STUDYING THE IMPACT OF GRIT IN THE LEARNING OF YOUNG CHILDREN BY WAY OF IMPLEMENTING A STUDENT-TEACHER MENTORSHIP PROGRAM IN ELEMENTARY GRADES

Azra Naqvi

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STUDYING THE IMPACT OF GRIT IN THE LEARNING OF YOUNG CHILDREN BY WAY OF IMPLEMENTING A STUDENT-TEACHER MENTORSHIP PROGRAM IN ELEMENTARY GRADES

Azra Fatima Naqvi

Educational Leadership Doctoral Program

Submitted in partial fulfillment of the requirements of Doctor of Education

National College of Education
National Louis University
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STUDYING THE IMPACT OF NONCOGNITIVE SKILLS IN YOUNG CHILDREN BY WAY OF IMPLEMENTING A STUDENT TEACHER MENTORSHIP PROGRAM IN ELEMENTARY GRADES

Dissertation
Submitted in partial fulfillment
of the requirements of
Doctor of Education
in the National College of Education at National Louis University

Azra Fatima Naqvi
Educational Leadership Doctoral Program

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ABSTRACT

Children are born with the potential to become successful in life, provided their developmental needs are met. One component is developing the foundational skills, behavior, and attitude that will remain essential ingredients for a successful life. While most children entering school are prepared to learn, there may be some who lack foundational skills that prevent them from learning. The change leadership model developed by Wagner, Kegan, Lahey, Lemons, Garnier, Helsing, and Ark (2006) was used to assess the culture, context, conditions, and competencies of a small, nonpublic Islamic school located in a suburban area. This study aimed to explore the factors that cultivate grit in the learning of young children by examining the student-teacher mentorship program in Guidance School of Excellence (GSE) (pseudonym). Additionally, I examined how human relationships help students develop noncognitive skills from an early age, and guide them to better understand their learning goals. Teachers' perceptions and students' self-evaluations were used to collect data using an online survey and focus area group discussions. Based on qualitative data analysis, the findings revealed that teachers' consistent, purposeful and deliberate conversations and personal connections with the students helped cultivate noncognitive skills, motivation and grit in young children. It also provided us with an understanding that the self-directed learning cycle used in the mentorship process guides students towards a better understanding of their learning goals. Consequently, I proposed a policy to implement a consistent student and teacher mentorship program for GSE's primary and elementary grades.
PREFACE

I am a principal of Guidance School of Excellence (GSE), located in the suburbs of Chicago, Illinois. I have held this position for 18 years and am also a founding member. I have been actively involved in organizational management, curriculum structure, and designing this school's policies and procedures. During this time, I have seen the school grow from a preschool to a preschool through eighth-grade building this year. It is important to note that in the year I conducted my research, the school offered instruction from grades P-6. The school was in the corner of a strip mall for eight years before moving down the street to a building three times larger. It has seen steady growth in enrollments, mainly due to adding, on average, one-grade level every two years.

Along with the school's growth, I have been fortunate to grow as a leader and introduce many initiatives as part of the continuous school improvement process. As a leader of the school, I have been very involved with students in the classroom by supporting the teachers as instructional coaches and through regular classroom walk-throughs. In addition, my interaction with the students is primarily through biweekly "principal chats," daily classroom visits, and dealing with behavior management issues. Furthermore, our school adopted a school-wide leadership model that empowers each student to become a leader by providing a list of leadership positions for which they can apply. I conduct one-on-one interviews for a leadership job with each child twice a year and get a chance to engage with them closely.

My interaction with the students for the past 18 years has given me firsthand knowledge of what student engagement looks like in the classroom. I have seen students who show enthusiasm, academic tenacity, and a willingness to learn and do their best in school. I also have
seen students who appear to be disengaged and unmotivated for a variety of reasons. The more I talk with them and show interest in engaging, the more they open up to me. Students bring their personal lives to school, and some factors beyond the school walls influence how they perform in the classroom. If they have problems at home or live in an environment not conducive to learning, they tend to show disengagement, inability to persist and persevere to meet their learning goals, and exhibit behavioral issues. I found it fascinating that when I speak with students, hear their concerns and show I genuinely care about them, they are willing to listen and respond to learning strategies. Hence, the purpose of my study is to examine the factors that cultivate grit in the learning of young children by examining the student-teacher mentorship program in GSE. Additionally, I will examine how human relationships help students develop noncognitive skills early and guide students to understand their learning goals better.
ACKNOWLEDGEMENTS

I am incredibly humbled, and thank God Almighty for blessing me with the ability to complete my dissertation. This would not have happened without the support, guidance and efforts of some very important people.

Initially, I would like to acknowledge the support of Dr. Seema Imam and Dr. Jack Denny who served as my Chair and guided me throughout this process, challenging me and pushing me when I needed it. Additionally, Dr. Harrington Gibson, Dr. Beth Minor and all of our leaders and educators guided me through this program. I would also like to thank Dr. Douglas B. Reeves who provided me with valuable feedback during the critical moments of my dissertation. I am honored to have had the opportunity to learn from such dedicated educators.

Thank you to my parents, from whom I draw my strength when I feel weakened by the challenges in life.

Thank you to my son, Qaim Naqvi, who helped me edit during the final stretch of completing my dissertation. And to the rest of my family, these last three years have been an enormous challenge for us, and there were sacrifices we all made. With your support and understanding, it was possible; for that, I am blessed. Thank you.
DEDICATION

I dedicate this dissertation to my parents, Bilques and Asgar Naqvi, who have been a source of encouragement in my life. To my husband, Riaz Naqvi; without his love and support, I could not have come thus far. Finally, to my lovely boys, Ahmed, Qaim, Sajjad and Raza Naqvi, who have been patient and understanding with me during my educational journey.
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SECTION ONE: INTRODUCTION

Introduction

A supportive, nurturing, and inspiring relationship with an adult can have a profound impact on the learning of a young child’s cognitive and noncognitive skills. These noncognitive skills are known to be a predictor of future success, based on a large body of evidence (Duckworth, 2016; Moffitt, Arseneault, Belsky, Dickson, Hancox, Harrington & Caspi, 2011; Weissberg & Cascarino, 2013; Stafford-Brizard & Cantor, 2016; Dube, Felitti, Dong, Chapman, Giles & Anda, 2003; Kautz, Heckman, Diris, Weel, ter., & Borghans, 2014). The topic of developing noncognitive skills in young children has existed for centuries (Alper, 2017; Bowles & Gintis, 1976). However, it has not been until the last two decades that educators have begun to recognize that contextual factors and the development of noncognitive skills, behavior, and attitude are part of the child’s cognitive development process. If a child is deprived of these essential skills, it may significantly impact their academic growth and future success. Research suggests “learning is an interplay between cognitive and noncognitive factors and that intelligence is embedded in both the environment and socio-cultural processes” (Farrington, Roderick, Allensworth, Nagaoka, Keyes, Johnson, & Beechum, 2012 p.1). The research on the concept of noncognitive skills and the relationship to the environment made me wonder about the applicability in my own school and compelled me to further research this topic and how schools can cultivate noncognitive skills at an early age.

There are many behaviors associated with noncognitive skill domains and several researchers have published a list of noncognitive skills (Farrington et al., 2012; Stafford-Brizard & Cantor, 2016; Weissberg & Cascarino, 2013; Kirchgasler, 2018). However, among the list of
noncognitive skills, grit in particular is a focal point of my study because it is used as a metonymy for other noncognitive skills. Research suggests grit is the primary contributing ingredient that helps a person pursue his or her goals with passion and perseverance; consequently, there is a higher chance they will be successful. According to Duckworth (2016), grit is defined as a passion and persistence for long-term goals.

Based on my experience as a practitioner in understanding the components of learning and my research on cultivating grit, I provided the framework for Long-Term Success to help educators understand the importance of human relationships. The following are statements about the framework that I further elaborate on in my study:

- Human relationships influence a child’s motivation, cognitive, and noncognitive skills.
- Foundational noncognitive skills are the precursor to demonstrating grit in the learning of young children.
- The combination of three components leads to long-term success: cognitive skills, grit, and motivation.
To research more about how to cultivate grit at an early age, I evaluated the student and teacher mentorship program at Guidance School of Excellence (GSE). I examined the mentorship program as a means of specifying environmental factors and human relationships that facilitate the development of cognitive and noncognitive skills. I used multiple sources from correlated, longitudinal and causal research studies from an established body of knowledge to provide an in-depth review of my findings. I gave an analysis of needs based on the educational, economic, social, political, ethical and legal points of view. Additionally, I examined the implications of implementing a mentorship program and its impact on staff and community relationships.
Purpose

My study aims to explore the factors that cultivate grit in the learning of young children by examining the student-teacher mentorship program in GSE. I will examine how human relationships help students develop noncognitive skills from an early age, and guide students to better understand their learning goals.

Rationale

GSE was established in 2003 with the primary goal to establish a strong foundation in Islamic studies while at the same time excelling in academics. Recognized by the Illinois State Board of Education, GSE is a nonpublic Islamic School with a student population of 101 from preschool to sixth grade at the time of my research. Although most of the children are from affluent Muslim immigrant families, some receive financial aid. I am aware of many second-generation parents who were raised in public schools and deliberately chose to enroll their children in an alternate private Islamic school like ours.

As principal, I have been very involved in developing, implementing, and monitoring outcomes of school improvement initiatives. It is part of my responsibility to examine school-wide student achievement data results; identify gaps; refine and implement programs and processes to achieve the school's strategic vision. GSE has seen several school improvement initiatives that provided greater success for the past seven years, inculcating both cognitive and noncognitive development of students in our school (Figure 2). As evidence, our students are graduating with 94 percent enrollment in honors and advanced placement classes when they reach high school. Some of these initiatives are mentioned below:
Islamic Values integration

Islamic value is an integral part of the school from its inception. Most Muslim families choose Islamic schools because of the combination of academic rigor, safe social environment and Islamic teachings that preserve the Muslim identity. Family values and a tight-knit community form the basic building blocks of most practicing Muslim families at GSE. The school offers Arabic language classes that stress learning the Holy Qur’anic Vocabulary and Islamic studies classes that are project-based and integrated with core subjects like social science, math and reading. The students participate in interfaith dialogue as ambassadors of Islam in their local library. They are invited to join in the Peace Camp organized by an interfaith organization called Children of Abraham coalition COAC. The students build service-learning projects in collaboration with the Islamic Studies department to serve the community. Examples include food drives for a local food pantry, fundraising for the less fortunate and creating cards for children in hospitals.
The Leader In Me program (TLIM)

The GSE started The Leader In Me program in 2010 as part of the school initiative to implement leadership theme throughout the school and to overcome the high level of behavior referrals present at that time. TLIM is a school-wide transformational model that empowers students to develop leadership skills needed to thrive in the 21st century. The program internalizes the Seven Habits of Highly Effective People, a book written by Steven Covey. As a result of the program, the behavior referral reduced dramatically. Two years ago, the school achieved the highest standard of excellence by securing “Lighthouse Status” in the Leader In Me program, establishing GSE as the second Islamic School in the world to achieve this honor (https://www.leaderinme.org/).

Project-Based Learning

The school adopted another progressive method called Project-Based Learning methodology to drive instruction in the year 2011 as a result of the curriculum update initiative. The school advocates for teaching students through a hands-on approach using interdisciplinary and authentic projects connected to real world problems. The program helped the students demonstrate content knowledge through public presentations three times a year, and foster skills needed to thrive in the 21st century.

Personalized Learning Program

Certainly, GSE has been successful, but like any other institution, a continuous improvement initiative explores various opportunities for improving student outcomes. While examining the current results of standardized tests and student and staff surveys, growth opportunities and gaps in achievement became apparent both in academic and noncognitive competencies. During this
process, we needed to determine whether the program should target only students not meeting proficiency or use a universal approach for all. Based on research conducted on cultivating grit, it is evident that noncognitive skills, including grit, are malleable and follow a gradient across a given population (Moffitt et al., 2011). Therefore, implementing a program that supports all students’ noncognitive skills was judged to be a better option, and universal intervention also avoids stigmatizing. To meet the needs of all students, the school implemented a personalized learning program in the fall of 2017. GSE partnered with Summit Public School in California and adopted a personalized learning approach to teaching and learning based on recent research in the science of learning (Summit 2017). The overall premise of Summit's personalized learning approach is to develop the students’ cognitive skills using Projects-Based Learning (PBL) to drive instruction, retaining key content knowledge through competency-based progression and improving the noncognitive abilities using the student and teacher mentorship program. The essential element of the personalized learning program, one-on-one mentoring, provides the fundamental basis for motivating students through a self-directed learning cycle by setting realistic goals and developing skills that help them persevere through challenges.

In addition to my commitment to establishing a school initiative to improve learning, the subject of child development and the impact of children's environment is particularly important to me as I reflect on my own instability as a child. Growing up in India before modern technology, I spent a considerable amount of time outside subconsciously discovering the world with my natural curiosity during my sensory stage of life. I was enrolled in a Montessori School in the city of Hyderabad as my first school. I remember thoroughly enjoying the school environment, which provided me the opportunity to self-direct my day and choose work that intrigued me the most. I remember informing my grandmother about how I had a wonderful time
playing all day. My mother and father, who lived in the Middle East at that point, decided I was to be moved to a traditional school environment at the age of seven. This decision was the start of a series of life events that gave me a different perspective from both a traditional school environment and a Montessori world. There I endured a culture shock, where I was suddenly expected to read and memorize a significant amount of information mainly to pass standardized tests with a room full of 30 students. This image has been burned into my memory, creating stress and anxiety. I didn't know how to navigate. I found it challenging to focus on reading when I wasn't comfortable in my surroundings. There was no concept of exploring independent work in the classroom as there had been at the Montessori school. I did not feel motivated to learn. I hated school because I felt I was set up for failure at an early age; that, as a result, significantly impacted my self-confidence.

Given this background, I wanted to examine my own grit. On top of my premature transition from Montessori to a traditional school system, my parents decided to migrate to the United States. I was an immigrant entering fourth grade at Chicago Public Schools with very limited English language skills. I was grossly behind, entering an alien environment with a curriculum completely different in both content and delivery. This experience put another dent in my conscience as I struggled and survived about five years until my parents decided to move back to India. With all these tribulations in life, one thing that remained constant was my parents, who nurtured and motivated me and remained an anchor against all odds. Hence, I would like to further study the child's ability to achieve tremendous growth in both cognitive and noncognitive competencies given the required ingredient of optimum support from an adult and a positive environment (Montessori, 1967; Tough, 2016).
In addition to my own childhood experience that ignited an interest in learning about noncognitive skills in children, I have been blessed with four beautiful boys whom my husband and I have been raising in America in a typical suburban school district. Raising them in a safe and loving environment has been a top priority. They are now teenagers trying to investigate their careers. The question I continue to struggle with is our ability to provide them a stable home and school environment during their most vulnerable years and whether or not the supportive environment impacted their noncognitive skills.

Once I recognized my own grit, I began to think about grit in relation to the students in the school and their noncognitive skill development. I continued to search for answers in the school setting and began to develop goals for my study.

**Goals**

The goal of my research and program evaluation was to explore the current practices of students' cognitive and noncognitive skill development in GSE, and provide a systematic process of fostering these competencies as they pass through their grades. Primarily, I aimed to explore critical areas that require greater emphasis in order to develop grit in young children. I hoped to provide a consistent, nurturing, and supportive environment for students to foster noncognitive skills by better preparing teachers to conduct a robust student-teacher mentorship program. GSE adopted the personalized learning approach for kindergarten to sixth grade because it closely aligned with the GSE vision: "Cultivate leaders of tomorrow by motivating students to become active participants in their learning and apply the skills, knowledge, and habits to emerge as passionate and committed Muslims who are contributing members of society" (GSE Handbook 2017). My focus was primarily on the student and teacher mentorship program for kindergarten
to sixth grade, because I firmly believe all students will learn and succeed "within the social context of a classroom through a set of key relationships a student develops with teachers, peers, and other adults" (Stafford-Brizard & Cantor, 2016).

Research Questions

Because research suggests a child's development of noncognitive skills depends both on the environment in which the child is brought up, and a positive adult relationship during their early years with a parent or guardian (Tough, 2016), my research questions are:

Primary research question:

To what extent does the student-teacher mentorship program in GSE cultivate grit in the learning of young children?

Secondary research questions:

- What factors of human relationships and personal connections help students develop noncognitive skills?

- To what extent does the self-directed learning cycle used in the mentorship process guide students toward better understanding their learning goals?

I answered these questions by gathering data from GSE. For the program evaluation section, I utilized a focus group interview method to examine the relationship between students'
response to this program and how they displayed increased grit. I further collected self-reported
data from the students using an online survey to analyze the results of their perception of the
mentorship program compared to the teacher's responses. I hoped my research might help
schools understand the importance of noncognitive skills and the positive impact of personal
connection on young children. With this understanding, leaders can create programs like the
mentorship program in the elementary grades that can help students persist in achieving their
goals with an increased level of grit. To better understand the factors that cultivate grit in the
learning of young children and how human relationships help the students develop noncognitive
skills from an early age, it is essential to conduct a deep dive into the literature about the topics.

**Conclusion**

Children's developmental needs involve both cognitive and noncognitive skills to be
successful. (Kautz et al., 2014, Farrington et al., 2012 & Stafford-Brizard & Cantor, 2016). The
idea that noncognitive skills are equally necessary for children and a prerequisite to success in
schools have been supported recently in education. Among the noncognitive skills, I chose grit
to be the focus of my study because research suggests that grit is the primary contributing factor
that helps a person pursue his or her goals with passion and perseverance, leading to a higher
chance that they will be successful. Research also shows that a positive relationship with an adult
can profoundly impact students’ lives and help cultivate these noncognitive skills. This study
intended to provide a framework of long-term success for young children. It also helps us
understand that the combination of cognitive skills, motivation, and grit are the components
needed to achieve success. As a result of this study, I hope to see students motivated to self-
direct their learning and manage their goals with a heightened level of grit.
SECTION TWO: REVIEW OF LITERATURE

Introduction

A child's ability to utilize their cognitive skills to comprehend understanding depends on their ability to pay attention, focus, and regulate their behavior. Therefore, a child's mindset, behavior, and attitude may have an indirect impact on developing their cognitive skills. To explore the factors that cultivate grit in the learning of young children, I first reviewed the literature regarding cognitive and noncognitive skills and their effects on children. I then explored grit as a primary contributing factor that helps a person pursue his or her goals that may lead to long-term success. To learn about grit and its connection to motivation, I examined different motivational theories and determined that motivation and grit as an interrelated concept to cognitive skills need further research. Finally, I reviewed research related to cultivating noncognitive skills by utilizing human relationships as a contributing factor to developing these skills.

Literature on cognitive and noncognitive skills, and the impact on children

Noncognitive skills have a profound impact on children's learning. Psychologists, neuroscientists, and pediatricians have conducted considerable research on this topic. To better understand the concept of grit among the different noncognitive skills, and to understand the relationship between cognitive and noncognitive skills, we first looked closely at the meaning of noncognitive skills using a variety of different sources. Throughout my research, I have seen noncognitive skills used interchangeably with other well-known terms, such as social and emotional skills, emotional intelligence, character traits, and soft skills. According to Kautz et al. (2014), in contrast with noncognitive skills, cognitive skills are related to memory, logic,
thinking, and content knowledge that can be easily measured using IQ and standardized tests. However, cognitive abilities rely on specific skills, behaviors, and attitudes, without which the student may not be able to learn and grow to their maximum potential. Therefore, cognitive skills do not work in isolation and noncognitive skills are required for students to be successful. Researchers are looking beyond standardized test scores and IQ for answers to bridge the achievement gap. According to Kautz et al. (2014),

Achievement tests do not adequately capture non-cognitive skills such as perseverance (“grit”), conscientiousness, self-control, trust, attentiveness, self-esteem and self-efficacy, resilience to adversity, openness to experience, empathy, humility, tolerance of diverse opinions, and the ability to engage productively in society, which are valued in the labor market, in school, and in society at large. Until recently these skills have largely been ignored in evaluations of schools and interventions. However, in recent research, economists and psychologists have constructed measures of these skills and provide evidence that they are stable across situations and predict meaningful life outcomes. (p.2).

According to García García (2013), there is an associative relationship between cognitive and noncognitive skills. This study analyzed the existing empirical research and used alternative methodological tools to estimate different associations between cognitive and noncognitive skills. The study shows that inputs, such as teacher, school, and peer characteristics, impact their output, such as students' reading and math scores and, ultimately, educational attainment and labor market earnings. The study concluded that the child's cognitive performance highly influences the assessment of noncognitive skills.

Bowles & Gintis (1976) were among the first researchers to argue that "noncognitive traits and behavior are more important than cognitive skills in determining schooling and employment outcome" (Farkas, p. 541). Dates back several decades and continues through the most recent years in education, Bowles & Gintis suggested that educational attainment, the
outcome of the educational process would be dependent "not only on ability but also on motivation, drive to achieve, perseverance and sacrifice" (p. 106). The study found that a person's earnings and success in society depend primarily on their social behavior and noncognitive skill acquisition rather than intelligence passed down by the gene. Bowles & Gintis (1976) presented three convergent theories that explain the cause of skill development of children from birth to adulthood. One theory emphasizes the families' investment in their child's life causes skill development. The second is their capacity to help the child during school based on their skills, knowledge, and habit. Finally, the parents’ access to social capital in terms of social interaction and social network was also a cause for skill development. Researchers in recent years strongly affirmed that the research done by Bowles & Gintis (1976) recognize that contextual factors and the development of noncognitive skills, behavior, and attitude are part of the child's cognitive development.

One such correlational research was done by Heckman, Pinto, and Savelyev (2013). They showed that teachers' ratings of school children's behavior are strongly related to adult outcomes, including educational attainment, employment, earnings, marriage, health, and crime reduction. They conducted an experimental study on three and four-year-old children from a well-known Parry Preschool Program and collected longitudinal data for treatment and control groups through age 40. The treatment was based on Vygotsky's (1986) theories in teaching children self-control and sociability, which lasted for 2.5 hours, five days a week during the preschool year. The program analyzed cognitive and noncognitive skills using risky and reckless behavior measured in the adolescent years using longitudinal data. According to Heckman et al. (2013):

Although the Parry Program did not produce long-run gains in IQ, it did create persistent improvements in personality skills (Noncognitive skills). The daycare program
substantially developed externalizing behaviors, which, in turn, improved many labor market outcomes and health behaviors and reduced criminal activities. The program also enhanced academic motivation... Enhanced personality skills promote learning, which, in turn, boosts achievement test scores (pp. 2053-2055)

The experiment showed that cognitive and noncognitive skills are associated as the program significantly enhanced adult outcomes. However, Heckman et al. (2013) acknowledge that their research was insufficient to establish a causality of improvement in the participants.

To research a causal relationship between cognitive and noncognitive skills, I turn to Kautz et al. (2014), who evaluated the General Educational Development (GED) program in the United States. GED is a standardized test offered to school dropouts that certifies them to be equivalent to high school graduates. This research indicates that although the students who passed the GED program appear successful on the surface in terms of their cognitive abilities, the GED graduates have a far shorter employment span than a comparative group of their peers who completed high school. Further study shows that GED graduates had diminished health and were more likely to be incarcerated than students who passed through four years of high school. If GED graduates were equivalent to typical high school graduates, why did the GED students perform worst in the labor market and were less likely to succeed in the future? The causal study showed that the reasons the GED students dropped out of school earlier in life were the same reasons they could not perform in the future labor market. The GED test failed to take into consideration the deficit in the noncognitive skills that caused the student to drop out in the first place. This research showed that success in high school is a result of not only cognitive abilities but also the work of a variety of noncognitive skills; Skills like the ability to show up on time to school, self-regulation, self-efficacy, resiliency, growth mindset, and the passion and perseverance to pursue a long-term goal. This research emphasized that noncognitive skills have profound psychological effects on children's brains that are so impactful that having specific
noncognitive skills or a lack thereof during childhood years can be a predictor of future success as they transition from adolescence to adulthood.

Another example of pedagogical research was done by Stafford-Brizard and Cantor (2016). Their research emphasized that the current education system has well-developed academic standards for cognitive growth and learning, focusing on what children should know and be able to do. However, success for a child goes far beyond what is taught in the classroom and relies on much more than mastery of these academic standards. Therefore, students need to develop noncognitive skills and mindsets that prepare and support how they learn.

Stafford-Brizard and Cantor (2016) provide a learning framework of sixteen noncognitive skills called the "Building Blocks for Learning," which outline the skills and mindsets necessary for healthy student development and academic achievement (Stafford-Brizard & Cantor, 2016, p.3). As mentioned in (Figure 3), attachment, stress management, and self-regulation are considered foundational skills that are generally acquired through effective parent engagement and strong bonding between children and their caregivers before entering school. This contributes to the effective development of skills such as self-awareness, social awareness, and executive functions that provide a clear benchmark for early childhood development. Furthermore, these building blocks must be developed as a prerequisite to higher-order skills such as self-efficacy, resiliency, a sense of belonging, growth mindset, agency and academic tenacity. Finally, at the top of the building block are civic identity, curiosity, and self-direction. These skills help the child navigate the world around them with purpose and direction, make meaningful long-term goals to pursue their passion, and maintain perseverance. Consequently, they achieve grit. According to Stafford-Brizard and Cantor (2016), "Successful engagement in
the classroom and life relies on a set of cognitive and social and emotional skills and mindsets, which are not represented in academic measures” (p. 4).

**Figure 3:** Building Blocks of Success

Before proceeding, however, I would like to briefly mention the reason behind my choice of isolating grit as a focal point of my study among the list of noncognitive skills. I became aware of grit as a noncognitive skill during my research. In principle, the list of human skills and habits is quite long. I wanted to specifically use a skill in my research that can stand as a “catch-all” for other noncognitive skills. In other words, I wanted to tap into a noncognitive skill necessary for a better quality of life that encompasses a lot of different attributes. Duckworth (2016) determined that to achieve grit, a person must combine other essential noncognitive skills. According to Goodwin and Miller (2013) some synonyms for grit are tenacity, persistence, resilience, stamina, and perseverance. Although acquiring each of their skills can certainly pave the way for success, but the combination of these qualities can “create[s] a whole that is greater than the sum of its parts.” (p. 74).
Another reason why I chose grit is that once a person develops grit, the skill can be transferable to most circumstances if all of the characteristics of grit are present in it. There are four characteristics of grit that can be cultivated: purpose, practice, interest, and hope (Duckworth, 2016). For example, if a person develops grit in a sports activity, the person can also apply grit to school work, as long as they develop a passion for it and are willing to persevere with effort to accomplish it. According to Duckworth (2016), children who participate in any activities as piano, ballet, and sports typically “get better grades, have higher self-esteem, and are less likely to get in trouble” (p. 331). Therefore, grit is conceptualized as a stable trait that does not immediately require positive feedback, and individuals might be willing to maintain their determination and motivation over long periods despite experiencing setbacks.

Duckworth (2016) defines grit as “...passions and persistence for long-term goals” (p. 166). She argues that grit is the primary contributing factor that helps a person pursue his or her goals leading to long-term success. Compared with IQ and conscientiousness, grit positively affected academic success in grade point average, class retention, and spelling bee scores (Duckworth et al., 2007). Duckworth and Quinn (2009) identified a two-dimensions structure of grit that comprised of the perseverance of effort and consistency of interest and developed a self-reporting Grit Scale based on the two dimensions. Grit is identified as a soft skill and a personality tread, according to Key, Park, and Hong (2019). Based on their definition of grit, “grit, the gumption to stand against adversity, is a positive skill that can be affected by cognitive influences or environmental cues” (p. 48).

To strengthen my knowledge about grit, I further studied Duckworth’s perspective of why she considers grit, among other noncognitive skills, to be a primary success factor. Duckworth (2016) studied hundreds of individuals at the top of their profession and provided
evidence that points to grit rather than intelligence as the primary factor in their success. These highly successful individuals have a desire and drive to do something important to them, even if they are confronted with frustration or pain. No matter the career choice, they were not only unusually hard-working and resilient, but they also had determination and direction. They had grit. To prove her theory, Duckworth (2016) interviewed candidates in the U.S. Military Academy at West Point. This extremely selective program requires the person to be mentally, emotionally, physically, and socially stable. She developed a Grit Scale and tested it to see who could make it through the training program and who could not. The majority of candidates who took the grit scale test at the beginning of the program and scored higher points made it through the training. She proved to the military academy, which previously relied on other conventional tests, like IQ tests to predict success, that talent or cognitive ability is not the only indicator of success. She also analyzed results from the National Spelling Bee to determine which children were more likely to advance. She used the same grit scale and examined other individuals, like high school juniors, to see if they would be able to graduate. Each test proved that the more grit a person has, the higher their chances of achieving success.

Duckworth, (2016) subsequently collaborated with Carol Dweck (2007), who conducted studies to determine how a growth mindset in an individual can lead to success (Hochanadel & Finamore, 2015). Dweck (2007) concluded that an individual having a growth mindset believes ability is malleable and can increase based on hard work and determination. On the other hand, those who think intelligence is inherent and unchangeable exert less effort when confronted with failure and give up. This state of mind is called a fixed mindset. Students who persevere when faced with challenges and adversity seem to have what Duckworth calls grit, which is the idea behind a growth mindset (Dweck, 2007; Duckworth, 2016).
Based on the combination of research done by Stafford-Brizard and Cantor (2016), Dweck (2007) and Duckworth (2016), there is a chronology in the process that shows children cannot achieve high-order thinking skills without a strong foundation in basics and early childhood readiness skills. Similarly, a child cannot reach grit until they learn, among other skills, to be resilient, have a growth mindset, self-direct their learning, and persevere towards a specific long-term goal. Therefore, grit is a malleable personality trait and can be developed through emerging research-based strategies (Goodwin & Miller, 2013), and another reason I chose grit for my research.

If grit proved to be the principal reason for success, it begs the question of how to harness, cultivate, and develop grit from a young age. How do we create extremely passionate people who have a never-give-up attitude? What motivates students to pursue their area of interest with passion and perseverance? To answer these questions, I began my research on the motivating aspects associated with noncognitive skills.

**Motivating aspects associated with noncognitive skills**

We established a strong relationship between cognitive and noncognitive skill development, and learned that grit stands out among the noncognitive skills as an essential factor in the development of successful individuals; several questions then arise as a result of this theory. How is grit related to student motivation? What aspects can motivate the students to work hard to achieve long-term goals, persevere through challenges, and delay instant gratification to obtain the goal?
To answer these questions, I turned to (Lozano-Jiménez, Huéscar, and Moreno-Murcia 2021), who elaborated on the concept of motivation using the Self-Determination Theory (SDT) created by Ryan and Deci (2000). The Self-Determination Theory of motivation sheds light on the three fundamental needs that underlie people's intrinsic motivation: autonomy, competence, and relatedness.

Autonomy is the natural desire to experience a sense of choice and psychological freedom regarding one’s thinking and actions. The action of choosing voluntarily, in a self-determined way, promotes intrinsic motivation and more significant effort in tasks. A child realizes their competence as they perceive that it is up to them to gain knowledge and discover that they can choose whether or not to exert the effort to achieve a goal. Therefore, autonomy or the act of choosing voluntarily promotes greater effort on a task (Meng and Ma, 2015). The question then emerges: how is grit related to motivation? To explore that, we go back to the two facets of grit: the perseverance of effort and the consistency of interest. Perseverance of effort is related to intrinsic motivation because students need to have a passion and steadfastness to achieve a long-term goal, therefore motivation is required in order to achieve grit.

If the outcome does not motivate the person or they are not passionate about the process, most likely, the person may not exert effort or work as hard to reach the goal. Consequently, the person may appear to have less grit. For example, a student’s underachievement might be attributed to another characteristic, such as laziness (Kundu, 2014). Motivation, combined with grit, might be a combination for students to achieve success. Therefore, schools encourage students to create long and short-term goals so they are motivated to work hard and exert effort to the extent that they can accomplish their goals. Although motivation is not the central concern of my study, it is essential to understand the premise of motivation as it is closely related to and a
necessary component for long-term success, alongside cognitive and noncognitive skills, and is a critical piece of my research, as both grit and motivation are closely linked.

The fact that motivation is related to grit can be highlighted by Duckworth (2016), who defines a gritty person as someone with the desire and burning passion for achieving their long-term goal. Although a person may have cognitive and noncognitive skill capabilities, they need a motivating factor to apply grit. They need to be motivated by something they want so much they are willing to exert effort on a task that may give them discomfort but never give up trying to achieve it. According to Duckworth (2016), Many people have achieved success in life. Part of their accomplishment is their relentless effort to overcome their challenge and countless hours of deliberate practice to satisfy their motivation to achieve a particular long-term goal.

A study conducted by Silvia, Eddington, Beaty, Nusbaum, and Kwapi (2013) further elaborated on motivation and grit by examining how it affects the physiological structure and biological mechanisms of effort using the Motivational Intensity Theory (Brehm & Self, 1989). Their research is an eyeopener for others because their research suggests that grit can actually have a physical impact on the body and mind. Silvia et al. (2013) further tested the two different facets of grit, "the perseverance of effort and the consistency of interest" (p. 201). The perseverance of effort is the commitment the individual has to achieve the goal. Duckworth and Quinn (2009) call it the relentless grind of a middle and high school student to accomplish a greater GPA or an athletic student's effort to push through the challenge (Duckworth and Quinn, 2009). This facet is measured by asking questions such as" I finish whatever I began," and "accomplishing my goal is hard work, but I will not give up." The second facet of grit is the consistency of interest. According to Silvia et al. (2013), the consistency of interest is possessing a passion for a goal and a dedication to stick with the goal for an extended time. The way to
measure this facet is by asking, "I am motivated to accomplish the goal that I set for myself," and "new ideas sometimes distract me from previous ones." (Reverse). The research examines the sympathetic and parasympathetic divisions of the autonomic nervous system to explore the facets of grit to see if changes in grit affect a human being's biological mechanism. The research studied the Motivation Intensity Theory by Brehm and Self (1989) that proposes that an effort an individual is willing to exert depends on the combination of the intensity of importance placed on a goal and the perceived level of difficulty to attain the goal that ultimately results in actual effort. When the body is physically challenged by a cardiovascular activity that allows people to work at their own pace and achieve as much or as little as they wish, it will enable the researcher - depending on the individual's choice - to examine better the amount of motivation and grit a person has. According to Silvia et al. (2013), "sympathetic activity is a reliable indicator of motivational engagement in contexts requiring active coping" (p. 201). The research relied on the sympathetic division's cardiovascular activity to measure the facet of grit because Motivational Intensity Theory is a reliable motivation engagement indicator (Brehm and Self, 1989). Hence, the level of intensity is measured by the body's sympathetic system. It was strongly activated during the challenging task, showing that motivation and grit affect their brain and body function to achieve the goal.

Hence if grit makes goals more valuable, people high in grit would be willing to expend more effort to achieve a goal. Although the above research was conducted on adult participants, the two facets of grit are reliable measurements of motivation and grit and would affect both children and adults. Throughout my research, I will be referring to motivation as an essential factor that is a necessary part of a child's long-term success, along with cognitive and noncognitive skills.
If motivation and grit help students persist and persevere in their most challenging tasks, demonstrate self-control, and give up instant gratification for something more rewarding later. In that case, teachers and caregivers must create an environment that produces these intrinsic motivating factors. The question then becomes, what are those motivating factors, and how can personal relationships with an adult ignite motivation and grit to create the kind of situation that helps students stay on track with their goals?

The importance of human relationships and personal connections

To motivate children to become passionate about something to the extent that they persist and persevere to reach a long-term goal and be successful in life, it is essential to study children's development in connection with the environment they grow up in and their social and cultural interaction. A large body of evidence has shown the importance of positive, reciprocal, and responsive human relationships, especially during the child's early years. According to Gertler, Heckman, Pinto, Zanolini, Vermeersch, Walker, Change and Grantham-Mcgregor (2013), it is the child's early years when the brain is most malleable, and the neural plasticity of the brain is very high, leading to a greater chance of cognitive and noncognitive skill development. Since research shows that a child's personality is formed mainly during the early years of attachment, we needed to explore in-depth about such a relationship with the adult. In this section, I studied how relationships can profoundly impact a child's cognitive and noncognitive skills, leading to higher motivation and grit.

It's a known fact that children get their start in life from different socioeconomic backgrounds, and the ability gap emerges before they enter school. Thus, the responsiveness to these experiences during their early years can positively or negatively carry on into adulthood. I
will use research to analyze the two possible scenarios of a child’s life. One situation is that they are brought up in a stable environment with a supportive adult who nurtures their cognitive and noncognitive skills, fulfills their developmental needs, and provides a template for future interaction. Another circumstance is that they are brought up in an unhealthy environment where the child is always in a state of stress, exacerbated by the lack of a supportive adult to foster healthy relationships and buffer against risks.

**Supportive Environment**

As soon as a child is born, he or she demands attention from an adult to fulfill basic needs, whether physical or the need for attachment. The way an adult behaves and interacts with the child in their foundational years sets the tone for future success as he or she enters school. According to Maria Montessori (1967), even before students enter school, they have started the intricate formations of intelligence, feelings, and social sentiments. Cantor, Osher, Berg, Steyer, and Rose (2018) further elaborate this point by studying children's brain structure and determines the development of a human brain depends on the experiences throughout their life. It starts from the moment they are born. According to Cantor et al. (2018), it is at these tender moments that "interpersonal experiences and relational connections activate neural pathways, generating energy flow through electrical impulses that strengthen connectivity among existing brain structures and create new ones" (p. 5). Similar to this study, Li and Julian (2012) describe positive relationships as an "active ingredient" in a child's developmental needs and a successful future outcome. According to them, an adult and child's "developmental relationship" comprises "warmth, consistency, attunement, reciprocity, and joint activity, including the sharing and transfer of power and the scaffolding of learning" (p. 7).
One study was done by U.S. researchers who looked at the labor market return on growth-stunted toddlers from Jamaican families and did a longitudinal study until the participants reached their 30s (Gertler et al., 2014). The families were divided into various groups. One group received a required nutrition supplement for healthy growth, and another group of families received weekly guidance from the community health official. The guidance was primarily focused on playing and interacting with the toddlers to develop their cognitive and noncognitive skills for two years. The control group did not receive such services. After twenty years, accessing data of these participants shows that toddlers who received nutrition and the control group had no known effect. However, toddlers who had a positive interaction with the parent during their childhood years showed a marked improvement in their IQ and earned an average of 25 percent per year more than the control group that received no services. This research emphasizes that early childhood interventions by a supportive adult can have a significant long-term benefit and lead to adult educational attainment and psychological function. It also relates my research questions that human relationships and personal connections help the student develop noncognitive skills.

Further research on the topic of noncognitive function, particularly grit, brought me to the research done by Levy and Steele (2011), who explored the relationship between attachment and grit. They determined a strong connection between personal relationships and grit using different research based self-reporting methods. The study was conducted by collecting data of adults recollecting their childhood experiences with their parents or guardian during the first 16 years of life. They used Parental Bonding Instrument (PBI) to subjectively measure the four areas of relationship, 1) affection and warmth, and 2) rejection, indifference, and coldness, 3) overprotection, intrusion and 4) promotion of independence. The participants also took the grit
scale survey that measures the two dimensions of grit - perseverance of effort and consistency of goal- developed by Duckworth and Quinn (2009). It was found that high grit scores were significantly linked to high past parental care, and grit was significantly correlated to the positive relationship with the significant adult in their life to whom they were attached. The research revealed that the higher the PBI score, the higher the grit score. In other words, the more positive a relationship the person is exposed to during the early years of their life and is surrounded by a caring adult, the higher the person achieves grit. Levy and Steele (2011) explained it well in the following paragraph:

Kobak and Sceery (1988) proposed that securely attached individuals are expected to deal with psychological distress by acknowledging it as well as engaging in constructive action to reduce distress. Individuals with high parental care and thus, secure attachment, are said to have low anxiety and avoidance dimensions, and therefore, cope well with stress by either seeking support from attachment figures or by recalling mental demonstrations of support received in the past (Mikulincer and Shaver, 2003). In support of the first hypothesis, secure relationships with peers are related to adaptation to college, academic achievement, college retention rates and well being among college students (Abby et al. 1985; Brooks and DuBois 1995; Fass and Tubman 2002; Zea et al. 1995). This finding alone helped to pave the way for the primary hypothesis, however, in conjunction; these findings help to possibly explain why high parental care, as expected, was significantly linked to various factors in the Grit Scale.

Based on the above research, we established that an adult figure in the life of a child is crucial for their growth and development and the primary factor in determining grit needed for long-term success. However, the opposite of this argument is also true. It presents a threat to growth and development if the child is not given the care and attention, and there is a lack of positive, reciprocal, and responsive human relationships while the child is growing up.

Lack of support

Not surprisingly, children work well in school when their individual needs are met, and
their learning goals are personalized to match their academic readiness. However, if they are
distracted and feel emotionally overloaded due to adversity at home, they cannot self-regulate
and concentrate on reading and writing. According to Tough (2016), if they are not adequately
nurtured at home or school by a caring adult during the early stage of their life, they continue
school lacking those crucial noncognitive skills. They may lack the ability to exercise grit and
find that school gets more challenging and complicated over time, and they fall further behind,
impairing their cognitive skills. The feeling of helplessness further leads them to lower self-
confidence and hopelessness. Later on, this can lead to attitude problems during middle and high
school when they become further detached, stop trying, and eventually drop off. Therefore, if the
environment is not conducive to learning and growth at home, the child could grow up missing
out on foundational skills, as mentioned by Stafford-Brizard and Cantor (2016) as an attachment,
self-regulation, and stress management skills. Children are vulnerable at an early age and can be
steered in any direction that could lead them to either the highest mountain of greatness and
success or the darkest valley of stress and insecurity, ultimately leading them to a twisted reality
of violence, substance abuse, and jail. (Dube et al., 2003).

Conclusion

My research elaborated on the notion that both cognitive and noncognitive skills affect
young children’s learning and mindset; therefore, behavior and attitude may significantly affect
the development of their cognitive skills. I explored how grit can be a factor that helps a person
pursue his or her goals leading to long-term success by examining how motivation and grit affect
the physiological and biological mechanisms using the motivational intensity theory (Silvia et
al., 2013). Hence a child is motivated to learn and acquire knowledge in developing their cognitive and noncognitive skills.

I also examined research related to cultivating noncognitive skills by utilizing human relationships as a contributing factor and determining how the human relationship and personal connection with the adult profoundly affect the child’s ability to exercise grit (Levy & Steele, 2011). Therefore, research shows that a supportive, nurturing, and inspiring relationship with an adult can positively impact a young child's cognitive and noncognitive skills. Early childhood investment plays a crucial role in a child's future success.

It is evident with the above research that this relationship between an adult and a child helps the child learn the necessary foundational noncognitive skills to self-regulate when a school environment demands that they get along with other children and build new relationships. During early schooling, children are exposed to new material that will help them start on their educational journey to learn to read and write, tapping on their higher-order skills. Cantor et al. (2018) argue that positive relationships help the child regulate their emotions, behavior, and cognitive load, providing a sense of "safe haven" for learning new things (p. 3). Tough (2016) confirm this point that students coming from reasonably healthy and stable homes where they are exposed to a caring adult who motivates them to continue to persevere on their goals and protects them from adversity are more likely to feel safe and tend to concentrate better on learning. They are more likely to be motivated to continue with their goals and are more willing to trade instant gratification for long-term success. According to Pierson (2013), every child deserves a champion: an adult who will never give up on them, who understands the power of connection, and who insists they have the potential to be the best they can be. To learn about the impact of noncognitive skills on young children and how teachers' connectedness affects their social and
emotional growth, I evaluated the GSE’s mentorship program using qualitative methods to collect my data.
SECTION THREE: RESEARCH METHODOLOGY

Research Design Overview

As I pursued my research on determining the effects of noncognitive skills, grit particularly, on the learning of young children, my next step was to examine the conditions needed for students’ noncognitive abilities to flourish. One way was to evaluate the student and teachers' mentorship program in GSE because I hypothesized that a supportive, nurturing, and inspiring relationship with an adult in a young child's life can have a positive impact on noncognitive skills. I used a qualitative method to collect data because I wanted to capture what the program meant to teachers and students in their own words. According to Patton (2008), qualitative data takes personal meaning into account and portrays the diversity of how people express themselves. I employed the Utilization-Focused Evaluation process (Patton, 2008) for my research study, which emphasizes that the evaluator ensures that the "Face Validity" of the program measures what it is intended to measure (p. 399). For that reason, it is essential to involve the intended user before the data is collected to avoid potential credibility problems. The intended use, in this case, will be the students and teachers. Before the data collection process, I engaged with the teachers to discuss the mentorship program's design and implication.

Participants

The participants in my study were seven certified teachers who were mentors to the students. Mentors included both classroom teachers and other support staff who worked with at-risk students. Half of the teachers were veteran teachers with more than three years of experience, and half were first-year teachers. I used the purposeful sampling method (Patton,
2008) to select teachers because of the limited number of teachers in the school. During the recruitment process, I made sure the staff do not feel pressured to participate in the study. I ensured my passion for the work did not cause bias and interfere with the results. Patton (2008) calls it the "confirmation bias" in which our preconceptions distort the reality of the situation, with the evaluator looking for evidence of effectiveness and ignoring inadequacies.

I also collected data from students by analyzing the student online survey results from kindergarten to sixth grades. There were 66 students enrolled at the school from kindergarten to sixth grade. As part of the protocol, the mentorship program should be conducted once a week for 10 to 12 minutes. The teacher and students were asked to complete an online survey each time. The online survey lasted no more than one to two minutes. I particularly examined the results of three student responses to provide a thorough understanding of their responses. I chose two girls and one boy because three-fourths of the school population is female.

I used the proportionate quota sampling method (Patton, 2008) to select the students to extrapolate data. I took the parent consent (Appendix D), and the student attested to the survey before I started my research. The student's personal information was not used when data was collected or published. Every effort was made to keep student records, research records, and other personal information confidential. I ensured the student understood that participation in this research is voluntary, and they had the choice not to participate or to leave the study at any time.

**Data Gathering Techniques**

Since grit can be reliably assessed by informants (Duckworth & Quinn, 2009). I conducted an online survey of teachers and staff members to analyze the relationship between
their perception and students' self-evaluation of how mentoring sessions helped them develop their grit. I then conducted teacher focus group interviews to triangulate the qualitative and quantitative data for validity. Since it is widely accepted that cognitive skills can be captured using standardized tests, I collected standardized tests using NWEA MAP data for growth within the year and relative change from previous years. I started my research in the winter of 2017. Before beginning the process, I obtained permission from the school board.

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<td>Quantitative data</td>
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<td>Student Data from NWEA (MAP testing)</td>
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Both the teacher online survey (Appendix H) and focus group interview (Appendix I) were discussed during the staff meeting, and an email (Appendix K) was sent to teachers to request participation using an informed consent document. I ensured teachers were conscious that involvement in the online survey and focus group interviews were entirely voluntary. No service of any kind to which they are otherwise entitled was to be lost or jeopardized if they choose not to participate. Also, if they decided to take part in the survey, they were free to withdraw at any time without any adverse effect on their position in the school.

This study's data collection was a combination of an online teacher (Appendix H) and student surveys and focus group interviews. The online survey interview notes and results derived from the study were kept in my Google Drive as a soft copy, password-protected, and
accessible only to me. All the soft and hard copies of the research will be discarded upon completion of the study.

**Students**

Students were given an online survey (Appendix G) that contains five questions in a multiple-choice format using the Likert scale from 1 to 4 to extrapolate the numerical value for quantitative data analysis. A Likert scale assumes that the strength/intensity of an attitude is linear, i.e., on a continuum from strongly agree to strongly disagree, and makes the assumption that attitudes can be measured (McLeod, 2019). Duckworth's famous Grit Scale was not used in my research because the Grit Scale survey was primarily used for adults and adolescence, and the questions may be complicated for the primary grade students to understand. Instead, I designed questions similar to the ones used in the Grit Scale developed by Duckworth (2016) and further explored in the research by Silvia et al. (2013). The two dimensions of grit are the *perseverance of effort* and *consistency of interest* over time. To measure the perseverance of effort, I asked them, "Accomplishing my goal is hard work, but I will not give up." To gauge the consistency of interest over time, I asked, "I am motivated to accomplish the goal that I set for myself." As I am interested in learning whether or not there is a growth in their level of grit from the beginning to the end of the year, I conducted a comparative analysis of the intensity of their attitude about the questions over time. Lastly, I asked the student one open-ended questions to give a quantifiable analysis of the results.
Teachers

Similar to the student survey, I gave a multiple-choice survey (Appendix H) to the teachers for their perception of their connectedness to the students as a result of participating in the mentorship program and their social and emotional growth. I use a similar Likert scale from 1 to 4 to organize the quantitative analysis. The survey results were used to triangulate data from the teacher focus group interview and observe distinctive patterns.

As I mentioned previously, I conducted the focus group interviews (Appendix I) with teachers from kindergarten to sixth grade. I used the interview technique to gather my data because according to Patton (2008), interviewing is a "...process of being taken through a directed, and reflective process that can leave interviewees realizing things about themselves that they were not fully aware of before the interview" (p. 169). The group interview process was held in the teacher's lounge. Similar to the teacher's online survey, the focus interview contained several questions about the teacher's perception of the strengths and weaknesses of the mentorship program concerning the students' cognitive and noncognitive skills. The focus group interview format was semi-structured to allow participants to talk about their experiences and provide them with structured questions. Hence, there was less chance for deviation from the subject. The interview took no more than one hour, and I recorded the conversation to transcribe later with their consent.

Ethical Considerations

There were minimum anticipated risks involved to the participant as a result of the study. On the contrary, the teacher's participation benefited the success of the mentorship program. I anticipated most teachers recognized the benefit of the case study and were willing to provide
input. Acknowledging my position of authority, I did my best to exhibit transparency with the teachers during the process and outcome of my study by informing them that they can refuse to participate.

Similarly, there was minimal risk to the participant as a result of the focus area group result used in the research. The participant's data was kept in confidence, and the participants were given pseudonyms to hide their identity. However, participants involved in the conversation during the focus group session may have different opinions that could result in disagreement. With that in mind, the participants were given specific Focus Group Interview Protocol (Appendix J) to follow along during the interview process to avoid such disputes.

Understanding that children under 18 are protected subjects (James, Milenkiewicz & Bucknam, 2008), I sent information to the students' parents from whom I collected the online student survey. The online survey was anonymous. Parents received an Informed Consent Form (Appendix D) that explained the reason for my study, potential risk, the intended audience, and overall benefit to the field of education. I demonstrated full confidentiality in the research process by not disclosing identifiable information about the child (like the name of the student and address) but in aggregate reporting data (James et al., 2008). Any surveys that might have inadvertently included names or other identifying information were immediately destroyed. I also included a signed consent from the parents to acknowledge a strict confidentiality agreement, providing them an understanding that they can refuse to participate without any risk of losing anything that they would otherwise be entitled.
Data Analysis Techniques

For my data analysis technique, I gave the students a link to the survey in their Chromebook to log in using their Google account to complete the survey. The online survey results were tabulated by extracting the results from the Google form to an Excel datasheet used to provide aggregate data. The specific questions asked students to rank themselves on a sliding scale, thus giving me quantifiable data that reflects their attitude and perception of their goals from "strongly agree" to "strongly disagree." I performed a comparative analysis of the students' level of grit from the beginning of the year to the end of the year.

To do that, I organized the questions and computed the mode from the first and last month of the year. The teacher's aggregate perception data were used to triangulate the student's aggregate perception data and identify any patterns of noncognitive skills and social and emotional growth of young children's learning.

In addition to analyzing quantifiable data, I conducted the teachers' group interview and used several methods to analyze the data I received. I use a coding system to organize the main idea and pull-out keywords and emerging themes. By highlighting the keywords and phrases, I noticed similarities across several areas in most of the teacher's responses. The themes included 1) student comfort level and increased engagement, 2) pulse on the social and emotional state of affairs, 3) time constraints and 4) increased motivation and grit. These themes informed my work and helped lead me to answer my research questions.

Conclusion

As educators, it is our responsibility to monitor and conduct systematic and purposeful evaluations of the programs we implement in our school. In this study, I designed my research
methodology by using the student and teacher surveys and focus group interviews to provide an insight into students' cognitive and noncognitive skills as a result of the mentorship program. I also analyzed the NWEA MAP scores for any cognitive growth that may stand out as significant. The interview and survey helped me explore the relationship between teachers' perception and students' self-evaluation of how mentoring sessions helped them develop their grit from the beginning to the end of the year. My next step is to gather the data and present the findings using the systems theory developed by Wagner et al. (2006).
SECTION FOUR: RESULTS

In this section, I will present the As-Is scenario of the school using the four areas of change outlined by Wagner et al. (2006): context, culture, competencies, and conditions of the school. I will examine the four areas of change to paint a picture of the school's current reality before implementing the mentorship program. My next step is to analyze the school from a 'systemic thinking' perspective to pursue my data collection process because we understand that influencing one part of the organization may impact other parts of the system (Wagner et al., 2006). Then I will present the interview and survey findings based on the data I collected using the qualitative method and discuss the analysis of my findings and interpretation. Finally, I will present my judgment and key recommendations based on my results.

As-Is Analysis

Before proceeding with the process of implementing a program change such as a mentoring program, it is essential to look at the “As-Is” analysis (Appendix B) of the school from a systemic point of view. To introduce even a small change in the system, all parts must change, and all components must be addressed. It will be helpful to take a holistic approach to analyze how each element comes together using the “4′C” model, as mentioned by Wagner et al. (2006).

Context

Wagner et al. (2006) defines context as the skill demands all students must meet to succeed as learners and citizens and the particular aspirations, needs, and concerns of the family and community the school serves. To understand the prevailing situation, let's examine the organization's current context before the implementation of the mentorship program. The school started as a Muslim Montessori preschool and quickly added grades until the school reached
capacity. The school then moved to a more prominent location down the street and reached sixth grade in 2017. The students who leave GSE either before they enter sixth grade or after they graduate from GSE are expected to be at least one grade level higher than at a public school. The expectation is set higher in GSE than a public school in part because it is a community school in which parents pay tuition. There is a presumption that their children receive the utmost care, highest academic standards, and religious teachings, which GSE has been successfully able to provide considering the school's commitment to quality in education. However, there is more work to be done to keep up with current trends in education and close the achievement gap. In his book The Global Achievement Gap, Wagner, (2009) talks about the competencies high school and college graduates need to be successful professionals and global citizens in today's society. He challenged educators to redefine what we mean by a rigorous curriculum and help students to be ready for the workforce in the 21st century.

To prepare our students for the world of work in the global society, GSE implemented a dynamic curriculum comprising two major programs, the Leader In Me program and the Project-Based Learning Program. This section will provide a brief account of these programs and their connection to cognitive and noncognitive skills in young children.

The Leader In Me Program

As previously mentioned, seven years ago, GSE introduced several initiatives to redefine the school vision, and one of the major initiatives was to create a leadership-themed school. The school adopted The Leader In Me program, where the student learns the essential habits to succeed. The Leader In Me is an innovative school transformation process that empowers students to develop leadership skills, accountability, and responsibility in their daily life. The
purpose of the program was to create a school-wide culture of student empowerment based on the idea that every child can be a leader. The program promotes social and emotional learning for students in grades kindergarten through sixth through teacher practices. Since it’s an organizational model, GSE teachers first read the Seven Habits of Highly Effective People, a book written by Steven Covey, through the book club. Once they believed in the program, they started using the terminology of the seven habits in their classrooms. The school implemented weekly lessons, and teaching practices were designed to support both cognitive and noncognitive skills development, including interpersonal and intrapersonal awareness, critical thinking, collaboration, and communication (thefleaderinme.org). The program had been successful as the number of disciplinary issues was minimized. However, the school notices a gap in a student’s ability to internalize the program. Some students continue to demonstrate a lack of engagement and ability to cope with classroom responsibilities based on teachers’ observation and referral data.

*Project-Based Learning (PBL)*

PBL is a teaching method in which students gain knowledge and skills by working for an extended period to investigate and respond to an authentic, engaging, and complex question, problem, or challenge. The GSE’s entire school curriculum is designed around the social-science concepts woven into every subject taught as an interdisciplinary unit spread throughout the year. Students work in teams to research and create projects that help them deepen their learning and academic content. For the PBL to work effectively, students need specific noncognitive skills and competencies, critical thinking, stamina, agency, the ability to communicate effectively, work collaboratively, and develop an academic mindset. PBL is a change in the way a classroom
is run. PBL contradicts the traditional teaching method, in which students are made to sit in a row and memorize throughout the year. Instead, PBL requires students to engage deeply in the world around them and create authentic projects based on cognitive rubric and learning standards that may ignite motivation. The students work in teams that appear less structured, loud, and messy at times. However, similar to any school, students cannot learn if their basic needs are not fulfilled, including their foundational skills. PBL program is another initiative that has been working successfully in GSE. However, we continue to see some students who are unable to work in an environment where they are not given the right answer and require specific skills to investigate, self-direct and discover on their own. Although students are taught these skills in our school, some students experience a more challenging time working with others because they require a certain element of maturity and higher-order thing skills that comes with developed noncognitive skills.

Culture

According to Wagner et al. (2006), culture is defined as "the shared values, beliefs, assumptions, expectations, and behaviors related to students and learning, teachers and teaching, instructional leadership, and the quality of relationships within and beyond the school" (p.102). The culture of GSE is shaped by the high level of trust the teacher and administration have among each other and the high level of expectation the principal places on staff to create a sustainable leadership environment. In turn, teachers expect a high level of academic performance from the students. The critical area that requires change is an emphasis on noncognitive growth for the students. The teachers' mindset that students' social and emotional development will happen simply by participating in the group Leader In Me lesson is
problematic. Students often used language that exhibits a fixed mindset during the principal chat regarding their success. Students feel as if the work is too hard or cannot do it and quickly give up, reflecting on what they value and how they behave. Despite lessons on using "be proactive" language, students often use terms like "I can't do it," "I am not good at it," or "I can never improve." Many of these students were listed in the at-risk category. As the school monitors students' NWEA MAP data, the students below the 10th percentile were placed in the at-risk category. My conversations with teachers and their observational data concur with my observations during my principal chat. Teachers noticed some of the students continue to appear unmotivated in the classroom and disinterested in confronting challenges. Based on data collected on classroom unit quizzes and tests, it is especially true in math when problems become more complex, and they tend to give up or guess the answers instead of persevering to find the right answer. Similarly, some students tend to rapid-guess on their standardized MAP test that builds in difficulty, placing them in the at-risk category with those who are struggling academically.

Furthermore, teachers noticed that students tended to act out and had behavioral issues in the classroom. For example, GSE follows the Traffic Light System (TLS) as part of its student behavior management system. The green color represents students behaving well in the classroom, yellow means a warning, and red represents a serious violation. Every morning, a student's clip stays on the green light unless he or she violates a classroom rule for various reasons. Consequently, their clip moves to red, and the student is asked to fill out a referral with a behavior action plan. Analyzing the data for the year revealed that about 90 percent of students on red were also the students who appeared in the at-risk category in the MAP testing data (Figure 4).
This data supports Baker's research that the percentage of young children who display behavior problems are also academically at risk (Baker 1999). Students in this category appear to lack self-regulation skills and cannot take the stress of routine classroom expectations and resort to temper tantrums. Teachers find it difficult to engage with at-risk students on a personal level and motivate them to learn. Therefore, it is essential to provide early intervention, and positive behavior supports students. The situation validates the study done by the Stafford-Brizard and Cantor (2016) that "students who graduate without the skills necessary to engage in learning cannot process the vast amount of instruction that comes their way as they move up a grade, and it becomes overwhelming to stay on track. This is called the "achievement gap" (p. 2).

The school started an intervention system of "check-in" and "check-out" to work with those students. The system allowed teachers to check-in with students to set behavioral goals at the start of the day and then check-out with the student at the end of the day. Although it appears
to work fine for the first few weeks, the students become unresponsive to the program as the year progresses. One reason could be that the check-in and check-out system was designed to last for a short period until the student achieves the goal set for the intervention. Therefore, the effect of the program also lasts a short period, and the students revert to old habits. There is a need for a systematic process of monitoring students' social and emotional competencies as they pass through their graders. Hence the school needs to provide a consistent, nurturing, and supportive environment for the students to foster their noncognitive skills regularly.

**Conditions**

Wagner et al. (2006) define conditions as "the external architecture surrounding student learning, the tangible arrangements of time, space, and resources" (p.101). Conditions in GSE need the most improvement. Many alternative private schools have limited resources with no government funding, and GSE is no exception. The school's tuition is considerably lower than other private schools, based on a tuition survey. Part of the reason is to allow parents with lower socioeconomic background opportunities to join the school. The school also is an independent organization with a limited donor pool, creating a challenge to allocate resources to benefit students' needs.

Besides the shortage of resources, teachers do not have enough time in the schedule to spend quality time with students and connect with them on a personal level. The master schedule is spread out in such a way that it does not allow them to receive enough instructional time or one-on-one time with the student due to short class periods. Each class period is 35 minutes, and there is a specials subject class between every core period. For example, Arabic, Qur'an, Islamic Studies, and Physical Education classes are spread throughout the day. Teachers get a break every 35 minutes as the students go to specials subjects; however, 35-minute intervals do not
provide teachers enough uninterrupted planning time nor give enough one-on-one time with the students. There are plans to modify the master schedule next year to group specials subject classes together, so teachers have enough planning and student check-in time.

Other than limited time, the availability of physical space has become an issue. Although the current building is much bigger than the previous one, the school has continued to add one grade level each year. Teachers struggle to find a comfortable area to talk privately with students who need personal reflection, strategic guidance, and support. I see teachers utilizing hallways, the teachers’ lounge and other public areas to talk to the student, but most of the time, the conversations remain at a surface level. They may not go deeper into the heart of the problem, as reported by the teachers.

Competencies

“Competencies are the repertoire of skills and knowledge that influence student learning.” (Wagner et al., 2006 p. 99). GSE has a dynamic curriculum that requires students to utilize their 21st-century skills. However, more work is to be done in progress monitoring and developing systems of accountability for teachers to provide social and emotional reinforcement to students and academic support. With higher expectations, teachers require support in developing the capacity to produce desired results effectively. Therefore, teachers need the training to identify students who exhibit signs of earlier childhood stress and emphasize establishing a relationship with the student with the intention of noncognitive skill development. Teachers used the TLS for the most part to identify behavioral issues, but many times deeper issues may have remained unnoticed. A large body of research suggests that children come to school from different socioeconomic backgrounds and with varying starts in life (Tough, 2016). There is a risk that students may pass through grades without the emotional support they may have needed, and that
could cause falling behind in classes, leading them to an at-risk category.

A research study done in Baltimore City emphasizes that early prevention and intervention can have a long-term effect on young children (Bettencourt, Gross, Ho & Perrin, 2017). This study examined more than 11,000 children entering kindergarten and identified their level of school readiness by using a scale developed by Baltimore City as either "ready" or "not ready" in "Follows classroom rules and routines" and "Participate cooperatively in group activities" (p. 39 & 40). It was an eye-opener to learn that kindergartners who scored as "not ready" on the school readiness scale were more likely to have adverse outcomes in school by fourth grade. As reported by the study, 80 percent were more likely to be retained in grade and receive special services, and up to seven times more likely to be suspended/expelled at least once.

I highlighted this study to underscore the importance of early intervention and the vital role a primary and elementary teacher plays in the developmental needs of young children. The teachers should be trained and equipped to identify and cultivate noncognitive skills in children at such an early age. Ignoring the deficit of noncognitive skills may cost schools more later in the years in grade retention, interventions, and special education. Therefore, schools must provide thorough and well-organized professional development opportunities for teachers about the benefits of noncognitive skills and student-teachers relationship building that can be in the form of a job-embedded training program during routine professional meetings and monitoring progress.

Moving forward with the plans by looking at the As-Is scenario from a systemic perspective, the school board approved the plans to implement the personalized learning model using the Summit Learning Program the following year. One of the components of this plan
introduced the GSE mentorship program, which is a subject of my study. I collected data the same year the mentorship program was implemented. Before I proceeded with data collection, I collaborated with the teachers to discuss the mentorship program's design process and implication. During the design phase, I took the teachers' input to make sense of the program evaluation findings and become vested in the mentorship program.

**Findings**

To examine the conditions needed for students to flourish their level of grit in the learning of young children, I evaluated the GSE student and teacher mentorship program by collecting data using a qualitative method. The first data was the student survey. The teachers administered the student survey each time they mentored the students. I collected one month's worth of data from the beginning of the year and one month's worth of data from the end of the year to conduct a comparative analysis of the two months. Second, I collected data via teachers' survey near the end of the year. The survey aims to expand upon the major findings of the student survey. Third, I carried out a focus group interview with the teachers at the end of the year during in-service to learn how they felt about the mentorship program in an open-ended discussion forum. Last, I analyzed NWEA MAP test scores from fall to spring to see whether there was any significant academic progress over the year and compared it to the year before the mentorship program was implemented. This section provides the findings based on the data I collected during the school's mentorship session from kindergarten to sixth grade. I then gave an analysis of the significance of the findings and presented my findings based on the components that need further investigation: 1) Student survey results, 2) Teacher survey results, 3) Focus Group interview results, and 4) Standardized testing results.
**Student Survey Results**

The data I collected considers that the current educational system holds the premise that students entering school already have specific foundational noncognitive skills crucial for successful engagement. However, I have established previously that not all students entering school have the same start in life; some may need more nurturing and support than others. To identify the students' current state of mind, the research relies on student self-reporting techniques during their mentoring session to gather data about their perceptions, feelings, and attitudes. All students from grades kindergarten to six participated in the survey, and the demographic is depicted as follows:

![Bar graph showing student demographic data from kindergarten to 6th grade](image)

*Figure 5. Student Demographic data from Kindergarten - 6th grade*

Kindergarten to second-grade students are in a self-contained classroom with one teacher, while students from third to sixth grade have a multi-classroom setup. Third and fourth graders
are combined and fifth and sixth graders are together with one teacher in each classroom.

Students in the kindergarten to the sixth grade received an online survey with specific questions about their goals and accomplishments during every mentoring session. The first two questions represented the two dimensions of grit based on the Grit Scale developed by Duckworth and Quinn (2009). To measure the perseverance of effort, I asked them to rank their willingness to accomplish their goal during the mentorship sessions using these statements. "I can accomplish the goal that I set with my mentor" and "Accomplishing my goal is hard work, but I will not give up." To gauge the consistency of interest over time, I asked the students, "I am motivated to accomplish the goal that I set for myself". The specific questions asked students to rank themselves on a sliding scale, thus giving me quantifiable data that reflects their perception and attitude about their goals from "strongly agree" to "strongly disagree." To learn about their perception of the level of grit from the beginning of the year to the end of the year, I collected survey data from the first full month of the academic year, September 2017, to the last month of the academic year, May 2018. I then did a comparative analysis of the frequency of the students' responses on the Likens Scale for the two months. Lastly, I asked the student one open-ended question to give a qualitative analysis of the results. See below for responses to each item during the student survey questions.

When we asked the students at the beginning of the year about their willingness to accomplish their goal they set with their mentor, 75 percent of the students say they agree, and 25 percent strongly agreed that they could achieve their goal. When we asked the same question at the end of the year, 31 percent said they agreed, and 69 percent said that they strongly agreed that they are willing to exert effort and accomplish their goals with their mentor (Figure 6). There was a 44 percent increase in the students who agreed by the end of the year. This data
indicates that students feel more strongly about accomplishing their goal and were more willing to persevere and build on self-efficacy at the end of the year. In other words, the dimension of grit responsible for the perseverance of effort grew in students by the end of the year.

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<th>N (66)</th>
<th>Beginning of the year</th>
<th>End of the year</th>
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<tbody>
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<td>Strongly Agree</td>
<td>25%</td>
<td>69%</td>
</tr>
<tr>
<td>Agree</td>
<td>75%</td>
<td>31%</td>
</tr>
<tr>
<td>Disagree</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>0</td>
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*Figure 6. Student survey of accomplishment of goals*

Similarly, at the beginning of the year, students responded with 38 percent agreeing and 68 percent strongly agreeing that accomplishing the goal is hard work, and they will not give up. By the end of the year, 75 percent strongly agreed and 25 percent agreed that accomplishing their goal is hard work, but they will not give up. No one selected disagreed or strongly disagreed at the beginning of the end of the year (Figure 7). The results show a 12 percent increase in students' perseverance of effort at the end of the year compared to the beginning of the year.
The response to the question about their level of motivation at the beginning of the year, 38 percent said they agree, and 56 percent said they strongly agree that they are motivated to accomplish their goals. 6 percent of the students said that they are not motivated to achieve their goals. By the end of the year, 31 percent agreed, and 69 percent strongly agreed that they are motivated to accomplish their goals. No one strongly disagreed (Figure 8). The result may allude to students' skepticism in their ability to succeed on a set goal initially, and feel more confident and motivated to stick with the goal towards the end of the year.
Each week the students were required to answer whether they accomplished their goals set in the previous week. This question expands on the understanding between their perception that they can achieve their goal and the effort they exert to accomplish their goal. 72 percent of students reported they accomplished their goals at the beginning of the year, and 83 percent of the students accomplished their goal at the end of the year. Although most students were completing their goal with the mentor, there was still an average of 17 percent of students who struggled to achieve their goals at the end of the year (Figure 9).
To further analyze why 17 percent of the students did not accomplish their goals and to assess their current mindset, we asked the question, "How do you feel about your goal?". The survey results show that in September, on average, 85 percent of the students expressed that they were happy and motivated, while 15 percent felt frustrated and overwhelmed. Conversely, 93 percent of the students felt happy and motivated during the month of May, while 7 percent of the students still felt frustrated and overwhelmed (Figure 10). Here the mentor can probe further by asking, "What might be the reason for not being able to accomplish their goal?" and gain insight into the cause of the setback. By analyzing the reasons behind the students' apparent frustration, it became clear in the open-ended question of the survey where the students reported that they felt frustrated and overwhelmed because they failed to manage time and study skills that prevented them from accomplishing their goals. The mentor can introduce strategies to address the issue and establish new goals and action plans based on the students' current needs.
To learn more about how the mentorship program helps students set action plans to accomplish their goal, I asked the students how they felt about developing action plans to achieve the goal they sent with their mentor. The results show that at the beginning of the year, 56 percent of the students agreed, and 44 percent strongly agreed that they set action plans with their mentors. At the end of the year, 6 percent agreed, and 94 percent strongly agreed that they developed an action plan to accomplish their goals. None of the students selected Disagree or Strongly disagree (Figure 11). The results show a 50 percent increase in the students who
selected strongly agree and that they create action plans to accomplish their goals towards the end of the year. The survey implies that that sharing their feelings with an adult during mentorship sessions helped them find alternative solutions to their problems and built resilience. The mentor pushed them to be persistent in fulfilling their goals as per the open-ended question.

<table>
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<th>End of the year</th>
</tr>
</thead>
<tbody>
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<td>Strongly Agree</td>
<td>44%</td>
<td>94%</td>
</tr>
<tr>
<td>Agree</td>
<td>56%</td>
<td>6%</td>
</tr>
<tr>
<td>Disagree</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>0</td>
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*Figure 11. Students set action plan*

Overall, the student survey suggests that mentoring benefits the students and helps create a platform to safely discuss their concerns with the mentor if they both have sufficiently developed a positive relationship. To understand the relationship between the students and teachers and their perception about the level of involvement with their mentee, we look at the teachers’ survey results.
Teachers’ Survey Results

Besides self-reported data from the students' survey, I collected informant reporting data from teacher mentors. The primary reason for compiling the teachers' survey results is to understand their perception of whether and to what extent they supported the students during mentoring. Teachers filled out an online survey near the end of the year about their mentorship experience.

Students are categorized in two groups, primary grade from kindergarten to second or elementary grade from third to sixth. There is one teacher per classroom for kindergarten to second grade and one teacher for each multi-classroom. Also, a full-time math teacher was available to mentor the students. Lastly, a part-time support staff took the responsibility of mentoring at-risk students. In total, there were seven teachers who took the survey. (Figure 12).

![Bar graph showing teachers' demographic data from kindergarten to 6th grade.](Figure 12: Teachers Demographic data from Kindergarten - 6th grade)

When asked about the frequency of their mentorship engagement, the survey revealed that 43 percent of the teachers said they did weekly mentoring, and 57 percent said they were
able to mentor once every two weeks (Figure 13). Of the 43 percent of teachers who said they mentored weekly, most of them dealt directly with third to sixth graders.

Figure 13. Mentoring session’s frequency

To gauge the duration of the mentorship program, we asked the teachers for the amount of time spent mentoring. The survey revealed that 57 percent of teachers said they mentor for 10 to 15 minutes a week and 43 percent of the teachers mentored about 5 minutes (Figure 14). Further data showed the majority of kindergarten to second grade teachers mentored for about 5 minutes.

Figure 14. Mentoring duration
Teachers were asked, "How do you feel about the importance of having a consistent formal interaction with the student (mentorship program) in relation to the increase in the perseverance and persistence (grit) in accomplishing the goals." One hundred percent of the teachers said it is either "very" or "extremely" important to have a consistent mentoring session with the students. Similarly, when asked about their formal interaction with the student (mentorship program) to increase students' motivation, all the teachers thought it was "very" or "extremely important." None selected the "slightly important" or "not important at all" category (Figure 15 and Figure 16).

Based on your experience as a mentor, how do you feel about the importance of having a consistent formal interaction with the student (mentorship program) in relation to the increase in the perseverance and persistence (grit) in accomplishing the goals?

![Figure 15. Teachers’ perception of mentoring](image)

Based on your experience as a mentor, how do you feel about the importance of having a consistent formal interaction with the student (mentorship program) in relation to the increase in motivation of students to accomplish their goals?
Since a positive relationship between the teachers and the students is critical in the mentorship program, I asked about their perception of how they feel about the relationship with their mentee. All teachers said they either had a “very good” or “good” relationship with their mentees and none of them selected fair or poor relationships. (Figure 17).

Based on the overall survey, hundred percent of the teachers either strongly agree or
agree that the student mentorship program is effective for students (Figure 18). Furthermore, hundred percent believe that having a mentoring program is either very or extremely important for the accomplishment of the students' goal (Figure 16).

The positive teachers' perception appears promising, however, I wanted to understand the teacher's perception of the strengths and weaknesses of the mentorship program in relation to the student's noncognitive skills in their own words. To collect anecdotal data, I conducted a teacher focus group interview at the end of the year to allow teachers to talk freely about their experience during the mentorship process.

**Focus Group Results**

The focus group was conducted during the in-service at the end of the year. The teachers had time to better reflect on their experiences and challenges during the mentorship process. The focus group aims to expand on the major findings of the surveys and brought to the surface

![Figure 18. Mentor’s perception of mentee effectiveness.]

To what extent do you feel the mentorship program is effective for students?

- Strongly Agree: 82.30%
- Agree: 18%
- Disagree: 0.00%
- Strongly Disagree: 0%

- Teachers
several areas of concern not detected in the student and teacher survey. The discussion centered primarily on student behavior and attitude changes from the beginning versus the end of the year. The teachers explored many angles of the mentoring program to examine the program better. There appear to be four common patterns worth mentioning: 1) student comfort level and increased engagement, 2) pulse on the social and emotional state of affairs, 3) time constraints, and 4) increase in motivation and grit.

*Student comfort level and increased engagement*

Teachers felt students’ comfort levels varied during the mentorship program throughout the year. Based on the teachers’ conversations in the focus group, one teacher said:

In the initial mentoring sessions, the students appeared to be very shy. Some students seemed to be defensive at first and did not have much to share. However, after the first two sessions, the students appeared to be more receptive to sharing their thoughts and feelings. Later in the year, the students seemed to enjoy the mentoring session and looked forward to meeting with the teachers to share their success once they accomplish their goals.

The teachers who mentored at-risk students also mentioned they seemed to show signs of increased engagement towards the middle and end of the year. The teachers gathered this information during recess and lunch when the students started approaching the teachers to remind them about the upcoming mentoring sessions and rescheduling for another session if they missed for any reason. One teacher observed that the students felt good about having someone to listen to their concerns and needs, making the sessions more like a “therapy session” for students.

*Pulse on the social and emotional state of affairs*

When I asked the teachers if the mentoring sessions helped the student’s social
emotional growth, teachers unanimously agreed it shaped their social and emotional skill to a
great extent. One teacher said:

I had six or seven students who were really struggling to understand who they were and
were not interested in working on the projects. I have three who did not have stable
homes. After a few sessions, they communicated it to me. They had emotional issues they
were bringing into classrooms, and it was on me to just catch them in those moments of
them acting up or giving them the time and listen and understand and actually help them
to say OK, it's all okay. So, bringing those aspects out and really opening it up and
working out with them and saying I care and I want to know about it made a difference.
They felt heard, and they developed the trust with me that now they share with me when
they start getting better grades.

Teachers felt that within the first few sessions there was an apparent dichotomy of
students with varying personalities. One teacher said:

Some students appear very much engaged in the discussion, taking more challenges,
setting higher-level goals that were slightly higher than their zone of proximal
development. On the other hand, some students did not want to try anything more than
they already knew and failed to accomplish their goals, especially in the beginning of the
year. Some students avoided sharing the underlying cause of their difficulty in paying
attention. There were two students I remember, in particular, a girl and a boy. So, the
boy, if you have noticed, he was very emotional in the beginning. He would cry a lot to
little things, but then those sessions and talking to him helped me understand him as he
had trouble self-regulating himself. During the mentoring session, I kept on reinforcing
about how you are in control. I worked on controlling his emotions by identifying what is
making him upset. I told him he is in control of his feelings. Halfway through the year,
he was less emotional and less crying.

Teachers felt some students were struggling, and few of the issues were related to social
and emotional needs. Teachers, as mentors, allowed the students to share their feelings and
resolve the problem before it became a more significant issue. One teacher said:

It allowed students to become accountable for their own actions, and if for any reason
they didn't meet any of their goals, they quickly were able to reflect on their actions to
figure out the cause. It really impacted some of the students to reflect or manage their
behaviors because mentoring sessions weren't always about academic progress.

The teachers were able to judge the student's ability by their conversations and level of
engagement over a few mentorship sessions. One teacher mentioned she used to "chunk" the larger goal down to small manageable goals for at-risk students to give them a sense of self-efficacy and motivation.

Time constraints

One major struggle was time. Primary teachers started doing weekly sessions but ended up doing half of the students once a week, and the other half every two weeks. The sporadic sessions were mainly due to shorter weeks in the calendar as a result of holidays, as reported by the teachers. One primary teacher mentioned:

I think mentoring is a great process; I did have a hard time putting it in my schedule consistently this year. For my grade, I met with the students once every two weeks formally, and that was enough for them. I need to work on getting a more consistent schedule for the students.

The elementary level teachers mentioned they mentored more than half of their class once a week. However, they felt they should have done once every two weeks for on-track students and given more time to those who need more support.

Increase in motivation and grit

The teachers spent a considerable amount of time in the focus group talking about their positive experience during the mentorship sessions throughout the year. One achievement is that students feel good about themselves, and their level of confidence grew per teachers’ observations. Students appeared motivated to continue with setting goals once they thought they could accomplish what they decided to do. One teacher said, “I had a few students where setting goals really motivated them and mentoring was a time to just really focus on that one goal, and discuss how the goal was coming.” Students were publicly recognized during the morning
assembly and encouraged to try harder. Hence one student’s success encouraged others to follow, and they helped each other, creating an environment of a growth mindset. In other words, they felt empowered and confident about their ability to reach their goals and tried hard.

Additionally, the teacher mentoring at-risk students reported:

> I emailed the parents and classroom teachers to keep them in the loop following each mentoring session. Involving all stakeholders in the child's learning process helped the students who otherwise were two grade levels behind. Additionally, chunking the goals at the beginning of the year to allow students to taste success was very helpful and increase in their motivation. By the end of the year, these strategies and action plan motivated them to reach their goals.

> Although the at-risk students took longer to respond to the mentorship program, they completed the year with considerable progress shown on their MAP test (Figure 20). As I examine the cognitive and noncognitive features of learning, it is widely accepted that cognitive skills can be captured using standardized tests. Therefore, I collected standardized tests using NWEA MAP data for growth within the year of implementation.

**NWEA MAP Standardized testing results**

> Although the survey data and teachers' interviews show a positive outcome in the behavior and attitude towards learning and setting goals, I wanted to gather data to examine how the students' behavior and attitude impacted their cognitive abilities and explored the relationship with the noncognitive skills. GSE uses the NWEA standardized test three times a year as an interim formative assessment to analyze the growth over the year.

> NWEA provides certain growth norms based on K-12 grade level samples from different public and private schools across the country using measurement scales (NWEA 2015). The measurement scale offers educators precise and accurate estimates of student performance with the same grade students at a comparable stage of the school year. The NWEA benchmark scores
show a slight increase in average scores between fall and spring to reflect students' academic growth throughout the year. Therefore, a certain level of growth is expected in standardized test scores to hold teachers accountable for their students' academic growth over the school year. We also split students into "at or above grade level" and "below grade level" based on the NWEA-provided benchmarks. According to Patton (2008), to determine the level at which the program is considered useful, it is essential to establish a standard of desirability before the data is collected. A standard of desirability is a measure that allows us to set criteria for determining whether the outcome of the study is significant. In this study, we set the standard for desirability for the number of students who were "at or above" grade level at 5 percent, to conform to the scientific standard for statistical significance. In other words, I am mainly looking for a change above 5 percent in data from fall to spring to determine the effectiveness and level of satisfaction of the mentorship program on cognitive growth.

I first looked at the overall NWEA assessment that compared MAP testing conducted in the fall to spring data to understand if there was a significant growth during the year.

MAP data revealed an overall increase of students who were “at or above” grade level to be 6 percent from fall to spring of the same year, which was above the threshold of 5 percent for significant growth. The data also indicates that the number of students below grade level decreased from fall to spring (Figure 19).
GSE also measures the students within the “below grade level” category to be at-risk if they score below 10 percentile in NWEA Map score. As we further analyzed the students in the “below grade level” category, we identified that the number of at-risk students dropped from 12 to 6 students (Figure 20), which is 50 percent drop of students from fall to spring.

Figure 19. MAP comparative data fall to spring.

Figure 20. At-risk students’ data
Additionally, we examined three sample students who represent the different grade levels from kindergarten to sixth grade. All three sample students show growth from fall to spring in both math and reading. The at-risk "Student A" notably showed over 30 percent jump in his scores in both subjects (Figure 21).

![Math MAP testing](image1)

**Math MAP testing**
- Student C Mariam
- Student B Mehdi
- Student A Gatar

![Reading MAP testing](image2)

**Reading MAP testing**
- Student C Mariam
- Student B Mehdi
- Student A Gatar

Figure 21. MAP data of three sample students

The data collected required me to analyze its meaning further and interpret the finding in light of the purpose of the study, which was to examine the factors that cultivate grit in the learning of young children by examining the student-teacher mentorship program. In the next section, I will present a deep dive into the interpretation of the data I collected.
Interpretation

Once I gathered data and presented my findings from the four essential data components: student survey results, teacher survey results, focus group interview results, and standardized testing results, my next plan was to analyze the data using a side-by-side comparison of these results. I mainly looked for patterns and consistency in their responses to interpret the significance of the data and determine the possible explanation of the results. I identified four dominant factors in the findings that can add context to the student and teachers' responses and help me interpret the data. The first two factors represented the two dimensions of grit based on the Grit Scale developed by Duckworth and Quinn (2009), The perseverance of effort and the consistency of interest. The teachers and students follow the self-directed learning process during the mentorship sessions. Therefore, the third factor that I expanded on is the Strategies and action plans of the mentorship program. Finally, I wanted to collect evidence that shows whether noncognitive skills are associated with cognitive skills, and therefore my fourth factor was the Cognitive Skill development.

The perseverance of effort

Students were asked to report on their level of determination to accomplish their goals and the amount of effort they are willing to exert to ensure they achieve their goals. At the beginning of the year, the results show 75 percent agreed and 25 percent strongly agreed that they were willing to exert effort to accomplish their goal. Whereas at the end of the year, 31 percent agreed and 69 percent strongly agreed to persevere in their efforts to achieve their goals. Although no one chose disagreed and strongly disagreed, there was a 44 percent increase in the students' intensity to persevere and exert effort at the end of the year than the beginning of the
year data (Figure 6). I interpreted that the teacher's consistent interaction with the students led to an increase in the students' attitude towards the perseverance of effort. To better interpret the data, I asked the teachers to describe their relationship with the mentee throughout the year. The findings reveal that 86 percent say they have a very good relationship and 28 percent say they have a good relationship with the mentor. In other words, the teachers reported their interaction and positive relationship with the students during the mentorship program was instrumental in the development of noncognitive skills throughout the year. To expand the results of student survey results, I conducted a side-by-side comparison of teachers’ response to a similar question that framed how the teachers felt mentoring sessions helped the students increase their persistence and perseverance (grit). The data show consistent results for both participants on the graph (Figure 22). I interpreted that with the mentor's guidance, the students were more inclined to persevere and endure the discomfort of revising work multiple times without giving up by the end of the year. The ability to recover quickly from setbacks is a sign of resiliency that leads to **persevere with the effort** despite the challenges, ultimately accomplished goals.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>66 Student</td>
<td>Accomplishing my goal is hard work but I will not give up (figure 7)</td>
</tr>
<tr>
<td>7 Teacher</td>
<td>Based on your experience as a mentor, how do you feel about the importance of having a consistent formal interaction with the student (mentorship program) in relation to the increase in the perseverance and persistence (grit) in accomplishing the goals? (figure 14)</td>
</tr>
</tbody>
</table>
Figure 22. Student’s sense of grit.

**Consistency of interest**

In response to the question in the beginning of the year about the student's willingness to stick with the goal, 38 percent agreed, and 56 percent strongly agreed. In comparison, 6 percent disagreed they are motivated. Comparatively, at the end of the year, 31 percent agreed, and 69 percent strongly agreed that they are encouraged to accomplish their goals. No one selected disagreed and strongly disagreed at the end of the year. As per the findings, the results indicate a 13 percent increase in consistency of interest. Consistency of interest dimension of grit is the students' perceived level of confidence and interest in the goal and consistent motivation to achieve their goals when they check-in during mentoring. I interpret that teachers were able to develop a rapport with the students by the end of the year, influencing their willingness to persist with the goal before abandoning it for other instant gratifications. This attributes to the rise in their sense of purposefulness to stick with their goal despite the hard work. Teachers' survey results and the teacher's focus group interview also agree with the students' survey data. During the teacher focus group interviews, one pointed out "students did not want to try anything more
than they already knew and failed to accomplish their goals, especially in the beginning of the year.” With consistent mentoring, "halfway through the year, their level of confidence grew. Students appeared motivated to continue setting goals once they thought they could accomplish what they had decided to do." The side-by-side comparison depicts both participants felt motivated by participating in the mentorship program because it allowed the students autonomy in setting their goals and a sense of competence when they accomplished it (Figure 23). The significance of this data reveals that students made progress from the beginning of the year in terms of their attitude towards learning and build self-efficacy. I interpret that the positive, reciprocal, and responsive relationships with the teachers are the factors that increased the level of grit in young children.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>66 Student</td>
<td>I am motivated to accomplish my goals with my mentor (Figure 5)</td>
</tr>
<tr>
<td>7 Teacher</td>
<td>How do you feel about the importance of having a consistent formal interaction with the student (mentorship program) in relation to the increase in motivation of students to accomplish their goals? (Figure 15)</td>
</tr>
</tbody>
</table>

**Motivation Level of the Student**

![Graph showing motivation level of students and teachers](image)

*Figure 23. Level of student motivation.*
I further analyzed the results of the two dimensions of grit for a comparative study. The results show a 44 percent increase in the students who selected "strongly agree" for the *perseverance of effort* at the end of the year. There was a 13 percent increase in the students who chose "strongly agreed" for *consistency of interest* dimension of grit. This data indicates that students felt more strongly about exerting effort and persevering to accomplish their goals than to stay consistent with a specific goal by the end of the year. In other words, there was a moderate to a high increase in the perseverance of effort dimension of grit and moderate to low increase in the consistency of interest. Since grit enables individuals to pursue goals that require a long time to accomplish (Datu, Valdez & King, 2015), the consistency of interest may not be relevant to the weekly goals. Nevertheless, the students demonstrated grit when they persevered and exerted effort to accomplish their goals by the end of the year. The results validated the teachers' survey and focus group interview that students were working harder to achieve their goals and looked forward to being mentored by the teachers at the end of the year.

**Develop strategies and action plans**

Although the students either agreed or strongly agreed that they developed strategies and action plans that helped them achieve their goals during the mentorship session, there was a sharp increase of 50 percent of the students who strongly agreed at the end of the year versus the beginning of the year. I interpret that the students were more confident at the end of the year that their strategies and action plan were materializing into accomplishing their goals during the mentorship sessions. The favorable results at the end of the year also allude to the teachers' improved goal-setting strategies to hold students accountable for their learning process. The goal-setting approach is part of the self-directed learning cycle the mentor and mentee must
follow to leverage the time they spent together (Wilka & Cohan, 2014) (Appendix L). The mentorship process is the cycle of a student setting a goal with the mentor and an action plan to achieve their goal, followed by students demonstrating their knowledge and reflecting on their goals before starting a new one. Based on the anecdotal data, the teachers also agreed that they were much more successful in developing the strategies and action plans halfway through the year. By the end of the year, the teachers were more consistent with goal setting with the students. During the teacher focus group interviews, one pointed out:

I emailed the parents and classroom teachers to keep them in the loop following each mentoring session. Involving all stakeholders in the child's learning process helped the students who otherwise were two grade levels behind. Additionally, chunking the goals at the beginning of the year to allow students to taste success was very helpful and increase in their motivation. By the end of the year, these strategies and action plan motivated them to reach their goals.

The side-by-side comparison surveys depicts both participants agreeing that developing strategies and action plans help the student achieve their goal. (Figure 24).
Develop strategies and action plans

Figure 24. Develop strategies and action plans

Teachers can seize the opportunity to intervene “just in time” and use this instance as a teachable moment to gauge the student's state of emotional and noncognitive competencies. As teachers pointed out in the focus group interview, some students struggle to focus on completing a goal and action plan without getting distracted. Some of the students resisted or didn't respond well to redirection and were unable to manage their emotions or the task at hand; the mentor identifies that the student needs extra support on self-regulation and self-direction. The mentor can shift their attention to diagnosing the root of the problem using the Diagnostic Tool Protocol (Appendix M). The mentor supports the students by creating goals and learning strategies based on the Diagnostic Tool Protocol to overcome barriers in accomplishing the goals.
Cognitive Skill development

In addition to the relationship being the critical factor, I interpreted that the development of noncognitive skills, behavior, and attitude is part of the child's cognitive development. As we learned that, cognitive ability could be measured through standardized testing. Therefore, I analyzed the NWEA MAP testing data from fall to spring to see if any significant growth could place the mentorship program as a development factor. The NWEA MAP data collected during the spring of 2017 show a 6 percent increase in the number of students at or above grade level from fall to spring (Figure 20). As mentioned earlier, GSE’s established standard of desirability was 5 percent. This means that the trends found in the data collected over 5 percent are considered a significant change. The study indicates that the 6 percent increase in "at" or "above" grade level students was over the 5 percent threshold, as per the findings. I interpret that the rise in the above grade level student was moderate but statistically significant enough to associate the mentorship program's effectiveness with cognitive growth.

I further analyzed students' data in the "below grade level" category to determine if there is a change within the group of students who achieved growth but not significant enough to place them "at or above" type level. Analyzing the "below grade level" data, I noticed a 50 percent decline in the number of students in the at-risk category from the beginning of the year to the spring of 2017 (Figure 20). I interpret that the 50 percent decline in the number of at-risk students give credible evidence of linkage along the causal chain that mentorship program supports the at-risk students' learning process. In other words, the mentorship programs could be one of the factors that impacted at-risk students enough to pull them out of the "at-risk" category. This could also mean that the mentorship program has a more significant effect on at-risk students' learning and growth than their counterparts. Learning from the data's findings and
interpretation, we can provide future direction and judge the program's merits, worth, or significance.

**Judgments**

Before I started the data collection process, I established specific research questions. The questions guided me throughout my research and shaped my data collection process. In this section, I will attempt to answer these research questions.

- To what extent does the student-teacher mentorship program in GSE cultivate grit in the learning of young children?

Based on my research and my experience as a practitioner, I can say with the firm conviction that noncognitive skills have a considerable impact on the learning of young children (Duckworth, 2016; Moffitt et al., 2011; Weissberg & Cascarino, 2013; Stafford-Brizard & Cantor, 2016; Dube et al., 2003; Kautz et al., 2014).

The data collected during my research showed that teachers' one-on-one sessions with the students during the mentorship program were instrumental in developing their grit throughout the year. As mentioned previously, the Grit Scale developed by Duckworth was not used in my research. Instead, the two dimensions of grit were used to frame the questions in the student's survey: the perseverance of effort and consistency of interest over time. To measure the perseverance of effort, I asked the students to rate their agreement with the statement, "Accomplishing my goal is hard work, but I will not give up." The results show that the students were more willing to work hard to accomplish their goals by the end of the year.
consistency of interest over time, I asked the students to rate their agreement with the statement, "I am motivated to accomplish the goal that I set for myself." Again, there was an increased level of motivation at the end of the year.

However, as established previously based on Stafford-Brizard and Cantor (2016), Dweck (2007), and Duckworth (2016), there is a chronology in the process that shows that children cannot achieve high-order thinking skills without a strong foundation in basics and early childhood readiness skills. This chronological process takes a child from foundational noncognitive skills to a higher level of grit by an adult who stimulates motivation in them. In this study, the mentorship program provides a space to develop three fundamental motivation elements: autonomy, competence, and relatedness (Ryan and Deci 2000). The action of choosing to fulfill a series of short-term goals in order to achieve a long-term goal promotes a sense of intrinsic motivation, which gives the students a feeling of autonomy. A child realizes their competence as they perceive that it is up to them to gain knowledge and discover that they choose whether to exert the effort to achieve a goal. Teachers can trigger this behavior in students only if the students have the level of trust and sense of deep bonding with the teachers to stay with the goal they set out to achieve and trade instant gratification for long-term success. In other words, the personal relationship is a factor that helps students see the connection between effort and reward and develop those noncognitive skills. For example, the connection with an adult cultivates self-efficacy, a noncognitive ability that helps the student believe in their capabilities, and they are better able to persevere with effort. Another example is to help students cope with setbacks during their productive struggles that built resiliency, which is the capacity to recover quickly from difficulties. Similarly, the teachers cultivate a growth mindset in students,
which is another essential noncognitive skill known to be linked to grit in young children (Myers et al., 2016).

This research affirms my hypothesis that intentional, reciprocal, and positive relationships with an adult – in this case, the mentor – resulted in increased noncognitive skills and ultimately led to a higher level of grit in young children. My finding strengthens as it supports Cantor et al. (2018) research that human relationships and personal connections are a primary contributing factor to developing a child's foundational noncognitive skills. The finding also supports my Framework for Long-Term Success that foundational noncognitive skills are the precursor to demonstrating grit in young children's learning, and that cognitive skills, grit, and motivation lead to long-term success (Figure 1).

• What factors of human relationships and personal connections help students develop noncognitive skills?

Based on the research I conducted throughout the study and the data I collected from the surveys and interviews, I can confidently say that purposeful, intentional, and positive human relationships and personal connections are the factors that help students shape their noncognitive skills. The GSE mentoring program created a system for all students to develop positive relationships with the teachers which is essential to their growth and development. As reported by a teacher in the focus interview, one such example showed student “A” who demonstrated a lack of interest in school by his inability to connect schoolwork to his passion and purpose. He was great at basketball and aspired to play at the national level as his long-term goal. However, he was not emotionally invested in learning as he distracted himself and others in the classroom, which frequently landed him on red on the traffic light system. This student ended up in the at-
risk category for the spring MAP testing in 2016. The following year, the teacher used mentoring to establish a relationship with student “A” to understand the deeper problem: lack of motivation and relevance in school. The mentor eventually helped him see the connection between schoolwork and his values, goals, and aspirations by connecting the fact that good grades are required in high school to make it to the basketball team. The teachers helped the student connect his long-term goal with a series of short-term goals. By the end of the year, the mentor helped him articulate his long-term aspirations, to become a basketball player at the national level, and connect it to weekly goals until he developed a sense of worthiness and better self-directed his learning. His MAP score increased from the 7th percentile in the fall of 2017 to the 39th percentile in the spring of the same year (Figure 21), bumping him out of the at-risk category. In the broader perspective of my study, the NWEA MAP data collected during the spring of 2017 showed a 6 percent increase in the number of students "at or above grade level," placing it above the GSE's established standard of the desirability of 5 percent. Hence, the data reveals strong evidence that the mentorship program was useful for students' cognitive and noncognitive growth and supports my Framework for Long-Term Success, that personal relationships influence a child’s motivation, cognitive, and noncognitive skills (Figure 1).

- To what extent does the self-directed learning cycle used in the mentorship process guide students toward better understanding their learning goals?

The self-directed learning cycle has a considerable positive impact on young children and guided students towards a better understanding of their learning goals. The evidence is based on my research and data collection process that showed a sharp increase of 50 percent of the students who selected “strongly agreed” at the end of the year in response to the statement that
they developed strategies and action plans during mentoring sessions (Figure 24). Additionally, the students stated whether they successfully acted upon their goals or if there were setbacks. Conversely, if the goal is not accomplished, the mentor probed to determine if there were social or emotional concerns and addressed those before moving to academics. As mentioned earlier, consistency is the key ingredient in the mentorship program because it gives students a sense of stability in their life. The student recognizes that there is always someone holding them accountable and genuinely cares to listen to their perspective. Finally, the students reflected on the previous goals and set new ones, and the cycle continued. Based on their focus group interviews, teachers felt that holding students accountable for their learning goals every week prepared the students to become self-directed learners. Mentoring provided students with time and space to fail repeatedly before making progress and realized their efforts directly impact their outcome. The students must complete the goals they set with the teacher and complete the learning cycle before moving on to the next target. This process allowed students to stay on course and persevere until they reached their long-term goal, with the teachers pushing them every step of the way. As a result of the positive mentor and mentee relationships, the students had a better understanding of their learning goals and persevered with effort, ultimately leading to a heightened level of grit.

However, despite the mentorship program's positive results, 7 percent of students continue to feel overwhelmed in school (Figure 10). Further analyzing the data reveals that there were gaps in the mentorship program's implementation, including the teacher's fidelity in upholding the program's guidelines. This study provides valuable recommendations for not only the stakeholders of GSE but any schools willing to implement a robust mentorship program in their school.
Recommendation

The mentorship program has many positive attributes, however, based on the findings through my research, there are still areas for improvement regarding the effective implementation of the mentorship program. After reviewing the teacher and student surveys, MAP testing data, and focus group data from my study, I identified three areas that needed to be addressed. They are: mentoring time management, mentoring monitoring systems, and monitoring training programs.

Mentoring time management

I chose time management as one of the factors that played a crucial role in the fidelity of the mentorship program. Wagner et al. (2006) emphasizes that for any change to be successfully implemented, the teacher must ensure the tangible arrangements of time, space and resources are taken into consideration when implementing any change. As part of the implementation process, the teachers are given protocols to follow when they hold their one-on-one check-ins for 10 to 12 minutes each week. However, mentoring time might compete with instruction time, and teachers tend to give instruction precedence over mentoring. Looking back at the data, 43 percent of the teachers were mentoring only 5 minutes a week, and 57 percent of teachers mentored 10 to 15 minutes a week (Figure 14); I noticed the majority of the upper-grade teachers mentored for long periods-10 to 15 minutes- and managed to do it weekly. However, kindergarten to second-grade teachers were in the 43 percent who mentored for 5 minutes once every two weeks. Upon interpreting the data, the teacher survey reveals there were real challenges that may have prevented teachers from consistently mentoring once a week with fidelity as required in the mentor protocol. As explained in the focus group interview by the primary grade teachers, one
major problem was managing the classroom and mentoring with limited time to fit all students in a weekly schedule. For example, students were split into groups and assigned different activities for a given time; once the time was up, the groups switched for another activity. During these group activities, teachers pulled students one at a time to mentor. However, primary grade students demanded more guidance during independent work time; therefore, teachers reported they were unable to give one-on-one time once a week as needed. However, teachers who mentored at-risk students and third to sixth-grade students said they could mentor once a week for 10 to 15 minutes, based on data (figure 25).

![Total minutes mentoring per grade level](image)

*Figure 25: Total minutes mentoring per grade level*

The student survey reveals that although 100 percent of the students either "agree" or "strongly agree" that they can accomplish their goal with the mentor (Figure 6), only 83 percent of students said they accomplished their goals for the week. In comparison, 17 percent said they did not achieve their goals for the week. Out of the 17 percent of the students who said they did not accomplish their goal, an average of 7 percent expressed they were frustrated or overwhelmed (Figure 10).
The data revealed that students who were mentored consistently once a week were more likely to benefit from the mentorship program, such as the at-risk students. Based on the findings, one recommendation I offer is to strategize the mentoring time based on the academic and social and emotional needs of the student. As teachers mentor the students, the mentor gauges whether the student’s inability to accomplish his or her goal is as a result of their deliberate and meaningful struggles or because of a deeper issue. If the underlying cause is due to a social and emotional factor preventing them from succeeding, the mentor should provide guidance, support, and learning strategies to cultivate skills they might be lacking. Teachers can seize the opportunity to intervene "just in time" and use this instance as a teachable moment to gauge the student's state of emotional and noncognitive competencies. As teachers pointed out in the focus group interview, some students struggle to focus on completing a goal and action plan without getting distracted. Some of the students resisted or didn't respond well to redirection and were unable to manage their emotions or the task at hand; the mentor can identify that the student needs extra support on self-regulation and self-direction. The mentor can shift their attention to diagnosing the root of the problem using the Diagnostic Tool Protocol (Appendix M). The mentor supports the students by creating goals and learning strategies based on the Diagnostic Tool Protocol to overcome barriers in accomplishing the goals.

I recommend mentoring should consist of two components:

**Relationship building**

Mentors can spend the first three to five minutes talking about the prior week and if any occurrences trigger social or emotional feelings. If there is a behavior challenge or emotional concern, the teacher must identify and understand the child’s concern about the problem and find
ways to solve it with the child. The teachers can use the mentoring Diagnostic Protocol (Appendix M) to gauge the situation and cultivate their foundational skills. The mentor could also relate to any concerns discussed in the last mentoring session. The goal is to remove barriers that are preventing the student from their academic goals. The educational goals might have to be put on hold at times until the social and emotional needs are addressed and channel in the right direction.

*Academics goal-setting*

Once the mentor confirms there are no significant social and emotional circumstances, five to seven minutes can be dedicated to establishing the self-directed learning cycle. Once the student sets a goal with the mentor and an action plan to achieve their goal is established, the student is accountable to show whether they successfully acted upon their goals in the next check-in. Finally, the students will reflect on the previous goals and set new ones, and the cycle will continue.

Another suggestion is to modify the master schedule for third to sixth grades to allow an advocacy period in which students can do independent work while teachers concurrently mentor them. Doing so will build mentoring time into teachers’ day rather than having them take their planning time for mentoring. The third recommendation is to allocate financial resources in a way that provides for hiring an additional assistant teacher. Assistant teachers can come during the mentoring time in primary and elementary grades, so the teachers are not pressured for time.

*Mentoring monitoring system*

Another area of concern is the lack of a monitoring system to ensure mentoring is
happening according to the assigned protocol. Although the teachers split the list of students to mentor for the week, there is no consistent process or accountability to mentor each child. Teachers use a notebook to write down what was discussed in the previous mentoring session, which is not helpful to recap and reflect on how the student improved over time. Secondly, some teachers did not start tracking the conversation during mentoring until well into the middle of the year. There is no way to track how much time teachers spend on each student. Hence, the recommendation is to use a Google form to sign in and sign out of mentoring sessions. Additionally, a comprehensive data tracking system can be developed with the support of the teacher to monitor the effective use of the mentoring program and develop clear expectations for organizing, conducting and controlling the mentorship with students.

**Monitoring training program**

A critical component of school success is the recruitment of effective teachers and appropriate training on criteria that support their teachers’ responsibilities. The school that adopts a mentorship program requires teachers to buy-in to the urgency of the change process. Secondly, teachers need to adjust to their new role as not only a teacher to the student but also their mentors. Teachers need to conduct an effective mentorship program that requires them to build a reasonably strong relationship with the students. When a teacher connects with a student on a personal level, they feel comfortable sharing areas of concern, whether it pertains to academic, social or emotional needs. Consequently, teachers must first believe that positive relationships with students will yield results that are far beyond the effects of investing in instruction without a good relationship with the students. Secondly, teachers need to learn to conduct a highly effective mentorship session. The schools need to allocate resources for
teachers to have ongoing professional development. Wagner et al. (2006) asserts that teachers are the repository of skills and knowledge that help students learn and make connections. I recommend the school invest in identifying students who exhibit early signs of childhood stress caused by missing foundational noncognitive skills. Therefore, the teachers must be trained to conduct an effective mentoring program.

Conclusion

In conclusion, the results of the mentorship program show a considerable improvement in student motivation, attitude, and behavior towards accomplishing their academic goals. The teachers were generally pleased with the outcome of the mentorship program per survey results. I reached this conclusion after taking a holistic perspective using the “4’C” model, as mentioned by Wagner et al. (2006), which are context, culture, competencies, and conditions of the school. Once the data was collected, I presented my findings and analysis of the interpretation that reveals a positive relationship between regular mentoring sessions and students who demonstrate an increased level of grit in their goal-setting and daily learning process. I then extended my judgment of the study that gave me a better insight to answer my research questions and the Framework for Long-Term success. Lastly, I presented recommendations to the stakeholders of GSE, and for any schools willing to implement a robust mentorship program in their schools.

To better understand the magnitude of the change plan, and how I can better implement the mentorship program, I need to clearly understand what the future contexts, conditions, competencies, and culture look like if the school organizational change plan were realized. Therefore, my next step will be to conduct a thorough “To-Be” Analysis.
SECTION FIVE: TO-BE FRAMEWORK

Introduction

For a change initiative to be successful, the leader must analyze the situation from different frames of reference and create a visual depiction of what changes they might like to see in an organization once the program is fully implemented. My change plan is an effort to develop the students’ noncognitive skills that focus on grit by implementing a mentorship model that can reach all students.

Envisioning the Success To-Be:

As detailed in my "To Be" Analysis (Appendix C), the school has much potential for growth, and I will attempt to give a summary of the “To-Be” that I envision for the future of the school utilizing the “4C” by Wagner et al. (2006).

Context

As mentioned, GSE has been looking closely into innovative changes in the education field that can reach all students. I envision the GSE curriculum to empower students to become self-directed learners who have the skills, knowledge, and habits to thrive in the 21st century. This vision demands teachers to be mindful of students from various socioeconomic backgrounds with different social and emotional needs and design lessons that can reach all students and raise overall test scores. To truly differentiate lessons in the classroom, the teacher must know the students on a deeper level than what a traditional class allows them to perceive in the limited time they have in the school. The teacher-student relationship may be unique because of its context (school). Hence, the teachers should understand each student's academic level and
invest time to learn about their interests, motivating factors, hobbies, social life outside the school, and their social and emotional competencies. My point is supported by Muller (2001), who emphasizes there is a strong empirical relationship between teachers’ expectations and academic success. Therefore, teachers will invest in students whom they expect to succeed. Similarly, students who plan to succeed are also likely to put forth the effort and invest. Muller (2001) further elaborates that:

"Teachers and students probably take cues from the behavior of one another as they negotiate their relationships. The power asymmetry, including the higher cost of school failure, may mean that the teachers’ actions are especially important for setting the tone of the relationship and the foundation for students’ academic progress. (p. 243)"

Considering the impact of the student-teacher relationship, I envision that the classroom schedule is designed to allow teachers enough time to give each student due attention. Personalized attention can provide teachers with the profound relationship opportunity and trust required for teachers to deliver the “just right” amount of rigor and support to students to foster their cognitive and noncognitive skills for long-term success.

**Culture**

GSE has a bigger opportunity for growth within the cultural framework of the organization. Based on my experience during principal chats, I noticed students often used language that exhibits a fixed mindset when the work is too hard. Many of these students were listed in the at-risk category and part of the behavior intervention category (Figure 4). Research shows many at-risk students experience negative social context, have deficiently connecting with peers, and are less likely to develop a social bond with the teachers (Muller, 2001). Understanding the severity of the situation, I envision the school to implement the curriculum
designed to teach students the power of the growth mindset, an essential noncognitive competency that is known to be linked to grit (Myers, Wang, Black, Bugescu, & Hoeft 2016). I envision GSE enjoying a deep sense of trust between staff members and a growth mindset among teachers. Growth mindset culture can be achieved by helping mentees identify areas of a fixed mindset and help them reconsider that area from a growth mindset point of view. Teachers can encourage growth mindset language among students and peers by modeling the growth mindset and sharing a challenge a teacher mentor experienced or is experiencing. Understanding that cognitive abilities rely on specific skills, behavior, and attitude, the teachers feel a sense of responsibility to monitor the growth of their student’s social and emotional needs, in addition to their academic progress. The teachers and students recognize the strategies of reaching the target goal with an understanding that the students have the responsibility to work hard voluntarily and take the cognitive lift to complete their action plan and accomplish their goal. The students feel the natural consequences of falling behind and take the initiative to request help from the teachers. Students may persevere and overcome challenges with the help and support of a teacher and mentors who can guide them during their challenges and motivate students to be prepared for the 21st century.

Conditions

In addition to the cultural challenges, two major hurdles are encountered regarding the condition of the school, and there are several ways the school can improve to have a direct impact on student learning. The most prominent challenge teachers face is the limited instructional time within a day and a lack of one-on-one time with the students required to develop a connection. Lastly, teachers feel there is limited time to work together as a team and
design lessons based on their needs. I envision that teachers should consistently meet with each student in a designated space to monitor their progress and build a positive relationship. Besides, teachers should have enough instruction time to complete the teaching cycle and enjoy an appropriate amount of planning time to collaborate with other colleagues to plan and implement programs based on student needs. Additionally, to adequately address students’ needs, the school requires specific resources and financial support from the stakeholders and revenue from tuition to develop and implement innovative curriculum resources.

As an Islamic nonpublic school, GSE relies heavily on tuition, which cannot be sustained without additional donor support. I envision the school as self-sustaining by tuition and acquiring stable funding from donors towards training teachers through marketing and fundraising campaigns. I envision the resources to be allocated to hire additional staff to support the teachers during the mentoring sessions.

**Competencies**

According to Reeves (2009), "The most important resource any education leader allocates is teachers" (p. 61). Schools must hire and retain effective teachers who have the knowledge and skills to guide students in the right direction, support them in times of struggles and treat them with respect regardless of their socioeconomic status or family background. During the mentorship program implementation, the staff plays a dual role in connection with students, as a teacher and as a mentor. I envision the teachers' roles and responsibilities are well-defined to avoid any ambiguity and ensure the teachers work in collaboration to create a coherent team with a common purpose and vision.

Teachers must be trained to help the students succeed academically and help them
address their social and emotional needs. I envision that all school staff is well-trained to recognize and cultivate students' noncognitive skills beyond their core competencies. Students entering school lacking such social and emotional skills are addressed immediately and develop a personalized plan to target and cultivate those skills. Once the foundational skills are addressed, I envision that teachers cultivate higher-order thinking skills by igniting students' motivation to accomplish their mentoring goals. Students will be able to persevere with an effort to self-directed their learning and demonstrate grit.

Additionally, the impact of teaching self-directed learning skills to the students at an early age may show more significant results in the students' lives well beyond their primary and elementary years. In other words, self-directed learning is a crucial skill that may help the student and reap results well into the student's middle school and high school years, when they are expected to show grit and achieve mastery over self-directed learning. Research into the future academic life of these students who were exposed to mentoring at an early age is beyond the scope of this paper. This research leaves room for others to further this study and collect longitudinal data about the effects of students in middle, high school, and beyond who were exposed to consistent mentoring during their primary and elementary grades. This research paves the way for others to learn more about the noncognitive skills in young children and the positive effects of mentorship programs using a larger sample size than GSE offers.

Moreover, there are certain limitations in the study that need further consideration. Although GSE is predominantly female, this research did not consider the variation of the impact of mentoring on children based on their age and gender as it is outside the scope of this study. Others can expand on this research to learn about the impact mentoring has on students' grit level and whether age or gender differences impact differently. Furthermore, there is a possibility of
the survey's validity being compromised due to the concept of social desirability (McLeod, 2019). Social desirability means an individual may hide their true feelings to put themselves in a positive light. In this case, the students may not give accurate data about their mentorship experience to impress the mentor. Since social desirability does not impact informant data and grit can reliably be assessed by informants (Duckworth & Quinn 2009), I used teachers' surveys and focus group interviews to triangulate the student's survey data. However, it is the possibility that the teachers may withhold information when asked about their relationship with the students in fear of negative evaluation. Since grit is a combination of both effort and interest over time, this study provides an opportunity for others to expand on the dimension of grit that focuses on "consistency of interest" longer than the GSE's one-year study.

**Conclusion**

Implementing a purposeful and deliberate mentorship program that can reach all students required me to envision the school as if the program had already been implemented effectively and reflect on the outcome of the implementation process after collecting data from key stakeholders. Using Wagner’s (2006) “To-Be” framework helped me see the effect the school might have if the students were empowered to become self-directed learners; teachers were well-trained and felt a sense of responsibility to monitor the growth of their student’s social and emotional needs in addition to their academic progress; students and teachers felt a high level of trust among each other and within the school; teachers had adequate instruction time to complete the teaching cycle and enjoy sufficient planning time; the school was self-sustaining to support the personalized learning model and the mentorship program implementation.

In this study, we use the result of the “As-Is” and “To-Be” scenarios to create a bridge by identifying the strategies and action plans to begin implementing in real-time.
SECTION SIX: STRATEGIES AND ACTION PLAN

Introduction

To implement a successful change initiative, an organization must first understand how the "4C's" relate to it and must begin to imagine what could be and how to get there. In this study, this is referred to as the "As-Is" and "To-Be" Bridge (Appendix A). When examining what could be in GSE, it is worthwhile to view the organization from Wagner et al. (2006) framework for change. The framework suggests three phases of the whole system that schools must go through to implement a successful transformation: preparing, envisioning, and enacting. According to Wagner et al. (2006), "by attending to the phases of the change process, leaders can lay the groundwork for movement along the continua toward the greater purpose" (p.133).

According to my research, the first two phases, preparing and envisioning, are the most crucial for the school's success because they involve using data to create a sense of urgency and preparing for the implementation of the change process. It requires the leaders to communicate "the why behind the journey" through changes in people's "heads, hearts and actions" (Wagner et al., 2006, p.138). Hence, we will examine the strategies and action plan to move from the "As-Is" to the "To-Be" scenario using context, culture, conditions, and competencies.

Context

Wagner et al. (2006) define context as the skill demands all students must meet to succeed as learners and citizens and the particular aspirations, needs, and concerns of the family and community the school serves. Knowing GSE is a private community school, the students who leave GSE either before they enter sixth grade or after they graduate from GSE are expected
to be at least one grade level higher than at a public school. The expectation is set higher in GSE than a public school in part because it is a private institution that relies on tuition. Therefore, there is an assumption that their children receive the utmost care, highest academic standards, and religious teachings. The demand placed on the school requires that we implement initiatives that continuously challenge the status quo and involve the entire community to participate in the decision-making process for their buy-in, especially the teachers. Implementing a program such as a mentorship program requires teachers to give up curriculum time to mentor students. Without proper awareness and buy-in regarding the importance of the mentorship program, teachers may resist the change.

**Strategies and Action**

Involving the school community is an effective strategy that produces a sense of community and buy-in. The GSE involved the teachers from the early phases of mentoring planning and openly allowed teachers an arena to address their concerns and find solutions to the problems we faced during the preparing stage. Parents were invited separately by grade level in the presentation, and each parent group had a chance to learn about the current situation of the school and changes they would like to see in the future. We were able to hear their concerns and create a connection between the school vision and the parent's expectations of the school. Before that, the teachers were involved in the creation of a shared vision of the school. Key stakeholders were invited to board meetings to build and communicate a sense of urgency. According to Fullen (2007), it is essential to ignite people's emotions and feelings about the current state of affairs before going public with a change initiative. GSE established an Academic Development Committee (ADC) during the preparing and envisioning phase that consisted of all critical
stakeholders. We included teachers from both primary and upper elementary grades, parents from the community, and a retired principal and qualified professor from the community. The committee met every month with the primary purpose of researching new and innovative programs and suggesting strategies, changes, and action plans that were essential for the growth of the school. The ADC came up with the strategy and action plans that were implemented in the following year.

Based on mutual support, the school made a strategic decision to adopt the Personalized Learning Model using the research-based program called the Summit Learning Program that started in the fall of 2017-18. Based on the Science of Learning paper (Summit 2017), Summit Learning is a program that has promoted a positive change in schools across the country and is a positive disruption to the current educational system. It was an ideal program for our school because it aligned with the Project-Based Learning approach the school had successfully used in the past. The school hired new staff to replace people who did not believe in the vision. Another action plan was to create a constant communication process between the school and the community members and create strategies for parent and student onboarding during and after the first day of school. The school relied on student achievement data and parent surveys sent at the beginning and end of the year to determine the program's success. Although many parents were skeptical about the personalized learning program, by the middle of the school year 2017-18, parents were generally satisfied with the student outcome (Figure 26). As part of the communication process and to monitor the program's effectiveness, the school can administer surveys beginning and the end of the year and use the data to refine the plan further.
To implement a change initiative of such magnitude, the school must invest in developing the school's culture. School culture is one of the most significant components of a change initiative; according to Reeves (2009), a meaningful change begins with cultural change as "policy change without cultural change is an exercise in futility and frustration" (p.37). There are many potentials for GSE to shape the culture of the school positively, and the strategies I will discuss further, if implemented with fidelity, will help with the overall impact on the school culture.

**Strategies and Action**

I envisioned that teachers recognize the importance of noncognitive skills in students and their connections to the mentorship program as part of the "To-Be" scenario. To bridge the gap, one strategy I propose for creating a positive culture is to organize professional development
around the research that emphasizes teachers’ relationships with students and how it can affect their noncognitive skills, which in turn can cause a positive impact on their overall growth.

Among many research strategies, Wagner et al. (2006) offer a strong case regarding a practical instructional framework in his book Change Leadership on the importance of an adult relationship with children. Wagner identifies three characteristics that contribute to an effective instructional framework known as his "3Rs": rigor, relevance, and respectful relationships (p.38). Wagner recognizes that caring and respectful relationships with the teachers and students will produce a considerable dividend in their future. Teachers entering the classroom with the mindset that they play a critical role in a child's life and being their academic and social and emotional mentors may create a positive school culture. Teachers can help create a growth mindset culture by assisting mentees in identifying areas of a fixed mindset and help them reconsider that area from a growth mindset point of view. In the previous section, we established that students who persevere and stay persistent when faced with challenges seem to have what Duckworth (2016) calls grit. According to Myers et al. (2016), a growth mindset is an essential noncognitive competency that is known to be linked to grit. Duckworth (2016) further concluded in her research that grit could be developed by having a growth mindset. Therefore, one strategy is to explicitly teach students the science behind the brain by prompting discussion that the brain is malleable and how effort, not intelligence alone, can physically change the cognitive function that can improve brain function. I recommend ‘Mindset In The Classroom ’ by Mary Cay Ricci (2015), which has ready-to-use tools for students, teachers, parents, administrators, and professional development educators.

Another strategy to develop a positive culture is to allow students to engage in a productive struggle during their academic work and have multiple chances to show mastery.
Allow students to realize they can succeed despite challenges, and critique and revision is part of the learning process. Provide students space and time to struggle and fail to improve and realize their efforts directly impact their outcome, developing their self-efficacy skills and resiliency. Finally, create a positive culture among students to have an adult closely working with the students to identify any gaps in the students' foundational noncognitive skills and work on their habits of success as recognized in the conceptual framework of The Building Blocks for Success (Stafford-Brizard & Cantor 2016). According to Cantor, "Habits of success are mindsets and behaviors that support academic achievement and well-being that is a teachable, measurable, and malleable skill" (p. 5).

**Conditions**

The conditions of a school district include the external structures that surround student learning (Wagner et al., 2006). These can include the physical conditions of the school, the conditional expectations placed on student outcomes and the investment of the surrounding community. In addition to addressing cultural changes, the condition of the school must be addressed. The biggest challenge the school faced is the time constraint.

**Strategies and Action**

One strategy to overcome teachers’ concerns of limited planning time is to modify the master schedule to allow them to have one substantial planning time instead of several smaller chunks of breaks between classes during the school day. One way to create one significant planning time is to combine lunch, recess, and prayer time to allow teachers to plan a large timespan. Another strategy is to reorganize the master schedule to accommodate teachers’ one-
on-one time with the students within the school day. One period in the day is set aside for students to work independently on achieving their individual goals, called the ‘self-directed learning time,’ during which the teachers can mentor students individually. In contrast, the other students work independently on their goals. Additionally, the learning environment can be modified to allow students autonomy through flexible seating as long as they are engaged in learning.

**Competencies**

Schools spend most of their time and resources either hiring new and qualified teachers or developing the skills and knowledge necessary for them to influence student learning. This is known as the school’s competencies (Wagner et al., 2006). GSE should also develop the teacher’s skill set and hire qualified teachers.

**Strategies and Action**

The school should adopt one strategy to create a new teacher induction program that includes job-embedded coaching for new teachers and the professional development program to develop competencies among teachers. Creating a job-embedded training program during routine professional meetings and monitoring progress is one way the school can invest in training. As mentioned earlier, teachers are given a specific Diagnostic Tool Protocol (Appendix M) that helps them diagnose any signs of deficiencies in their noncognitive competencies and teach them the self-directed learning cycle during the mentoring process. Teachers must be trained to identify the root of the problem using the protocol and help them overcome barriers preventing them from accomplishing the goals. Additionally, monitoring progress for the effectiveness of
the program is crucial for later tweaking improvements during the *enacting* phase. The below chart summarizes the strategies and associated action plans mentioned above.

**Table 1: Strategies and Action Plan Overview**

<table>
<thead>
<tr>
<th>Area of Change</th>
<th>Strategies</th>
<th>Actions</th>
</tr>
</thead>
</table>
| **Context**    | Implement Personalized learning program with mentorship program at the heart of it | Preparing  
• Analyze the current and previous student achievement data, MAP testing, Alumni Data, Behavior data to assess the As-Is state of the school  
• Communicate urgency to the board and administration group to gain support for change  
• Set school-wide goals  
• Hire new teachers  
Envisioning  
• Establish the Academic Development Committee and invite all key stakeholders to participate  
• Creates parent and teachers onboarding plans  
• Communicate with parents through formal meetings and a series of emails about the change in the teaching and learning method and its impact on students  
Enacting  
• Progress monitoring the implementation of the mentoring process  
• Sent out parents, students and teacher surveys in the mid and end of the year to assess the effectiveness of the program. |
| **Culture**    | Teachers and student’ shift in mindset as they learn about the growth mindset and its impact on grit based on research. | Preparing  
• Securing the teachers and parent buy-in to the program  
• Administer parent, teacher, and students survey on school culture  
Envisioning  
• Assess teacher mindset about student growth by teacher surveys  
• Provide rationale as to why the mentorship program is an excellent program for the students social and emotional well-being  
Enacting  
• Teach students the habits of success and help them identify the area of growth during mentoring  
• Create opportunities where students are continuously praised and recognized for hard work during daily assembly  
• Give students the autonomy to work on a project of their choice after completing their required coursework |
| **Conditions** | Create conditions for students to talk to the mentors without any constraints | Preparing  
• Initiate the fundraising campaign to raise money for the mentoring program  
• Create a Multi-grade classroom  
• Create an open seating system for students to give more autonomy  
Envisioning  
• Develop a schedule with the teachers to accommodate more instruction and planning time  
• Change the master schedule to allow for one solid hour for instruction time and planning time by combining recess, lunch, and prayers  
• Create personalized learning time or flex time built within the schedule to allow students and teachers to mentor every week.  
Enacting  
• Provide constant monitoring to ensure the effectiveness of the program  
• A dedicated coach is set aside for the teachers to meet on a scheduled basis |
day
- Train teachers to conduct a productive mentorship session and develop clear expectations
- Conduct focus group interviews to discuss the progress

<table>
<thead>
<tr>
<th>Competencies</th>
<th>Preparing</th>
<th>Envisioning</th>
</tr>
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<tbody>
<tr>
<td>Train the new teachers by creating a job-embedded training program during routine PD meetings and monitor their progress. Student shift in mindset as they learn to be self-directed learners</td>
<td>- Develop professional development around the importance of teacher impact on social and emotional growth.</td>
<td>- Train teachers to mentor students and teach them about the self-directed learning cycle. - Train teachers to teach the student about habits of success.</td>
</tr>
<tr>
<td></td>
<td>Enacting</td>
<td></td>
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<tr>
<td></td>
<td>- Assess student mindset on the habits of success by students' survey at the beginning and end of the year.</td>
<td>- Teachers are trained and monitored closely on the new program every week.</td>
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</tbody>
</table>

**Conclusion**

As I progressed in my plans to bridge the gap between the “As-Is” and “To-Be” scenario during the implementation stage, I examined the strategies and action plans using the context, culture, conditions, and competencies. Wagner’s phases of the framework for change helped implement successful change that can lay the groundwork for a greater purpose. If the school can implement these strategies and action plans with fidelity, it has the potential not only to transform its academics but do so in a way that strengthens the school’s culture, condition and competence.

Evaluating the change initiative is to examine the implications of the mentorship program for a fuller understanding of the problems involved and support policy advocacy. There are six analyses of needs: educational, economic, social, political, ethical, and legal. Through these analyses, the GSE policymaker can seek to make better decisions and trace implications.
SECTION SEVEN: IMPLICATIONS AND POLICY RECOMMENDATIONS

Introduction

It is one thing to implement an initiative in a school and another to apply it with fidelity. The success of a school program is dependent entirely on its deliverables. Hence it is essential that a teacher establishes a good rapport and genuinely cares about the student to make an impact in a student’s life. As stated previously, there is a large body of research done emphasizing the importance of human relationships and personal connections as a primary contributing factor to the development of a child’s foundational and noncognitive skills (Tough, 2016; Cantor et al., 2018; Gertler et al., 2014; Cunha & Heckman, 2010). Research shows that adults play a crucial role in the investment of the child during those foundational years. Here I would stress that it is vital for schools, especially elementary schools, to invest in programs that may help teachers build relationships with their students and perhaps recuperate some of the essential fundamental skills that they might have lacked as they entered school. A caring, inspiring, and nurturing mentor in the elementary grades who can personalize every child’s needs may be able to help them from falling behind. Eventually, they can help ignite grit in students to persist in their goals, develop resilience facing challenges, and steer them on a trajectory to success. Rhodes (1994) confirms that a positive relationship between a child and nonparental adults is a factor in promoting motivation and grit among children from at-risk backgrounds.

I advocated for establishing a mentorship program in my school because of my unwavering belief that students are more responsive to programs and initiatives, such as the social and emotional learning initiatives, if they can consistently connect with a caring adult mentor. Looking at research done by Maslow’s (1943) hierarchy of needs, if we do not satisfy the fundamental and lower needs first, we cannot address the higher needs. The pinnacle in
Maslow's hierarchy is self-actualization, which is a precondition to long-term academic success. The mentor may be able to identify and address any necessary needs that may prevent students from achieving their academic and behavioral goals, encouraging them to be more responsive to social and emotional initiatives. Therefore, I recommend the school board to include a mentorship policy in GSE.

In light of advocating for a mentorship program, I will propose the GSE board adopt the following policy statement:

All students in GSE kindergarten to 6th grade will be assigned a teacher mentor who will meet with them every week for an average of 10 minutes to discuss their goals using the self-directed learning cycle and address any barriers that may be preventing them from succeeding in school.

Analysis of Needs

Rolling out an effective mentorship program in a school requires us to do an analysis of needs based on the educational, economic, social, political, ethical, and legal point of view. In the following section, I will outline the different needs analysis based on my research and present an argument as to why I feel the mentorship program merits advocacy.

Educational Analysis

Mentoring works well in educational settings because it is targeted support that encompasses the holistic approach to working with the students who need extra support. Researchers in education hypothesized mentoring to be an intentional, nurturing, and insightful process that is both protective and supportive of the mentee. Hence there is a strong correlation in school between mentorship programs and student outcomes (Cruz, 2009). However, as stated earlier, most of the programs revolve around creating intervention strategies such as mentorship
programs for struggling middle and high school students. Their interventions were explicitly designed for children who lack noncognitive skills and do not respond to any tiered support. However, I did not find much research supporting student and teacher mentorship programs in primary and elementary grades. Consequently, my emphasis is on advocating for elementary schools to implement mentorship programs as a proactive measure to cultivate grit early on. It is at their early stage of life when the impact of noncognitive skills are more effective when their brains are most malleable (Gertler et al., 2014).

**Economic Analysis**

According to Odden (2012), improving schools requires intense professional development plans as a critical key ingredient. Implementing a mentorship program has a reasonable financial impact on schools because it requires resources to equip teachers with the knowledge and skills necessary to work effectively with the student. Teachers will need release time during the school day for professional development purposes. Consequently, one of the financial impacts in our school is substitute pay. The teachers must go to training three times a year, for two days, in Fall and Spring. The school spends $100 each day for each substitute teacher, totaling $400 per teacher. With seven teachers, the total cost is $2,800. Secondly, to implement a productive mentoring session, the administration should allocate a teacher’s aide in the lower elementary grades to monitor the class during the mentoring session. The cost for the teacher’s aide for the year will be $20,000. Finally, there is the actual direct cost associated with professional development. As I previously mentioned, GSE is fortunate to partner with Summit Learning Program, funded by private philanthropic organizations, allowing the partner schools to attend professional development at a minimal cost. As a result of the partnership, GSE teachers participate in professional development three times a year and have an instructional coach who
supports the staff and administration throughout the year. The total cost of professional
development and instructional coach service is approximately $800 per teacher, funded by the
philanthropic organization. This cost, coupled with the price of a substitute and an aide, adds up
to $39,600 for the year.

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<th></th>
<th>Summer</th>
<th>Fall</th>
<th>Spring</th>
<th>Total</th>
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<tbody>
<tr>
<td>PD cost for KG-6th gr.7x$800</td>
<td>$5,600</td>
<td>$5,600</td>
<td>$5,600</td>
<td>$16,800</td>
</tr>
<tr>
<td>Substitution 2x$100x7</td>
<td>0</td>
<td>$1,400</td>
<td>$1,400</td>
<td>$2,800</td>
</tr>
<tr>
<td>Teacher’s Aid</td>
<td></td>
<td>$20,000</td>
<td></td>
<td>$20,000</td>
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</tr>
<tr>
<td>Total cost</td>
<td></td>
<td></td>
<td></td>
<td>$39,600</td>
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</tbody>
</table>

The financial impact associated with implementing the mentorship program can be
applied to the tuition. With approximately 66 students in the kindergarten to 6th-grade
classrooms, the cost is $600 per student for the year. In my opinion, the benefit of implementing
a mentorship program in the elementary grades outweighs the cost associated with implementing
remediation programs for students with mental health issues later in life that can have serious
financial consequences for the parent, institutions, and the state, according to research done by
the Children's Mental Health Public Act 93-0495.

**Social Analysis**

Now more than ever before, we have an urgency to foster a strong relationship with our
children and youth for many reasons. Youth today are exposed to an enormous number of social
media and screen time, often without supervision. The behaviorists are busy understanding the
social and emotional effects of exposure to devices for long periods on children as young as two
years. Children are addicted to technology (Plowman and McPake, 2013). Children are continually infused with instant gratification during video games and other activities that distract them from achieving their short or long-term goals. Additionally, parents are working with their own devices that are consuming time that they could potentially be spending with their children. Research indicates that at the start of 2011-2012, the iPhone sales reached a 50 percent markup (Mansfield, 2017). Coincidentally, around the same year, the depression rate rose to 47 percent for boys and up 65 percent for girls. (Source: BCBS report); there was a substantial increase in the suicide rate, and more students reported feeling sad, left-out, and lonely. The easiest way to stop a crying child today is to hook them up with an iPhone in shopping malls, conferences, or a place of worship.

Another factor requiring attention is the inequality in education due to the socio-economic background in which children are being brought up. Experts report that a student's socio-economic background can be a predictor of how they might present themselves in the future. Experts like Ravitch (2014) express strong positions about "what works in education, and it is the very opportunity that advantaged families provide for their children in a home with adequate resources that enable them to come to school healthy and ready to learn" (p. 6). However, some children may lack certain noncognitive skills that are preventing them from thriving in school. In the previous chapter, we established that positive, reciprocal, and responsive human relationships, especially during the child's early years, are factors that could have a profound impact on their learning and future success (Gertler et al., 2014). Schools need to understand the urgency of the matter. Although they cannot find an immediate solution to poverty or neglect at home, they can work to buffer the harmful effects, one child at a time, through one-on-one mentoring in school. A student who comes to school lacking noncognitive
skills can be identified by a caring mentor teacher who can guide them through those most vulnerable years and cultivate noncognitive skills. According to President Bill Clinton, "people who grew up in difficult circumstances and yet are successful have one thing in common. At a critical juncture in their early adolescence, they had a positive relationship with a caring adult.”

**Political Analysis**

Rolling out a program built on relationships may have political implications to consider. The process of implementing a mentorship program that requires time and resources may have certain push backs from stakeholders such as teachers, students, and parents.

*Teachers*

One of the biggest challenges is that teachers may not feel the time spent meeting each student once a week for 10 to 12 minutes is worth taking away from teaching time in the classroom. The teachers are usually pressured for time to cover their curriculum. The teachers generally are held accountable for standardized testing results that require them to spend more time on instructional delivery. They may not see a mentorship program’s value as the time spent on mentoring may not show immediate results in the standardized data and during teacher evaluation. Thus, schools need to educate the teachers about the connection between a student who feels a strong sense of support in fostering their noncognitive skills by an adult and the student's ability to concentrate in the classroom and develop an academic mindset. If an adult can motivate them and be a buffer against the harmful effects of stress in a student's life due to school or home, and remove some of the barriers preventing them from focusing and learning, the time spent on mentoring is worthwhile. According to Rhodes (1994), "Without exception, all the children who thrived had at least one person that provided them consistent emotional
support." (p.188). Another concern teachers may have is limited space in the classroom that may hinder the mentee from sharing with the mentor effectively. The schools must be sensitive to these concerns and support the teachers by providing a designated time and area built into their master schedule for mentoring.

Students

From the student's perspective, it is up to them whether they wish to share the concerns and struggles that may prevent them from trying their best or fulfilling their goals. Hence it is crucial to meet every week to allow the mentor to build a relationship with the student gradually; the student may choose to open up when given the autonomy, time and patience. Another concern the students may have is that they don't feel comfortable sharing their concerns with their assigned mentor. On the other hand, some students share too much personal information, and it could become an ethical issue that I will discuss in more detail in the next section. In either case, the school must provide teachers with the knowledge and skills to respond to the students' needs and handle delicate issues that may arise during mentoring.

Parents

Parents may not know the benefit of mentoring their child and may question the need for such interactions. Some parents may be concerned about what their child may share with their mentor. It is essential to educate the parents about the benefits of mentoring while reassuring them that the primary purpose is to develop the student's noncognitive skills with full confidentiality and the intention of the students becoming self-directed learners.
Legal Analysis

Although mentoring a student does not violate or contradict laws or religious rights, it may become a legal issue if the student indicates signs of being abused during the mentoring session. A rare case in which a student reveals that someone is abusing them becomes a significant issue as teachers are mandated reporters and must report abuse to the Illinois Department of Children and Family Services (DCFS) immediately to comply with state and federal authorities. The children, however, may face other legal ramifications like a lawsuit or parent custody battle. The mentorship program provides a platform for students to talk to mentors in confidence about their struggles, both academic and personal, and this may trigger such sensitive conversations. One-on-one mentoring can bring to the surface deep emotional concerns that might have been ignored otherwise or revealed later in life when it is too late to provide intervention.

Moral and Ethical Analysis

Mental health conditions apply to all children. It is in the common good to ensure that our children grow up to be good citizens, and it is the responsibility of the entire community to give them a safe and healthy environment. It is our moral right as teachers and educators to provide students with an academic background and social and emotional support to be resilient again adversities. According to research done by the Children's Mental Health Public Act 93-0495, one in ten children have a mental illness in the United States. The legislature published the report that "Untreated mental health problems in children claimed to have serious financial consequences for the State because they affect children's ability to learn and increase their susceptibility for violence, alcohol and substance abuse, and other delinquent behaviors that are
extremely costly to treat." [http://www.isbe.net/](http://www.isbe.net/). I advocate for the mentorship program in schools because if there is a system that can help students' mental health, and the diagnosis is given to a child long before the child can potentially be subject to mental illness, it is cost-effective for schools to implement a mentorship program. Such programs can detect potential dangers the child is being exposed to and intervene when they are young instead of letting them struggle and allowing the problem to get out of hand. It is our responsibility as educators to ignite students' motivation and provide the environment to pursue their passion with a heightened level of grit.

### Implications for Staff and Community Relationships

Besides performing an analysis of needs based on the educational, economic, social, political, ethical, and legal point of view, there are specific implications we need to consider when implementing a mentorship program. For the rest of this section, I will focus on the impact of the mentoring program on staff and community relationships.

### Implications on staff relationships

As I mentioned earlier, there has been much research done highlighting the reality that a positive relationship between a child and nonparental adults is a factor in fostering grit among children from at-risk backgrounds (Tough, 2016; Rhodes, 1994). Hence a positive relationship with an adult can change a child's life. Since children spend most of their childhood in a school setting, school staff must be equipped with the knowledge and awareness to raise students' test scores and aid their social and emotional well-being. In other words, to create a positive environment for the students to feel safe and share their thoughts, feelings, and concerns. However, just three decades ago, there were no set standards or guidelines to hold staff
accountable for students' social and emotional growth because it did not tie into test scores. The Federal legislation such as No Child Left Behind (NCLB) and Race to the Top (RTT) further exacerbated the situation as it overemphasized test scores and academic measurements. There was less emphasis on the developmental needs and noncognitive skills of a child that may have caused a change in behavior or academic mindset. If the child's conduct did not conform to the procedures and classroom rules, the child might have been labeled as special needs and considered for two or three interventions, costing the state more money. It was not until 1994 that a group of researchers and advocates of Social and Emotional Learning (SEL) formed the Collaborative for Academic Social and Emotional Learning (CASEL) (Correa, 2017). To provide students with the proper amount of social and emotional support, CASEL came out with specific guidelines to address what they deemed was the missing link in education. The most recent reform called the Every Student Succeeds Act (ESSA), redefined education. "This law calls for a well-rounded education and shifting away from the narrow focus on academics" (Rosales, 2017). With the current trends in education, the mentorship program in our school provides an opportunity to ensure that students meet social and emotional guidelines. The teachers are held accountable for the test scores and the student's health and well-being.

Furthermore, the students are more responsive to programs and initiatives such as CASEL and The Leader In Me if they can consistently connect with a caring adult mentor who can remove barriers preventing them from achieving their academic and behavior goals. The teacher mentor can guide the student to accomplish small manageable weekly goals that can lead them to long-term goals. Consequently, the mentoring program can not only have an impact on students but shifts the behavior and mindset of teachers. The staff realizes they can potentially leave a deep imprint on the student's life if they care for their needs genuinely.
Implications on community relationship

Implementing a mentoring program in schools may have an indirect impact on the broader community. To understand that better, let's explore how a community influences an educational institution and vice-versa by looking at research done by Purinton and Azcoitia (2016). The authors assert that the school strives to cultivate students to become college and career ready but cannot do it in isolation. Hence the leaders have a responsibility to restore community confidence in the education system, and the foundation must be laid through trust in the school. I agree with Purinton and Azcoitia's view as the parents rely on the schools to help their child develop both cognitive and noncognitive skills to foster a sense of agency and confidence throughout their academic life.

Similarly, the school must rely on families, communities, peers, and others as partners to develop their academic identity. Purinton and Azcoitia (2016) describe academic identity as the way in which a student feels a sense of connection to the school and chooses to relate to education in pursuit of their goals. More specifically, it is the "way a student perceives the school and their educational motivations" (p.8). Furthermore, research has shown that the most accurate predictor of student success is the parent and community involvement in the life of the child (PTA, 2000). Suppose the students feel they are set up for success both in school and at home where their noncognitive skills are fostered, such as self-efficacy, a growth mindset, self-direction, and other noncognitive skills. They see that their goals are being met due to their hard work with an adult mentor's consistent guidance and support. In that case, they are more inclined to persevere with effort and will most likely stay persistent with interest, the two dimensions that cultivate grit.
Another implication mentoring may have on the community is the community benefiting from a student who graduates with the right tools and academic mindset to become an active participant in society through civic engagement. Besides schoolwork, students have out-of-school activities that can influence their attitude and behavior in school. If the school desires to develop the whole child, the school must learn about the community the student belongs to and build positive relations within it. The concept of "boundary-crossing leadership" has surfaced among schools in the midst of changing state accountability with the Every Student Can Succeed Act (Purinton and Azcoitia, 2016). Boundary-crossing realizes that principals and teachers who work closely with students and mentors them regularly may take a step further to engage the community by visiting the local place of worship and other community establishments to foster deep, respectful, and purposeful relationships among students, families, and community partners. To reach this level of community engagement, school leaders must create a platform to develop cultural proficiency among the faculty members. According to Lindsey (2009), cultural proficiency is a model for shifting the school's culture that increases awareness of others' cultural backgrounds and interacts effectively with others in the community to overcome resistance to change. When the children see that the school's values, behavior, and practices align with their community, they begin to accept the school and are more likely to be motivated to succeed in their goals. "Noncognitive skills are universally valued across all cultures, religions and societies" (Kautz et al., 2014, p.2).

One of the responsibilities of GSE's public relations committee is to create and maintain a healthy relationship with the local community and mosques. For example, the students are requested to give presentations in the mosque regarding their school on an ongoing basis. Besides, the school often makes its presence in the form of a booth in local mosques during
major events and programs. The students who go to the mosques see their teacher mentors, feel a sense of belonging to the school, and are more inclined to be open to their mentor. Ultimately, the positive results are evident when a child has grown up in a nurturing and supportive environment and becomes a responsible citizen who takes care of their civic duty as part of the community's long-term goal.

**Conclusion**

In conclusion, I proposed the GSE board incorporate the mentorship program policy statement in the board and parent handbook because I firmly believe that students will benefit from a purposeful, deliberate, and well-planned mentorship program. Advocating for a change plan requires us to analyze needs. Therefore, I conducted a needs analysis based on the educational, economic, social, political, ethical, and legal perspectives. I also examined the implications of implementing a mentorship program and its impact on staff and community relationships. As a result of the analysis, it became clear that although the mentorship program has been working well as an intervention program for many middle schools, high schools, and universities, it will be fruitful to implement a mentorship program for primary and elementary grades.

Research shows that the child's brain is malleable, and neuroplasticity is higher during a younger age (Cantor et al., 2018). Therefore, it is logical and highly impactful if the schools take a proactive approach to ensuring no child slips by the educational system lacking the proper tools to be college and career ready. Furthermore, the inequalities in education due to young children's socio-economic backgrounds are a grave reality in America (Ravitch, 2014). It is imperative that we level the field by implementing a universal approach that reaches all students. Implementing a mentorship program that applies to every student in the school may have several challenges.
and implications that I discussed in this section. However, I would like to highlight that teachers play a critical role in implementing a change initiative because they are required to give up the most scarcest commodity in school: time. Mentoring each student in the school requires considerable time from teachers, which they otherwise might want to spend on teaching. However, the teachers can understand the importance of the mentorship program, resulting in a paradigm shift. Teachers see the connection between students who feel a sense of support and inspiration in fostering their noncognitive skills by an adult and their motivation to accomplish their goals and develop an academic mindset.
SECTION EIGHT: CONCLUSION

Introduction

Children must have both cognitive and noncognitive skills to be successful in life. However, it was not until recently that we understood the impact of noncognitive skills in young children and the effect of the absence of such foundational skills. A supportive, nurturing, and inspiring relationship with an adult can have a positive impact on the learning of a young child's cognitive and noncognitive skills based on a large body of evidence (Duckworth, 2016; Moffitt et al., 2011; Weissberg & Cascarino, 2013; Stafford-Brizard & Cantor, 2016; Dube et al., 2003; Kautz, et al., 2014).

The purpose of my study was to examine the factors that cultivate grit in the learning of young children by examining the student-teacher mentorship program in GSE. Additionally, I examined how human relationships help students develop noncognitive skills early, and guides students to understand their learning goals. Furthermore, I established that students coming to school have different mindsets that depend on their earlier stages in life; consequently, some may have an advantage over others. Given this research-based fact and to level the field, I examined GSE to learn how the school can help all students who enter and become successful in school and life. As a result of this study, I hoped to see students better able to self-direct their learning and develop resiliency, self-efficacy and a growth mindset, leading to a heightened level of grit. I proposed that a supportive, inspiring, and deeply caring adult with whom the child can develop an attachment during the crucial stages of their life helps children become successful and acts as a buffer against a harmful environment. Therefore, this paper's overall theme is that student-
teacher mentorship program provides a supportive environment and personal relationships that play a vital role in achieving grit, which leads to long-term success.

**Discussion**

In this study, I explored the importance of human relationships and personal connections as a motivating factor and contribution to the development of a child's noncognitive competencies, leading to developed grit. To better understand the link, I examined the research related to cultivating cognitive and noncognitive skills utilizing human relationships as a motivating factor in the development of these skills. My literature review used multiple sources from correlated, longitudinal, and causal research studies from an established body of knowledge to provide an in-depth analysis of my research. I examined the school using a holistic approach from a systemic point of view using the "4C's" model, as mentioned by Wagner et al. (2006): context, culture, competencies, and school conditions. I studied Wagner's "As-Is" analysis of the school's state before implementing the mentorship program. I further envisioned how the school might look if we were to produce the desired results once we implemented it, studying the "To-Be" analysis.

My next step was to gather the data and present the findings using the systems theory developed by Wagner et al. (2006). I conducted an online survey of teachers and staff members to analyze the relationship between their perception and students' self-evaluation of how mentoring sessions helped them develop grit. I designed my questions similarly to the two dimensions on the Grit Scale set by Duckworth and Quinn (2009). The two dimensions of grit are the perseverance of effort and consistency of interest over time. I conducted a comparative
analysis of the intensity of the students' attitudes about the questions over time to analyze the GSE's students and teacher mentorship program in its first year of implementation. The data revealed a moderate to a high increase in the perseverance of effort dimension of grit and moderate to low increase in the consistency of interest. In other words, students felt more strongly about exerting effort and persevering to accomplish their goals than to stay consistent with a specific goal by the end of the year. Nevertheless, the students demonstrated grit when they persevered and exerted effort to accomplish their goals by the end of the year. The results validated the teachers' survey and focus group interview that students were working harder due to the teacher's consistent one-on-one interaction with the students. Teachers were able to develop a rapport with the students by the end of the year, influencing their willingness to persist with the goal before abandoning it for other instant gratifications. The students were more confident at the end of the year that their strategies and action plan were materializing into accomplishing their goals during the mentorship sessions. The favorable results at the end of the year also allude to the teachers' improved goal-setting strategies to hold students accountable for their learning process. Teachers' survey results and the teacher's focus group interview also agree with the students' survey data. Teachers said in the focus group interviews that students started disengaged due to emotional problems; later in the year, students improved their ability to manage their emotions and showed growth in grades by the end of the year. Therefore, noncognitive skills and social and emotional development have a profound effect on the learning of young children.

In addition to that, I collected and analyzed standardized tests using NWEA MAP data for growth within the year to see if there was a desirable increase in the student's cognitive level. The results indicate that the 6 percent increase in "at" or "above" grade level of students was over
the 5 percent set level of desirability. The rise in the data for "at" or "above" grade level students was moderate but statistically significant enough to associate the mentorship program's effectiveness with students' growth. Furthermore, a 50 percent decline in the number of at-risk students gave credible evidence that the mentorship program supports the at-risk students' learning process. In other words, the mentorship programs could be one of the factors that impacted at-risk students enough to pull them out of the "at-risk" category.

The result of my study confirms the established body of evidence that relationship and personal connection is a key driver that motivates children to become passionate about something and persist and persevere to reach their goals (Gertler et al., 2014). The survey and qualitative data I collected from the mentorship program affirms this prior research. My research revealed that students and teachers were generally pleased with the mentoring experience and reported that students demonstrated an increased grit level using surveys and anecdotal data in their daily learning process.

I provided a summary of needs based on the educational, economic, social, political, ethical, and legal perspectives to assist policymakers in making an informed decision about policy advocacy. Reviewing the program's implications, I found specific gaps in the implementation process that may connect 7 percent of students who continue to feel overwhelmed in school. My research study provided recommendations for further improvement in the mentorship program that emphasized the program's fidelity. I developed an organizational plan with strategies and actions steps along the continuum of three phases: preparing, envisioning, and enacting (Wagner et al., 2006) (Table 1). I also created the Long-Term Success Framework (Figure 1) to better understand the interplay of motivation, cognitive skills, and
noncognitive success, with human relationships as an essential component of success. The framework clarifies that to achieve long-term success, a person requires three key ingredients, motivation, grit (a precursor to other noncognitive skills), and cognitive abilities.

The organizational plan and the policy advocacy component of the dissertation addressed the purpose and goal of my study; after collecting and analyzing data, I was able to answer my research question:

**Research questions:**

- To what extent does the student-teacher mentorship program in GSE cultivate grit in the learning of young children?
- What factors of human relationships and personal connections help students develop noncognitive skills?
- To what extent does the self-directed learning cycle used in the mentorship process guide students toward better understanding their learning goals?

The policy I am advocating addresses the issues raised in my program evaluation and organizational change plan. I advocate for the program because both the frequency and duration of the mentorship program, when followed with fidelity, give the students the consistent feedback and support they need to develop grit and become self-directed learners. While other factors could influence a person's noncognitive skills, I could say with a firm conviction that there appears to be a reasonable connection between teachers mentoring the students regularly and their increased level of grit to accomplish their goals. Since no such specific policy exists, my final phase of the study advocates that the GSE board adopt the following policy statement:

All students in GSE kindergarten to 6th grade will be assigned a teacher mentor who will
meet with them every week for an average of 10 minutes to discuss their goals using the self-directed learning cycle and address any barriers preventing them from succeeding in school.

**Leadership Lessons**

Reflecting upon my research study has given me insight into different perspectives as a leader and has allowed me to look closely at my leadership style. My approach to tackling the challenges that come with continuous improvement and change leadership has shifted for the betterment of myself, my school and the entire community in which I reside. There have been many leadership lessons I learned during my study, but I would like to focus on four important lessons that shaped my thinking as a leader: Change Leadership, Adaptive and Technical change, Framing and Systemic Thinking and Resonant leadership.

**Change Leadership**

A leader in the school has a significant role to play. The leader can either make or break an organization. With the changes happening as we advance through the technological era and in the global economy, the employers demand that candidates enter the workforce with the knowledge, skills and habits to thrive in the 21st century. Hence the job of the school leader becomes even more complicated, demanding and daunting. One of the most significant responsibilities of a leader is to continuously challenge the status quo and look for ways to improve the school. The qualification of the leader requires that he or she has a transformative mindset that can be a change agent for the school. Wagner et al. (2006) gives a perfect analogy about a school leader that resonates with me. He compares a school leader’s job to rebuilding an airplane "while you are flying it" (p. xv). As a change agent, we push for improving the school
by implementing initiatives and system changes, rebuilding the plane while the school is in operation and loaded with passengers. In the case of GSE, there is a continuous school improvement initiative that questions the current program and pushes for improvement. Therefore, the leaders must know how to create an environment that feeds the demand for change and is equipped with proper tools to manage the school, amid the discomfort of a change process.

Wagner et al. (2006) three phases of the framework of change can lay the groundwork for the transition to be successful. They are preparing, envisioning and enacting. One of the leadership lessons I learned during the implementation of the mentorship program is to prepare for the change before acting. One factor that has helped me as a leader is to create a school-wide sense of urgency for change among the stakeholders. With several school improvement initiative sessions, stakeholders saw a need to improve in the social and emotional area for students to thrive in the 21st century. One of the tools that helped me is to collect qualitative and quantitative data from stakeholders related to student success and well-being. The leader needs to help the stakeholders envision the change before enacting it to be successful.

Similarly, it is vital to acquire support from key stakeholders during the planning phase before bringing it to the broader community. In the current situation, both the teachers and the parents were allowed to participate in leading the discussion on school improvement initiatives along with the school board to receive buy-in and deepen the trust in the school. Before that, the Academic Development Committee worked as a platform to cultivate trust for all key stakeholders to collaborate during the planning phase. According to Heifetz, Grashow and Linsky (2009), it is best practice to first "diagnose the political landscape" and identify allies before going public with your effort (p.49). Lastly, the enacting phase was the year the
mentorship program was implemented and a focal point of my program evaluation.

Another component of change leadership is to recognize that change passes through a zone of uncertainty, loss and discomfort. It requires people to make difficult decisions and trade-offs during the trial-and-error phase. Heifetz et al. (2009) calls it the "productive zone of disequilibrium" (p. 29) noting that if the level of discomfort is too far below the threshold, the people in an organization become complacent about success. However, if the zone of disequilibrium is over the limit, people become too uncomfortable with the current system, and the change is inevitable. Understandably, GSE has passed through moments of discomfort during the planning and envisioning stage. Onboarding all staff and parents to accept the need for change during the envisioning phase was a challenge. I have learned from Heifetz et al. (2009) to assess the landscape of the school and help people navigate through the period of disturbance and uncertainty as they experiment with new things during adaptive change.

**Adaptive and Technical change**

Adaptive change is a problem that is not always clear, and the solution is unknown. Adaptive change requires a shift in a belief system, habits or priorities in an organization. Technical change is a problem in which the knowledge of the issues has known solutions (Heifetz et al., 2009). For example, in my study, implementing a mentorship program requires certain conditions, like time and space that are technical issues that can be solved by changing the master schedule and redesigning the classroom to allow for flexible seating during mentorship time. However, it is an adaptive change when we require the teachers to abandon the old ways of teaching in a classroom when the teacher spends the majority of time giving lectures in front of the class. The new way of teaching requires teachers to facilitate, guide, support, and
mentor the students to take responsibility for their learning by setting long and short-term goals and becoming self-directed learners. The disruption of the old ways of teaching is an adaptive challenge that may take teachers time to adjust to the new system, as people inherently resist change. Teachers can revert to the old way of doing things unless the school leaders clarify expectations, affirm what will not change and guide them through the adaptive change with empathy and compassion. A leader who is knowledgeable about the change process also knows that a successful transformation requires the entire system to change.

**Framing and Systemic Thinking**

Another lesson I learned was to diagnose the problem before taking action. It warrants a shift in thinking about organizing a system that requires viewing it both as a whole and in parts. Wagner et al. (2006). Leaders must make many decisions daily, from small matters like logistics for a school event to high-stakes decisions like hiring qualified teachers or implementing a curriculum. In all cases, the leader must examine the situation with different lenses or frames of reference. According to Heifetz et al. (2009), “A well-formed intervention strikes a chord in people, speaking to their hopes and fears. That is, it starts where they are, not where you are” (p. 128). Heifetz et al. (2009) provides an excellent analogy of tackling a challenge by “getting onto the balcony” so the leader can see the organizational system as a whole. Similarly, a change leader must “get onto the dance floor” to have a better connection with those who are impacted directly by the change process. In this study, I attempt to analyze the problem using a "systems thinking" framework that Wagner et al. (2006) describes in "4C". The frames are the context, conditions, culture, and competencies of an organization which underpinned my entire dissertation.
Resonant leadership

Another lesson I learned is to be a resonant leader. Since I have been a founding member of the organization I work for, I feel my hopes and dreams are very much connected to this school. When I look to the future, I would like to see that I have made a profound and positive impact that allowed it to grow into a successful elementary and middle school. Since this school is also an Islamic School, I hope to create strong Muslim Americans by solidifying the students’ Muslim identity. I like how Boyatzis (2005) talks about the importance of spirituality and religion as a significant driving social force. I work with many people who have felt a spiritual connection with the school and share the school’s vision. I would like to give an analogy of a torch to express my mission message based on the culmination of leadership lessons I learning in this study:

While I am holding the torch of leadership that God has provided me with the opportunity, I want to make it as bright as possible to illuminate others' path with honesty, courage, and empathy. I want to guide and support the young generations who have the potential to be the leaders of tomorrow and brighten their future.

While I am holding the torch only for a brief moment in the history of generations, I want to rekindle the fire of knowledge and wisdom with my actions and my tongue. With the last breath of my being so, I can inspire others to become torchbearers of the future generations of intelligence and faith.

I am holding the torch that was passed to me with the trust and confidence to enlighten the hearts and minds of students. I am eager to leave a legacy and pass the torch to others to continue to recommence and energize the next cohort of learners who can then give it to the succeeding generation with an equal amount of passion and love that I have passed it to them.
Conclusion

Now more than ever before, we have an urgent need to foster a strong relationship with our children and youth based on a plethora of research studies cited in this research. We, as educators, have a responsibility to advocate for what is best for our children. This research shows that positive relationships and attachment are the keys to their cognitive and noncognitive skill acquisition. If we do not respond to our children's needs, we are doing them a grave disservice. Therefore, I advocate for the student-teacher mentorship program because it builds a consistent, supportive, nurturing, and inspiring relationship with an adult mentor. The mentor can guide students to succeed in their academic journey and develop grit, leading them on their trip to long-term success. Backed by research, the program is much more effective at the primary and elementary level because the effects of early intervention far outweigh the impact of intervention during later years. During the child's early years, their brain is most malleable, leading to a more significant change in cognitive and noncognitive skills. I found this through my research evaluation of the student-teacher mentorship program in GSE. Although my program evaluation was based on an Islamic school, the mentorship program can be used as a template for any schools willing to implement the plan.

Additionally, I found overwhelming research that indicates the development of noncognitive skills, behavior, and attitude are part of the child's cognitive development and a significant predictor of future success in life. If a child continues to be deficient in these essential skills, it may profoundly impact their academic growth and future success. My research paints a compelling picture of the need for schools to cultivate both cognitive and noncognitive skills at an early age with the help of a systematic process that allows teachers
to have consistent, purposeful, and deliberate conversations with students to develop personalized academic goals.

Focusing on developing grit, along with the academic success of a child, schools can cultivate well-rounded students who can thrive in the 21st century. The research study has given me hope that if given the proper personalized attention and mentorship during the student's learning process, the individual will develop to be successful in their educational journey. Our future generation holds that key to carry our legacy, and it is up to us to cultivate leaders of tomorrow by motivating our students to become active participants in their learning and to apply the skills, knowledge, and habits necessary to emerge as passionate and committed individuals who are contributing members of society.

I want to conclude with The Gallup (2018) Student Poll that conclusively confirmed that college graduates were more likely to experience overall well-being in life and productivity in the workforce if, while they are in school, they had an adult (a teacher or a mentor) who nurtured them as a person or who encouraged their ideas.
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## APPENDIX A: “AS IS” and “TO BE” BRIDGE

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<thead>
<tr>
<th>4 C’s</th>
<th>AS IS</th>
<th>Strategy</th>
<th>TO BE</th>
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<tbody>
<tr>
<td><strong>Context</strong></td>
<td>Only 60% of the students scored at or above the national average based on NWEA Map score</td>
<td>Academic Development Committee (ADC) during the preparing and envisioning phase that consisted of all critical stakeholders.</td>
<td>I envision GSE to personalize instruction so that ALL of the students achieve growth and demands teachers to reach all students in their classroom.</td>
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<td></td>
<td>GSE is community school with little or no government funding.</td>
<td>Implement Summit learning program that focuses primarily on competency based progression and implementing the mentorship program that allows students to have weekly check-ins.</td>
<td>Teachers will work with students one-on-one to develop a personalized learning pathway for college and career readiness and constantly monitor student’s goals.</td>
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<td></td>
<td>High expectations from the school because of its parents pay tuition and nonpublic school status</td>
<td>Invest resources on marketing so as to increase enrollment and more resources from tuition</td>
<td>School should invest its resources in enrolling students who can take advantage of the innovative teaching methods.</td>
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<td></td>
<td>Lack of engagement, motivation and ability to cope with classroom responsibilities.</td>
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<td><strong>Culture</strong></td>
<td>Teachers and students have a fixed mindset</td>
<td>Teachers shift in mindset as they learn about the growth mindset and social and emotional impact on students’ learning and develop grit.</td>
<td>Teachers recognize the importance of noncognitive skills in students and their connection to the mentorship program</td>
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<td></td>
<td>Students lack of engagement and motivation</td>
<td>Train teachers to teach the students about habits of success, such as growth mindset, perseverance, and self-efficacy.</td>
<td>Holding teachers accountable for student success based on supporting their social and emotional well-being.</td>
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<td></td>
<td>Lack of teacher accountability for students’ social and emotional growth and belief in the system.</td>
<td>Explicitly teach students the science behind the brain by prompting discussion that the brain is malleable and how effort, not intelligence alone, can physically change the cognitive function that can result in improved brain function.</td>
<td>Create a culture of self-efficacy by promoting intrinsic motivation</td>
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<td></td>
<td></td>
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<td>Create a culture of growth mindset among teachers and students.</td>
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<td><strong>Conditions</strong></td>
<td>Lack of resources</td>
<td>Develop a schedule with the teachers to accommodate mentoring time built into the school day</td>
<td>Teachers should have enough planning time to collaborate with colleagues to plan and implement programs based on student need.</td>
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<td></td>
<td>Lack of time within the school day to work with students individually</td>
<td>Allocate resources to train teachers about the mentorship program</td>
<td>Students should feel comfortable and safe, and feel a sense of autonomy in school.</td>
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<td></td>
<td>Lack of time within the schedule to lesson plan</td>
<td>Develop a comprehensive data tracking system with support from the teacher mentors to monitor if mentoring is working in GSE</td>
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<td>Competencies</td>
<td>Train the new teachers by creating a job-embedded training program during routine PD meetings and monitor their progress.</td>
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<td>Train teachers and help them see the impact of the mentorship program on students’ noncognitive skills.</td>
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<td>Train teachers to conduct an effective mentorship session and develop clear expectations</td>
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<td>Hire a psychologist and other support staff on a need-be basis</td>
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<td>All staff are well-trained in recognizing and cultivating students’ social and emotional needs besides their core competencies.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The school has access to a psychologist who can provide added support to the students who are in need.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX B : AS-IS ANALYSIS

Context
- Private faith based school with no government funding
- Low tuition to compete with other schools
- Other Islamic Schools Competing
- School district within the City is a well know district and good schools
- Students scored 60% at or above the national average based on NWEA Map score

Culture
- There was a culture of mistrust, anxiety and put downs among staff.
- Resentment to promote a veteran teacher.
- Some teachers have a fix mindset
- Students learning was effected due to other staff distractions

Conditions
- Limited resources due to private school
- High turnover due to pay below the public school standards.
- Loss of knowledge and skill transfer due to high turnover.
- Lack of resources available to train teachers
- Lack of enough uninterrupted planning time for teachers
- Lack of enough time per each period results in low quality instruction or unable to compete the instructional cycle.
- Lack of space, especially during winter when multipurpose room is double booked for recess and PE

Unable to reach ALL students a Hadi School curriculum worked only for 60% of the student body

Competencies
- Having to hire untrained new teachers due to high turnover.
- Loss of knowledge and skill transfer due to high turnover.
- Students unable to establish a working relationship with new teachers due to a revolving door.
- Unable to retain valuable tangible resources as trained teachers leave for more lucrative opportunities.
- Lack of teacher buy-in into program implemented by the school.

APPENDIX C : TO-BE ANALYSIS

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**Context**
- Hadi School adapted Summit program that demands teachers to mentoring the students
- Other Islamic Schools Competing
- School district within the City have decent schools
- Parent’s believe in the school system

**Culture**
- Constantly bringing identifying the results of the mentorship program and celebrate successes.
- Helping teachers recognize the importance of noncognitive skills their connection to mentorship program.
- Holding teachers mentors accountable for their mentees.
- Create a culture of growth mindset identifying criteria for a growth mindset.
- Holding a book study with teachers to learn about growth mindset during PD times.
- Training teachers to teach students about growth mindset.

**Conditions**
- Develop a schedule with the teachers to accommodate monitoring time built into the school day.
- Allocate a corner in the resource lab dedicated for mentoring sessions for a more sensitive conversation.
- Allocate resources to train teachers about the mentorship program.
- Develop a comprehensive data tracking system with the support from the teacher mentors to monitor if mentoring is working in Hadi School.
- Develop common standard for conducting mentoring throughout the school.
- Develop clear expectations of organizing, conducting and monitoring the mentorship program.

**Competencies**
- Train the new teachers and create a job embedded training program during routine PD meetings and monitor their progress.
- Conduct teacher survey to assess teacher’s knowledge and perception of the non-cognitive skills and mentorship program.
- Train teacher and help them see the impact of mentorship program on student’s noncognitive skills.
- Train teachers to conduct an effective mentorship session using the newly developed standards and clear expectations.
APPENDIX D: PARENT INFORMED CONSENT

Dear Parents,

My name is Azra Naqvi, and I am currently a Doctoral student at National Louis University, Chicago campus. I will be requesting your child to participate in the research study that is occurring from December 2017 to May 2018. The purpose of this study is to examine the human experience and research related to motivation and cultivating noncognitive skills, such as passion and perseverance, also known as grit using regular mentorship program in an elementary school setting. This study will help researchers develop a deeper understanding of the relationship between mentorship programs in elementary schools and the student's motivation and grit to accomplish his or her short or long-term goal. Hence, I intend to evaluate the mentorship program in Hadi School to identify areas of strength and weaknesses for improvement. By evaluating the mentorship program and gathering this data, I intend to develop a system of continuous improvement process and a robust mentorship program that will help the student build on their noncognitive skills and motivate them during their academic journey. This form outlines the purpose of the study and describes your child’s involvement and rights as a participant.

During your child’s regular mentorship sessions, your child will be asked to describe their experiences when setting long or short term goals and their experience when working on accomplishing them using an online survey. This will take him/her on an average of two minutes every mentor session. Please understand that the Informed consent is for your child’s participation in the online survey research study for the benefits of the mentorship program and not about participation in the Hadi School mentorship program itself as it is part of the Hadi
School mandatory curriculum and will continue as prescribed in the syllabus.

RISKS AND BENEFIT

There are no anticipated risks or benefits, no more significant than that encountered in daily life. On the contrary, it is reasonable to expect the following benefits from this research:
The school will be able to develop a robust mentorship program. As a result, the student will be better equipped to self-direct their learning process and be able to stimulate their motivation to accomplish their goals. Further, the information gained from this study could be useful to other schools and school districts looking to initiate or refine a mentorship program in elementary grades.

CONFIDENTIALITY

Your child’s name will not be used when data from this study is published. Every effort will be made to keep student records, research records, and other personal information confidential.

YOUR CHILD’S RIGHTS AS A RESEARCH PARTICIPANT

Participation in this online survey is voluntary. Your child has the right not to participate at all or to leave the survey at any time. Deciding not to participate or choosing to leave the survey will not result in any penalty or loss of benefits to which your child is entitled.

Upon request you may receive summary results from this study and copies of any publications that may occur. In the event that you have questions or require additional information that have not been addressed by the researcher you may contact:

- Dr. Seema Imam, Professor and Chair, National College of Education at simam@nl.edu.
• Shaunti Knauth, Chair of NLU’s Institutional Research Review Board by email at shaunti.knauth@nl.edu phone: 312-261-3112.

• The IRRB chair is located at National Louis University, 122 South Michigan Avenue, Chicago, IL.

Thank you for your consideration.

Permission for a Child to Participate in Research

As parent or legal guardian, I authorize ________________________________ (child’s name) to become a participant in the research study described in this form.

_____________  ________________
Parent or Legal Guardian’s Signature  Date

_____________  ________________
Researcher’s Signature  Date
Dear Teachers,

My name is Azra Naqvi, and I am currently a Doctoral student at National Louis University, Chicago campus. I am requesting you to participate in the research study that will be occurring from December 2018 to May 2019. The purpose of this study is to examine the human experience and research related to motivation and cultivating noncognitive skills, such as passion and perseverance, also known as grit using regular mentorship program in an elementary school setting. This study will help researchers develop a deeper understanding of the relationship between mentorship programs in elementary schools and the student's motivation and grit to accomplish his or her short or long-term goal. Hence, I intend to evaluate the mentorship program in Hadi School to identify areas of strength and weaknesses for improvement. By evaluating the mentorship program and gathering this data, I intend to develop a system of continuous improvement process and a robust mentorship program that will help the student build on their noncognitive skills and motivate them during their academic journey. This form outlines the purpose of the study and describes your involvement and rights as a participant.

CONFIDENTIALITY

You will be asked to take the attached survey using a Google form that identifies your perception of the mentorship program. The survey may take up to 10 to 15 minutes to complete. Although the results of this study may be published, no information that could identify you will be included and your responses will remain anonymous. The result of the survey will be password protected with only I will have access to the survey results. The link to the survey will be sent to you in your school email account.
RISKS AND BENEFIT

There are no anticipated risks or benefits, no more significant than that encountered in daily life. On the contrary, it is reasonable to expect the following benefits from this research: The school will be able to develop a robust mentorship program. As a result, the student will be better equipped to self-direct their learning process and be able to stimulate their motivation to accomplish their goals. Further, the information gained from this study could be useful to other schools and school districts looking to initiate or refine a mentorship program in elementary grades.

YOUR RIGHTS AS A RESEARCH PARTICIPANT

Your participation in this survey is completely voluntary and no service of any kind, to which you are otherwise entitled, will be lost or jeopardized if you choose to "not participate" in the study. If you decide to take part in the survey, you are free to withdraw at any time without any negative effect on your relations with school.

Upon request you may receive summary results from this study and copies of any publications that may occur. In the event that you have questions or require additional information, please contact the researcher, Azra Naqvi at anaqvi1@my.nl.edu to request results from this study.

If you have any concerns or questions before or during participation that have not been addressed by the researcher, you may contact:

- Dr. Seema Imam, Professor and Chair, National College of Education at simam@nl.edu.
- Shaunti Knauth, Chair of NLU’s Institutional Research Review Board by email at shaunti.knauth@nl.edu phone: 312-261-3112.
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By Signing below, you are providing consent to participate in a research project conducted by Azra Naqvi, doctoral student at National Louis University, Chicago Illinois.

Please understand that the purpose of my students is to explore the strengths and weaknesses of the mentorship program in the school and not to evaluate teachers. Participation in this study will include a focus group interview of staff members who are representing as mentors of the students. The group interview will be conducted in a semi-structured format in the teacher’s lounge of the school. The interview will consist of five open ended questions that
are aligned to the mentorship.

CONFIDENTIALITY

While an audio recording of the interview will be done to assist with the analysis of the transcripts, you identify will remain anonymous. Your response will be coded by Mentor 1, Mentor 2, etc. Any other identifying information will not be connected to your interview responses. The audio recording, transcript and result of the survey will be password protected with only I will have access to the survey results. All audio recording, notes of the interview and transcripts will be deleted/destroyed once the study is completed.

RISKS AND BENEFIT

There are no anticipated risks or benefits, no more significant than that encountered in daily life. On the contrary, it is reasonable to expect the following benefits from this research: The school will be able to develop a robust mentorship program. As a result, the student will be better equipped to self-direct their learning process and be able to stimulate their motivation to accomplish their goals. Further, the information gained from this study could be useful to other schools and school districts looking to initiate or refine a mentorship program in elementary grades.

YOUR RIGHTS AS A RESEARCH PARTICIPANT

Your participation in this survey is completely voluntary and no service of any kind, to which you are otherwise entitled, will be lost or jeopardized if you choose to "not participate" in the study. If you decide to take part in the survey, you are free to withdraw at any time without any negative effect on your relations with school.
Upon request you may receive summary results from this study and copies of any publications that may occur. In the event that you have questions or require additional information, please contact the researcher, Azra Naqvi at anaqvi1@my.nl.edu to request results from this study.

If you have any concerns or questions before or during participation that have not been addressed by the researcher, you may contact:

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- The IRRB chair is located at National Louis University, 122 South Michigan Avenue, Chicago, IL.

Thank you for your consideration.

___________________________  ____________________________
Parent or Legal Guardian’s Signature       Date

___________________________  ____________________________
Researcher’s Signature       Date
APPENDIX G: STUDENT ONLINE SURVEY

National Louis University

Survey No. ___________ Date _________________

Grade level____________________

Provide answers to the questions based on the Likert scale (Vogt 1999):

1.  Strongly Agreed
2.  Agreed
3.  Disagreed
4.  Strongly Disagreed

- I can accomplish the goal that I set with my mentor
- Accomplishing my goal is hard work but I will not give up
- I am motivated to accomplish the goal that I set for myself
- I set action plans to accomplish my goals with my mentor.
- How do you feel about your goals?
APPENDIX H: TEACHER ONLINE SURVEY

National Louis University

Grade level____________________

Provide answers to the questions based on the Likert scale (Vogt 1999):

Teachers experience in the teaching profession.

0-1, 2-4, 5-10, 11+

Years’ experience in current school

0-1, 2-4, 5-10, 11+

How often do you meet with your mentee?

1. Twice a week
2. Once a week
3. Once every two weeks
4. Once a month
5.

How long do you meet with your mentee?

1. 5 minutes
2. 10 minutes
3. 12 minutes
4. 15 minutes

How effective you feel you applies the following strategies based on the scale: Never, Rarely, Occasionally, A moderate, has a great dealt

- Active listening
- Providing constructive feedback
- Establishing a relationship based on trust
- Identifying and accommodating different communication styles
- Employing strategies to improve communication with mentees
- Aligning your expectations with your mentees’
- Working with mentees to set goals
- Helping mentees develop strategies (Action plans) to meet those goals
● Employing strategies to enhance your mentees persistence and perseverance (grit) to stick with the goal.
● Strategies to motivating your mentees
● Building mentees’ confidence
● Stimulating your mentees’ creativity

How would you describe your relationship with your mentee?

1. very good
2. good
3. fair
4. poor

How would you rate the overall quality of your mentoring?

1. very good
2. good
3. fair
4. poor

Based on your experience as a mentor, how do you feel about the importance of having a consistent formal interaction with the student (mentorship program) in relation to the increase in motivation of students to accomplish their goals?

1. Not at all important
2. Slightly important
3. Very important
4. Extremely important

Based on your experience as a mentor, how do you feel about the importance of having a consistent formal interaction with the student (mentorship program) in relation to the increase in the perseverance and persistence (grit) in accomplishing the goals?

5. Not at all important
6. Slightly important
7. Very important
8. Extremely important

**Open Ended Questions:**
Do you feel students demonstrated an increased motivation and grit in their pursuit of the goals? Did that change from the beginning of the year to now?
APPENDIX I: FOCUS GROUP INTERVIEW PROMPTS

Questions to Monitor:

Introduction phase of Mentoring:

● What was your experience on the first mentoring session?
● What did you take away from the first mentoring session?
● How would you describe the behavior of the students during the first mentor stage?

Monitoring session during the goal setting stage:

● Where the students creating their own goal?
● How does the student feel about their perception being able to accomplish their goal?
● How much assistance did you provide in coming up with action plans setting up the action plan?
● What worries or fear does the student demonstrate when setting up the goal setting process?
● What does the student feel is the most challenging part of their goal?
● What does the student think is the most rewarding for them?

During the goal work in process:

● What setback do they feel they are confronted with?
● What are their feeling about accomplishing their goal at this point in time?
● What is the determination level of the student?
● Were there any extension in the deadline to accomplish the goals?
● Do you feel they demonstrate grit and determination in their pursuit of the goal and did that change from the beginning of the year to now?
When they accomplished their goal:

- How does the student describe their reaction to accomplishing their goal?
- From the perspective of the student, what does she/he thinks they learned?
- How do they think they will use their newly acquired knowledge, skill, and ability in the future?
- Do you think that the time you spent with your mentee was sufficient?
- How do you feel about the progress of your mentee beginning of the year?
- How do you feel about the progress of your mentee during the year?
- How do you feel about the progress of your mentee towards the end of the year?
- Do you feel the mentorship program helped your mentee to persist and persevere in their goal you set with them?
APPENDIX J: FOCUS GROUP INTERVIEW PROTOCOLS

Thank you for participating in the focus group interview. The purpose of the focus group is to further expand on the importance of mentoring and its impact on student motivation and grit.

Before I begin, I would like to review a few ground rules for the discussion.

a. I am going to ask you several questions; we do not have to go in any particular order but I do want everyone to take part in the discussion. I ask that only one person speak at a time.
b. Feel free to treat this as a discussion and respond to what others are saying, whether you agree or disagree. I am interested in your opinions and whatever you have to say is fine. There are no right or wrong answers. I am just asking for your opinions based on your own personal experience. I am here to learn from you.
c. Don’t worry about having a different opinion than someone else.
d. Do not feel that you need to answer every question.
e. I am recording the discussion today and also taking notes because I don’t want to miss any of your comments. I will treat your answers as confidential. I will not include your names or any other information that could identify you in any reports I write. I will destroy the notes and recordings after I complete my evaluation. In the meantime, the recordings and notes will be kept on my password-protected hard drive.
f. Finally, this discussion is going to take about 45 minutes. Does anyone have any questions before we start?
APPENDIX K: FOCUS GROUP INVITATION EMAIL

Dear Teachers,

As I mentioned before, I am conducting a program evaluation of the school student mentorship program. You may remember completing the Online Survey of your perceptions about mentorship program effectiveness in school. I would like to add some additional qualitative data to provide greater context and depth to the survey results.

You are invited to participate in a focus group interview. It should last approximately 30 to 45 minutes. I am interested in documenting diverse perspectives on the impact of mentorship on the student’s cognitive and noncognitive skills and identify important patterns across grade levels within the school.

The primary grade focus groups will consist of 1st and 2nd grade staff members who are also mentors for the students and the elementary grade focus group will consist of 3rd grade to 6th grade teachers, including other staff members who are assisting in mentoring the students.

Please indicate your willingness to participate by emailing me back and I will provide you with an informed consent form and a meeting date/time. Please be assured that your identity and interview responses will remain anonymous. Alphanumeric labels will be used on all transcripts. Recordings and transcripts will be held my password-protected laptop and destroyed at the conclusion of my study. If you have any questions, please do not hesitate to contact me.

Thank you for your consideration,
Azra Naqvi
Principal, Hadi School
contact@hadischool.org
847-891-4440
APPENDIX L: SELF-DIRECTED LEARNING CYCLE
## APPENDIX M: DIAGNOSTIC PROTOCOL SOURCE

### One-page Diagnostic Tool Protocol for Mentors

<table>
<thead>
<tr>
<th>Cognitive efforts</th>
<th>Motivation</th>
<th>SCL strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What this means</strong></td>
<td>&quot;I can learn this, or I can learn to learn this.&quot;</td>
<td>What this means</td>
</tr>
<tr>
<td><strong>What this looks like when it's a strength</strong></td>
<td>&quot;I'm a valued member of this community of learners.&quot;</td>
<td>&quot;I have strategies to avoid distractions and maintain focus.&quot;</td>
</tr>
<tr>
<td><strong>Cognitive efforts</strong></td>
<td>&quot;It is important to me that I learn this.&quot;</td>
<td>&quot;I have strategies to effectively navigate the SCL cycle.&quot;</td>
</tr>
<tr>
<td><strong>Behavioral efforts</strong></td>
<td>&quot;I have strategies to avoid distractions and maintain focus.&quot;</td>
<td>&quot;I have strategies to effectively navigate the SCL cycle.&quot;</td>
</tr>
<tr>
<td><strong>What this looks like when it's a limitation (for now/ in this context)</strong></td>
<td>&quot;I have strategies to avoid distractions and maintain focus.&quot;</td>
<td>&quot;I have strategies to effectively navigate the SCL cycle.&quot;</td>
</tr>
</tbody>
</table>

### Cognitive efforts

<table>
<thead>
<tr>
<th>Cognitive efforts</th>
<th>Motivation</th>
<th>SCL strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Experiences challenges</td>
<td>8. Language or actions suggest that he/she is not held back by challenges.</td>
<td>3. Goals are specific, measurable, achievable, relevant, and time-bound (SMART).</td>
</tr>
<tr>
<td>2. Sees himself/herself as an active learner</td>
<td>5. Is not confident that effort, persistence and perseverance will lead to academic, personal, and social success.</td>
<td>6. It is able to break down goals into concrete and manageable steps, and can identify resources they will need to tackle anticipated obstacles ahead of time.</td>
</tr>
<tr>
<td>3. Sees himself/herself as a certain amount of &quot;smart&quot; or a certain amount of other characteristics</td>
<td>7. Sees himself/herself as a certain amount of &quot;smart&quot; or a certain amount of other characteristics.</td>
<td>5. Uses a variety of learning strategies to achieve her/his goals.</td>
</tr>
<tr>
<td>4. Views failure as a sign of who he/she is or as a lack of talent</td>
<td>6. Struggles to make constructive changes when he/she receives feedback</td>
<td>5. Reflections include considerations of why he/she got the result he/she got, and what he/she plans to do next based on that consideration.</td>
</tr>
<tr>
<td>5. Strives to develop himself/herself on a daily basis</td>
<td>7. Strives to develop herself/himself on a daily basis.</td>
<td>3. Strives to develop herself/himself on a daily basis.</td>
</tr>
</tbody>
</table>

### Behavioral efforts

<table>
<thead>
<tr>
<th>Cognitive efforts</th>
<th>Motivation</th>
<th>SCL strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Enjoys the learning experience</td>
<td>1. Is able to maintain focus on completing what he/she set out to complete (e.g., staying on task to prepare for a content assessment) without getting frequently distracted or frequently shifting tabs.</td>
<td>6. It is able to break down goals into concrete and manageable steps, and can identify resources they will need to tackle anticipated obstacles ahead of time.</td>
</tr>
<tr>
<td>2. Sees himself/herself as an active learner</td>
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<td>5. Uses a variety of learning strategies to achieve her/his goals.</td>
</tr>
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</tr>
<tr>
<td>4. Views failure as a sign of who he/she is or as a lack of talent</td>
<td>4. Strives to develop herself/himself on a daily basis.</td>
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</tr>
<tr>
<td>5. Strives to develop herself/himself on a daily basis</td>
<td>5. Strives to develop herself/himself on a daily basis.</td>
<td>3. Strives to develop herself/himself on a daily basis.</td>
</tr>
</tbody>
</table>

### SCL strategies

<table>
<thead>
<tr>
<th>Growth mindset/Self efficacy</th>
<th>Sense of belonging</th>
<th>Relevance of school</th>
<th>Self regulation</th>
<th>Self direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Experiences challenges</td>
<td>8. Language or actions suggest that he/she is not held back by challenges.</td>
<td>5. Is not confident that effort, persistence and perseverance will lead to academic, personal, and social success.</td>
<td>7. Sees himself/herself as a certain amount of &quot;smart&quot; or a certain amount of other characteristics.</td>
<td>6. Strives to develop herself/himself on a daily basis.</td>
</tr>
<tr>
<td>2. Sees himself/herself as an active learner</td>
<td>9. Values experiences in her/his life with her/his matter group.</td>
<td>3. Sees himself/herself as a certain amount of &quot;smart&quot; or a certain amount of other characteristics.</td>
<td>5. Reflections include considerations of why he/she got the result he/she got, and what he/she plans to do next based on that consideration.</td>
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<td>4. Strives to develop herself/himself on a daily basis.</td>
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<td>4. Views failure as a sign of who he/she is or as a lack of talent</td>
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<td>2. Experiences challenges</td>
<td>3. Sees himself/herself as a certain amount of &quot;smart&quot; or a certain amount of other characteristics.</td>
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