limitations

The researcher is well aware of certain limitations to this study. Yin (2003) cautions that research investigators have disliked case studies for they have been regarded as “a less desirable form of inquiry than either experiments or surveys due to their lack of rigor or sloppiness from the part of the study investigator, and biased views may influence the direction of the findings and conclusions” (p. 9). Since case study “does not represent a ‘sample,’ the role of the researcher is to “expand, generalize theories, and do not generalize the findings and report all evidence fairly” (p. 10). Other limitations to consider include the researcher’s subjectivity in the interpretation of the data acquired. Therefore, one should be aware of these assumptions, biases, and limitations and proactively evaluate them before and during the research process.

Internal Validity

Fraenkel, Wallen & Hyun (2012) discuss the internal validity in qualitative research in which ‘internal validity is not as important as it is in quantitative research because qualitative study does not attempt to explore relationships.’ However, researchers are advised to be mindful of research bias data that is interpreted. In this manner, “attention should be given to assessing and, where possible, controlling each of the threats” (p. 438).

Throughout the research process, limitations in research methodology used, data analysis and collection were minimized to avoid threats and inappropriate biases in the generalizability, reliability and internal validity that could have influenced the interpretation of the findings. Since some aspects of the case study were subjective in nature, ‘acknowledging the inability to attain complete objectivity, qualitative researchers openly seek ways to address subjectivity in their research studies in order to minimize bias and maximize validity’ (Fraenkel, Wallen & Hyun, 2012, p. 112). Various methods such as in-depth interviewing, questionnaire and participant
observation were used. In qualitative research, limited sample, lack of evidence of questionnaire validity or the findings could be subject to other interpretations. Fraenkel, Wallen & Hyun (2012) point to the ‘researcher’s goal to understand the case being studied in depth in all its parts including its inner workings to avoid these limitations, (p. 435). With the emphasis to identify potential weaknesses of the study, the researcher discussed and recognized the limitations of the study, especially concerning how they might impact the research findings.

**Research Design**

The research questions led to a case study research design to examine locus of control and its roles in overcoming achievement gap as perceived by educators at a school in the Public Waldorf movement for middle school students of low socio-economic status. Creswell (2013) defines case study method as “a real-life, contemporary bounded system or multiple bounded systems over time, through detailed, in-depth data collection involving multiple sources of information” (p. 97). According to Creswell (2013), a case study approach can be traced from the early 20th century when the French sociologist, Frederic Le Play initiated the first case study method in his research. Researchers from various fields such as psychology, sociology, medicine, law, and social science continue to expand this method over the years (p. 97). New theories seem to be originated using case studies, for instance, ground theory developed by Strauss and Glaser (1967). Tellis (1997) explicates the limitations in quantitative methods during the 1960s which prompted researchers to gain a renewed interest in a case study.

According to Fraenkel, Wallen & Hyun (2012), the case study is a research methodology in which “a single individual, group, or important example is studied extensively and varied data are collected and used to formulate interpretations applicable to the specific case or to provide useful generalizations” (p. 13-14). Thus, a case study is selected as the most appropriate research
approach because it provided a depth of information of the students, and educators being investigated. Suitable instruments such as student questionnaire, in-depth interviews of school principal and teachers, as well as classroom observations of different teaching Waldorf practices and strategies were conducted.

Participants

One hundred and thirty middle school students who fit the characteristics of low socio-economic students were randomly selected from a school referred to as City Community School (CCS). This sample was based on schools in the Public Waldorf movement with a high percentage of students from families with low income, who receive free or reduced-price lunch and have lower achievement scores in one of these subjects such as reading, mathematics, and science. To select participants, a simple random was used to give all eighth-grade students at City Community School (CCS) an opportunity of being selected as subjects. Fraenkel, Wallen & Hyun (2012) define a simple random sample as “one in which each and every member of the population has an equal and independent chance of being selected. If the sample is large, this method is the best way yet devised to obtain a sample representative of the population of interest” (p. 94).

This age group is considered the gateway to early adolescence in which students’ unique developmental change is understandably significant in terms of their intellectual, emotional, psychological, social developmental, moral, ethical, spiritual, and physical characteristics. Throughout this critical period, adolescents are susceptible to declines in academic motivation and achievement (Eccles & Midgley 1989; Eccles et al., 1993; Anderman & Maehr, 1994; Wigfield, Eccles & Pintrich, 1996), boredom, alienation, low achievement and high dropout rate (Marks, 2000), and sense of belonging (Wang & Eccles, 2012). Fortunately, a growing body of
research point out positive outcomes of middle school students who experience healthy teacher-student relationships (Wentzel, 2003; Carlisle, 2011), being valued, accepted and successful in school (Kouzes & Posner, 2002). Selecting middle school students as the sample population is an important age group to consider given their unique developmental change and characteristics. Based on the chosen school demographics and participants’ social-economic status, the specific profile was looked at more accurately to determine the representation of the sampling. Specific school data for the selection process of students who fit the characteristics of low socio-economic status (SES) students were collected to evaluate students’ performance and Waldorf curriculum. The school data provided indicated that the participants fit the criteria to be randomly selected for the study. Ultimately, the goal was to select one hundred students from a school in the Public Waldorf movement in California. Students were not coerced to participate in this study. Therefore, this was on a voluntary based. This sample strategy emphasized on student’s locus of control. It also considered students’ academic learning development, their critical thinking and creative faculties which support and separate Waldorf from the traditional method of learning. The outcome ultimately predicted students’ competence and understanding of locus of control, and Waldorf pedagogy in bridging the achievement gap.

Limitations of the Sample

Yin (2003) contends that researchers should be aware of ‘a fatal flaw in doing case studies by not statistically generalizing the results of the case because cases are not "sampling units" rather individual case studies are to be selected as a laboratory for the investigator to select the topic of a new experiment (p. 31). Although Fraenkel, Wallen & Hyun (2012) state that “there is no guarantee of representativeness, even with large random samples, however, any differences between the sample and the population should be small and unsystematic. Any
differences that do occur are the result of chance, rather than bias on the part of the researcher” (p. 94). In terms of the impact on external validity, the study must be able to be replicated across subjects and real-life situations. Other research biases to keep in mind include keeping every record of the sample population throughout the research to avoid issues during data collection and analysis.

**Research Site**

Currently, there are approximately 39 Waldorf public charter schools and 22 in California alone. California hosts most Waldorf schools in all the United States. The demographic characteristics of the students needed for the proposed study were more accessible at one school in California since this state offers more options to fulfill the specific criteria of the sample needed. According to the Association of Waldorf Schools of North America (AWSNA), at least 30 publicly funded schools are using Waldorf methods in United Stated. The likelihood of selecting one which fits the characteristics of the proposed study is higher in that state.

**Protection of Human Subjects**

**Ethical considerations.** For this research, the researcher employed a practical approach to establishing trust and honesty from the participants. Initially, all participants were aware of every guideline that must be followed pertaining to ethical practices and principles regarding this study. All participants were protected against physical or psychological harm. As Fraenkel, Wallen & Hyun (2012) advice “the identities of all who participate in a qualitative study should always be protected; care should be taken to ensure that none of the information collected would embarrass or harm them” (p. 438). Participants received written consent and were given their permission to record the conversation using a recording device and they were aware of their
roles, as well as the responsibilities of the researcher in order to establish confidentiality, respect, and positive relationship.

Fraenkel, Wallen & Hyun (2012) recommends for researchers to inform each participant of how long the interview will be (p. 71). During classroom observations, an accurate report was recorded of what happened in a Waldorf classroom that may cause students to respond to its pedagogy, the teachers and the administrator’s role to increase students’ achievement and any impact of locus of control. Additionally, the researcher analyzed the factors impeding achievement, underlying the thinking of what is considered effective or not and understanding the complexities of the population which guided between what is assumed versus what is known. Thus, the researcher was able to ensure that the data was protected once collected, during the interviews and observations. Through the use of anonymity of each participant on the questionnaires, a number was assigned instead on each questionnaire. Both the interviews and focus group were conducted in private settings. The IRB process ensured the protection of every participant.

**IRB approval and informed consent.** The IRB policies and procedures from Northeastern University were reviewed so that the researcher clearly understands each step of the process. Approval for human subjects was granted since this study entailed to children who are under eighteen years of age as the sample population. The school data to collect the sample was approved by the school district and the principal of the school. In the consent form for parents’ approval, the purpose, risks, procedures, and confidentiality agreement were clearly explained. Informed consent forms for each student were submitted to parents of all eighth-grade students who participated in this study. The number of consent forms were distributed and returned to be tallied. A log of the percentage response rate of participants who completed and returned the
Intellectual Achievement Responsibility (IAR) questionnaire for data collection was kept. The researcher also asked teachers to assist in the delivery and completion of the questionnaire. Quantitative and qualitative data of students who participated were collected.

Secondly, minimizing the risks of the participants is crucial for a researcher to be aware of and be prepared for potential biases and unexpected events. The purpose of this study offers more benefits than risks. Within the consent forms and instruments used, the researcher intends to protect the participants solely via equitable selection, in ensuring proper delivery, receipt of instruments and everyone’s privacy. Therefore, the researcher made sure that the study did not discriminate unintentionally based on the way the characteristics of low-socioeconomic students are framed. Fraenkel, Wallen, & Hyun (2012) suggest that researchers should not play a ‘role of diagnosticians or counselors in reporting results’ which would require a constant reminder from the researcher’s part to avoid doing. The benefits of a positive outcome outweighed the risks of damaging this study’s data and the appropriateness of the collection of each survey and other instruments used to measure results. Therefore, following every regulation, discussion of the validity, reliability, and implications of this study were carefully evaluated and discussed.

Data Collection

Creswell (2013) considers data collection as a “closely interrelated step in the process that involves determining a strategy for the purposeful sampling of individuals who can best inform the researcher about the research problem under examination” (p. 149). This data allowed the researcher to measure locus of control and draw conclusions regarding its impact on academic achievement, if any. The findings reported the participants’ experiences and realities.

Interviews. The first method for collecting data is through in-depth interviews. Creswell (2013) proposes adequate recording procedures during interviews, and for the researcher to
design an interview protocol with a few pages in length with approximately five to seven open-ended questions (p. 164). Consent forms from the participants were completed and signed as authorized by the IRB process. Conducting in-depth interview of school principals, and teachers benefited this study in determining their influences and commitment to support students’ learning in providing them with freedom and rigor in their curriculum, in allowing them to strive as free individuals, and ultimately in transforming curriculum and policies for the betterment of each student. Creswell (2013) states “to use good interview procedures by being a good listener, staying to the questions, and completing the interview within the time specified” (p. 165). Moreover, Ponterotto (2005) indicates that researchers would gain valuable information from the participants. Researchers should not seek other researchers’ consensus nor change the participants’ “truth.” Instead, researchers should accept all meanings, interpretations as the participants’ reality. Interview questions to consider such as:

- Can the gap using both anthroposophy and standardized testing be bridged?
- What are the specific Waldorf curriculum methods used to effect low socio-economic students' ability to learn?
- What ways do teachers foster Waldorf learning inside and outside the classroom?
- How does Waldorf philosophy and approach empower its teachers and educational leaders?
- What structures are set in place to encourage Waldorf leaders, teachers, parents and students in allowing change?

**Recruitment of focus group participants.** Once the school was in agreement to participate in this research, invitation letters and consent forms were sent via email to the school. Some teachers emailed the researcher to gain more clarity on the study which was provided.
Through developing a consistent rapport with the school, the researcher received a scanned copy of all teachers who agreed to participate.

**Consent forms.** The researcher did not have access to parents’ email addresses or home addresses were not provided. The consent forms were collected on Day 1 by researcher since they were being dropped off at the school’s main office. Informed consent forms were submitted to the school via email and parents of all middle-school students were given the opportunity to participate voluntarily in this study. The number of minor consent forms were distributed in the classroom, and collected to be tallied. Both questionnaires and minor consent forms were matched with each parent and participant’s signature while on site to avoid discrepancies. Proper delivery, verification of signed consent forms and participants’ privacy were paramount to minimize the risks. One of the major reasons that contributed to the collection of all the questionnaires and participant’s signature page was due to the decision to tally them immediately upon receipt. Some students fail to remember to submit their minor consent forms. Therefore, the researcher was able to collect them the same day and some a few days later. The collection of each questionnaire and consent forms were then tabulated to measure and analyze results. The signed consent forms are kept in a secured locked safe.

**Classroom observations.** “An observation is intended merely to indicate whether a particular behavior is present or absent” (Fraenkel, Wallen & Hyun, 2012, p. 117). There are various ways to record participants’ behaviors such as using a tally sheet, participation flowchart, performance checklist or an anecdotal record. To be able to capture suitable and accurate observation for this case study, Fraenkel, Wallen & Hyun, (2012) state specific anecdotes as the desired types in which they produce the most useful records and observers should try to be as specific and as factual as possible by telling exactly what the child did or said, that describe
concretely the situation in which the action or comment occurred, and that tell clearly what other persons also did or said (p. 123-124).

Creswell (2013) notes that the researcher should “watch physical setting, participants, activities, interactions, conversations, and their own behaviors during the observation. Use your senses, including your sight, hearing, touch, smell, and taste. Writing down everything is impossible, thus, start the observation broadly and then concentrate on research questions” (p. 166). In addition, Creswell (2013) maintains that the researcher should “assume the role as a nonparticipant observer, watch and take notes using an observational protocol as a method to both describe and reflect on what is observed including the physical setting, particular events or activities and the researcher own reactions and personal reflections and prepare full notes immediately after the observation” (p. 167). As an observation scale, Fraenkel, Wallen & Hyun, 2012 recommends that ‘observers should record everything an individual does as objectively as possible’ (p. 125). The effectiveness of teaching Waldorf pedagogy, students’ development using different learning means were carefully observed to consider classroom observations as part of data collection in this study. Such tools were evaluated to be included as an additional method to understand students’ academic standing.

**School data and document review.** Yin (1981) advices researchers to develop “well-polished narratives such as individual interviews, specific meetings or other major events, logs of daily or weekly activities and, summaries of individual documents or reports” (p. 60). To avoid pitfalls with the narrative process, Yin (1981) proposes for “the researcher to organize every narrative around the substantive topics of the case study. Each narrative portion should integrate evidence from different data elements, which therefore still need to be recorded precisely, but in the form of notes rather than narratives” (p. 60). The purpose of collecting school data will assist
the researcher in determining many factors contributing to Waldorf pedagogy as an innovative teaching strategy in a learning environment that encourages unique and different learning style of middle school graders which ultimately may impact academic achievement. Students’ perceptions of Waldorf pedagogy will prove vital to the approaches used to learning. In this fashion, staff handbook which includes the curriculum highlights for each grade and educational materials such as a sixth-grade project were collected.

Assessment tool. For this study, data was collected in the format of a questionnaire to be administered in classrooms to middle school students. Crandall, Katkovski & Crandall (1965) state that the Crandall Intellectual Achievement Responsibility Questionnaire is an instrument that is appropriate for the sample population that consists of middle school students. This questionnaire is an attributional style test consisting of 34 statements in which the first item refers to the internal locus of control (a) and the second item refers to the external locus of control (b). The format used was a paper and pencil questionnaire delivered in class to teachers who assisted students in completing them. A BioData will state “please circle the most appropriate response” with three items to be added on top of each questionnaire for students to complete their gender, birthdate, and grade. Teachers collaborated with the researcher based on the classes that participated in this study. The classes were randomly selected to avoid bias. The teachers helped the researcher distributed the questionnaires and students were instructed to circle their answers for all 34 items. It is suggested that oral presentation requested by the researcher to inform students to choose the answer “that best describes what happens to you or how you feel” before the written administration of the scale as a desirable method for children conducted at elementary school level (Mannarini, 2008).
All responses were handled in strict confidence and remained anonymous. For anonymity purposes, each questionnaire was labeled using a numerical code before submission to students. The design of the questionnaire also relates appropriately to the research questions as they examined students’ responsibility and views of their influence in academic and intellectual achievement and how students’ learning is affected by the internal and external forces. This is a forced choice survey question in which students selected option (a) or (b) to indicate internal or external locus of control.

**Data Analysis**

This study offers the opportunity to examine the roles locus of control play in overcoming achievement gap as perceived by educators at a school in the Public Waldorf movement for middle school students of low socio-economic status. The results were able to tell multiple realities of all participants. While schools’ success is determined by student performance on standardized achievement tests, being able to report students, and teachers’ perceptions and attitudes of locus of control and students’ achievement through effective pedagogy. Additionally, using these measurements, the outcomes indicated that Waldorf as an alternative model showed a need to reinvent the approach of teaching and learning to generate additional awareness and research into innovative approaches, less rigid traditional curriculum for underserved students.

Upon collection of all questionnaires, responses were entered for data analysis and for conversion to SPSS format. Descriptive statistics for calculation of the mean, standard deviation, and percentage were used to describe the demographics of the participants. The nominal (gender) and ordinal variables (age, and grade level) were included in order to identify central tendency of each variable. To avoid drop in statistical power, the researcher checked for
errors and corrected them through screening and cleaning the data for error. For transformation purposes, no manipulation of raw data was used such as estimating missing data or replacing the data with mean. Since a large amount of data was collected, examining for missing data if found is crucial. Questionnaires with missing data were deleted and for the use of frequency table, the researcher verified how much was missing. Only questionnaires with complete answers were used.

Coding

During the participant observation field notes, survey responses and interview transcripts, the researcher used two coding methods: in vivo coding and pattern coding. These techniques were used to analyze the raw data collected. Saldaña (2015) defines coding as “a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data” (p. 3). The researcher categorized specific words and patterns of behaviors during and after data collection to ensure the data was ready for analyzing purposes.

In qualitative data analysis, Saldaña (2015) emphasizes on what gets coded which includes “participant activities, perceptions, and the tangible documents, artifacts as well as the researcher’s own reflective data in the form of analytic memos” (p. 18). In addition, Saldaña (2015) discusses the transition from coding to categorizing in synthesizing the data. For instance, the researcher first categorized possible coding themes that share characteristics of Waldorf rituals or routines and locus of control such as “Perceptions, Teacher Roles, Learning Strategies” and subcategories such as “Influential Forces” or “Learning Style.”

According to Saldaña (2015), In vivo coding and process coding are foundation methods for grounded theory. In vivo “draws from the participant’s own language for codes while process
coding uses gerunds exclusively for codes” (p. 97). As the “most well-known label” and the first cycle analysis, “In vivo coding processes allows the researcher for the beginning stages of data analysis to split themes into individually coded segments” (p. 55). In vivo is also referred as the “actual language” of participants that is specifically useful with youth to avoid marginalizing them. Thus, Saldaña (2015) recommends this method of coding by applying verbatim principles (p. 106). From data collection, specific words used by participants were in vivo coded, then themes were developed then grouped into a broader category to label what is captured chronologically during classroom observations, survey responses, and observation field notes. The researcher “wore her analytic lens to interpret what happened in the data” (p. 7).

The second code method the researcher applied with In vivo coding is pattern coding which is used to “cluster the summaries into a smaller number of categories, themes or concepts to examine patterns of human relationships, search for explanations in the data and to form theoretical constructs and assertions” (p. 236). These two coding steps were conducted, and themes emerged from the data with more consistency and clarity in capturing the direct languages of each participant.

Furthermore, Saldaña (2015) addresses some of the critiques in coding and advises the researcher to treat coding “as an act of personal signature” because perceptions vary and objectivity is “impossible to achieve in both quantitative and qualitative research” (p. 41). Within the interpretive paradigm, the trustworthiness of the findings from qualitative research such as the credibility, transferability, dependability, confirmability and the appropriate coding for analysis as well as a statistical software are highly suggested (Bowen, 2005).
Descriptive Statistics

The purpose of using descriptive statistics was to outline information about the sample and to calculate the observed data through graphs. Additionally, calculation of the mean, standard deviation, frequency, and percentage were used to describe the demographics of the participants. The first step was a nominal scale of measurement in which the data for the variables such as male and female was categorized. The numbers 1 for male and 2 for female will be assigned. Secondly, the nominal (gender) and ordinal variables (age, and grade level) were included in order to identify the central tendency of each variable to answer all research questions.

Inferential Statistics

The inferential statistics was useful to gain additional knowledge from the sample about middle school students as the population. Inferential statistics allowed the researcher to make predictions or inferences about how those variables relate to the sample from the larger population to predict students’ academic achievement based on their locus of control. Based on what the data showed, the hypothesis that there is a relationship of locus of control between male and female was supported.

Data Tabulation and Coding

Cresswell (2013) discuss the importance of storing data through backing up, organizing, and storing. Researchers should “always develop backup copies of computer files, use high-quality tapes of audio-recording information during interviews, develop a master list of types of information gathered, develop a data collection matrix as a visual means of locating and identifying information for a study” (p. 175).
The Crandall Intellectual Achievement Responsibility Questionnaire consists of 34 items using two alternative responses: (a) for internal locus of control and (b) for an external locus of control. Individuals with a high internal locus of control believe in their ability to control themselves and influence the world around them. While those with a high external locus of control believe that control over events and what other people do is outside them which give them little or no control. Each response was recorded and categorized using a column to identify the internal and external locus of control for both male and female participants. Every participant was assigned an ID number from 001 to 130 based on the total number of participants. This study’s participants were middle school students who range in age between 11 to 14 years of age and from 6 to 8-grade level. Each grade level was coded differently according to the choice made. Once the data is collected, they were tabulated accurately using categorical data.

**Validity, Reliability and Generalizability**

Statistical methods are critical to explore any relationships among students’ locus of control and their ability to learn as well as to compare locus of control between male and female students. Validity refers to “the appropriateness, meaningfulness, correctness, and usefulness of the inferences a researcher makes” based on the data collected from a particular instrument (Fraenkel et al., 2014, p. 148). First, multiple linear regression analysis was used to analyze any relationship between one continuous dependent variable (student’s locus of control) from two or more independent variables (gender, grade level, and age). By adding these variables, the goal was to increase the statistical validity of this study ultimately.

Robinson, Shaver & Wrightsman (1991) state that the Crandall Intellectual Achievement Responsibility Questionnaire (IAR) is a carefully developed scale that shows acceptable reliability and evidence of divergent and convergent validity. For this instrument to be valid and
accurate, its design must measure what it is intended to measure, in this case, students’ views on their influence on the reinforcement related to their academic and intellectual ability. The Crandall Intellectual Achievement Responsibility Questionnaire seems to be an appropriate tool that provided answers to the research questions. It provided face validity because the 34 questions appear reasonable to gain the data needed as well as content validity.

Its internal validity depended on the important outcomes of locus of control and its relationship between the independent variables and the dependent variable. Its external validity indicated if the results of this study can be generalized to all middle school students based on the sample population of 130 students. In regards to its external validity, appropriate generalization in other studies was provided within other population. The researcher investigated further threats to external validity by closely examining post-test and pre-test effects, treatment conditions and administration in each classroom, the test administrators/teachers full understanding to avoid unwarranted generalizability. Selection bias was avoided to non-representative sample as this study was limited to middle school students.

Validity and reliability are critical in research to avoid compromising the questionnaire. The researcher’s main concern is in regards to a lack of recent studies reported to verify further validity and reliability. Robinson, Shaver & Wrightsman (1991) report IAP’s internal consistencies at 0.55 for subscales, and at 0.70 overall, test-retest reliability is at 0.70. For the validity evidence, internality score predicts grades, achievement test scores, and amount of time spent pursuing “intellectuals” activities. These are examples of studies that show both the validity and reliability of the IAR instrument.

The researcher compared performance on the IAP with performance with Multidimensional Multiattributional Causality Scale developed by Herbert M. Lefcourt in 1981.
This instrument measures affiliation and achievement. The scale consists of items concerning experiences of failure and experiences of success. This scale is the only one that measures the same variable from the list of all 28 Locus of Control Scales. The other scales measure various components of locus of control such as the subject’s social desirability, subject’s thinking, and actions. Academic Locus of Control Scale by Trice created in 1985 measures achievement motivation but targets college students. The criterion variable for this scale is the same as what the intended study investigated which is the locus of control and achievement. However, the scale measures a different population.

The instrument was used to analyze the data, the preparation to code and structure, the transformation to screen and enter the data, and the statistical techniques were chosen to address the research questions. Analysis of the data was conducted with Statistical Package for Social Sciences (SPSS). Through the use of both descriptive statistics, and inferential statistics, the data was presented. The most appropriate instruments for this type of research are also highly recommended. As with any study, whatever instruments are used must yield reliable scores. The instruments must also show evidence of validity. If they do not truly measure the intended variables, then any correlation that is obtained will not be an indication of the intended relationship (Fraenkel, Wallen & Hyun, 2014, p. 339).
Chapter IV: Research Findings

Purpose of the Study

This study examined the perceptions of educators and the role locus of control plays in student learning and achievement essentially. The purpose of this case study methodology was to examine the roles of middle school students’ locus of control in overcoming achievement gap as perceived by educators at a school in the Public Waldorf movement. This chapter aimed to report the meaning obtained from the data. The result of this investigation is comprised of interpretive data. The perceptions of educators on Waldorf education and students on locus of control are presented in depth from a constructivism-interpretivism lens in which several realities, beliefs and personal experiences of participants are interpreted. The interpretation guiding this study were documented and provided a discussion to answer the research questions.

Based on the findings and results, the research questions were answered using qualitative and quantitative analysis to establish the validity of data. The research questions guiding this study were as follows:

1. What roles does locus of control play in overcoming achievement gap as perceived by educators at a school in the Public Waldorf movement for middle school students of low socio-economic status?

2. How are middle school students’ ability to learn reinforced by students’ locus of control, as perceived by their teachers?

3. How do environmental factors at a school in the Public Waldorf setting influence students’ locus of control and their learning experience, as perceived by the educators and students of the school and students of the school?
The data, resulting from this case study methodology was gathered from an in-depth interview with the school principal, a focus group interview of six teachers, a questionnaire to 130 middle school students, two classroom observations and record reviews from a public Waldorf school in California. Yin (1994) notes “the case study allows an investigation to retain the holistic and meaningful characteristics of real-life events” (p. 3). While Creswell (2013) defines case study method as it “explores a real-life, contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information (p. 97). The case study was adopted as it allowed a greater understanding of the particular case being studied. As an empirical, descriptive inquiry, it provided a detailed understanding of teachers ’perceptions of Waldorf education and students’ locus of control. Thus, multiple sources of evidence were collected for a week at a school referred to as City Community School (CCS) using both quantitative and qualitative methods. Yin (1994) supports quantitative evidence in case studies stating that “case studies can include, and even be limited to, quantitative evidence (p. 14). The analysis is tied back to the research questions. The objectives of the study were to identify:

- The roles of locus of control in overcoming the achievement gap
- The perception of teachers on Waldorf philosophy
- Teachers’ influence on students’ learning
- Teachers’ influence on students’ view about themselves
- Any relationships between students’ locus of control and Waldorf education.

The data gathered from this case study as well as the descriptive analysis for quantitative findings, qualitative analysis and the interpretation of findings and results are presented into three parts. The first part provides the background and demographic data of the participants. The
second part describes the tools used to gather the data and the third section discusses explicitly the results and analysis of the study. Each finding was presented in tables.

**Student and School Demographic Data**

This study took place at a school referred to as City Community School (CCS) located in California. Per the school district request, the name of the school will not be released. Therefore, the demographic make-up of the school in terms of its history, students’ characteristic and geographical location were not central to the study and will not be shared. Approval for human subjects was granted through Northeastern University and California school district’s IRB process because the participants were under eighteen years of age. Their names were kept confidential. A total of one hundred and thirty (130) students comprised of 71 females and 59 males completed the questionnaire, ages ranging from 11 to 14, from grade 6 to 8, with forty-seven (47) 6th graders, forty-six (46) 7th graders and thirty-seven (37) 8th graders. The students’ demographic profile who participated in this study can be found in Table 4.1.

Table 4.1

<table>
<thead>
<tr>
<th>Number of Students by Gender and Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>-------------</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td><strong>Total # of students</strong></td>
</tr>
</tbody>
</table>

The specific profile of the chosen school and participants’ demographics were looked at carefully. The sample was based on students from families of low socio-economic status who receive free or reduced-price lunch and have lower achievement scores in one of these subjects such as reading, mathematics, and science. The school fits the characteristics of 31% free and
reduced lunch for 2018-2019, with a diverse student population. Random selection of student participant was conducted to determine representation of the sampling in an unbiased manner. According to Fraenkel, Wallen & Hyun (2012), a simple random sample is selected from a population in such a manner that all members of the population have an equal chance of being selected (p. 95). As an important factor to consider in this study, City Community School (CCS) has a percentage of approximately 30% of low socio-economic status student population was selected. Thus, a simple random was used to give all eighth-grade students an opportunity of being selected as subject. As Fraenkel, Wallen & Hyun (2012) state “the advantage of random sampling is that, if large enough, it is very likely to produce a representative sample (p. 95).

Although the target population is diverse, the sample size shares similar characteristics and attributes of low socio-economic status and receive free and reduced lunch. A sample size of one hundred and thirty (130) students were randomly selected and participated in the study. The next tables indicate the breakdown of all the variables identified in the data.

**Student Assessment of Locus of Control**

*The survey.* The research was conducted as a comprehensive analysis to determine the roles middle school students’ locus of control play as they are perceived by educators at a school in the Public Waldorf movement. According to Halpert & Hill (2011), the Crandall Intellectual Achievement Responsibility Questionnaire was developed by Crandall, Katkovski, and Crandall to measure academic Locus of Control in children and adolescents. Specifically, this scale is meant to measure children’s views on their influence on reinforcement pertaining to academics and intellectual ability. This scale can be used to determine both where children place responsibility for success and where they place responsibility for failure. This 34-item questionnaire is widely used in educational research (p. 54). The Crandall Intellectual
Achievement Responsibility Questionnaire contains 34 questions with two force-choice responses which are (a) and (b) for either I+ internality for positive events or for I- for internality for negative events. Based on the number of choices students selected, the number of I+ Internality for positive events and the number for I- Internality for negative events were counted by summing the total scores for internal responses for items keyed with + and I-. The total is the sum for the I+ and I- subscores.

These subscales assess students’ internal and external separately in success and failure situation. At the top of the questionnaire, the name, grade, birthdate, and gender information were asked. The authors of the questionnaire requested no changes be made to the original version. However, to protect the anonymity of each participant, the space to add a name on each questionnaire was crossed out. Instead, a number from 001 to 130 was assigned on each questionnaire from the technique created with the table of random numbers. From an Excel Spreadsheet, a table of random numbers of 150 was created with three digits starting from 001 to 150. The numbers were written on top of each questionnaire and coded with different colors per grade. Therefore, 50 questionnaires were coded in black, 50 in green and 50 in blue. When coding began, no exact order nor pattern was used to assign the numerical code where each number represents a selected participant. Because only 130 questionnaires were collected, only these numbers were used for the analysis of data. Student race information was not asked nor identified for the purpose of this study. The ages of the participants varied from 11 to 14 years. The original questionnaire was provided by the ETS Test Collection. The questionnaires were reproduced exactly as is. Of the 150 questionnaires generated, 130 completed questionnaires were returned, while 6 participants declined to take the questionnaire. The research was conducted as a comprehensive analysis to determine the roles middle school students’ locus of
control play as they are perceived by educators at a school in the Public Waldorf movement. According to Halpert & Hill (2011), the Crandall Intellectual Achievement Responsibility Questionnaire was developed by Crandall, Katkovski, and Crandall to measure academic locus of Control in children and adolescents. Specifically, this scale is meant to measure children’s views on their influence on reinforcement pertaining to academics and intellectual ability. This scale can be used to determine both where children place responsibility for success and where they place responsibility for failure. This 34-item questionnaire is widely used in educational research (p. 54).

**Descriptive statistics.** The purpose of using descriptive statistics which contains the frequencies and standard deviations allows the researcher to describe students’ internal locus of control as assessed by the Crandall Intellectual Achievement Responsibility Questionnaire. For descriptive purposes only, the mean and standard deviation of the internal locus of control score is provided in Table 4.2, for the entire population, males, females, 6th, 7th, and 8th grade. The score presented in the Table is the number of answers out of 34 questions that a student provided an answer in keeping with having an “internal locus of control.”

Table 4.2

*Means and Standard Deviations of Internal Locus of Control by Group (out of 34)*

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>24.9</td>
<td>2.9</td>
</tr>
<tr>
<td>Males</td>
<td>24.6</td>
<td>2.7</td>
</tr>
<tr>
<td>Females</td>
<td>25.1</td>
<td>3.0</td>
</tr>
<tr>
<td>6th Grade All</td>
<td>25.1</td>
<td>3.0</td>
</tr>
<tr>
<td>7th Grade All</td>
<td>24.5</td>
<td>2.8</td>
</tr>
<tr>
<td>8th Grade All</td>
<td>25.1</td>
<td>2.9</td>
</tr>
</tbody>
</table>
As can be seen in Table 4.2, the mean number of answers in keeping with an “internal locus of control” perspective was 24.9 overall, with minimal differences between the means and standard deviation of each subgroup, i.e., males and females, and 6th, 7th, and 8th graders. The range of responses across the entire group and each subgroup also mimicked a normal bell curve, as can be seen in Figures 1.1 through 1.3 below.

Figure 1.1. Column chart of number of students answering questions in keeping with internal locus of control, out of 34 questions
Figure 1.2. Percent of Male and Female Internal Locus Scores
Figure 1.3. Percent of all grades for Internal Locus of Control Scores
Independent samples t-test for the difference between groups. While not necessary to perform for the purpose of this study, an independent samples t-test was performed to determine whether there was a statistically significant difference between groups: male vs. females, 6th vs. 7th grade, 6th vs. 8th grade, and 7th vs. 8th grade.

As can be seen in Table 4.3, there were no statistical differences in the mean for locus of control responses by students between the identified subgroups for this population.

Table 4.3

*Independent samples t-test (2-tailed) between males and females for internal locus of control*

<table>
<thead>
<tr>
<th></th>
<th>Males Mean (SD)</th>
<th>Females Mean (SD)</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24.6 (2.7)</td>
<td>25.1 (3.0)</td>
<td>p=.30</td>
</tr>
</tbody>
</table>

Table 4.4

*Independent samples t-test (2-tailed) between 6th & 7th, 7th & 8th, and 6th & 8th graders for internal locus of control*

<table>
<thead>
<tr>
<th>Grade</th>
<th>Mean (SD)</th>
<th>Grade</th>
<th>Mean (SD)</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>6th Grade</td>
<td>25.1 (3.0)</td>
<td>7th Grade</td>
<td>24.5 (2.8)</td>
<td>p=.35</td>
</tr>
<tr>
<td>6th Grade</td>
<td>25.1 (3.0)</td>
<td>8th Grade</td>
<td>25.1 (2.9)</td>
<td>p=.99</td>
</tr>
<tr>
<td>7th Grade</td>
<td>24.5 (2.8)</td>
<td>8th Grade</td>
<td>25.1 (2.9)</td>
<td>p=.38</td>
</tr>
</tbody>
</table>

Focus Group

The research questions served as the guiding work of this study:

1. What roles does locus of control play in overcoming achievement gap as perceived by educators at a school in the Public Waldorf movement for middle school students of low socio-economic status?
2. How are middle school students’ ability to learn reinforced by students’ locus of control, as perceived by their teachers?

3. How do environmental factors at a school in the Public Waldorf setting influence students’ locus of control and their learning experience, as perceived by the educators and students of the school?

**Thematic Analysis**

To have a better understanding of the research questions being asked, the researcher examined the critical themes that emerged out of the data based on the different responses of participants. In the following section, the researcher presents the overarching themes resulting from the interview and focus group responses. The researcher used data from the focus group

- Locus of control is embodied within Waldorf curriculum.
- Waldorf’s community is considerably important to foster students’ locus of control.
- Locus of control is an influential factor of students’ academic success.
- The same curriculum and methods are followed in every single classroom early kinder through eighth grade.
- The curriculum guides teachers on what's important to students’ level of development.
- Waldorf offers a unique curriculum with multiple modalities that are implemented in each lesson.
- The learning experiences and approaches can enhance how students take control over their decisions, attitudes and behaviors.
The social-emotional learning aspects of Waldorf philosophy are significant to students’ development based on the beliefs of teaching them to see the truth, goodness and beauty in nature, arts, music and stories.

Research Question One: What roles does locus of control play in overcoming achievement gap as perceived by educators at a school in the Public Waldorf movement for middle school students of low socio-economic status?

Context. This study begins on the premises that locus of control plays a role in bridging the academic gap at a school in the Public Waldorf movement. Many studies from the literature review ties up locus of control with academic achievement showing a relationship or a positive correlation (Gujjar & Aijaz, 2014; Ghonsooly & Shirvan, 2011; Shepherd, Owen, Fitch & Marshall, 2006; Landine & Stewart, 1998; Keith, Pottebaum & Eberhart, 1986; Stipek & Weisz, 1981; Bar-Tal & Bar-Zohar, 1977). As perceived by educators at a Waldorf setting, academic achievement is not only measured with standardized tests. Instead, they emphasize on practical skills, the artistic abilities and the social-emotional development of students. Gaps are potentially perceived as an incomplete project, or lack of real-life connections but also as the inability for students to connect their emotions and feelings to the main lessons.

Locus of control at a Waldorf setting denotes the manner at which children are taught through arts, play and stories told. Teachers intend to connect the multifaceted experiences to students’ feelings. Through these activities, they hope to develop the emotional, social, physical and cognitive senses of students. When students deal with conflicts as a community, using their sensory responses to themselves, others, and to the world, they are learning self-esteem, determination, and positive attitude. Per the school principal and teachers’ perceptions, locus of control is relative to Waldorf instructional approach but varies from the expectations in the
traditional method of teaching that predict academic achievements. Particular attention was paid to the value of various instructional models to help students strive artistically, socially, intellectually and cognitively. These statements essentially sum up the role locus of control play in which teachers’ perception and methods of teaching Waldorf are influenced in developing well-rounded individuals and by students’ greater sense of well-being.

Standardized test results of the school and analysis were not captured in this research. However, based on independent research conducted of the school and based on the current data, it showed that low socio-economic students outperformed other district students at all grade levels. Since the outcome of academic achievement was not the primary basis by which students’ success is measured at City Community School (CCS), based on teachers’ perceptions, other factors were prevalent and beneficial in providing students with a multi-faceted approach.

**Thematic analysis of the interview with the school and teacher focus group.** As can be seen in Table 4.5, both the principal and teachers elaborated on the roles of locus of control in fostering students through their struggles and on relying on the school community to engage them and help them achieve together. These themes are presented and discussed below.

Table 4.5

*Themes from School Principal and Teachers in Response to the First Research Question*

| Locus of control is embodied within Waldorf curriculum. |
| Waldorf’s community is considerably important to foster students’ locus of control. |
| Locus of control is an influential factor of students’ academic success. |

**Locus of control is embodied within Waldorf curriculum.** The school principal and the teachers agreed that locus of control as an aspect of students’ personality and their social emotional needs is at the core of Waldorf entire curriculum. Locus of control is embodied within
the play based early childhood curriculum through the last grades. The school principal reinforced that statement by explaining that the curriculum, is really at the foundation of their play, as they're learning, the play-based curriculum allows them to work on problems solving and as they're working on those gross motor and fine motor skills, those skills are embedded into their play. They're learning to work through differences, conflicts, and challenges that they might face.

Many teachers commented on how “sensory opportunities” are created in nature, and outside the classroom to allow students to develop their social-emotional, cognitive and sensory skills. Teachers also reiterated that Waldorf curriculum offers multiple modalities that are embedded into each lesson in which the students are able to express their emotions through artistic work, whether it is through music, movement, at a multicultural day, playing a stringed instrument, handwork or a lesson on Spanish culture they are learning to control their environment, to be more independent in order to be successful.

Waldorf’s community is considerably essential to foster students’ locus of control. Teachers also reflected on the community where students’ locus of control is expressed. Students begin their day with a handshake as they walk inside their classroom, “making eye contact that sets the tone for the day.” They are starting their day “on some kind of a community formation,” to build and work together on their lessons, whether it is “a piece of poetry, singing or rhythm sticks to be successful while they rely on themselves and each other to achieve the goal of the community that we have in our classrooms.” As “a true community classroom,” students are not trying only to make personal achievements, “it's what can we accomplish and do together when we are all a part of it.” One teacher affirmed the importance of the community at Waldorf where she has known her students for years, has seen them struggled and she can support them.
Students’ locus of control can also be seen in the school community as one teacher observed,

I think that they begin to see themselves, their identity because the way they see themselves is shifted. It changes, it becomes. I am the kind of person who works hard when things get hard and not the kind of person that gives up. I'm the kind of person that keeps trying. "I'm the kind of person that lives in a community. I'm the kind of person who cares about others, and I know that I have power in my life to affect change in my life, in myself and in the world in which I live and move.

Another teacher believes that the school is “a community of people and a community of human beings that struggle together” and “it’s a commitment for the class to support that person. We don't discard this person as being not as important as the rest of us, and we don't create value judgments based on will and completion, but we worked together to see that.”

**Locus of control is an influential factor of students’ academic success.** “She's not the sum of her achievements”: This statement encapsulates this overarching theme as one teacher believes that a student’s grade does not define her in her entirety and wholeness of who she is. Teachers argued that the way students see themselves and “how they think of others is what matters. They believe the concept of locus of control ties into the different modalities that students are learning at Waldorf. Regardless of students’ different cultural, and socioeconomic background, there are so many different ways they can express themselves. One teacher stated, “Even to the extent that the teacher has complete control over which stories they tell,” students need to “create their own experiences” and “feel connected to the story” from the stories and biographies.
Teachers shared multiple experiences of students exhibiting locus of control. As a class, they were reading Fahrenheit 451, and while discussing in a circle one teacher shared “I'm just blown away at their willingness to be so open and vulnerable with each other in a class of eighth graders, and their willingness to ask the tough questions” and able to be assertive and discern what they can and cannot control. Through hard work and their willingness to finish any project they are working on, teachers believe that Waldorf methods and students’ locus of control provide an opportunity for them to be successful. Teachers credited the eight years track to students’ success, their locus of control and the positive relationships built through the school community. With this commitment, “you can't afford to disregard a human being for eight years,” one teacher strongly stated. Overall, teachers believe the curriculum, and the relationships built over eight years have allowed students to emerge using their capacities and their abilities to succeed.

Research Question Two: How are middle school students’ ability to learn reinforced by students’ locus of control, as perceived by their teachers?

In relationship to this research questions, teachers emphasized specifically on honoring students with a reverence which constitute a core value of Waldorf curriculum. They commented on how looping through an eight-year cycle where main lesson blocks are created to teach each subject from a topic which is incorporated into the block for weeks. Looping is a Waldorf practice keeping one teacher with the same class together from first through eighth grades. Students develop a long-lasting bond with their teacher which facilitate the learning process. Teachers believe that students’ ability to learn take place and is connected with their feelings. Research (McVittie, 2018) indicate the value of emotion in children’s play and their language in learning, the social and emotional learning in creating climates and mindsets for success in
adolescents (Yeager, 2017) and encourage greater thriving and a greater love of learning (Allen et al., 1997). As one teacher shared: “we don't dedicate the entire day to pure academics, children have opportunities to excel, thrive, contribute and challenge themselves in all different areas of what it means to be a human being.”

Students with internal locus of control equate to students’ meaningful learning orientation (Sadi & Çakiroğlu, 2014) and positive thinking skills and grit (Çelik & Sariçam, 2018). From a Waldorf perspective, students’ ability to learn involves an enormous amount of teacher’s commitment to striving, a concept of growth of the whole child and awareness from the discomfort in thriving to learn. Teachers recognize that the Waldorf community provides students and teachers the necessary freedom for the growth to take place individually and collectively.

Table 4.6 presents the themes derived from an analysis of the interviews in response to Research Question 2, with a presentation of each theme follows.

Table 4.6

Themes from School Principal and Teachers in Response to the Second Research Question

| The same curriculum and methods are followed in every single classroom early kinder through eighth grade. |
| The curriculum guides teachers on what's important to students’ level of development. |

The same curriculum and methods are followed in every single classroom early kinder through eighth grade. The second question dives into teacher’s perceptions of Waldorf philosophy and how it reflects on the way students learn which might reinforce their locus of control, i.e. their behaviors, attitude and determination to succeed. The school principal and teachers believe the emphasis of a curriculum with “multiple modalities” that includes early
kindergarten play-base, looping from K through 8 grade, and the many artistic, and practical skills reflect on students’ sense of control, determination and attitude. Teachers gave examples of handwork projects that may deem difficult for students to complete. However, they believe these “moments of hardships” are teachable moments that build their confidence. As one teacher stated: “they're learning to work through differences or conflicts.” Another teacher speaks about the importance of completion as an achievement and which translates to students’ locus of control when it comes to students’ lessons by saying: “It hurts if it doesn't get finished and it lives with you. And I think as a community when you have that expectation; then it hangs in a sort of communal sense.” Through the struggles and frustrations that students face, teachers believe that their community engages in strength building to teach students about their locus of control.

**The curriculum guides teachers on what's important to students’ level of development.** This theme elicited responses about their roles as teachers, how they relate and regard students with respect to applying Waldorf methods to help them develop cognitively, behaviorally, socially and emotionally. They believe in developing the entire child, i.e. their mind, body, and spirit. One teacher stated, “we're trying to develop all aspects of them, their will, and their thinking.” Another teacher believes that “the learning does not penetrate deeply unless you're considering the entire child and honoring the entire child.” They expressed their approach as very different from the traditional method. Their focus on using less academic track but “more will-building pursuits” through arts, stories and biographies to generate “feelings to a large degree” and to “give students the experience of what it means to be human.” These statements speak of Waldorf learning approach that elicits the concept of wholeness development.
Research Question Three: How do environmental factors at a school in the Public Waldorf setting influence students’ locus of control and their learning experience, as perceived by the educators and students of the school?

This question aimed to establish evidence and to determine if students are more internally or externally influenced by what they are learning using a Waldorf approach. In other word, does Waldorf produces opportunities to change outcomes in children’s locus of control? The teachers shared that Waldorf offers a unique curriculum with multiple modalities that are implemented in each lesson for students to express their emotions artistically and practically. They also spoke of the learning experiences and approaches that can enhance how students take control over their decisions, attitudes, and behaviors. The lessons are utilized to encourage hard work, a positive attitude toward education and a commitment to strive for success. Teachers also asserted that they are preparing students to transform the world. They admitted that they face many challenges and as they strive together as a community, they are promoting a sense of commitment and serve as role models to their students.

Teachers pointed out to the social-emotional learning aspects of Waldorf philosophy as significant to students’ development based on the beliefs of teaching students to see the truth, goodness, and beauty in nature, arts, music, and stories. Since Waldorf instructions are embedded into the curriculum throughout the years, the pedagogy supports students’ imagination and emotions. While observing the sowing class, students showed evidence of steadfast dedication and an acute sense in following directions and in applying quickly what they learned. This strongly supports a learning experience that fundamentally affects students’ abilities to apply themselves in any given situation.
Table 4.7 presents the themes identified through an analysis of the interviews in response to Research Question 3, with a description of each following.

Table 4.7

*Themes from School Principal and Teachers in Response to the Third Research Question*

<table>
<thead>
<tr>
<th>Themes</th>
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<tbody>
<tr>
<td>Waldorf offers a unique curriculum with multiple modalities that are implemented in each lesson.</td>
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<tr>
<td>The learning experiences and approaches can enhance how students take control over their decisions, attitudes and behaviors.</td>
</tr>
<tr>
<td>The social-emotional learning aspects of Waldorf philosophy are significant to students’ development based on the beliefs of teaching them to see the truth, goodness and beauty in nature, arts, music and stories.</td>
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</tbody>
</table>

_Waldorf offers a unique curriculum with multiple modalities that are implemented in each lesson_. Waldorf practices different learning styles for all students’ senses, so they can express their emotions, and feelings through their work which are embedded into each lesson of “movement, a multicultural day, playing a stringed instrument, handwork or learning about Spanish culture.” The school principal explained further, “Within the way that our classrooms structure is, it allows for students to go and forth and back multiple modalities to be able to show what you know, being able to move when you need to move or stand up when you need to stand up or find a quiet space when you need to have a quiet space, being able to work with a partner, being able to work in a cooperative group, understanding how to be respectful to a teacher and also having teachers that know how to be respectful to students because it has to work both ways.”
Educators stated that students are very engaged in each lesson as they are being provided with diverse experiences and students can use different skills during a single lesson in music, through dance, playing the flute, or at a rhythm stick. As one teacher said,

These different ways of the curriculum allow students to have the educational experience that may be more culturally relevant than what you might see in a traditional classroom where you may be expected to sit behind a desk longer and be still and be quiet. Not to say that our classrooms are chaotic or anything like that, but that there are a respect and an understanding that no matter what a student culture or ethnicity, this is space for students to be honored. And it goes back to believing and understanding that everybody has something to contribute to that community. And everybody can be good at something.”

The curriculum allows students in several different ways to feel successful. Teachers also spoke about honoring students through the curriculum, with the biographies that a student of color can relate to because they believe that resonate with students more in a profound way. Students’ feelings and thriving to succeed are of great significance because they have greater access to impact gaps. Teachers shared anecdotes of seeing the differences in students because of Waldorf teaching. One teacher narrated his experience when a student of color was transferred and how inquisitive and surprised that he was about the methods of teaching being used. They gave examples of standing in a circle with students, an activity a child might find difficult, but with their community of other students and teachers, that particular child can engage in the given task. Another teacher gave an example of a new student who joined the school at a later time and see over time how she thrives on volunteering often and takes on new roles.

The learning experiences and approaches can enhance how students take control over their decisions, attitudes, and behaviors. One teacher narrated the experience of a
transferred African American male student who was not familiar with Waldorf methods. Upon experiencing a morning routine of verse recitation and song, he was pleased to be at the school. As the teacher shared, “He tried really hard and he had a great attitude. I could see he lights up.” The teacher believes that the Waldorf environment helps students with a better attitude about education in general and maybe go from further whatever that means.

Another teacher shared the transformation in students as they engage in the learning experiences of Waldorf. He gave an example of one female student who finds joy in offering to assist in the classroom, who “has internalized how to be in the world,” and the fact that her mother is as much involved in giving her time at the school. He illustrated how students “are changing the way the class will take place because flexibility is significant.” He emphasizes on allowing such freedom due to its importance in the curriculum. As stated,

You have to know where you're going, but you also need the flexibility and the ability to take teachable moments and their participation matters to an incredibly high degree. It may be that they will feel themselves in other places differently, but it's important that they know that here in this classroom, and here in this school, their participant is paramount. It will change the world around them, you know."

**The social-emotional learning aspects of Waldorf philosophy are significant to students’ development based on the beliefs of teaching them to see the truth, goodness, and beauty in nature, arts, music, and stories.** Teachers integrate storytelling from all cultures and biographies from all backgrounds to honor and teach different cultures to students. Students can see themselves through the lessons. One teacher always considered when it is developmentally appropriate to discuss certain aspects of history. His students want to know about Africa or Mexico. As teachers pointed out, students want to learn stories of people who are like them
which ultimately build their sense of identity. A teacher asserted, “I think storytelling is the
biggest and most impactful way we impart learning.”

One teacher thought that most of the lessons taught in the younger grades help them build
their sense of wellbeing, whether students are standing in a circle, they are learning about
independence, beauty in nature, to begin to “discern for themselves,” to see rewards and
reinforcements through words of encouragement, in “removing obstacles” so students can see
“the standard for goodness and beauty.”

Teachers discussed the influential forces in social-emotional learning aspects of the
school community that also prepare students with their behaviors, building positive relationships
with others, and their sense of control. The school community with parental support allows
students to hold each other accountable. One teacher explained in the younger grades how
students could internalize the lessons in a positive way. Whether they are standing in a circle
which could be a difficult task for some students, the school community is standing with them,
that student does not get to leave the circle; instead, teachers use uplifting language to support
students until they can do so on their own.

In middle school, teachers build students’ sense of control and independence differently
by asking them to come up with their list of rules and what is their ownership through the
learning process. The language with the older grades helps them “talk through their problems
and not having to deal with the natural consequences” of bringing the parents into the
conversation. As one teacher explained,

What's your plan to start doing your homework more often? Or what's your plan to stop
talking to this classmate who was irritated with you because you won't stop talking? I can
give you a consequence if you need that, but I'm hoping you'll work it out.
Based on the embedded curriculum, students look at themselves and others with truth, goodness, and beauty.

**Classrooms Observations**

A total of eight (8) classrooms were observed which offers a comprehensive view of what goes on in many Waldorf classes. However, only two observations are reported. Many of the concepts observed in the classrooms were consistent with what participants shared in the interviews and focus group. Each classroom observation was audio and manually recorded. Fraenkel, Wallen & Hyun (2012) suggested many to record participants’ behaviors. Anecdotal record and a tally sheet were used to capture the essence of what was seen notably. The first class observed on Day 2 was a string class for seventh (7th) graders. Thirty (30) students came in and sat in their chair and began to practice with their strings. Students were paired in two. Others present in the room were the substitute teacher and one Instructional aid for one of the students with special needs. The substitute gave instructions and asked for one student volunteer from a different group to be the conductor while the rest of the group play their instruments. Group 1 and Group 2 had seven students, Group 3 had eight students, and Group 4 had six students. One student could not play because he did not bring his instrument. Students alternated in groups. Then, the entire class practiced together. There were musical notes and imagery during the whole class including affirmation notes. One quote, in particular, stands out: “Make an effort, not an excuse!” Some of the strategies the instructor used were repetition.

On Day 3, the second observation was an eight (8th) grade sowing class. A third of the class was taught that day. Pictures of the blackboard depicted information about the parts of the sewing machine. Eight (8) students were in class. The remaining classroom was not present; a third of the class was taught because the teacher has only 12 sewing machines. Students worked
by pair for ten weeks period making pajama bottom. The class lasted 90 minutes while they were practicing stitching guide. Soft music was playing in the background. While the tasks seem challenging with all the steps, students were happily working in groups and chatting for an hour. They practiced for seven more minutes and then cleaned up. Students learn about all the parts of the machine, how to operate it, how to take measurements, how to read pattern envelope and how to decide what size to make.

The instructor was given them specific instructions to measure the legs and cut them. Instructions were given step by step. They trimmed on the edge of the paper. The teacher circulated the room to check their work while also asking them to come around her to see what she was teaching them. Without the request of the teachers, once students were done with the step given, the researcher noticed they would go to the next pair of students to help. One male student had finished his step and went to help his partner. They cut in precision. Then, they moved on to work on the back-pattern piece. The next step was to open up and plug the sewing machine to learn how to thread the machines. The teacher then asked them to gather around and behind her so she could demonstrate the process. There were many relative directions involving threading the machine. The teacher described each step while referring to each part of the machine.

The teacher doublechecked that students understood the process by asking them if the steps made sense or if they had questions. Students went back in pair and completed all the steps with ease. The teacher proceeded with going through the mechanisms of the machine and its thread system as well as steps to thread the needle from front to back before they could begin sowing. Students had questions about threading the machines. What the researcher gathered from this observation is the easiness by which the students took on the task even though each process
requires a lot of steps with very detailed information. Students worked in pair with minimum
guidance. Within one handwork session, they learned about measurement, mechanical steps to a
sewing machine, and teamwork. When asked about the importance of this class, the teacher
enumerated that “this is really good for bilateral integration, and brain development. We're
giving them the ability to focus and stick to something and do their best. They make a mistake;
we take it out and do it again. There's no judgment around it. That’s the reward of having a
strong will is that you finish it.” This statement is similar to what was discussed in the focus
group and the interviews about the importance of completion.

School Data and Document Review

Two documents were examined including the school staff handbook which includes the
curriculum highlights for each grade and a sixth-grade project. The documents are material
evidence which was obtained to convey aspects of the school policies and how Waldorf teaching
is applied. The information gathered through the documents were analyzed and considered to be
valid and added weigh to a comprehensive analysis of the study as they coincide with other data
collected. The researcher was able to collect the school curriculum that highlights per grade
every subject being taught. The middle school curriculum includes the history of ancient Rome,
the Middle Ages, Arthurian legends, the Renaissance period and American history. South
American, African cultures are also studied. Other subjects include Language Arts, Social
Sciences, Mathematics, Geography, Science such as Astronomy, Physics, Organic Chemistry,
and Physiology. Students in sixth grade were studying the Middle Ages, and one of their school
projects involved a Squire challenge.
Summary

The utilization of Waldorf methods and curriculum were discussed in which its emphasis is placed on multiple modalities to teach students and to explicate student learning and how they build practicality, social, emotional and cognitive skills. From the coding process in which emphasis was placed on student’s development, school community, teachers’ roles, learning strategies and value-added approach, the overarching themes of this research to provide insights for the findings include: (a) Waldorf curriculum allows students to increase their capacity, to build confidence, and to feel successful, (b) less emphasis is placed on academic achievement and more on students’ social-emotional, artistic, creative and physical development as a measure of success and (c) parental support and school community are crucial to the sustainability of Waldorf movement in a public school. The research study suggests promoting locus of control, to explore reconstructing the concept of opportunity gap versus achievement gap, and future dialogue in developing more focus on student success.
Chapter V: Implications, Recommendations and Conclusions

Revisiting the Problem of Practice

The identifying underlying problems in our education system vary from overcrowded classrooms, achievement gaps among racial and socioeconomic demographics, high school dropouts and funding gaps of school districts. Baker, Sciarra & Farrie (2015) report that “the majority of states have unfair funding systems with “flat” or “regressive” funding distribution patterns that ignore the need for additional funding in high-poverty districts” (p. 4). Based on teachers’ perceptions, this study by Ratcliff, Costner, et al. (2016) identified four factors including parenting techniques, student misbehavior, lack of student motivation, and low family income that impact achievement gap. According to Flores (2007), “low income African American and Latino students are less likely to have access to experienced and qualified teachers, more likely to face low expectations, and less likely to receive equitable per-student funding” (p. 37). Questions were raised on ways to close the gaps in opportunities and suggestions are made to understand better achievement gap ‘as a manifestation of an underlying cause which is the opportunity gap’ (p. 37). Lack of current studies have not addressed locus of control on disadvantaged middle school students, and no research was found using specifically Waldorf as an alternative pedagogy. The lack of research in this area provides further inquiries to investigate locus of control as a potential contributor to students’ academic achievement in a Waldorf setting.

This research was intended to examine the roles middle school students’ locus of control play in overcoming achievement gap as perceived by educators at a school in the Public Waldorf movement. The results indicated students at a City Community School (CCS) is more internal than external in their locus of control. Teachers perceived locus of control as an important
component of student learning. They also acknowledged Waldorf methods as influential factors to student success. The major findings of this study may be able to initiate further interests in the concept of locus of control, reevaluate achievement in terms of its distinction in its measures, and its broader approaches in its outcomes and for educators to continue fostering effective and alternative means in order to engage student learning and their perceived control in order to bridge the opportunity gap.

**Review of Methodology**

The case study research design examined locus of control and its roles in overcoming achievement gap as perceived by educators at a school in the Public Waldorf movement. This research methodology was conducted using student questionnaire, interviews, focus group, document review and classroom observations. The case study employs both qualitative and quantitative methods to interpret the data. Some limitations of the research have been identified. Further conclusions on common threads in the study place more emphasis on student’s development, school community, teachers’ roles, learning strategies and value-added content based on teachers’ perspectives to address the educational needs for students’ overall success. The research questions that guided this study are as follows:

1. What roles does locus of control play in overcoming achievement gap as perceived by educators at a school in the Public Waldorf movement for middle school students of low socio-economic status?
2. How are middle school students’ ability to learn reinforced by students’ locus of control, as perceived by their teachers?
3. How do environmental factors at a school in the Public Waldorf setting influence students’ locus of control and their learning experience, as perceived by the educators and students of the school?

The perceptions of educators at City Community School (CCS was quantified for one school principal, six teachers, and one hundred and thirty students. A questionnaire was administered to middle school students, an in-depth interview with the school principal, a focus group discussion with six teachers and two classroom observations. Educators were able to share their perceptions on Waldorf education, the locus of control and achievement gaps while students took part in a questionnaire to assess their locus of control. Documents were provided such as the school staff handbook highlighting the curriculum per grade, student handbook, and a sixth-grade project. Classroom observations gave a glimpse of what took place at a school in the Public Waldorf movement. Upon careful coding using in-vivo and pattern coding, emerging themes were identified which served to analyze the findings of this research.

The overarching themes guide this discussion in addressing the findings, the connections aligned with the literature review and theoretical framework, the implications, and recommendations, the significance of the study, its limitations, and considerations for future research based on the data analyzed in the previous chapter and as they relate to academic achievement, locus of control and Waldorf education.

For this research study, the questionnaire (Intellectual Achievement Responsibility) measures beliefs in internal versus external reinforcement responsibility and aimed at assessing children’s beliefs exclusively in intellectual-academic achievement situations (Crandall, p. 93)
Discussion of Major Findings

Throughout the data, there were three consistent themes characterized by teachers’ beliefs that Waldorf curriculum allows students to increase their capacity, to build confidence, and to feel successful, less emphasis is placed on academic achievement and more on students’ social-emotional, artistic, creative and physical development as a measure of success and parental support and school community are crucial to the sustainability of a school in the Public Waldorf movement. Teachers expressed a collective desire to support Waldorf’s shared vision to be able to meet the needs and the growth of the whole child.

The overarching themes of this research provided insights from the perceptions and experiences of the school principal and teachers. Thereafter they are described below:

- The Waldorf curriculum allows students to increase their capacity, to build confidence, and to feel successful.
- Less emphasis is placed on academic achievement and more on students’ social-emotional, artistic, creative and physical development as a measure of success.
- Parental support and school community are crucial to the sustainability of Waldorf method in a public school.

**Teachers at City Community School (CCS) believed the curriculum allowed students to increase their capacity, to build confidence, and to feel successful.** Much of the teachers’ perspectives on academic success and locus of control gave a better understanding of Waldorf methods, its curriculum, and learning environments. To explain how locus of control is viewed, teachers described the effectiveness of the curriculum to child development, Waldorf philosophy, and the learning preparation. Teachers stated that they are not making students fit the curriculum; instead the child is at the center of the curriculum. Their entire day is not dedicated
to academic lessons alone instead movement, Shakespeare plays, music, handwork, and many others are offered to address student’s growing capacity using their natural sense of wonder, imagination, and curiosity. Teachers credited the Waldorf curriculum to provide an opportunity where students can excel and thrive. Such outcomes ultimately reinforce students’ perceived control over their behavior.

Nordlund (2013) ponders about possibly transferring similar curriculum that promotes imagination through the arts into the public school, while acknowledging the unlikely implementation because of school reforms such as the NCLB mandates of increased instructional time for English language arts and Mathematics and less time for art education especially at the elementary level (p. 13). There have been few studies in the literature (Caldas & Bankston, 1997; Battle & Lewis, 2002; Becker & Luthar, 2002; Becker & Luthar, 2010) identifying gaps in achievement and social-emotional factors that affect disadvantaged students. The appropriate learning environments (Gordon 2006; Stone & Dahir, 2007; Erford, House & Martin, 2007), parental support (Jelinek & Sun, 2003) to foster locus of control, resilience and self-esteem can contribute to student academic and success. Based on the educators’ perspectives, a curriculum that focuses on developing students’ social-emotional, artistic, spiritual, and physical aspect, parent and school community involvement is considered as one of the factors contributing to students’ success. This speaks of the research objectives to explore locus of control as a potential component that influences the success and failure of students. One teacher stated, “True self-esteem and positive resilience come from knowing that you're competent and capable and you can also help and benefit other people.”

This is significant to note that success is constant but shifts based on various contexts. As the findings point out, although academic achievement was not directly measured, apart from its
traditional definition, ontologically, educators hold different positions of what success looks like based on their realities and experiences. They perceive success not as it relates to academic achievement, preferably as a product of students progressing in all areas. As one teacher stated in referring to assessing students in terms of academic performance alone, “she’s not the sum of her achievements!” As articulated by the school principal,

If they're struggling in one of the academic areas, hopefully, they can find a place where they can have success with knitting or drawing or painting or playing a musical instrument or acting in a play or being on the basketball team; finding some other way to use the gifts and talents that they have and we truly believe that, that every child does have their own unique sets of gifts and talents to give a gift to the world that will help them to be a good citizen and make the world a better place and helping them to find that, [you know], some have the gift of gardening, others are amazing builders.

**Less emphasis is placed on academic achievement and more on students’ social-emotional, artistic, creative and physical development as a measure of success.** As a school in the Public Waldorf movement, the research site is obligated by the state to subject students to the California Star Tests (CST) in English Language Arts (ELA) and Mathematics. According to EdSource (2007) and Ed-Data website, a partnership of the California Department of Education, the California Standards Tests are part of the state’s Standardized Testing and Reporting Program (STAR) and are based on the state’s academic content standards in terms of what teachers are expected to teach and what students are expected to learn. Four subject areas are covered which include English language arts, mathematics, history/social science and science and biology for high school students (p.1).
From the findings, teachers believe these tests do not reflect the whole child accurately. As one teacher expressed, “if we're just pounding them with tests as most other schools do, a lot of those kids will turn off early,” which eventually will “increase the gap.” Instead, they place a greater emphasis on life skills that are not necessarily measurable through standardized tests. Educators report a sense of accomplishments when students strive while using their hand eye-feet coordination to build their cognitive skills, or critical thinking and problem-solving skills when they work in groups to get a project done and curiosity and imagination in exploring nature through field trips and outside play. Achievement is described as more than “academics and testing,” practical skills, sensory-motor skills, connecting to their community and world constitute the educational tools to prepare students to succeed in high school and further education. Drawing from the literature to tie back to this analysis, a valid body of literature highlights different measurement criteria between Waldorf education and traditional schools for student academic success.

The findings answered the research question adequately on the role locus of control play in overcoming achievement gap presenting evidence of an association between locus of control and students’ success. However, ‘achievement,’ and ‘gap’ vary from the mainstream definition of public schools and also based on the educational structures they are being applied to. At the research site where Waldorf curriculum is utilized, success means more than testing and schoolwork. It symbolizes given students the opportunity to ‘have the feeling’ of ‘being the very best knitter or make the most beautiful bowl.’ One teacher reiterated that not every child is good at math or reading. However, exhibiting, love and purpose in their work are proof of success. Fiske (1999) reported on a multiyear survey of more than 25,000 secondary students of economically disadvantaged status and found substantial and significant differences in
achievement and in essential attitudes and behaviors of students who participated in the arts, play, music dance and visual arts show (p. 17).

Scholarly literature suggests other ways academic performance are measured. Shaha & Glassett (2015) enumerate observation-based teacher assessments, teachers’ participation, and professional development as factors that impact student performance and significantly improve student achievement in reading and math on standardized assessments. Going beyond traditional measures can potentially diminish the opportunity gap and increase favorable impacts on student success. As Carter & Welner (2013) explain, “opportunity and achievement, though inextricably connected, are very different goals. For instance, while not every American will go to college, all American children should be given fair opportunities to be prepared for college” (p. 3).

To reiterate the importance of the questionnaire in understanding the results of this research, Findley & Cooper (1983) state that the strength of the relationship between locus of control and achievement may also vary depending on the type of achievement measure used. In this case, locus of control scores would be a stronger predictor of students grades more than they predict standardized achievement test scores (Stipek and Weisz, 1981, p. 107). Findley & Cooper (1983) cite McGhee and Crandall (1968) who made the distinctions between the interpretation of grades versus achievement test results which state that grades reflect teachers’ perceptions of students’ effort and persistence based on peoples' responses to locus of control measures while achievement tests reflect an indirect measure of acquired academic skills (p. 426). The questionnaire showed their scores in intellectual and academic achievement tasks and situations. Per the EdData Education Data Partnership website for the school district, for the year of 2017-2018, 18% of students exceeded their level in English Language Arts, and more than 50% nearly met and met their standard as well. For the most current year, students also met their level at
more than 50%, and only 6% exceeded in Mathematics. It would be interesting to look closely at the 37% in Mathematics and the 24% in Language Arts who did not meet their level to look closer at ways their performance can improve and any underlying factors that need to be addressed.

**Parental support and school community are crucial to the sustainability of the Waldorf movement in a public school.** A valid body of data from the overall observations made while at the research site, small talks with parent volunteers not recorded and both school principal and teachers sharing the value placed on the parental support they receive inside and outside of the school which provided an overview for understanding parents’ crucial role. The educators placed great emphasis on the collective effort and support of parents, as well as on teachers and students’ relationship that they consider instrumental to students’ success. They reiterated Waldorf education as unique which allows them to support students in every area of their development. The school principal asserted that the school offers formal student success team meetings if students are not doing well academically, where parents and students agree with an individual education plan for additional support if need be. When asked if there were current threats to reform Waldorf schools as an educational leader, what steps would be taken to protect its integrity is expressed, the school principal corroborated that parent strong advocacy for Waldorf movement is high of importance at the school,

I think that there is a strong enough parent body to protect its integrity. This is a group of teachers and parents and students that I think would stand strong behind Waldorf education. They've proven that in the past and I do not doubt that they would do that in the future as the need arises.
The school principal reported that meeting with “every single parent” is conducted “every year before the year starts. The researcher was also able to observe a parent board meeting. Overall, educators believe that “everybody contributes to the success of the school” through volunteering, substituting, little reading or math group, field trips or play and other school’s projects. Teachers took pride in sharing parents’ willingness to participate in the educational development of their children. Teachers conversely spoke about the importance of looping, a critical component to Waldorf curriculum, and how that aspect of its pedagogy help parents and teachers forge a lasting relationship for eight years and beyond. Both parents and teachers take part in the ongoing process of students’ own pace, individualized developmental needs and ultimate success. One participant described the parent relationship with the school this way,

We are like a family. You know, there's conflict in every family and working through that conflict brings you closer. We go through births and divorces and deaths together that we’ve experienced through the years, and we also celebrate festivals and holidays. What is more rewarding than having a second family that you get to call it work. And that's really to me the opportunity to access the beauty that comes with using Waldorf curriculum and methods, a set of method that has incredible freedom and flexibility. In my humble opinion can solve a lot of the problems that have existed in education today.

Discussion of the Findings in relation to the Theoretical Framework

The theoretical framework for the research study is built up around reviewing relevant literature and studies that address locus of control and risks factors to support students with a high level of external locus of control. Key findings from the questionnaire, interview, and focus group are discussed. The theoretical framework of Rotter’s social-cognitive theories of personality was used as the theoretical framework to help support the research study. This
framework was the keystone for this research. As defined by Rotter (1966), when a reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of powerful others, or as unpredictable because of the great complexity of the forces surrounding him. When the event is interpreted in this way by an individual, we have labeled this a belief in external control. If the person perceives that the event is contingent upon his behavior or his personal relatively permanent characteristics, we have termed this a belief in internal control (p. 1).

**Internal and external factors.** With reference to the literature review, Rotter’ social-cognitive theory attributes the causes of success or failure to internal or external factors. Based on the teachers and school principal’s perspectives, students develop their social-emotional, cognitive skills and behaviors through the skills they acquired which build up over the eight-year looping process. They gave examples of students building confidence for success through the use of the multiple learning modalities in storytelling, music, arts, movement, handwork, that the school offers. Both school principal and teachers shared that students exhibit greater control over their behaviors in seeking to learn as much as they can even the tasks are challenging and must be completed. Teachers emphasized on ways students are dealing with the learning challenges they face in various shapes through making a bowl or learning an instrument. Teachers corroborated the strong presence of the school community where students can stumble, draw support from and strength to evolve and “learn to be human.”

These results tied back to the objective of the Intellectual Achievement Responsibility (IAR) questionnaire. As a scale, it limits the source of the external control to those persons who most often come in face-to-face contact with the child including his /her parents, teachers and
peers and not to fate, luck, and circumstances. Two considerations were made to make such restrictions since a child may attribute the different amount of power or control to various external agents. Secondly, from a developmental standpoint, it seems important to focus on children’s beliefs of their actions compared to the actions of other people in their immediate environment (Crandall, Katkovsky & Crandall, 1965, p. 94). This explicates further the critical influence teachers, and parents have on students’ locus of control to affect positive changes in their lives.

**Protective factors.** Based on the literature review, protective factors were discussed as necessary to note in the positive impact of students, particularly for adolescents living in disadvantaged communities. Reinemann & Ellison (2008) report that stressors, community violence, and self-esteem influence direct effects on post-traumatic stress disorder. The recommendations include the implementation of interventions that promote and strengthen protective factors. Despite the fact that the school supports practical life skills, resilience and inclusion in students, the research study did not address fully how these skills can prepare vulnerable students outside of their school community. One teacher stated,

> I don't know what makes an African American boy, for instance, feel disenfranchised. I suppose maybe they feel like they can't relate to their white female teacher or something like that, but maybe over time they do feel like they relate to me just because I've shared so many life stories and they shared so many life stories and I know their families and we come together and we talk and hang out.

Protective factors can strengthen families inside the school with coping skills and through additional resources and outside of the school environment through community projects, and overall create opportunities to protect adolescents from risks in youth violence or substance
abuse and support their social, and emotional competence. In the common quest for student success, educators’ roles must be persistent in addressing social ills against students. The results from the questionnaire revealed that students with high external locus of control feel that rewards and punishments are given at the whim or design of other people or circumstances, and they have little reason to exert effort in an attempt to increase the probability of obtaining rewards and avoiding punishments (McGhee & Crandall, 1968, p. 93). The opportunity gap where students might be more prone to respond to punishments that will have long-term effects afforded to students due to a high external locus of control must be addressed.

**Family strengthening approach.** Through their research, Hughes, Joslyn, et al., (2016) support the practical utilization of a family strengthening approach to engaging parents about the effectiveness of protective factors interventions. These studies are important to consider as a common thread was found in the literature review showing the important roles resilience plays in the learning process and academic achievement, and internal locus of control (Arif & Mirza, 2017). Such can contribute to strengthening parents and students’ readiness outside of the school environment in particular for students who a high external locus of control.

The social-cognitive theory is central to one’s personality because it focuses on the cognitive processes that contribute to how behaviors are learned, how individuals think and learn, positively or negatively which are reinforced by internal and external forces. Based on the questionnaire results, students are more internal than external in their locus of control. However, some students show a high score in their external locus of control, specifically a mean of 16 for Internality in negative events. This speaks of a need to evaluate certain thinking or behaviors and coping strategies to promote and support overall student well-being.
Discussion of the Findings in Relation to the Literature Review

This literature review presented three strands. First, it examined locus of control variable to other attributional variables such as success and failure, motivation, efficacy, resilience, and persistence. Secondly, it investigated academic achievement and the various ways that it is measured based on the standardized test scores compared to the holistic approach such as the Waldorf measure of success. Lastly, a collection of literature addressed Waldorf education, approach and locus of control on Waldorf schools will be discussed.

Academic success and failure. The concept of success carries a different tone since students’ success is not measured in the same way as traditional public schools do. Several research from the literature review found a positive correlation between locus of control and students’ reading and writing achievement (Stipek & Weisz, 1981, Ghonsooly & Shirvan, 2011), between students’ beliefs and responsibility for their academic successes (Crandall, Katkovsky & Crandall, 1965; Bandura, 1993; Pajares, 1996; Zimmerman, 2002; Usher & Pajares, 2006; Patrick, Ryan & Kaplan, 2007; Pajares, 2008; Usher & Pajares, 2008; and Sun & Shek, 2012). Teachers believe that there is more than one way to be successful. They discussed how the curriculum allows the students freedom to learn at their own pace. They are guided by the philosophy in which it provides a multifaceted experience for the students. Students learn in various ways. For instance, when students are in a knitting class, one participant shared,

They aren’t doing it necessarily just for the artistic beauty of the experience, they're working on counting, patterns, they’re working on left brain, right brain, there's so much that goes into picking up those needles and knitting that goes far beyond everything and really, you know, working on all of their senses that they are able to take in the information that they need to take out in and filter out.
The school principal explained how students are developing their sensory skills as they can “take in information and process it in a healthy way.” The belief is that students have the capacity and space available for learning. Whether students “are working on with molding beeswaxes, drawing and flowing, they are learning shapes and patterns together and strengthening their fine motor skills. If they are working on forms, they are learning about cursive writing. While they are engaged in their artistic work, they are learning mathematics or language arts.” As the literature states, art plays an integral role in Waldorf curriculum (Juul & Maier, 1992) and students’ skills are developed through eurhythmy, crafts, gardening, natural studies, and cooking (Rhea, 2012). Waldorf allows teachers to have the freedom in creating unique curriculum materials to develop creative expression in students.

Motivation. As rooted in Rotter’s social learning theory, reward and reinforcement are dependent upon individuals’ behaviors or controlled by external forces. The literature reviewed studies on rewards and punishments, on students' academic performance and intrinsic and extrinsic reward systems to motivate middle school students by looking at different theories of cognition and behavior including locus of control (Wilson & Corpus (2001). Motivation is exemplified as a constant factor of success per the teachers’ perspectives. One teacher shared the preparation for theatrical plays as an example of motivation. As students practiced for their play, they were motivated to learn the lines and build their confidence on stage. They experienced the rewards after each successful performance. Whether they are learning to play chess or any other subjects, motivation as a factor for reward gets reinforced. Other teachers referred to such experiences by emphasizing on the school community that keeps them motivated for more plays, and in taking part in other school activities.
**Efficacy.** A myriad of research highlight efficacy as an essential component to locus of control and academic achievement. These research on school-level environment and teachers’ efficacy demonstrate a significant association where the physical and social-emotional safety, quality of teaching and learning, positive relationships and collaboration between individuals at a school are provided (Cohen, McCabe, Michelli, & Pickeral, 2009) as well as teachers’ efficacy and job satisfaction (Fisher & Fraser, 1990; Taylor & Tashakkori, 1995; Collie et al., 2012), school commitment (Tarter, Hoy, & Kottkamp, 1991), and teacher retention (Miller, Brownell, & Smith, 1999) and less stress (Collie et al., 2012). Although teachers admitted facing many challenges, they shared getting highly trained at the Rudolf Steiner College to be able to teach Waldorf pedagogy. In addition, they referred back to looping, Waldorf approach to learning, as the vehicle that guides them through the curriculum. Because they are committed to eight years with the same group of students, they are able to make a lasting connection with the student and parents and their community at every level. One teacher described it as “a symbiotic experience.” Another teacher defined it in these terms, “I think the longevity of the relationship is at the core of what we do, it's the relationship that we're building in a healthy way.”

The literature pinpoints to self-efficacy as one of the factors that potentially influence students’ academic successes or lack of it leading to behavioral problems from students with an external locus of control (Nunn, 1995; Miller, Fitch & Marshall, 2003). Academic self-efficacy is also expressed at the research site in achieving success in learning. When asked about their perception on ways Waldorf philosophy is building qualities of students such as perceived control over their behavior, their attitude, determination, self-esteem and self-efficacy to succeed, teachers informed that students exhibit these skills and qualities on many levels. Teachers explicated that they asked students to complete several tasks in woodworking, playing
and learning an instrument, singing or molding clay. These qualities are seen through students feeling “extremely uncomfortable,” and they continue to “take on just about anything.”

**Resilience.** The literature identified several studies which results found that locus of control and certain human traits and beliefs such as self-esteem, resilience and motivation contribute to academic achievement (Hafiz, Muhammad et al, 2010; Amrita & Arora, 2012; Abolmaali & Mahmudi, 2013; Mwangi, Okatcha, et al, 2015) and academic success (McMillan & Reed, 1994; Finn & Rock, 1997; Martin, 2002; Morales, 2010). These studies from the literature satisfied the findings of this research as teachers revealed ways in which students’ beliefs and attitudes are crucial to their learning. One teacher stated that,

“[Students] take on a variety of tasks because they’ve been asked their whole experience in Waldorf education to do things they have not done. They don't know how to do. Um, I think that really goes to their sense of self-esteem and determination and attitude.”

Teachers felt that even when students graduate from City Community School, they may have gone through many life challenges. However, what they learned at Waldorf allowed them to use these skills to overcome anything.

**Persistence.** The literature suggests that persistence influence students’ learning (Allen, 1999; Huntly & Donovan, 2009; Jozsa & Morgan, 2014; Huang, 2015; Cenberci & Beyhan, 2016; Shirrell & Reininger, 2017). The educators at the research site agreed that as a school community, they collaborate to support students through their tasks until completion. If students do not complete a task, it will get done the following year. Using the main lesson blocks, also referred to as themes, students are intentionally given tasks to navigate, to challenge themselves and work together. At the classroom observations, the researcher was able to see the way they
respond to challenges through the repetition of playing strings until it was satisfactory to the substitute teacher.

**Academic achievement and the various ways that it is measured.** The literature suggests the multiple ways academic performance is measured. Student portfolios, benchmark assessments, benchmark assessments, and teacher observation (Shaha & Glassett, 2015). It also reviewed the two forms of assessment i.e. formative and summative to differentiate between what they measure, respectively quantity and quality of student learning. Furthermore, the literature allowed for a distinction between standardized testing and Waldorf measure from its holistic approach.

Teachers’ perceptions of Waldorf measurement offer some valuable insights. As perceived by Waldorf educators at City Community School (CCS), academic achievement is not only measured with standardized tests per state requirement because they are a public school. Teachers assess students’ practical skills, artistic abilities, and their social-emotional development. The qualitative measures are also used such as to track students’ progress three times a year in Language Arts and Mathematics, parents’ meetings, other reports, and observations. As expressed by the school principal, [Teachers] are,

- observing every single thing, every way, observing really that phenomenological approach to what [students] are doing, all of that contribute to their academic success, whether they realize it or not.

**Waldorf education and its potential impact on locus of control.** This research study is very likely the very first to investigate locus of control at a school in the Public Waldorf movement. From the literature review, many research examined Waldorf history, methods and curriculum (Foster, 1984; Juul & Maier, 1992; Uhrmacher, 1995; Schmitt-Stegmann, 1997;
Rawson & Richter, 2000; Schieffer & Busse, 2001; Oberman, 2008) which were consistent with observations made and what the teachers revealed. The literature review touched on Anthroposophy, Waldorf philosophical movement, however, based on the findings, the term was not necessarily used throughout the interview and focus group.

Countless research on locus of control and Waldorf education were reviewed. However, minimal to none of the studies were found to show an examination of both locus of control and Waldorf education. Only one study was found (Wingert, 1989) on locus of control in homeschooling and schooling parents that examined locus of control of parents who use an alternative way of teaching their children with homeschooling. The controversies of Steiner philosophy were briefly addressed during the in-depth interview with the school principal. When asked about possible threats to reform Public Waldorf schools, reflections were made on lawsuits, the appeals process and dismissals of the cases that the school went through. The literature review referred to controversies in which many Waldorf schools had endured when Anthroposophy was seen as a cult or a religion. The school principal spoke about the support received from the school community, and the parent body to overcome these challenges.

From the findings, the Waldorf approach and pedagogy are influential in developing and fostering locus of control in students. Teachers shared ways in which the curriculum using main lesson blocks, looping, multiple modalities of learning are built on and strengthening students’ developmental needs, cognitive, physical, social, and artistic skills. Teachers referred to specialty classes as movement, music, art, handwork, and speech in which locus of control is reinforced with words of encouragement, affirmation and never blaming the student. When asked how their teaching impact students’ perceived control over their behaviors, one teacher exemplified Waldorf approach in practice to nurture students’ locus of control in stating,
The kid that can't stand in a circle doesn't just get kicked out of the circle, right? Like we do this every day. This is what we do. And um, even the language that you tend to use in the younger grades, the child is wiggling in their seat or something. You blame the chair. This chair is so hard to sit on and let me get you a different chair. This chair will be easier.”

Another teacher exclaimed as she relates, “Is Templeton sitting on your shoulder today? And so, you're not blaming or punishing the child for the struggle.” These findings pointed out to Waldorf pedagogy that is reinforcing Rotter’s internal locus of control in students.

The literature review introduced the instrument that was used to quantify locus of control. The IAR questionnaire was developed by Crandall, Katkovsky, and Preston (1962) and was used to measure children's loci of control. Based on the findings, the results of the research study indicated that students are more internal control in intellectual achievement situations. The questionnaire internal validity, reliability and generalizability were discussed and other studies that used the questionnaire with a similar sample population were noted to ensure of its generalizability, validity, and reliability. Similar findings of internal locus of control were found in studies reviewed from the literature.

**Significance of the Study**

This case study examined the roles students’ locus of control play in overcoming achievement gap as perceived by educators at a school in the Public Waldorf movement. Psychosocial and academic stressors, as well as risk factors, affect student learning (Gillock & Reyes, 1999; Peterson, Duncan & Canady, 2009; Arsenio & Loria, 2014). The objective of this research study was to evaluate locus of control as one of the attributional variables in adolescents’ personality that has shown to be effective in addressing academic success. The assumption of this study took into account the potential for positive learning reinforcement in a
Students responded positively to an environment that is engaging and supportive of their learning (Ryan & Patrick, 2001; Wang & Holcombe, 2010). Measurement of success necessitates consideration in reconstructing meaning applicable to schools in the Public Waldorf movement. Students’ success is measured qualitatively from Waldorf’s multi-faceted approach, and students’ locus of control was measured quantitatively seeking how it relates to Waldorf pedagogy.

The interviews and focus group revealed enormous information about how educators at City Community School (CCS) measure students’ skills and success and their primary goal in developing the whole child. The school principal and teachers believe that Waldorf lessons, curriculum, and approach are designed to encourage students’ locus of control, resiliency, self-confidence and positive attitude in learning and succeeding. Students’ commitment to strive for success stems from teacher’s influence, Waldorf teaching and the support received from their school community. Teachers and school principal also placed great value content based on the relationships they built through the looping eight-year cycle. They continue to collaborate with parents who generate a synergic environment for positive parent-teacher relationships (Hughes & Kwok, 2007; Murray, 2009) and student-teacher relationships (Klem & Connell, 2004; Wang & Eccles, 2012). Such collaboration results in a school environment conducive to learning and success.

The questionnaire revealed that students are more internal than external. This is significant to Waldorf’s standing as a public school. The findings indicate Waldorf pedagogy contribute to students’ locus of control. Students psychosocial and interpersonal skills are reinforced by Waldorf’s approach to supporting the development of critical and creative skills, positive relationships, and the ability to cope with life stressors. Moreover, the research study
shows evidence that an alternative school is already providing educational means to fostering an environment for protective factors for students to cope with potential risk stressors through teaching practical and socioemotional skills. This research study is significant in shedding light on students’ beliefs of their perceived control and behaviors which informed educators and educational stakeholders to promote educational tools to enhance socioemotional and cognitive skills to help bridge the opportunity gap.

**Implications for Practice**

Significant implications for the purposes of reconstructing meaning for achievement, success, and locus of control should be considered. The findings of this research study reflect on the multifaceted aspects of reform and the enormous challenges that schools face at both the state and federal level. Although the applicability of Waldorf pedagogy is recognized in mainstream education, Steiner’s philosophy of Anthroposophy is not yet familiar nor accepted by the majority. Its viability to impact learning at the federal level may be undermining without the requirement of standardized testing. At the research site, the students are required to take the state standardized test in English Language Arts and Mathematics. Iorio & Yeager (2011) raise valid questions to explicate the implications for practice and policy as they relate to this research study. The authors debate over the school choice of current school reform and ponder if we can gauge the viability of the different models compared to traditional schools and how can we measure each model’s long-term impact on student learning. Should there be even broader possibilities for school choice that include tax support of private not-for-profit, religious, or for-profit educational institutions? Do these multiple alternatives to the traditional school model mark the beginning of the end of universal public education in the United States (p. 37)? All are valid questions that many alternative schools may be asking. These legitimate questions also
serve at significant implications to more public schools teaching Waldorf or other nontraditional schools with different philosophies.

Due to California district mandate, achievement must be measured statewide. Teachers shared their concerns about standardized tests even though they cannot measure specific skills that Waldorf places great emphasis on. Teachers reported the feeling of “striving to succeed” and the “feeling of becoming” that students experience too as they continue to face challenges with respect to more advocacy and more autonomy to teach Waldorf in a nontraditional setting. The researcher considers the implication of Waldorf approach is so different than traditional ways of teaching and what it means if such a school can establish itself as one that can considerably minimize the opportunity gap using Waldorf and if other alternative schools can follow suit.

**Recommendations**

The result of this research study offers two recommendations that could be useful and worth evaluating for educators and educational stakeholders. This study is of value to both traditional, schools in the Public Waldorf movement and other alternative schools. For this reason, the recommendations are outlined and discussed below:

1. A more comprehensive approach to measuring success.
2. Social-emotional learning goals to vulnerable students.

**A more comprehensive approach to measuring success.** At the research site, what seems to work well is the cohesiveness and synergy among all members of the school. Progressive ripple effects to showcase student success will continue to take place as long as the requirements for school and student performance are satisfactory to the district. One common criticism that Waldorf schools have faced is due to using an assessment system that lacks accountability and shows areas of considerable ambiguity. A wealth of information can be drawn
from any evaluation based on student success. However, are these student measure set for impact?

The reality for public schools is that high stakes testing is here to stay from a one-size fit all ideology. School administrators and teachers are already under enough pressure and intense scrutiny. Instead of using a tracking system three times a year, and other reports to evaluate student progress, teachers can implement one system of measure which has aspects of both summative and formative assessments that include the expectation for students’ performance for the year, their learning progress and that evaluates the overall growth of students over the course of one year. The advantage of such a measure is to incorporate all progress seen. Parents can play a part in this process as well to report on the external factors that teachers have no access to. This measure of success can give a meaningful interpretation of the whole child and developmental growth and success which would bear fruit in practice for a school in the Public Waldorf movement.

**Social-emotional learning goals to vulnerable students.** From the findings of the questionnaire, students had to choose one answer from the 34 forced-choice items, with one item relating to positive experiences and the other refers to negative one using subscale (I+) for assessing responsibility for successes (I-) and failures. One of the highest scores for negative events was 27 out of 34 questions, and the average mean for negative events was 16.03. This signifies a considerable number of students who are external in their locus of control. More negative patterns of social-emotional development can be impacted if these concerns are not prevented or addressed. The school can build upon its strengths with the school community and parents to establish an informal coaching program led by a few members of the school
community who possess social-emotional expertise to support students, particularly those who report maladaptive behaviors and negative perceived of control.

Many maladaptive behaviors are often exhibited at schools. Factors influencing external locus of control impede students’ learning can be addressed. These factors cannot be addressed in isolation. As Flores (2007) stipulates, “qualified teachers who are committed to the learning of their students are the single most important factor for students' success” (p. 38). Educators and parents should consider given students appropriate support, ways to work through external stressors more effectively and have access to community resources. Protective factors necessitate the support of their school community and family to overcome obstacles and create their own success effectively.

Validity of the Study

In discussing any possible limitations that may affect the validity or trustworthiness of the results, the researcher examined the role of locus of control as one variable that has been effective in educational outcomes. To avoid inadvertent selection bias, the demographics which represented the sampling of students with social-economic status was verified at both the chosen school and district website. Consequently, the sampling did not influence the outcome of the study. Both internal and external validity were not compromised as this study can be replicated with different sample population or schools for further inquiries.

This qualitative study was interpreted the data based on educators’ perspectives. According to Butin (2010), teachers’ perceptions were reported as their truth and realities to avoid research bias data. This threat was carefully assessed using In Vivo and pattern coding, and principal and teachers’ viewpoint was reporting in the analysis as appropriate. Furthermore, the research methodology used, data analysis and collection were minimized to avoid threats and
inappropriate biases in the generalizability, reliability and internal validity to prevent any influence of the interpretation of the findings. Ample methods were used such as in-depth interviews, questionnaire, focus group, classroom observation, and document reviews to demonstrate evidence of validity in the findings.

Since complete objectivity would not be attainable using a qualitative case study, the researcher was subjective in this research study. Thus, bias was minimized and validity maximized (Fraenkel, Wallen & Hyun, 2012). To avoid limitations in the questionnaire, the researcher verified the instrument for its accuracy, validity, reliability, and generalizability. It was an appropriate tool to collect the necessary data and to provide answers to the research questions.

**Limitations of the Study**

The research was intended to examine the roles of middle school students’ locus of control in overcoming achievement gap. One limitation of this study is that academic achievement could not be adequately measured to seek a valid relationship between the two variables. Per the school district protocol for external research, the identity of the school nor district could not be released although there is sufficient evidence of previous research and district school website pinpointing to data of academic performance. It may be difficult to know if locus of control has any influential role on the school academic achievement. Perhaps this limitation could have impacted the findings in a different direction.

The findings indicated an internal locus of control in middle school students based on the questionnaire results. There exists substantial evidence from previous research in the literature and based on teachers’ perceptions to suggest the positive role locus of control plays in academic performance. In this research, locus of control is influenced due to the Waldorf pedagogical
model. The notable limitation takes into account an unusually wealth of knowledge about measures in an academic setting including for alternative schools. Although success is measured in various ways, great value is placed on standardized testing. Such testing has endured through time and will surely remain. As mentioned in the recommendations, other alternative measures can be implemented for student success.

The limitation also begs the question unanswered: In the absence of a less politicized standardized testing, can the presence of fostering individualized based support for different kinds of methods and approaches of testing for nontraditional public schools be implemented? This question might lead to a Utopian answer or multilayered solution. However, it is worth debating considering countless of progress made and successful outcomes of student performance. Factors that contribute to student success often include student motivation, preparation, participation, belief in own ability to succeed, learning style amongst others. The contribution of locus of control as a variable and favorite subject of students significantly affect learning style preferences (Stewart, 1981), learning strategies, styles and locus of control (Figen, 2013), a relationship between personality types and/or traits of the learners, learning styles and their academic success (Sadeghi, Kasim et al. 2012) while others (Brunton, 2015) indicate no significant effect on performance in higher education. These studies impart insights for additional research on key factors which can reinvent the approach of testing and reconstruct success to tackle the educational and opportunity gaps across schools.

**Future Research Considerations**

Several areas for future research could add to the findings in this study. Quantitative research to understand factors influencing external locus of control in urban schools is recommended. Further understanding of best educational practices to reinforce opportunities for
cognitive and social-emotional skills on the targeted demographics could be beneficial. The research did not dive deeper into finding any correlation of locus of control and academic achievement. Future research should be considered seeking an examination for a possible relationship on the effects of Waldorf pedagogy on students’ locus of control if any.

An individual with a high external locus of control has a tendency to feel helpless and blame outside forces for their circumstances which would result in being reactive, and avoid distressing situations (Gomez, 1997), becoming more depressed (Gomez, 1998), and engage in maladaptive behaviors (Page & Scalora, 2004). Students from disparate backgrounds face many personal challenges, and outside barriers, they cannot control. At the core of this research was to investigate fundamental educational means that address ways to improve and provide educational opportunities for underserved students. However, educators cannot ignore the social and psychological devastating effects of the absence of positive influences in the homes of our most vulnerable communities and the disparity in our school system that negatively impact student learning. Future research on locus of control will require closer examination, and that may generate new questions for further studies and application.

**Conclusion**

Ponterotto (2005) explicates the quality of constructivist-interpretivist paradigm between the investigator and the object of investigation as “this interaction can deeper meaning be uncovered. The researcher and her or his participants jointly create (co-construct) findings from their interactive dialogue and interpretation” (p. 129). In considering all meanings and interpretations as the participants’ reality, this research provides the meaning of locus of control in a school in the Waldorf setting. The data from the questionnaire, interviews and classroom observations coincidence with other findings from the literature and they demonstrate a
relationship between locus of control and students’ success. By Waldorf educators at this school, success is defined differently through parent involvement and advocacy as community support, as recognized by teachers and students’ shared experiences in looping, and the development of the whole child for world preparation. Success suggests adequate resources and support aiming to promote locus of control, striving, and self-esteem in students. Success is multi-dimensional since it addresses various methods and strategies that can appropriately measure the achievement gap. This research recommends a closer look at improving schools through educational practices that are socially, emotionally and psychologically constructed in learning.

Academics remain central to the Waldorf approach. However, teachers are motivated by the desire to develop the entire child, not just his or her cognitive capacities. To a non-Waldorf educator, the lack of focus on standardized methods may be deemed academically inappropriate. However, the Waldorf philosophy emphasizes a life readiness curriculum. Although academic outcomes and achievement were not measured, insights emerge in the context of the achievement gap from the interviewees when they were asked to speak about ways in which Waldorf teaching helps students of color to succeed. They placed their intent on promoting cultural awareness through stories and bibliographies which built into the Waldorf block of study. As Interviewee 2 states: “I think that our program is doing very well in promoting opportunities to rethink inequality.” Their focus to bridge the gap relies less on academics but more on practical approach through relationships, real-life connections and multiple teaching modalities. The focus is not on GPAs alone; instead, it is on the wholeness of the child. The opportunity lies in giving students access to curiosity, and in honoring diversity.

Based on the social-cognitive theory, the concept of locus of control attributes the causes of success or failure to internal or external factors. As an attribute that determines students’
cognitive skills and behaviors, educational practices regarding teachers’ approaches, learning strategy and parents’ support that influence students’ beliefs in learning should be carefully evaluated. Locus of control does not depart from its definition because academic achievement differs in the degree to which it is understood and measured at this school. Students’ development and learning are cultivated differently. As students’ internality in positive events increases, they would become academically, socially and emotionally competent. Students are challenged to strive at City Community School (CCS). Therefore, they respond to teacher’s influence, and the various learning strategies used that affect their learning. Thus, as a learned aspect of one’s personality, students can internalize or externalize what they see, experience, touch, hear and feel around them.

This research aimed to gain insights on the locus of control of middle school students in overcoming achievement gap. The present study provides useful and practical implications for promoting locus of control. This research resulting in a new definition in which achievement is constructed came as an insight in the research. An emphasis on learning strategies, teacher-student relationship, parent and community, value-added concepts and students’ development should be looked at carefully to bring ultimate success for students.

Bronfenbrenner’s (1979) theoretical perspective encapsulates the evolving interaction between the developing person and the environment. The developing person is affected by events, which is to assume that the environment, culture, and structure that one is accustomed is impacting their overall development, perception and belief system vastly. From such a construct, the ecology of student development and learning is understood. Within the macrosystem comprising of the microsystem, mesosystem, and exosystem of Bronfenbrenner’s concept, the
developing person should be allowed to thrive as a whole. Teachers and students can generate results for effective school climate that impact academic achievement.

**Personal Comments & Reflection**

My interest in this study stems from my desire to learn more about socio-emotional development and learning. In my line of work as a mental health professional and educator, I have had the opportunity to conduct social policy research overseas which prompted me to investigate an alternative approach that can shape educational outcomes and consider all aspects of students. I would argue that the educational reform movement needs to occur from the micro to the macro level. The fundamental takeaway from this research encompasses the fact that the educational needs of vulnerable students cannot be met without first understanding and serving their socioemotional, cognitive and behavioral needs. The language of closing the achievement gaps must be reconstructed to address the opportunity gap. Alternative education has been created to address ongoing issues in public school reforms and standardized testing. However, more data is needed to determine their impact on students from low socio-economic status particularly in reducing opportunity gap. As educators, we must create opportunities for the effective curriculum to increase students' overall learning. No child should receive a poor education only because of his/her environmental circumstances.

One must espouse on the notion to look beyond the classrooms, the curriculum, and the reform. Regardless of the methodologies and pedagogies, a school should be a secondary home where children can be free. When students face educational inequity due to external forces outside of their control, opportunities to use their innate abilities, to create an impact must be provided to them. When I observed one student roaming in the classroom with socks on while they discussed an essay from a book discussion, she was completely free to explore, learn, and
make mistakes while remaining so focused at the teacher’s task. This speaks to me of freedom and an opportunity that students can experience and should have. We must not wait for specific legislation to get passed before we can affect change. One systematic, standardized ways of testing do not provide an overall picture of students’ performance. The achievement has ripple effects. From a social justice standpoint, when a student fails, it is a reflection of his/her school, district, our country and our stand globally around the world. As a scholar-practitioner, I have acquired valuable knowledge through this doctoral process that I cannot hold a deficit thinking toward students’ success from a myopic perspective. There are gaps in their emotional, social, physical and cognitive knowledge. We must look beyond!

A considerable body of literature provided meaningful information on locus of control, students’ academic performance and Waldorf pedagogy in seeking a connection and in addressing factors that impact learning. This research allowed me to explore a method of teaching, yet cautious by many that offer students opportunities to become well equipped cognitively, behaviorally, socially and emotionally. This research study process in its entirety taught me so much about myself as an individual and as a scholar-practitioner. I learn about endurance and resiliency through aches, yet I still stand and find joy in the stillness. I learn about the intricacies and complexities of our educational system, the controversial legislation, the ongoing debate of institutional policies and how they affect teaching and learning. Undeniably, I am convinced that the best practices and approaches take place at home, in schools, and our community.
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Appendix A

Principal Interview Guide

Research Question: Examining the roles of middle school students’ locus of control in overcoming achievement gap as perceived by educators at a school in the Public Waldorf movement: A case study methodology

1. How do you utilize Waldorf philosophy in your school? Could you give me some examples?

2. Do you feel such philosophy reflects or is similar with the qualities of students’ perceived control over their own behavior? (Attitude, determination, self-esteem and self-efficacy to succeed)

3. How do you think your leadership influence students’ learning? Give me some examples of how students learn Waldorf philosophy?

4. To what degree do you believe your school’s teaching influence students’ view about themselves? Give me some examples of ways such teaching impact students’ view as learners?

5. How does your school philosophy affect students’ view of themselves? Does such teaching impact the way they think of the perceived control over their own behavior?

6. Do you think students’ perceived control over their own behavior play a role in closing academic gaps?

7. Based on the historical disparities that students of color have faced, can you speak to me about ways in which Waldorf teaching particularly in your school is allowing them to succeed?

8. We know many psychosocial issues, environmental situations and stressful events affect students’ academic performance, tell me some of the ways your school has been able to foster students’ social and emotional development?

9. How will you support students who believe their academic failure is something totally outside of their control?

10. What do you believe are some of Waldorf methods that are instrumental to students’ academic success?

11. How do you bring awareness of students’ academic barriers? With whom and in what ways do you respond to such challenges?
12. Suppose there were current threats to reform Waldorf schools, as an educational leader, what steps would you take to protect its integrity?

13. What has been the most challenging and rewarding situation you have faced as an educational leader?
Appendix B

Focus Group Interview Guide

**Research Question:** Examining the roles of middle school students’ locus of control in overcoming achievement gap as perceived by educators at a school in the Public Waldorf movement: A case study methodology

**Definition of locus of control**
Locus of control is often viewed as an aspect of our personality based on the ways we perceive outcome result. It is part of our belief system that is shaped by childhood experiences. What do we attribute success or failure to? Is it from our own efforts or outside forces? Those with an internal locus of control attribute success to their own efforts and abilities. An individual with an external locus of control attributes his or her success to luck, fate or circumstance.

1. How do you utilize Waldorf philosophy in your school? Could you give me some examples?
2. Do you feel such philosophy reflects or is similar with the qualities of students’ perceived control over their own behavior? (Attitude, determination, self-esteem and self-efficacy to succeed).
3. How do you think your teaching influence students’ learning? Give me some examples of how students learn at this Waldorf public school?
4. To what degree do you believe your teaching influence students’ view about themselves? Give me some examples of ways your teaching impact students’ view as learners and of themselves?
5. Does your teaching impact the way they think of the perceived control over their own behavior?
6. Do you think students’ perceived control over their own behavior play a role in closing academic gaps?
7. Based on the historical disparities that students of color have faced, can you speak to me about ways in which your teaching particularly in your school is allowing them to succeed?
Appendix C
Student Survey Responses
Crandall Intellectual Achievement Responsibility Questionnaire

1. If a teacher passes you to the next grade, would it probably be
   99%
   b. because of the work you did?
   a. because she liked you, or

16. Suppose you weren't sure about the answer to a question your teacher asked you, but your
   answer turned out to be right. Is it likely to happen
   96%
   b. because you gave the best answer you could think of?
   a. because she wasn't as particular as usual, or

5. Suppose your parents say you are doing well in school. Is this likely to happen
   95%
   a. because your school work is good, or
   b. because they are in a good mood?

31. If your parents tell you that you are bright or clever, is it more likely
   95%
   b. because of something you did?
   a. because they are feeling good, or

22. If a teacher didn't pass you to the next grade, would it probably be
   92%
   b. because your school work wasn't good enough?
   a. because she "had it in for you," or

26. Suppose your parents say you aren't doing well in your school work. Is this likely to happen
   more
   90%
   a. because your work isn't very good, or
   b. because they are feeling cranky?

33. Suppose you're not sure about the answer to a question your teacher asks you and the answer
   you give turns out to be wrong. Is it likely to happen
   89%
   b. because you answered too quickly?
   a. because she was more particular than usual, or

4. When you read a story and can't remember much of it, is it usually
   88%
   b. because you weren't interested in the story?
   a. because the story wasn't well written, or

17. When you read a story and remember most of it, is it usually
   84%
   a. because you were interested in the story, or
   b. because the story was well written?
6. Suppose you did better than usual in a subject at school. Would it probably happen?
   83%   a. because you tried harder, or
   b. because someone helped you?

2. When you do well on a test at school, is it more likely to be
   82%   a. because you studied for it, or
   b. because the test was especially easy?

14. When you find it hard to work arithmetic or math problems at school, is it
    81%   a. because you didn't study well enough before you tried them, or
    b. because the teacher gave problems that were too hard?

18. If your parents tell you you're acting silly and not thinking clearly, is it more likely to be
    81%   a. because of something you did, or
    b. because they happen to be feeling cranky?

20. When you win at a game of cards or checkers, does it happen
    80%   a. because you play real well, or
    b. because the other person doesn't play well?

24. If a boy or girl tells you that you are bright, is it usually
    80%   a. because you thought up a good idea, or
    b. because they like you?

13. If a teacher says to you, "Your work is fine," is it
    78%   b. because you did a good job?
    a. something teachers usually say to encourage pupils, or

15. When you forget something you heard in class, is it
    76%   b. because you didn't try very hard to remember?
    a. because the teacher didn't explain it very well, or

3. When you have trouble understanding something in school, is it usually
    75%   b. because you didn't listen carefully?
    a. because the teacher didn't explain it clearly, or

23. Suppose you don't do as well as usual in a subject at school. Would this probably happen
    75%   a. because you weren't as careful as usual, or
    b. because somebody bothered you and kept you from working?

7. When you lose at a game of cards or checkers, does it usually happen?
    75%   b. because you don't play well??
    a. because the other player is good at the game, or
<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
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<tbody>
<tr>
<td><strong>28.</strong> When you find it easy to work arithmetic or math problems at school, is it usually 73%</td>
<td>b. because the teacher gave you especially easy problems, or a. because you studied your book well before you tried?</td>
</tr>
<tr>
<td><strong>34.</strong> If a teacher says to you, &quot;Try to do better,&quot; would it be 72%</td>
<td>b. because your work wasn't as good as usual? a. because this is something she might say to get pupils to try harder, or</td>
</tr>
<tr>
<td><strong>11.</strong> Suppose you study to become a teacher, scientist, or doctor and you fail. Do you think this would happen? 70%</td>
<td>a. because you didn't work hard enough, or b. because you seeded some help, and other people didn't give it to you?</td>
</tr>
<tr>
<td><strong>27.</strong> Suppose you are showing a friend how to play a game and he has trouble with it. Would that happen 69%</td>
<td>b. because you couldn't explain it well? a. because he wasn't able to understand how to play, or</td>
</tr>
<tr>
<td><strong>10.</strong> If a boy or girl tells you that you are dumb, is it more likely that they say that 68%</td>
<td>b. because what you did really wasn't very bright? a. because they are mad at you, or</td>
</tr>
<tr>
<td><strong>21.</strong> If people think you're bright or clever, is it 68%</td>
<td>b. because you usually act that way? a. because they happen to like you, or</td>
</tr>
<tr>
<td><strong>30.</strong> If you can't work a puzzle, is it more likely to happen 68%</td>
<td>a. because you are not especially good at working puzzles, or b. because the instructions weren't written clearly enough?</td>
</tr>
<tr>
<td><strong>8.</strong> Suppose a person doesn't think you are very bright or clever. 54%</td>
<td>a. can you make him change his mind if you try to, or b. are there some people who will think you're not very bright no matter what you do?</td>
</tr>
<tr>
<td><strong>29.</strong> When you remember something you heard in class, is it usually 49%</td>
<td>a. because you tried hard to remember, or b. because the teacher explained it well?</td>
</tr>
<tr>
<td><strong>12.</strong> When you learn something quickly in school, is it usually 47%</td>
<td>a. because you paid close attention, or b. because the teacher explained it clearly?</td>
</tr>
<tr>
<td><strong>9.</strong> If you solve a puzzle quickly, is it 41%</td>
<td>b. because you worked on it carefully? a. because it wasn't a very hard puzzle, or</td>
</tr>
</tbody>
</table>
32. Suppose you are explaining how to play a game to a friend and he learns quickly. Would that happen more often
41%  a. because you explained it well, or
b. because he was able to understand it?

19. When you don't do well on a test at school, is it
35%  b. because you didn't study for it?
a. because the test was especially hard, or

25. Suppose you became a famous teacher, scientist or doctor. Do you think this would happen
32%  b. because you worked very hard?
a. because other people helped you when you needed it, or