SELF-EFFICACY, IMPLICIT THEORY OF INTELLIGENCE, GOAL ORIENTATION AND THE NINTH GRADE EXPERIENCE

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Abstract

The purpose of this study was to examine the decline in ninth grade achievement that occurs in most every high school in America and attempt to show that students with strong self-belief systems—self-efficacy, an incremental theory of intelligence, or growth mindset, and a learning goal orientation—are able to persevere through failure, setbacks and challenges. The study was designed using a motivation theory framework with specific emphasis on self-efficacy, implicit theory of intelligence, and goal orientation. The research questions guiding this dissertation were: (1) What is the relationship between students’ self-efficacy beliefs, learning and performance goals, theories of intelligence and their perceived success in school, and (2) How do the students with different results on these variables perceive the school as supporting or not supporting their success in school? A literature review included a consideration of the effects that social and emotional skills and motivation have on learning and achievement and a review of research on the transition to ninth grade. Through an analysis of student survey responses that revealed their self-efficacy, implicit theory of intelligence and their goal orientation scores and through student interview responses, evidence was found that revealed how student self-belief systems, classroom management, and relationships with teachers and peers may affect effort, achievement, and goal choice.

Key words: self-efficacy, implicit theory of intelligence, incremental theory, entity theory, growth mindset, fixed mindset, goal orientation, ninth grade achievement, social and emotional skills, motivation.
Dedication

This dissertation is dedicated to my wonderful husband without whom I would not have survived this long process. Your loving support, encouragement, and willingness to do household chores while I agonized at the computer are a testament to the great man that you are. Secondly, I dedicate this to my wonderful daughter who inspired me to reach for the golden ring, and whom I hope will bare no permanent scars from being subjected to my many cranky moods. Without you both, this would mean so much less.

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"If I have the belief that I can do it, I shall surely acquire the capacity to do it even if I may not have it at the beginning." ~ Mahatma Gandhi ~

Chapter I: Introduction

Statement of the Problem and its Significance

How do schools develop self-motivated, efficacious students who reach their full potential and graduate on time? That is the question most high schools across the nation have struggled with for decades. Event dropout rates measure the proportion of students who dropout over a one year interval. Although event dropout rates have improved overall nationally, they continue to be unacceptable. In 1972, 6.1%, or 647,000 students ages 15-24 dropped out of public schools in the United States; in both 1978 and 1979, 6.7% dropped out. By 2002, the rate improved to 3.6%, but that still equates to 367,000 students who drop out in one year.

Nationally, only 74.9% of all students graduate from high school within four years (NCES, 2010). The No Child Left Behind Act of 2001 mandated that all children reach proficiency in reading, writing and mathematics by 2014. In spite of the many initiatives and reform measures in which schools and districts engage, there is a persistent portion of the student body that does not achieve the standard. In chronically underperforming high schools the number of seniors enrolled is roughly 60% of those who enrolled as freshman three years earlier. In districts with high dropout rates, nearly 40% of freshmen repeat their ninth grade year, only 10-15% of those eventually graduate, and nearly one third of all dropouts occur in the ninth grade (Alliance for Excellent Education, 2009). The prospects for those students who do not reach proficiency are bleak in today’s global and technological economy. If they do not persevere until graduation, their options for gainful employment and personal development are
limited. Those who do manage to eventually graduate will more than likely not have the motivation to attend college, but if they do, they will find it even more daunting than high school and will likely not graduate and gain the necessary skills and knowledge to be competitive in future job markets (McCallumore & Sparapani, 2010).

By the time students reach the ninth grade, the skills they need to be successful for the next four years lie not just in the academic knowledge and learning strategies that they should have acquired since kindergarten, but also in the social and emotional competency skills they have developed both in and out of school. High schools experience the greatest challenges with their ninth grade students. This is the group with the highest failure rates, lowest attendance and greatest disciplinary issues (Fritzer & Herbst, December, 1996; McCallumore & Sparapani, 2010). Those states that have increased the legal dropout age to 17 or 18 have experienced mixed results in decreasing the percentage of students who dropout (Bhanpuri & Reynolds, 2003) Strictly raising the age limit without providing the necessary supports these students need does little to deter them from leaving school prior to graduation. Bhanpuri and Reynolds (2003) quote a 1986 study by Michelle Fine that asked students why they leave school. “Adolescents leave school because they live surrounded by unemployment and poverty, have experienced failure in school, and have been held back at least once, feel terrible about themselves, and see little hope” (p. 8). “In sum, it is clear that high school graduation rates from public schools have been falling, rates of attrition between grades 9 and 10 increasing, and the grade 9 bulge increasing over the last two decades” (that is, the number of students who repeat grade 9 who are added to the rolls of the incoming freshman class) (Haney et al., 2004).

Therefore, the question that seems to remain unanswered is what can schools do to facilitate a smooth transition to and increase achievement in ninth grade and ensure all students
graduate on time? It is important to discover the underlying causes of the significant drop in achievement in the ninth grade population in order to make programmatic changes to provide the necessary supports and instructional changes that have been identified as essential for the development of self-directed, self-efficacious students who will continue to achieve through the transition to ninth grade and beyond. What’s most important, however, is their future. The world in which students live today is much different than that of even a generation ago. The world in which these students will be creating careers will require that they be self-reliant, self-regulated, have the ability to set goals, follow through and achieve those goals, and also have the ability to work effectively in groups to accomplish collective goals in both face-to-face and virtual environments. The ability to independently learn, relearn and to recognize and capitalize on opportunities will be the determining factors as to whether a person will thrive personally, professionally and economically in the 21st century. What is core to developing these skills are a person’s efficacy beliefs. “Students’ metacognitive (i.e., self) awareness of particular aspects of their functioning could enhance their self-control. Of course, self-awareness is often insufficient when a learner lacks fundamental skills, but it can produce a readiness that is essential for personal change” (Zimmerman, 2002).

It is that self-awareness and those belief systems that this researcher wants to examine. In all schools there are efficacious students who are able to persevere through personal as well as academic challenges to reach their potential and graduate from high school with few outside supports or extrinsic incentives and with no seemingly insurmountable obstacles. These types of students can be found across all ethnic and socio-economic backgrounds and cognitive ability levels. Throughout history one can cite instances of people persevering through adverse circumstances to emerge victorious. It is that ability to persevere that all students need to
develop in order to be successful throughout their school years and beyond. There are also students who are unable to persevere through difficult challenges regardless of the number and types of supports and extrinsic incentives they are provided. These ninth grade students experience increased failures and seem unable to successfully traverse the high school landscape. They will ultimately be the beneficiaries of this study, which attempts to discover in an urban high school in southeastern Massachusetts what students’ perceptions are about their ninth grade experience and their perceived ability to succeed and to also gain insights into their levels of self-efficaciousness and goal orientation.

**Intellectual Goals**

The goal will be to discover if there is a strong correlation between students’ implicit theory of intelligence and their success in high school, persistence in the face of challenges, their self-efficacy beliefs and their perceptions of being successful. This study will look at exactly what ninth grade students believe about their intelligence and how this may affect their overall achievement. It will also look at how their levels of self-efficacy may affect overall achievement. These two factors are important to building motivation and perseverance, and being able to understand how high school students perceive and approach academic challenges will help the education community meet the needs of all students during the critical times of transition from one school environment to another.

**Practical Goals**

The practical goals of this study will be to shed light on the problem schools face not only with ninth grade failure rates, but also with student motivation, engagement and productivity. What students believe about their ability to accomplish specific tasks irrespective of their cognitive abilities will help show what supports and skills schools are providing or
failing to provide their students in order to develop their self-motivation and self-directedness. If a correlation can be identified, then schools can use this knowledge about self-efficacy, goal orientation, and implicit theory to improve teaching practices and student learning with an emphasis on developing self-aware, self-motivated, and self-regulated learners, which this researcher believes will significantly alleviate ninth grade failure rates and retention problems as well as help students reach their full potential in order to graduate from high school on time and attain post secondary success.

Research Questions

The overarching question, which is the foundation of this study, is:

How does the experience of ninth grade students compare to their goal orientations, self-efficacy and theory of intelligence?

This study will attempt to discover the relationship between students’ self-efficacy beliefs, learning and performance goals, and theories of intelligence and their perceptions of their school’s support of their transition to ninth grade. Also, student perceptions of school supports will be examined.

Theoretical Framework

The foundation for this research is based primarily on the work of Albert Bandura and Carol Dweck. These two researchers have an extensive body of work in self-theories that this researcher believes is at the core of the problem of decreased achievement in ninth grade. Bandura’s work in motivation theory led to his work with self-efficacy and the development of social cognitive theory. Dweck’s research, building on Bandura’s self-efficacy work, also includes elements of attribution theory and goal theories. The basis for this study is extracted
from Dweck’s work with implicit theories with specific emphasis on implicit theory of intelligence and goal orientation.

**Social cognitive theory.** Because students today are living in a world that is rapidly changing and increasingly relies on their ability to be self-motivated and self-efficacious, Bandura’s social cognitive theory is relevant to this study. Social cognitive theory asserts that the path a person’s life takes is “shaped by the reciprocal interplay between personal factors and diverse influences in ever-changing societies” (Bandura, 2006). In other words, a person’s life is not a product of their environment, as behaviorists believe, but people are actual producers of their life paths (Bandura, 2003). From this “agentic perspective,” (2006) when people serve as their own agent, they are exerting intentional influence on the contexts in which they live their lives. Chance events that occur in every person’s life does not mean that one is not in control of one’s life. A chance event can alter the course a person’s life takes, either positively or negatively, depending upon one’s ability to apply personal resources and take advantage of the fortuitous event (Bandura, 2003).

According to Bandura (2006) “there are four core features of human agency:

- **Intentionality** – making action plans and strategies for realizing them
- **Forethought** – visualizing futures which serve as current guides and motivators of behavior
- **Self-regulation** – adopting personal standards and monitoring and regulating actions
- **Self-awareness** – reflecting on personal efficacy, the soundness of thoughts and actions, and the meaning of pursuits, and making corrective adjustments if necessary” (p. 3).
Key components of developing human agency are modeling and observational learning. The four processes of observational learning are

- attention to the modeled behavior,
- translating what is observed into symbolic representation in order to remember what was modeled,
- transforming this into action, and finally,
- having a motivational incentive.

“People must be motivated to put into practice what they have learned” (Bandura, 2003), but, as he points out, it is not just skills that we learn through observational learning. “An increasingly powerful influence on human behavior, values, attitudes, and styles of behavior worldwide” is occurring through televised modeling. Technology, through a social cognitive lens, has the potential to be a “vehicle for powerful social change” (Bandura, 2003). However, without the social competencies necessary to apply personal resources and take advantage of fortuitous events, as stated above, the opportunities to affect positive social change would elude future generations.

**Personal efficacy.** The foundation of human motivation and action is one’s personal efficacy. Personal efficacy is “belief in one’s ability to produce the desired results by one’s own actions” (Bandura, 2003). Those who have high efficacy beliefs are able to persevere through adversity and do not see failure and setbacks as impediments to their progress and success.

“Whatever other factors serve as guides and motivators, they are rooted in the core belief that one has the power to affect changes by one’s actions” (2006, p. 4). Without personal efficacy, there is no motivation to continue a task. When faced with difficulties, people “are easily convinced of the futility of their effort in the face of (those) difficulties” (p. 4). One may be
motivated by other factors, such as getting a good grade, or passing a class for graduation, but if there is no core belief that one’s actions are the key to accomplishing the task, then success will continue to be elusive.

Additionally, with the increasing technological demands being placed on our children, having personal self-efficacy will play a crucial role in their lives. Efficacy affects one’s outlook on life, either positively or negatively, and how decisions are made and opportunities are appropriated. Adolescents will need to know how to “commit themselves to goals that give them purpose and a sense of accomplishment. Without personal commitment to something worth doing, they are unmotivated, bored, or cynical” (p. 10). Students who are efficacious are successful learners who “gain knowledge, skills, and intrinsic interests in intellectual matters” (p. 11). Students who are not efficacious “achieve limited self-development” (p. 11). These are the ninth graders, which this study attempts to understand.

However, to fully understand how personal efficacy beliefs affect student achievement, one must separate it from other social and emotional factors such as self-esteem and self-confidence. Efficacy is a judgment of capability whereas self-esteem is a judgment of self-worth. Self-confidence is a combination of self-esteem and general self-efficacy. In education, too much emphasis has been placed on building self-esteem, but none has been placed on developing self-efficacy. Self-esteem and self-confidence are not enough to persevere through adversity. A failed test or lost game can shatter esteem and confidence, and without the self-efficacy beliefs essential in evaluating and improving future performance, the motivation to persevere wanes.

Attribution theory. Attribution theory “deals with how people make sense of their world, particularly with how they explain the things that they observe and experience” (Dweck,
1999). The way people make sense of their successes and failures will govern what impact they have on a person’s life. What a person ‘attributes’ their success or failure to—intelligence, effort, luck, ability, task difficulty—will affect feelings towards future success and ultimately motivation. “The crucial thing for a person’s motivation is how these variables are seen by that individual” p. 141). One learns to be helpless because the perception is that efforts do not have an effect on the outcome, or one perseveres because the perception is that efforts have a direct effect on the outcome p. 140). Failure can be attributed to a lack of ability, but if that ability is perceived as being “acquirable, then that person will remain optimistic” p. 141). If one believes that effort affects outcome, then that person is more likely to set and attain high personal and collective goals.

**Goal theory.** Goal theory plays a crucial role in the development of self-efficacious, self-directed individuals as well. Setting goals is important to motivation. Edwin Locke and Gary Latham have done a number of studies that looked at the effect of goal difficulty on performance (2002, 2009). They found that “the highest or most difficult goals produced the highest levels of effort and performance” (2002, p. 706). They also found that setting specific, challenging goals elicited better performance than from simply encouraging someone to do their best. If students are setting specific, challenging goals, they are more apt to see how their efforts are affecting the outcome and become more efficacious. “People with high self-efficacy are more likely than those with low self-efficacy to develop effective task strategies” p. 707).

Locke and Latham (2002) assert that “assigned goals” p. 709), such as those encountered in school settings, are affected by personal goals and self-efficacy. Simply setting standards without giving appropriate feedback about performance will not improve performance. Bandura and Cervone’s study looking at the effects of self-evaluation and self-efficacy on goal systems
showed that “simply adopting goals, whether easy or personally challenging ones, without knowing how one is doing seems to have no appreciable motivational effects” (1983). Therefore, assigning challenging tasks along with giving meaningful performance specific feedback is essential in creating self-efficacy and self-motivation.

**Implicit theories of intelligence.** Carol Dweck’s work with self-motivation, self-efficacy and feedback has led her to develop implicit theories that are especially relevant and useful for education that incorporate aspects of attribution theory and goal-setting theory. “Implicit theories guide the type of goals people pursue, especially in achievement situations” (Reeve, 2001). Dweck has developed the idea of two different implicit theories of intelligence: entity and incremental (Dweck et al., 2003; Dweck, Chi-yue, & Ying-yi, 1995; Erdley, Cain, Loomis, Dumas-Hines, & Dweck, 1997; Reeve, 2001). Implicit theory of intelligence is defined as the specific belief in one’s intelligence as being either fixed or changeable. A fixed mindset, which Dweck calls entity theory, is the belief that intelligence is fixed at birth, and nothing can be done to increase it. On the other end of the spectrum is the belief that one’s intelligence is malleable and can, through one’s own efforts, be increased or improved and is called incremental, or the growth mindset (Dweck, 1986; Dweck, 2007; Dweck et al., 1995).

What most people in America have, and what is prevalent in most classrooms, is the entity, or fixed, mindset where one believes that people are born with an innate intelligence and nothing can be done to improve it. According to this mindset, one is born with a fixed set of attributes and qualities, and no amount of effort is going to raise that almighty IQ score. The IQ test has been used for decades to determine a child’s unchangeable intelligence; however, ironically, Alfred Binet, the test’s inventor, actually “designed this test to identify children who were not profiting from the Paris public schools, so that new educational programs could be
designed to get them back on track” (Dweck, 2006). The test was designed to be a diagnostic tool, not a predictor of potential. People with a fixed mindset, or entity theory, constantly have to prove to themselves and to others that they are smart, so they make sure they succeed by choosing the easy task, the one that will ensure success. Some of these children, but not all, believe they are already smart, but not because of the efforts they have expended to accomplish a task, but because the adults around them have told them so. The fixed mindset is afraid of learning because it is afraid of failing (2006).

Changes in educational practice can indeed bring about changes in intelligence (2006, p. 5). This is the incremental theory or growth mindset—the idea that through one’s own efforts one can develop and grow—self-efficacy. “Although people may differ in every which way—in their initial talents and aptitudes, interests, or temperaments—everyone can change and grow through application and experience” p. 7). Those who have a growth mindset are inspired by a challenge. They are intent upon “stretching themselves. It’s about becoming smarter” p. 17). The growth mindset or incremental theory is not afraid of failure, and in fact, does not see failure as failure, but as feedback on how to improve performance.

Additionally, the achievement goals of entity theorists will be performance based, whereas the achievement goals of incremental theorists will be learning based (Ames & Archer, 1988; Stipek & Kowalski, 1989). This is a very important distinction “because the type of achievement goal one pursues (performance versus learning) predicts that person’s subsequent motivation, emotion and, performance” (Reeve, 2001).

Chapter II: Literature Review
This literature review began with a consideration of the relationships of all stakeholders in educational organizations. As Michael Fullan asserts, in any organization, relationships
matter the most (Fullan, 2001). The emotional intelligence of an organization is dependent upon the social and emotional competence of each of its members.

“Social and emotional competence is the ability to understand, manage, and express the social and emotional aspects of one’s life tasks such as learning, forming relationships, solving everyday problems, and adapting to the complex demands of growth and development. It includes self-awareness, control of impulsivity, working cooperatively, and caring about oneself and others” (Elias et al., 1997).

In contemplating this idea within the context of the problem of ninth grade failure and retention rate, the question arose in this researcher’s mind about how social and emotional skills impact academic achievement. Much research has been done in this area, and it was while reading through this body of research that a second question emerged. Why do some students persevere through academic and personal challenges until achieving success while others do not? While finding the answer to this question, this researcher discovered Bandura’s work on motivation, and then subsequently his and others’ work on self-efficacy, which has been identified as the core to motivation (Bandura, 1997; Bandura & Cervone, 1983; Dweck, 1986; Pajares, 2003). The question that remained to be answered was how students’ self-efficacy beliefs impact academic achievement? If students’ do not develop strong self-efficacy beliefs from an early age, then how does that impact their transition from eighth to ninth grade? How do self-efficacy beliefs affect the high failure and retention rates of ninth grade students?

This review will briefly discuss the role of social and emotional learning in academic achievement and what social and emotional skills the research has identified as being essential for academic success. Then more in depth reviews of the literature on those factors that are core
to motivation and their effect on academic success will be examined. Finally the literature surrounding the transition to 9\textsuperscript{th} grade will be examined.

**The Role of Social and Emotional Skills on Academic Achievement**

Extensive research has been done on the effect of student social and emotional skill development on subsequent academic achievement. It is impossible to separate the emotional health of a student and their academic achievement. “By separating emotional from logic and reason in the classroom, we’ve simplified school management and evaluation, but we’ve also then separated two sides of one coin—and lost something important in the process” (Sylwester, 1995). In addition, beyond the classroom, employers are realizing that being competent in “technical and content-specific skills of traditional schooling” is no longer sufficient for the workplace (Elias et al., 1997). In the 21\textsuperscript{st} century, employers are looking for workers who are able to be self-directed, self-reflective, self-motivated, think perceptively and be able to solve problems independently and within teams (Elias et al., 1997; Trends in the well-being of America's children and youth: 1996, 1996).

The research on the effects of social and emotional competencies on academic achievement is not conclusive. One study in which researchers correlated data from the MEIS-A emotional intelligence scale, the BASC, a measure of emotional, behavioral difficulties and adaptive skills, and the TCS/2, a measure of general intelligence, showed that the “social and academic success of gifted adolescent participants in this study were essentially independent of the overall emotional intelligence level of these students” (Woitaszewski & Aalsma, Fall 2004). This study did not substantiate the claim that emotional intelligence and IQ are equally important in academic achievement. In other studies on students with learning disabilities, some found that “some types of social skills might be more important than others to academic success” (Milsom
& Glanville, 2009). However, the question is whether this study’s findings would hold true for non-gifted students. This study focused on the indirect, direct and total effects of three specific social skills on grades—social assertiveness, self-control and cooperation. These three skills were identified most often by elementary teachers as being essential to school success. The results showed that “social skills are important predictors of grades and that enjoying school and getting along with teachers and peers appear to be very important to students’ academic success” (Milsom & Glanville, 2009). Cooperation had the most direct influence on academic success in this study and in one done by Beebe-Frankenberger et al. (2005). They conclude that students who do not have the capacity to cooperate with classroom rules and routines not only achieve less but also contribute to “less than ideal learning environments that result from their behavior” (Milsom & Glanville, 2009). It is interesting to note that one of the behaviors noted as contributing to this lack of cooperation was “failing to persevere at their work” p. 7). This failure to persevere will be revisited in the discussion on self-efficacy. What is interesting in the research on the effect of social and emotional competencies on academic achievement is that the focus is on pro-social and/or anti-social behavior and academic achievement (Malecki & Elliot, 2002; Skinner & et al., 1990; Wentzel, 1991, 1993, 2003). What some of these studies found was that pro-social and anti-social behaviors had direct effects on GPAs and standardized test scores “even when the potentially confounding effects of academic behavior, teachers’ preferences for students, IQ, family structure, sex, ethnicity, and days absent from school were taken into account” (Wentzel, 1993).

In a study on perceived control and engagement in school by Skinner et al. (1990) “path analyses based on a process model of the relations among context, self, and action revealed that data were consistent with a model in which teacher behavior influences child perceived control,
which can in turn promote or undermine engagement and thus affect children’s academic performance p. 28). This research begins to point to the factors that affect a student’s motivation to do well in school. Even before children enter school their motivation to become lifelong learners is being developed. For example, one longitudinal study revealed that “early social competence appeared to play a protective role, that is, students high in social competence during the kindergarten year showed fewer increases in discipline problems at transition points” (Malaspina & Rimm-Kaufman, 2008, p. 11). Social and emotional competencies must be developed; however, more importantly, those factors that affect motivation must be emphasized as well.

**Getting to the Core of Motivation**

The American Psychological Association identified 14 learner-centered principles categorized into four research-validated domains. Although all domains are important, domain two, *Motivation and Affective Factors*, is the focus of this research, and includes “motivation and emotional influences on learning” and the “effects of motivation on effort” (November, 1997).

How students perceive themselves as learners and their emotional states of mind have a direct effect on their motivation to learn. These factors “influence both the quality of thinking and information processing” (1997). If students do not believe themselves to be capable, then they will not develop strategies to help them persevere through challenging learning situations. In addition, students who experience “intense negative emotions” and the associated thought patterns are not able to focus on learning, and in fact, this does “generally detract from motivation, interfere with learning, and contribute to low performance” (1997). These are the students who continually receive comments on report cards such as *capable of doing better* and
lack of effort. These students will develop achievement goals that do not result in ultimate success.

Several studies have shown that student achievement is predicted by the type of achievement goal a student chooses to pursue. “Achievement motivation involves a particular class of goals—those involving competence” (Dweck, 1986). As stated earlier, the two implicit theories—entity and incremental—determine the type of achievement goals a person chooses. Many studies have shown that an incremental theorist, someone who believes in the growth mindset, has strong self-efficacy and seeks challenging, learning-oriented goals. Incremental theorists will choose tasks that they know they may not be successful at but choose them because they are genuinely interested in learning from them. On the other hand, an entity theorist, someone who believes in the fixed mindset, has weak self-efficacy beliefs and chooses tasks that are easy and ensures success. These entity theorists are afraid of failure and choose tasks that are not going to make them look like failures. They avoid challenge and are not able to persevere through challenging tasks in order to learn new skills as incremental theorists are able to do (Blackwell, Trzesniewski, & Dweck, 2007; Dweck, 1986; Dweck et al., 1995; Erdley et al., 1997; Grant & Dweck, 2003; Heyman & Dweck, 1992; Hong, Chiu, Dweck, Lin, & Wan, 1999; Levy, Stroessner, & Dweck, 1998; Molden, Plaks, & Dweck, 2006; Plaks, Grant, & Dweck, 2005; Smiley & Dweck, 1994).

**Ninth Grade Transition**

The negative effects on achievement during the transitions from elementary school to middle school and middle school to high school have been documented in a number of studies. While most of the research has focused on the transition from 5th to 6th grade, much can be learned from this research as well as that focusing on the transition from 8th to 9th grade. One of
the more interesting findings in studies by Eccles and Midgeley (1989, 1990, & 1993) was that there is an incompatibility between the developmental needs of adolescents and the environment into which they are transitioning. As students transition into high school, they are seeking more autonomy and student-centered learning but, instead, they encounter teacher-centered learning with rigid requirements and expectations. They are met with an environment that is more competitive, less personal and much more grade focused than they had previously experienced. During the adolescent years, when students need greater personal connections with teachers, they are met with much less personal attention than they had encountered previously in elementary and middle school, which has a negative impact on motivation and self-perceptions resulting in decreased attendance and alienation from school. Peer relationships also have a significant impact on achievement. “At a time when friendships and social interactions are particularly important for adolescents, the normative transition into high school often serves to disrupt friendship networks, and thereby, interferes with students’ success in high school” (Mizelle & Irvin, 2000).

In other studies, factors identified that contribute to the decline in achievement during transition include:

- an unfamiliarity with rules, faculty, administrators and the physical layout of the school along with attendance and involvement in other school activities (Dweck & Sadler, 1983; Warchol, 1979)
- peer influence (Sabatini, 1989; Brown, 1982)
- student to teacher connections (Barber & Olsen, 2004)
- school and cohort size (Alspaugh, 1998; Smith, 1997)
“Being a part of a larger group may increase the chances that individual students get lost, ultimately opting out of the school environment (Smith, p. 149).

In an article by John Alspaugh (1998) he points out that students suffer achievement losses when they transition from one school to another and that multiple transitions have a greater negative impact over time. In a multi-district study he conducted, he found that students transitioning to high school from K-8 schools experienced less negative impact than those who had experienced a transition from elementary to middle school as well. “The experience of making a previous transition did not moderate the achievement loss during the transition to high school (p. 24). He also found that the size of schools matter as well as how many cohorts from different schools are transitioned into the new school—the more cohorts the higher the negative impact on achievement.

In a comprehensive study by Julia Smith (1997), she found that schools that fully commit to a transition program for 8th graders, their parents and school staff realize greater positive impact on student performance than those who only target one or two of these audiences or have no program at all. Full programs included a variety of activities targeted to present information on the high school experience to students, parents and school staff and resulted in lower dropout rates and higher GPAs through all four years of high school. However, Smith points out that these results must be moderated with the fact that these outcomes seem to only “compensate for being in that less personal context” of larger 8th grade cohorts and from “stand-alone middle schools” (p. 150). For even better results, students should come from K-8 schools alone, and high schools should provide a supportive learning environment (p. 150). Smith found that K-8 schools do a better job of keeping students in school than middle schools “emphasizing the role that a supportive adult culture can have on keeping students in school” (p. 149).
In a two-year study done by Hauser, et al. (2009) they considered the perceptions of parents, students, and teachers about high school during eighth grade year and again during the ninth grade in parents, students, and teachers. Their findings showed that many of the positive aspects of high school, such as “making new friends, more school activities, being in a larger school, more freedom, being able to choose some classes,” p. 317) were perceived relatively the same across the two-year span. The most significant findings, when asked what their biggest concerns were about transitioning to the high school, were increases in ratings on “pressure to do well (41.4% to 55.3%), hard classes (64.8% to 74.5%), and demanding or unfriendly teachers” (51.3% to 78.7%) (p. 319). The students’ ratings of overall difficulty declined from eighth grade, with 48.6% rating it “Difficult or Somewhat Difficult,” to ninth grade, with 29.8% rating it the same (p. 321). In terms of supports, the students’ ratings of the helpfulness of people and programs were most telling. Fifty-five percent of students in their eighth grade year reported their school guidance counselor as “Not Helpful,” and that percentage rose to 61.7 in their ninth grade year. Orientation to high school and school visits were seen as “Helpful or Very Helpful” by a majority of students. Teachers were mostly rated as “Somewhat Helpful”. Student, parent, and teacher perceptions of the transition from middle school to high school are important to consider in helping students maintain high levels of achievement.

Chapter III: Methodology

Research Questions

Two questions comprise the focus of this study:

1. What is the relationship between students’ self-efficacy beliefs, learning and performance goals, theories of intelligence and their perceived success in school?
2. How do the students with different results on these variables perceive the school as supporting or not supporting their success in school?

Research Design

This study will employ a mixed method exploratory design. This approach is appropriate because the purpose is to “explore a phenomenon or identify important themes” (Fraenkel, Wallen, & Hyun, 2009, p. 560). The phenomena that this researcher is interested in learning more about is the decline in ninth grade achievement, and so she will consider whether there is enough evidence to suggest that students’ success or failure in ninth grade is a consequence of their self-efficacy, learning and performance goals, and to which implicit theory group they belong, and the relationships between these variables will be explored. Qualitative data from the interviews will provide further insights into student perceptions of how they are supported in being successful in the transition to 9th grade.

Site and participants. The participants of this study were 120 ninth grade students from an urban high school in southeastern Massachusetts. The student sample was a heterogeneous mix of students in terms of achievement and other demographic data. For the convenience of conducting the survey, a group of physical education classes meeting the same class period were used. This allowed for easier access to such a large group and afforded a good mix of students both male (43) and female (76) students across all levels of achievement.

Methodology. The methodology includes a survey across all ninth graders in the high school, followed by an invitation to participate in an interview. For this study, 120 ninth grade students at the participating high school completed the survey (see Appendix A) providing information on one’s general self-efficacy beliefs, implicit theories of intelligence, and goal orientation. Other questions were also asked for students to self-report about attendance habits,
behavioral referral frequency, school activities involvement, grades attained in English and math, and whether they have been previously retained in a grade level. A final group of questions were asked about student perceptions of their success in ninth grade and the supports available to them at the school. After compiling the survey data, students were then identified as either an incremental or entity theorist and students from both groups were invited to participate in the interviews in order to gain more in depth information about student’s self-perceptions in relationship to the learning environment, support services offered, and their transition to and experiences in ninth grade. The interview questions are included in Appendix B.

Data Collection

Data collected in the study will include a survey of students and interviews with a subset of those students. The surveys were done in one group session conducted by the researcher with students completing them in pencil and paper format. The interviews were done at a later date with students meeting with the researcher in a private conference room at the school. The interviews were recorded and transcribed by a transcription service.

Survey. The survey being used is a compilation of surveys as well as questions posed by this researcher. The Implicit Theories of Intelligence Scale for Children—Self Form developed by Carol Dweck will be included (Dweck, 1999). This six statement survey asks students to rate their agreement with such statements as “You have a certain amount of intelligence, and you really can’t do much to change it” from strongly agree (1) to strongly disagree (6) with stronger incremental theorists ratings towards the six. Scores are averaged to determine where they fall on the entity—incremental continuum. Those scoring 3.0 or below are considered entity theorists and those scoring 4.0 or higher are incremental theorists. “Using this criterion, about 15% of respondents are typically excluded, and the remaining 85% tend to be
evenly distributed between the two implicit theory groups. Because only 15% of the participants are excluded, the two theory groups do not represent extreme groups” (Dweck et al., 1995; Erdley & Dweck, 1993). This measure had a high internal reliability across six studies with an \( \alpha \) range of .94 to .98, and a test-retest reliability over a 2-week interval of .80 (Erdley et al., 1997; Erdley & Dweck, 1993; Hong et al., 1999; Levy et al., 1998). In these studies, only the first three questions of the Implicit Theory of Intelligence were used. What they found in other studies was that clear entity theorists tended to drift towards the questions that were clearly incremental, “which indicates that incremental choices are highly compelling” (Erdley & Dweck, 1993).

In addition, Dweck’s surveys on learning and performance goals will also be used. The questions “pit learning goals against performance goals—asking which is more important to the students (looking smart versus attempting challenging learning tasks)” (Dweck, 1999, p. 184). In Dweck’s research, she has found that there is a highly significant correlation between students’ learning and performance goals and their theory of intelligence. This information will uncover how students approach difficult learning tasks and whether those approaches are a benefit or a hindrance to their success.

In addition, survey questions will be included to discover students’ general self-efficacy beliefs. Pajares and Urdan point out that students with high self-efficacy “believe their performance outcomes to be personally controllable…so they tend to attribute failure to factors they can change. Conversely, students with low self-efficacy attribute failure to uncontrollable factors, thereby increasing feelings of despair and helplessness” (2006, p. 62).

**Interviews.** Interviews were conducted to learn what student perceptions are of how the school is supporting them in being successful in the transition to ninth grade and also in their
development in becoming self-efficacious learners. It was believed that there will be students on all points of the spectrum from highly self-efficacious to those who have learned helplessness, and it was the intention of this research to explore how various students perceive the supports being provided them and how they are able to overcome challenges and obstacles in the learning environment.

**Data analysis.** Survey data was tabulated and reviewed to differentiate students with high and low measures of self-efficacy, incremental or entity theory, and performance or learning goal orientation, as determined by the survey instruments, and for patterns of correlations across survey constructs, including general self-efficacy, implicit theory of intelligence and goal orientation. The questions associated with each construct were averaged together for individual student scores. In addition, percentages of total students in each score range were determined to establish how the cohort scored overall. Correlations of data were done on the summary of scores of each construct and between the average scores on each question. Finally, the Pearson product-moment correlation coefficient was calculated to show the relationship between students’ scores on the three main constructs.

**Interview analysis.** The student interview transcripts were analyzed to identify prominent themes by looking for commonalities in the narratives of their experiences. Each student’s answers to the interview questions were explored for common themes that shed light on their experiences as ninth graders. Comments were analyzed within the framework of the three main constructs in order to understand the experience from the point of view of students at each end of the spectrum of self-efficacy and implicit theory of intelligence. Comments were analyzed for clues to how they exhibit high or low self-efficacy and an incremental or entity theory of intelligence and how those affect their effort and achievement. Their answers to
questions were also analyzed to gain insight into their goal orientation. Other common themes were identified from their comments and the researcher’s knowledge of and experience in the high school environment and culture based on the interactions with teachers and peers, events described, and their reactions to these. In vivo coding and pattern coding were done and were subsequently organized into the prominent themes discussed in chapter 4.

Validity and Credibility

Frankel, et al. (2009) define validity as “the degree to which correct inferences can be made based on results from an instrument, depends not only on the instrument itself but also on the instrumentation process and the characteristics of the group studied” (p. G-9). This researcher addressed several issues to ensure the information obtained was an authentic reflection of the study participants.

One threat to validity is the randomness and size of the sample. The students were members of five physical education classes meeting at the same time. Although the students represented a cross-section of students relative to ethnicity, gender, and academic ability, they were not randomly chosen and instead were chosen mostly based on their availability but also on their heterogeneity as well. Therefore, the size of the sample of students taking the survey was large and random enough to be considered a valid sampling of that school’s ninth grade cohort. The group of students who were interviewed represented students with high and low self-efficacy and incremental and entity theories, but the group size was small, and they were all girls of one race. Their comments, although useful, cannot necessarily be considered valid representations of all ninth grade students.

Another threat to validity is the bias of the researcher. This researcher did not have any previous experiences with the high school in which the study took place and, therefore, did not
have any preconceived ideas about the outcomes of the survey or interviews. Although this researcher is a high school educator, she realizes that in spite of many similarities between high schools, each high school’s culture is unique to that school and community. Throughout the process, the researcher made sure not to allow her biases or preconceptions interfere with interpretations of the data and interview transcripts.

Another validation strategy to ensure that the conclusions drawn are based on factual interpretations of the data is *methodological triangulation*. Frankel, et al. (2009) state that this strategy “involves using different methods and/or types of data to study the same research question. If the results are in agreement, they help validate the finding of each” (p. 559). The survey results and the interview transcripts were analyzed to find corroborating findings.

**Protection of Human Subjects**

The data collected in this study in no way harmed or otherwise affected the student subjects. This non-experimental study did not include any interventions that might interfere with a student’s ability to be academically successful. No student data will be made public in any way that would result in any one student being identified. Only the researcher saw all data specifically identifying participants for the purpose of this study and was not published or shared with any other person or entity.

Since the subjects are all under the age of 18, parents were informed of the study. They were given a brief description of the types of data that would be collected and how it would be collected and used. The parents were informed that the study is an attempt to understand the decline in achievement among ninth grade students. Students were allowed not to participate if they chose not to. Students participating in the interviews were required to return a signed permission form.
Conclusion

The way students believe in their ability to accomplish learning tasks is a fundamental building block for academic and personal success. In order to achieve the standards that state and federal governments have set for all schools in the future—that all children will reach proficiency—then building a strong foundation upon which all learning takes place is vital to meeting that goal. Implicit theories about intelligence are one of the essential building blocks for that foundation. In addition, schools must provide the necessary information, resources and supports for students during transition to high school to ensure student success. This study has provided a window into how that belief system is being formed and how those supports are being provided and perceived, so that systemic programmatic and pedagogical changes can be made in order to develop students into incremental theorists who are self-motivated, self-directed, and self-regulated and are able to set and achieve meaningful goals throughout their lives.

Chapter IV: Research Findings

This chapter presents and discusses the findings from the research conducted through a survey of 120 ninth grade students and through the interviews conducted with four of those ninth grade students in an urban high school in Southeastern Massachusetts. First, the study context and relevant terms will be reviewed. The survey results will be presented next along with a discussion of the findings in the context of the research questions. Then, there will be a brief summary of the four students’ backgrounds and histories as gleaned from the interviews followed by a section discussing the themes emerging from the transcript analysis of the students’ responses to the researcher’s questions. The final section presents a summary of the prominent themes identified in the research findings.
Study Context

High schools across the country struggle with ninth grade achievement levels (Alliance for Excellent Education, 2009). Much research has been done in trying to explain this phenomenon and discover ways to prevent students from failing and dropping out at the high levels seen at this particular grade level (Beebe-Frankenberger et al, 2005; Elias et al, 1997; Sylwester, 1995; Woitaszewski & Aalsma, Fall, 2004). This study, conducted at a large urban high school with a diverse student body, aimed to consider this problem through the lens of students’ implicit theory of intelligence, self-efficacy beliefs, and goal theory. This study analyzes the correlations between these three factors.

Implicit theory of intelligence measures a person’s views of intelligence and “helpless versus mastery-oriented reactions” (Dweck, 1999). If a student has a fixed mindset (entity theorists), then they are unable to see how their efforts will result in their success and progress. Students with a fixed mindset believe that intelligence is not something that can be changed. These students are unable to persevere through difficulties and setbacks because they view these as proof that they are not intelligent, so trying is not viewed as a viable option. Students with a growth mindset (incremental theorists), on the other hand, see intelligence as a fluctuating thing that is improved through one’s efforts. These students act as if there are no obstacles that they cannot overcome, and are therefore more successful, resilient, and use failure & mistakes as feedback in order to improve their performance.

Self-efficacy, within the context of this study, was defined as having the ability to persevere through difficulties and adversity in order to achieve success (Bandura, 2003, 2006; Bandura & Cerbone, 1983; Dweck, 1986; Pajares, 2003; Zimmerman, 2002). Students were asked a series of questions in the survey and in the interviews that revealed their sense of self-
efficacy. This trait is extremely important in students’ transition to ninth grade because of the increased academic and social demands they encounter in high school. They are expected to function much more independently as students than they ever had previously; therefore, students must possess the capacity to persevere and find solutions to problems as they encounter them without allowing those problems to become obstacles to favorable academic and social outcomes. It is important to note that a person can be self-efficacious in some situations or contexts but not so in others (Bandura 2003, 2006; Bandura & Cervone, 1983, 1997). For example, students can have high self-efficacy beliefs in the context of an English class but not math or in completing daily tasks but not testing situations.

Equally important to the study of a student’s academic mindset is a student’s goal theory, and implicit theory (Dweck, 2006; Reeve, 2001), which are related to self-efficacy (Locke & Latham, 2002). Students who believe they have the prerequisite skills to accomplish a task (high self-efficacy) and who are inspired by challenging tasks (incremental theorists) will more likely choose achievement goals based on learning—development and growth. On the other hand, students with low self-efficacy, and who are entity theorists, will more likely choose achievement goals based on performance—getting the grade and appearing competent (Ames & Archer, 1988; Locke & Latham, 2002; Stipek & Kowalski, 1989).

Survey Sample Description

A survey was administered to 120 ninth grade students at an urban high school in Southeastern Massachusetts a few weeks prior to the end of the school year. This represents approximately 20% of the entire ninth grade class. The students were a heterogeneous mix of 43 male and 76 female students. Twenty-two students repeated one grade prior to high school. Students taking the survey were in physical education classes, which the administrator assisting
the researcher deemed would be the easiest way to access an academically, gender and ethnically diverse group of ninth graders. The students completed the survey in one session.

The sample size of 120 ninth graders is large enough to make some generalizations; however, the extent to which one may generalize across ninth grade cohorts is mitigated by demographics at the very least. It is not valid to say that students in a rural or suburban school would have similar results. Additionally, some of these students participated in a program prior to the beginning of their ninth grade year that presented them with information about effort and intelligence; therefore, these results must be tempered with that fact in mind.

**Quantitative Data: Descriptive and Correlational Analysis**

Survey questions were originated from previously validated instruments. The implicit theory and goal theory questions are instruments used by Carol Dweck in her research (Dweck, 1999). The scales used were *Implicit Theories of Intelligence Scale for Children—Self Form* and *Task-choice Goal Measure—Questionnaire Goal Choice Items*. The self-efficacy questions are from *The New General Self-Efficacy Scale* (Chen et al, 2001). Statistical tests were run to show the correlations between individual questions as well as the summary of each group of questions by theory. Additionally, the mean and standard deviation were calculated for each question. These tests were chosen to discover what the degree of correlation is between the three belief systems. Table 1 below shows the summary of findings from the survey for the three belief systems. The students’ implicit theory (IT) scores were based on a Likert scale of 1-6 with a higher score (6.0-4.1) indicating an incremental theorist (growth mindset) and a lower score (1.0-3.0) indicating an entity theorist (fixed mindset). Of the students surveyed, 69 students (57.5%) had scores of 4.1 to 6.0, and 28 of those (23% of the sample) had scores of 5.0-6.0. Of the students falling into the entity theorist range, 20 students (16.7%) had scores of 1.6 to 3.0. The
31 students who scored 3.1-4.0 are not considered to be either an entity or incremental theorist. The mean score was 4.1 with a standard deviation of 0.956. Overall, this cohort of ninth graders has a slight tendency towards the sought-after beliefs in the malleability of intelligence—an incremental theory.

These students also have strong general self-efficacy beliefs. Out of the 120 student sample, 94 (82.1%) scored in the 4.1-6.0 range, whereas only 2 students, 1.7%, scored in the 1.3-3.0 range. The remaining 24 students, 20%, score in the 3.1-4.0 range. The mean score was 4.6 with a standard deviation of 0.754.

In contrast, the students’ goal theory scores show that this cohort of students, overall, approach tasks from a performance perspective. Forty-six students (38.3%) scored in the 1.0-3.0 range. Only 17 students (14.2%) scored from 4.0-6.0, and only five of those (4% of the sample) scored from 5.0-5.7. The other 57 students, 47.5%, scored from 3.1-4.0. The mean score was 3.3 with a standard deviation of 0.881.

Table 1

<table>
<thead>
<tr>
<th>Belief System/Score</th>
<th>6.0-4.1</th>
<th>4.0-3.1</th>
<th>3.0-1.0</th>
<th>Mean (St. Dev.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implicit Theory of Intelligence</td>
<td>62%</td>
<td>21%</td>
<td>17%</td>
<td>4.1 (0.956)</td>
</tr>
<tr>
<td>Self-Efficacy Beliefs</td>
<td>78.3%</td>
<td>20%</td>
<td>1.7%</td>
<td>4.6 (0.754)</td>
</tr>
<tr>
<td>Goal Theory</td>
<td>14.2%</td>
<td>47.5%</td>
<td>38.3%</td>
<td>3.3 (0.881)</td>
</tr>
</tbody>
</table>

The responses to the survey questions that correspond to the three theories yielded the data summarized in Table 2 below. In order to be summarized with questions 1, 3, & 8, answers to questions 5, 9, and 10 were reversed. The converted scores are combined at the bottom of the implicit theory summarization.
Although it was thought that the scores on the self-efficacy (SE) scale would correlate to the implicit theory (IT) scores this was not the case when looking at student’s individual scores. The same Likert scale of 1-6 was used for SE, with a high score indicating strong self-efficacy. Students who had IT scores of 5.0 to 6.0 generally had SE scores of 3.9 to 5.9. Those students whose IT scores were 5.7 to 6.0 also scored high on the SE scale (5.3-5.9.) As students’ IT scores got lower, the SE scores were more varied. Of the 36 students whose IT scores indicated an entity theory, or fixed mindset, seven had SE scores of 4.8 to 5.3. It is also important to note that questions 15 and 16, which asked for the same judgment about learning versus performance, were answered very differently.
## Table 2
 Responses to Survey Questions – Percentages, Means & Standard Deviations

### IMPLICIT THEORY

<table>
<thead>
<tr>
<th>Question</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Mean St. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q 1 - You have a certain amount of intelligence and you really can't do much to change it.</td>
<td>8%</td>
<td>12%</td>
<td>16%</td>
<td>18%</td>
<td>29%</td>
<td>18%</td>
<td>4.03 (1.53)</td>
</tr>
<tr>
<td>Q 3 - You can learn new things, but you can't really change your basic intelligence.</td>
<td>5%</td>
<td>22%</td>
<td>22%</td>
<td>11%</td>
<td>33%</td>
<td>8%</td>
<td>3.69 (1.45)</td>
</tr>
<tr>
<td>Q 8 - Your intelligence is something about you that you can't change very much.</td>
<td>6%</td>
<td>16%</td>
<td>19%</td>
<td>14%</td>
<td>33%</td>
<td>13%</td>
<td>3.89 (1.48)</td>
</tr>
</tbody>
</table>

(An answer of ‘6’ on questions 1, 3, & 8 indicates an incremental theory--growth mindset)

(An answer of ‘1’ on questions 5, 9, & 10 indicates an incremental theory--growth mindset)

<table>
<thead>
<tr>
<th>Question</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Mean St. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q 5 - You can always greatly change how intelligent you are.</td>
<td>18%</td>
<td>41%</td>
<td>24%</td>
<td>7%</td>
<td>7%</td>
<td>3%</td>
<td>2.53 (1.25)</td>
</tr>
<tr>
<td>Q 9 - No matter who you are you can change your intelligence a lot.</td>
<td>19%</td>
<td>31%</td>
<td>28%</td>
<td>10%</td>
<td>9%</td>
<td>3%</td>
<td>3.69 (1.45)</td>
</tr>
<tr>
<td>Q 10 - No matter how much intelligence you have, you can always change it quite a bit.</td>
<td>17%</td>
<td>34%</td>
<td>31%</td>
<td>12%</td>
<td>5%</td>
<td>.8%</td>
<td>3.89 (1.48)</td>
</tr>
</tbody>
</table>

### SELF-EFFICACY

<table>
<thead>
<tr>
<th>Question</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Mean St. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q 2 - When facing difficult tasks, I am certain that I will accomplish them.</td>
<td>15%</td>
<td>36%</td>
<td>34%</td>
<td>8%</td>
<td>4%</td>
<td>3%</td>
<td>2.58 (2.13)</td>
</tr>
<tr>
<td>Q 4 - In general, I think that I can obtain outcomes that are important to me.</td>
<td>26%</td>
<td>37%</td>
<td>33%</td>
<td>3%</td>
<td>2%</td>
<td>1%</td>
<td>2.23 (.96)</td>
</tr>
<tr>
<td>Q 6 - I believe I can succeed at most any endeavor to which I set my mind.</td>
<td>25%</td>
<td>36%</td>
<td>33%</td>
<td>4%</td>
<td>3%</td>
<td>0%</td>
<td>2.23 (.96)</td>
</tr>
<tr>
<td>Q 7 - I will be able to achieve</td>
<td>28%</td>
<td>37%</td>
<td>26%</td>
<td>6%</td>
<td>3%</td>
<td>1%</td>
<td>2.21 (1.05)</td>
</tr>
</tbody>
</table>
most of the goals I have set for myself.

Q 11 - I will be able to successfully overcome many challenges.  
<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Mean</th>
<th>St. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>23%</td>
<td>39%</td>
<td>30%</td>
<td>6%</td>
<td>.8%</td>
<td>1%</td>
<td>2.24 (.96)</td>
<td></td>
</tr>
</tbody>
</table>

Q 12 - I am confident that I can perform effectively on many tasks.  
<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Mean</th>
<th>St. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>20%</td>
<td>43%</td>
<td>28%</td>
<td>6%</td>
<td>3%</td>
<td>1%</td>
<td>2.31 (.99)</td>
<td></td>
</tr>
</tbody>
</table>

Q 13 - When compared to other people, I can do most tasks very well.  
<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Mean</th>
<th>St. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>12%</td>
<td>39%</td>
<td>35%</td>
<td>7%</td>
<td>6%</td>
<td>1%</td>
<td>2.58 (1.04)</td>
<td></td>
</tr>
</tbody>
</table>

Q 14 - Even when things are tough, I can perform quite well.  
<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Mean</th>
<th>St. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>11%</td>
<td>33%</td>
<td>34%</td>
<td>10%</td>
<td>10%</td>
<td>2%</td>
<td>2.80 (1.18)</td>
<td></td>
</tr>
</tbody>
</table>

Averages per answer: 21% 38% 31% 6% 3% 1%

An answer of ‘1’ indicates strong self-efficacy

GOAL THEORY

Q 15 - If I knew I wasn't going to do well at a task, I probably wouldn't do it even if I might learn a lot from it.  
<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Mean</th>
<th>St. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>6%</td>
<td>14%</td>
<td>17%</td>
<td>27%</td>
<td>28%</td>
<td>8%</td>
<td>3.83 (1.36)</td>
<td></td>
</tr>
</tbody>
</table>

Q 16 - Although I hate to admit, I sometimes would rather do well in a class than learn a lot.  
<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Mean</th>
<th>St. Dev.</th>
</tr>
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<tbody>
<tr>
<td>15%</td>
<td>33%</td>
<td>26%</td>
<td>8%</td>
<td>7%</td>
<td>2%</td>
<td>2.74 (1.21)</td>
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</table>

Q 17 - It's much more important for me to learn things in my classes than it is to get the best grades.  
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<tr>
<th>1</th>
<th>2</th>
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<th>4</th>
<th>5</th>
<th>6</th>
<th>Mean</th>
<th>St. Dev.</th>
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</thead>
<tbody>
<tr>
<td>8%</td>
<td>20%</td>
<td>20%</td>
<td>28%</td>
<td>16%</td>
<td>8%</td>
<td>3.46 (1.39)</td>
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(An answer of ‘1’ = Strongly Agree; ‘6’ = Strongly Disagree)

Q 18 - If I had to choose between getting a good grade and being challenged in class, I would choose...  
<table>
<thead>
<tr>
<th>Good Grade</th>
<th>Being Challenged</th>
<th>Did Not Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>68%</td>
<td>23%</td>
<td>9%</td>
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</table>

Table 3 shows the correlation of the summary of scores for each theory. Overall, there was a statistically significant correlation between students’ implicit theory and self-efficacy scores although the correlation was not high. Incremental theorists were likely to have high self-efficacy scores, and entity theorists were likely to have low self-efficacy scores, although again
there was greater variation than expected. Goal theory was not significantly correlated with either IT or SE.

Table 3

**Correlational Data of Theory Means**

<table>
<thead>
<tr>
<th>Belief System</th>
<th>Goal Theory</th>
<th>Self-Efficacy</th>
</tr>
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<tbody>
<tr>
<td>Self-Efficacy</td>
<td>0.121</td>
<td></td>
</tr>
<tr>
<td>Implicit Theory</td>
<td>0.104</td>
<td><strong>0.370</strong></td>
</tr>
</tbody>
</table>

* p ≤ .05       ** p ≤ .01

Figure 1 below shows the disparity of Implicit Theory scores among this student cohort. Sixty-one students (50.8%) scored in the middle ranges of 3.1-4.5 indicating no real strong belief in either incremental or entity theories. Thirty-nine students (32.5%) scored in the 4.6-6.0 range indicating a strong incremental theory or growth mindset. Twenty students (16.7%) scored in the 1.6-3.0 range indicating a strong entity theory or fixed mindset. This results in 67.5% of students in this cohort that do not have a solid growth mindset about learning and achievement.

![Figure 1. Individual Student Implicit Theory Scores](image-url)
Figure 2 below shows the distribution of students’ self-efficacy scores. This cohort scored relatively high on self-efficacy beliefs. Sixty-five students (54.2%) score in the 4.6-6.0 range, and fifty-three (44.2%) scored in the 3.1-4.5 range. Only two students (1.7%) scored in the 1.0-3.0 range.

![Self-efficacy Scores](image)

**Figure 2. Individual Student Self-efficacy Scores**

*Figure 3* below shows the students’ goal theory scores for question 15-17. Only 15 students (12.5%) scored in the high range (4.1-6.0), which indicates a student who readily chooses tasks that are challenging even though they may not be immediately successful at the task. These students are not afraid to fail or make mistakes because they learn from their mistakes and see them as part of the learning process. A lower score indicates students who choose tasks that will result in the ‘good grade’ to move them along in school. Forty-six students (38.3%) scored in the low range of 1.0-3.0. Over half of the students (54.2%) fell in the mid-
range of 3.1-4.5. On question 18, which asked them, if they had to choose between “a good grade” and “being challenged,” which would they choose, twenty-seven students (22.5%) chose “being challenged” and 81 students (67.5%) chose “a good grade.”

\[\text{Figure 3. Individual Student Goal Theory Scores}\]
Table 4 below shows the correlations between questions. There are significant correlations between questions within each measurement with the exception of goal theory. According to the literature, significant correlations between questions on the same measurement indicate a consistency in answers across questions. None of the goal theory questions were significantly correlated. Several of the goal theory questions resulted in negative correlations with both implicit theory and self-efficacy questions.

Table 4

<table>
<thead>
<tr>
<th>Correlational Data of Survey Questions</th>
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<tbody>
<tr>
<td><strong>Question</strong></td>
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<td>16</td>
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<td>17</td>
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</tbody>
</table>

* p ≤ .05
** p ≤ .01

The scatterplot below (Figure 4) shows the Pearson product-moment correlation coefficient, which shows the relationship between students’ implicit theory of intelligence and self-efficacy scores. There was a positive correlation between the two variables, r = 0.3703, n = 120, p = <.0001. Overall there is a statistically significant but weak correlation between a student’s implicit theory of intelligence and their self-efficacy beliefs. If a student is an incremental theorist (growth mindset) they are likely to have high self-efficacy. If a student is an entity theorist (fixed mindset) they are somewhat likely to have low self-efficacy.
Figure 4. Individual Self-efficacy & Implicit Theory Scores

The scatterplot below, Figure 5, shows the Pearson product-moment correlation coefficient computed to assess the relationship between students’ implicit theory of intelligence and goal theory scores. There was no statistically significant correlation between the two variables, $r = 0.1037$, $n =120$, $p = 0.260768$. Overall, there is no correlation between a student’s implicit theory of intelligence and their challenge-oriented learning concerns as measured by the goal choice questions.
Figure 5. Individual Goal Theory & Implicit Theory Scores

Figure 6 below shows the Pearson product-moment correlation coefficient computed to assess the relationship between students’ self-efficacy and goal theory scores. Here again, there was no statistically significant correlation between the two variables \(r = 0.1214, n = 120, p = 0.186083\). Overall, there was no correlation between a student’s self-efficacy beliefs and their challenge-oriented learning concerns as measured by the goal choice questions.
Figure 6. Individual Self-efficacy & Goal Theory Scores

Correlations across Questions

The significant correlations across questions all occurred within each belief system, which indicates good consistency across student answers. There were no significant correlations between individual questions across belief systems. The correlations between the two sets of questions within the implicit theory of intelligence scale were highly correlated, which validates the students’ responses on each set of questions on this construct.

Summary

The findings present an interesting picture of this cohort of ninth grade students. Whereas, they appear to have relatively strong self-efficacy beliefs and a tendency towards the incremental theory system of beliefs, they still hold onto a performance goal ideology. These students aim for positive judgments of their abilities by avoiding any potentially negative judgments in the pursuit of challenging tasks; therefore, they will avoid any situation that may be more challenging and pose a risk for failure, which they perceive as proof of their lack of intelligence.
Qualitative Analysis: Case Study Participants

Teaching and learning are human endeavors, and as such, involve many variables that cannot be isolated and understood through quantitative measures alone. It was important to hear from students about their experience as a ninth grader and compare that to what the quantitative data revealed. Based on their answers to survey questions, students who had strong or weak implicit theories and self-efficacy beliefs were invited to participate in a follow-up interview for this study. Four students came forward willingly to participate and parental permission was obtained. Attempts were made to recruit other students to participate but none were willing to come forward or their parents were unwilling to give permission. All names used are fictitious.

The four female students were interviewed for the purpose of soliciting additional information about their personal experiences as a ninth grade student at this school. They were asked various questions and follow-up questions about their grades, experiences they’ve had with their classes this year, their goals, study and learning strategies, and their feelings about their ninth grade experience along with other questions that resulted from our conversations. They were very candid with their comments, and this researcher feels they were honest and did not hold anything back. Students met with the researcher during the course of one school day in a conference room in the guidance office. The interviews were conducted in June near the end of the school year, so the students’ answers are felt to fairly represent their entire ninth grade experience.

Allison. Allison was a very talkative girl who reported that she had been in a program for gifted and talented students from fourth through the eighth grades. Allison also reported being bullied during her middle school years, but that it had stopped during the course of this year after having befriended some older students in school. She also shared with the researcher,
while talking about peer relationships, that she is “transsexual.” When asked about grades, she reported that she would pass all of her freshman year classes, but she also reported having difficulty in her foreign language and geometry classes, so those grades would be lower. Allison also participated in a ninth grade orientation program that the school conducted prior to the start of the school year. She described that experience as “not being helpful at all.” She scored 5.7 on implicit theory, 5.9 on self-efficacy and 3.3 on goal theory; although, her interview responses indicate a greater tendency towards learning goal choices.

During the interview, Allison’s responses to the questions revealed a lot about her incremental theory beliefs as well as her goal choice. When speaking of her experiences while in the gifted and talented program, she indicated that her grades were B’s and C’s, but that the grade did not matter as long as she was being challenged. Prior to being in that program, she reports making “straight A’s, but I was bored.” She said about grades that she “hated getting straight A’s…because I fell asleep in all my classes, and it didn’t mean anything. I think the entire grading system is kind of dumb. Like I understand (that) it should be a passing/failing kind of thing because the letter system—If you see a D on your card, it kind of makes you feel like, oh, I’m not trying hard enough. Everyone learns differently and everyone has a strength in something different.” She goes on to explain how making C’s in the gifted and talented program didn’t bother her “because I knew that the reason I was getting C’s was because I was getting challenged for once. She indicated that she chooses classes based on how well they will challenge her. “Because like, well, in Biology (this year) it’s really been easy, so that’s why I’m taking AP Bio next year because it’s more (of a) challenge. Yea! I’m all happy!” When faced with a failing grade on a test, Allison said, “I’m going to study this part that I didn’t do good on the test, and that way I can bring my grade up on the next test.” When asked how failing a test,
or not doing well on a test, makes her feel about herself, she said, “I don’t feel bad about myself because I know I can do it if I try harder.” She goes on to say that when she encounters things in certain classes that are particularly difficult, she doesn’t get discouraged because “I know that’s my weak point, so I’m not like feeling bad about myself because I know I tried. If I got an F, then it’s okay, I need to try harder.”

Allison also validated her self-efficaciousness when she said, “I was taught if you’re confident, then you can pretty much handle anything.” During the interview, she spoke many times about how other students, who do not care about their education as much as she does, distract her and the teacher. She related an incident in her Geometry class where she kept trying to get the teacher to help her, but the teacher was dealing with all of the behavior issues and could not get around to her. She said she took it home to work on, and it took her a long time but she got through it. “It took me like four minutes per problem, and there were like 30 problems. But like I did persist, and I got it done, and it was correct.” In talking about her grades and whether she makes A’s or not, she said, “The point for me is I am going to pass and be successful no matter what. Like it’s my goal--it keeps me going.”

Allison was asked what she specifically does to be successful in her classes. She related a story that illustrates her ability to find her own ways of learning that are best for her. She said, “I don’t study with flash cards or anything like that. I study by...okay...I’m going to say something, and it’s really nerdy, but I’m an artist. And usually my teachers get so confused when I do this. I’ll be drawing something (in class,) and they used to yell at me a lot for that. I’d be like, oh, but if I turn to a picture that I did two weeks ago, I can probably tell you what we were talking about. And they’re like, ‘oh yeah, prove it.’ And I went back to one of my pictures, and I basically told them the entire lecture, and they looked at me like, oh, okay, you
can continue doing that.” She went on to explain she does better in classes that allow her to draw in her notes than those that continue to disallow it.

Allison also revealed more about her ability to be self-efficacious when speaking about navigating the social aspects of high school. She related that she had been bullied in middle school and that when she got to high school, she made friends with older students she could relate to who “looked out” for her. She does not believe the “drama of high school” can be resolved, and “the only way you can lessen it is to handle it yourself.” When asked questions about what might help with the negative side of the social aspects of high school, Allison said she believes that creating relationships between older and younger students would be very helpful. “I took this shy little girl, who’s like scared of everyone, under my wing, and now this girl is doing theater, and she’s (doing) stuff she likes now, and it’s all because I stood up for her. If you take someone under your wing, and then you show them what it’s like to be yourself (and) not care what other people think, then I think it will (have) an effect for future generations, and if you do that and the future generation gets better, then they will do that too and that will continue.”

Allison was asked if she felt she was prepared for high school, and she said, “Not really.” Asked to elaborate, she indicated that she was “terrified of everyone including my teacher actually, including a lot of my teachers. But after a while I got used to it, and then I slowly realized that I was getting more confident.” She suggested helping with that kind of problem by having middle school students visit with and be paired up with high school students before they go into ninth grade. The high school students could be their “older friend” in high school. She also said she felt she has more academic choices now because, when she was in the
gifted and talented program, “I was in the same class all day. I absolutely despised (that part of it.)”

At one point in the conversation, Allison was asked about any frustrating experiences she may have had during her ninth grade year. She went on to relate an experience with her foreign language teacher who allowed her extra time to complete some assignments but then would never record the grades, so at the end of the grading term, the teacher would tell Allison she had several missing assignments. Allison said she had to go find the papers in her backpack to prove she had done them. Allison revealed that this made her “feel like they don’t care.” She went on to say that this teacher also “doesn’t bother to talk to students privately” and says things about her work in front of the whole class. “And you sit there, it’s like, it kind of brings down your self-esteem and makes you feel like you’re nothing. Like, oh you didn’t do your work. You're like a horrible person.” When asked if this affected her effort in that class, she said, “Not really. I’m going to pass and be successful no matter what. Like it’s my goal--it keeps me going.” When asked about the differences in her teachers, she talked about another one of her teachers who “…made lectures entertaining. So like you’re more likely to keep what you’re learning if you’re being entertained.”

**Brenda.** The second student, Brenda, was also very willing to speak her mind. She disclosed that she was doing “pretty good in school” with the exception of English and geometry, although she is passing those classes. This student had an implicit theory score of 6.0, a self-efficacy score of 5.9, and a goal theory score of 4.3. Brenda attended Catholic school through fifth grade and then transferred to a public middle school in the same district as she is attending now.
Although Brenda scored very high on the IT and SE scales, she revealed having
difficulties and frustrations in some of her classes and with ninth grade in general. When asked
how confident she is as a student on a scale of 1 to 5, Brenda said she was a “2.” She explained
that “sometimes I don’t really fully understand, and the teacher won’t explain it a different way
because they don’t want to take the time to, and they don’t want to--they just want to be lazy
about it.” In response to a follow-up question—so the teacher has a lot to do with how well you
do in the class—she replied, “Yeah. Very much so.”

When asked to talk about a frustrating experience she has had, Brenda related a story
about her History class. She said that “once the kids got comfortable in there...they started being
really ignorant and stuff, and then every day it was like a problem where she (the teacher) would
have to send kids out. And then she keeps talking about the work. It was just confusing doing
the work because she would start one thing, and then she would go on to a different thing
because she forgot what she was doing.” Brenda revealed that if she has a question or problem
with a class, she stays after school or after class because “It’s usually like one-on-one and in
class...she has to talk like with everybody.”

Brenda was asked to talk about any experiences she’s had where she was faced with an
obstacle and could not work through it and just gave up. She recounted a repeated occurrence
with her English teacher. As reported by Brenda, the teacher was

…saying one thing and then it turns to another thing. Like in the beginning of the year,
she told my entire class that if we turned in work late, every day it would be ten points
off. Then about the second or third term, if I turned in something a day late she would
give me like a 50% on it. And I kept asking her why I have a fail in her class, but she just
kept telling me I wasn’t doing work when I gave her the work, and I still have the work
because she would hand it back, or she would just like mark it off, but she gave me half credit. I still did the work, but it wasn’t like as much effort as I could have put into it because I didn’t see the point if she was going to give me a 50 anyway because every time I did do my work on time, she wouldn’t have it, she wouldn’t mark it off, or she lost it.”

When asked how she could solve this problem, she said she could have gone to “guidance or something, but I just didn’t want to deal with it.”

Brenda was asked how that kind of experience with teachers made her feel, and she replied, “They don’t care what happens. I have some teachers that will push you beyond belief. If you don’t do one assignment, they’ll call (home) the next day.” She went on to say that another teacher she has, in a class where she is the only one in her group who actually completes all the work, would say to Brenda, “Oh you need to do your work so so-and-so can copy off you.” Brenda continued, “…and I just didn’t see why they would get full credit if they were just copying, and I was doing all the work.” She also feels that these frustrations with teachers affect her effort, but also said that “Sometimes it affects the effort, but, like if I’m not doing good in a class, I’ll try harder.”

Brenda was asked about a teacher or class she felt was the opposite of that, and she talked about a student teacher she had earlier in the year that taught very differently than the teacher of record. She went from a ‘B’ to an ‘A’ in the class because “Well, she used words I could understand. She explained it more than him. Like yesterday, he talked and talked and talked, and then he got off track and gave us this worksheet...you had to take it home and do it because he was talking so much about other stuff.” The student teacher, on the other hand, “always made comparisons to something else...made connections. Like I just understood it better...She
compared something, and so every time I hear that thing, I could think of what she was teaching that day because (of) how she compared it.”

Brenda was asked how the different teaching styles make her feel as a student. She replied, “I felt more confident with (the student teacher) than I do the other teacher.” She then began talking about how the demands of high school are so different than those of middle school. “In the beginning of the year, it was so much to handle compared to what we did in middle school. Like we had to read this book and write this huge essay, like six page essay...I have not written an essay before like that long in middle school...It was so different from my school from before. It’s just so much to take in.”

When asked what is the biggest difference between elementary and middle school and high school, Brenda said that in elementary and middle school she knew everybody and all the teachers, but that in the Catholic school she attended, “girls were more stuck up and everything because they thought they were the rich girls. Like I didn’t come from a rich family, and kids would come in every day with like new stuff, and they were always bragging. I was just like it’s no big deal. It’s just like materialistic things, but kids were more stuck up then.” On the other hand, she felt that being in the same classes with the same group of kids in middle school was helpful when having to make presentations in front of the class. “Last year when you had to do presentations and stuff, it was more easier because you knew everybody. But now it’s so many different people...I just find it less comfortable.” She went on to talk about problems she’s having in her classes this year with a girl who is in “almost every single class” that she does not get along with. “Like we used to be good friends, and now we don’t like each other. And so...I don’t like presenting in those classes because she’s in there and whether you do good or whether you do bad, if the person does not like you, they will find something wrong with it and then want
to talk about it.” Brenda was asked if the drama really interferes with what you’re supposed to
be doing at school and replied that yes it does. She went on to explain that “I guess you’re kind
of more focused on what’s going to happen” than on your schoolwork.

When asked if she felt confident she would be successful in high school when she started
the year, she said, “Well, like most kids were scared to come to high school. Like I was fine
coming to high school. I didn’t really care. It was just like, oh another school, because I like
meeting new people...I’m still quiet but now I can talk to more people now than I could in
middle school.” Asked to talk more about peer relationships, she said, “...just because you like
school and then the people who don’t like school will make fun of you, calling you a nerd
because you like school or you’re doing well...I just don’t like when people like judge and bully
people.” She went on to say, “So, yeah, there’s pros and cons to the social life in school because
in high school, there are cliques, but still you’re diverse. Like, I’m friends with people that are a
whole bunch of different types of people.”

When asked about how she reacts and feels about getting a failing grade on, for example,a
test, she said that some teachers “let you retake the test or some they’ll let you do error
logs...(to) correct what you got wrong...(for) a maximum of 70 points or something. But other
teachers won’t...give you your test back. Like you won’t find out your grade and what you got
wrong until the end of the term, and they won’t do anything about it” (the failed grade.) When
asked what she does to help herself be successful in her classes all she could come up with in the
way of strategies was “pay attention,” and when asked about study strategies she said, “I can’t
study. I couldn’t study in middle school, but I study this year, and when I make flash cards, I
don’t know, it just sticks. Like in middle school when I made flash cards, it was like
what?” Brenda was asked if she actively participates in her classes, Her response revealed her
ability to persist beyond obstacles, “Sometimes. It depends on what classes. Like some classes, I’ll always ask questions like what is something to do with it, or I just want to know it...I do that in history class sometimes. I’ll just keep asking questions every five minutes. Sometimes I’ll do it to bug the teacher like if I want to know something, and they won’t tell me, I’ll just like keep bugging them until I find it out. I don’t know...I just try...Like if the teacher doesn’t answer my question, I’ll just go on my phone and Google it.”

In response to the question—What one thing do you think has helped you this year be successful—she responded by saying “I feel like the teachers can make you, and they can break you. Like if they don’t make it easy to understand, you’re just going to do bad, but if they make it easy for you to understand, then you can like, ‘Oh I remember when we did that’ because of how they explained it. So I feel like the teachers have a lot of impact on me.”

Brenda was then asked what teachers could do differently to help her be more successful. She replied, “Show different techniques. Like a lot of teachers if they’re teaching you something, the way they did it in school, they’re like, ‘Oh this is how I did it in school.’ But not all kids understand the way they did it. And they’ll just stick to their way because that’s how they know it, but they won’t show you another way.” Brenda was asked why she thinks that more students have difficulties and drop out during ninth grade. She said she thinks it’s “because they’re coming from middle school where a teacher is more lenient about what they were doing.”

**Cindy.** The third student, Cindy, was more on the shy side, especially at first and was not as willing to share about her past experiences in school. She seemed to struggle understanding the questions at times and frequently gave short answers without much elaboration. She reported that she felt she would pass all her classes this year. She was in
Algebra I for math. Cindy scored a 5.2 on the implicit theory scale, a 5.4 on the self-efficacy scale, and a 3.0 on the goal theory scale. She also indicated a rating of ‘3’ when asked how confident she is as a student now and going forward through the next three years. When asked why, she said, “Because some classes I know I’ll do good in, but some I’m just afraid I won’t do good, just because other students cause problems or the teacher or something...Also, I don’t feel confident in Portuguese and history...because of the teacher.” When asked to explain that further, she said, “I feel like teachers in the beginning of the year, they decide how they look at you and for the rest of the year, that’s how they’re going to look at you. So if you change, then they’ll say, ‘Oh you did this or you did that.’ I feel like teachers once they decide how they look at you that’s how they’re going to stay looking at you throughout the whole year.”

When asked how being treated like that by a teacher makes her feel, Cindy responded, “It makes me feel like they’re better, so they look at you like you’re nothing. Like, ‘Oh you didn’t do this, so, oh well.’ Like they make me feel like I’m nothing compared to them...they’ll bring up something that you did in the past that was bad, but they don’t like acknowledge what you did that’s good.”

Cindy was asked how the differences in teaching styles in middle school and high school affected her learning and achievement. She reported that in middle school she did “terrible” in science, but that this year she’s doing much better. She elaborated further by saying, “I just feel like the way a teacher teaches it, even if you’d had the stuff before, if they teach it a certain way, you learn it deeper.”

When asked about her classes and whether the social dynamics of a class—the people who are in the classes—affects her efforts in class, Cindy said, “Well it depends on how you know them. Like if you know them in a positive way, it will be easier to present (in front of the
class,) but if you know them because of negative things, then it’s harder. Or if you don’t know anybody at all, it makes it hard too...you’re judged in every factor when you come into high school.” When Cindy was asked whether that judgment ever changed the way she participated in a class, she said, “I become the quiet one.”

Cindy was asked questions to see how she feels whenever she receives a low or failing grade. She said she had failed tests before, and that she thinks about how her grade is going to drop. “I feel so sick. Like yesterday in Portuguese, I (usually) do good, and I usually get like 100 and bonus points, (but) yesterday I did bad on this test. Like it’s not bad compared to like what everybody else gets, but it’s like bad for me personally. And so I had like a high average, so I feel like it’s going to drop because when you’re high up, you have a better chance of dropping a lot than if you’re low.” She was asked why she thought she did poorly on the test. “Because I didn’t understand the stuff. Like I studied for it and stuff, and it didn’t click. Like we had a quiz on it, and then we have a test on it, and I just couldn’t remember it. The same stuff that I forgot on the quiz, I forgot on the test.”

Cindy was asked what she generally does with failed work? She responded that some teachers allow her to retake tests, and she does do that for her foreign language class, and in other classes where she is not allowed a retake, she will “look over (the material) because that’s going to be on a quarterly or something, and so I study the materials, so that way when quarters come, I don’t do bad on the same thing. I’m going to look at what I got wrong.” At this point, Cindy was asked how doing poorly on that test, or any test, makes her feel about herself and revealed her incremental theory way of thinking. She said, “When I do bad in a class, like tests, I don’t look at it like, ‘Oh my God, I did this badly!’ Because I’m like, oh, I got one point better than I did last time.” She went on to explain how her teachers react to her poor performance that
revealed their emphasis on performance versus learning and mastery. “But when I do good and I get low, I’m like oh my God, I feel sick. Like once you do good, teachers expect that from you. They don’t expect you to get lower.” She also showed how she is able to identify her strengths and weaknesses and not allow the weaknesses to affect her self-efficacy or strength of her growth mindset. “Like in English, I did good in the beginning of the year, and then we did Romeo and Juliet, and I don’t understand the words, like the Shakespearean stuff, so it was just so complicated, (so) I got low grading compared to what I do in English before the whole Romeo and Juliet. But I know that’s my weak point, but I know I tried. It’s not like I was ‘Oh I don’t know this’ but at least I tried on it.”

Cindy had very strong feelings about the survey questions about implicit theory. She brought up the question that asked if intelligence is something about you that you can’t change. She said,

...and I said I strongly disagree because just because you might not be the smartest in middle school, you could be the smartest in high school. You never know. I mean if I fail something it doesn’t mean that I’m like stupid or something. Like if I put in effort, if the teacher doesn’t answer your question or doesn’t teach you something, you can go on Google and search it. I feel like that can affect you. It depends on what kind of person you are. Like my friend, it makes her feel like terrible when the teacher’s like that. But me, it’s like whatever...like last year in middle school in English I didn’t have a legit teacher, you had so many different teachers. One of the last teachers, she subs here now, I told her like she makes it hard to understand. I told her ‘You need to put in more effort. You can’t just teach it like that and expect all of us to get 100. You have to put in more effort into what you do,’ and so then after that, everybody started doing better.
When asked what kindergarten through eighth grade teachers could do differently to prepare students for high school, Cindy responded by saying,

They should do more presentations. I don’t like talking in front of class. I don’t want to go up in front of the class and do a presentation...I feel like they should have more projects, but you can get more used to people. And like in history, I had to do two projects. We had to write a paper, do a 3D project and you have to do a PowerPoint. Like that was so much for me! And yeah, I feel like K through 8 didn’t prepare me for that. I was so overwhelmed with like the first paper; I was like what the heck? Like I (could) write a two-page paper...Sixth grade prepared me more for high school than seventh or eighth grade. Like, they were much more strict….

She was asked how they helped, and she responded, “They just had more projects and if you did (your work) and behaved they would reward you. You got rewarded, and then it made you want to do it. You don’t really get rewards in high school except honor roll and it’s just because (of) your report card.

Cindy was asked if she thought there was a lot of drama in high school and if it interfered with what she was here to do. She responded with a quick “Yeah! Because like I guess you’re kind of more focused on what’s going to happen.” She said that when you have problems in a class or elsewhere in school, and you go talk to a teacher or guidance about it, “They won’t do much. They’ll just say, oh just stay away from them, stay away from them. That’s about it.”

Donna. The fourth student was very shy and difficult to interview. She reported that she is “good in some classes but not all” and is passing some and “not passing others.” She feels she is passing those classes she is “good at.” This student reported divorced parents, and that she came to live with her father from another state during eighth grade so she “wouldn’t get into
trouble anymore.” She reported that she had failed seventh grade due to her behavioral issues. This student scored 2.8 on Implicit Theory, 3.8 on Self-efficacy and a 2.0 on the Goal theory scale.

Donna also related that she injured her knee and had been out of school for a good portion of the year. She said she was able to make up some of the work but not all. When asked why she couldn’t make up the work, she replied, “I don’t know.” She also said she feels she will pass all her classes for the year which was incongruent with some of her answers to later questions. For example, on the confidence scale of 1 to 5, Donna reported a 3 “because I know that I’m passing some things, but I’m not passing others. Like I’m good at some classes but not all.”

Donna indicated Math was her worst subject, and says she fails math tests “all the time.” She was asked how that made her feel about herself, and she said, “Aggravated,” and that she gives up “because it’s so hard.” She was asked if she felt she was able to learn it, and she responded, “No. Like if I learn something, they have to explain it like fifty trillion times for me to understand how to do it.” She indicated that she does do test corrections, and that they help her learn it “some.”

When asked about the differences in middle school and high school, Donna said, “High school is harder. Like there’s more work, and it’s more complicated. Like in middle school you work with groups and stuff, and in high school, you’re more independent.” She indicated that she was not prepared for that independence in high school. “Kind of, kind of not, because I was already used to working with others and stuff...At times, I like working alone. But at times I don’t. I think I learn more when I’m with a group.”
Donna had difficulty understanding and answering the question about what specific ways she thought she was prepared for high school. She finally responded with, “I have a notebook and notes. Like the main idea, then above the main idea on the other side. Sometimes that helps me out.” When asked what kinds of classes she was in, Donna indicated she was not in any Special Education or Resource classes, but she did talk a bit about the “Discovery” classes. “Discovery is like culinary, cosmetology, art. Your sophomore year, you go to a discovery class, and you choose three for the term. Then you have to do good in them. Whatever you do best, I guess they choose you to do it, and then you have to do it for the rest of the years that you’re here...I want to do culinary or cosmetology.” It is interesting to note her choice of words here. It reveals her lack of self-efficacy to be able to make things happen for her and make her own choices. She sees this scenario as being totally out of her control.

The biggest struggle in high school for Donna has been “making friends...(you have to) start all over again. Some of them (middle school friends) don’t talk to you anymore. Like, you know how they change?”

When pressed to discuss what struggles she is having academically, Donna said she struggles with math, is in Algebra now and “then for sophomore, I have to take geometry, and that’s hard.” When faced with difficult subjects, “I ask for help after school, or I go over to my best friend’s house, and we work together because she’s in my math class too...My lowest grade is actually biology (because) it’s my test grades. I usually always do bad on the tests. I don’t know why. It’s just difficult I guess. Sometimes I study, but I study for no reason because then the test comes and my mind’s blank.” Donna did not seem to know why that happens. “It goes blank, but sometimes I’m nervous because I know I’m not going to pass it. I never think positive about myself.” When asked how it makes her feel to fail a test, she replied, “I’m a retard. I’m
just not able to learn it.” Entity theorists, like Donna, see failure as proof of their lack of intelligence and ability.

Donna was asked to describe a situation when she was faced with a difficult challenge and just gave up. She said in math, “I would give up because even if I would try, it would be wrong, so I won’t get any points or anything for it, for even trying, so what’s the point of trying when you’re still going to get it wrong?” The consequence of giving up was “Because even though you tried, you’re not doing your best and getting a good grade.” Donna had difficulty thinking of a time when faced with a difficult challenge where she did not give up. She was asked a series of questions about giving up and not giving up, and she did indicate that sometimes she doesn’t give up. When asked why she keeps going, she said, “Sometimes I give up because I don’t know it. Sometimes I know it, I’m just confused on what I’m doing. Like I’ll get a few things confused.” She doesn’t give up and keeps going “Because I know that I’m doing it right.”

When asked what her teachers could do differently to help her be more successful, Donna said, “Explain it better to me, like sit down when they have a chance, so I can understand better.” She did not have any further advice to offer. Donna did indicate that in the classes in which she is doing well, it is because “I’m more interested in them.” She also said that the teachers in those classes don’t really teach any differently than those in the classes she does not do well in; however, she said that in all of her classes, there are students who “are not interested in it, so they don’t really pay attention. Some of them really don’t care about their grade.” She went on to say that teachers should make students “work harder.”

When asked if teachers in K through 8th grade prepared her for high school she said, “No, I need to be smarter. Like they should have shown me more things. (Take) math for
example, if they have strategies like my math teacher…she does FOIL…and in elementary and middle school, they really don’t show stuff like that. They like start showing you that in high school.” Donna was asked how else teachers could prepare students for high school and she said, “Getting along with other people. A lot of people don’t have manners. They could also give more quizzes and tests, so you could be used to it.” She was then asked what her current school could do to help ninth graders be more successful in school. She repeated the need for teachers to “push their kids harder to do the work, like ‘You have to do this if you want to pass.’ Some teachers they be like, ‘Well, if you don’t do the work, then don’t do it. I already passed college.’ Like some teachers don’t care at all. They just let some students just fail.” She disclosed that this had never been her experience, but she “see(s) it happen to other students.” She was asked what the teachers do to help her be successful in those classes she is interested in. Donna stated that her teachers “don’t help me. I just do it myself, like pay more attention because I like the class. Some people say history is difficult, but I have an A+ in that class. I’m just more interested in the class I guess, or paying deep down attention.”

Donna was asked if the teachers in the classes she does not do well in or not interested in could do anything differently to help her be more successful, and she replied, “No, because I really never like those classes that I have difficulty in. (I’ve always done) bad in those classes.” She was questioned as to how it makes her feel when she does poorly in those classes. Her reply was, “Well, I’m used to it, but it makes me feel like slow, like it’s hard for me to understand. And other kids I see them, and they like pass, and they know what they’re doing.” Donna went on to say that staying after school for extra help might be beneficial, but she has not utilized that resource but a few times.
Donna was then queried about whether her classes involve any projects and presentations. She indicated that the only class requiring presentations this year was her Spanish class. She revealed that she doesn’t like them because “I’m a shy person,” but she does do them and makes good grades. When asked how she feels afterward, she said she feels “Achieved, like I did it, and I know I’m a really shy person.”

On the survey, Donna said she “Disagreed” with the statement “You can always greatly change how intelligent you are.” Asked why she feels that way, she responded, “Because even though I study like a lot, I’m not going to remember. Like, I forget things in a heartbeat. I forget really fast.” On another survey item, “If I knew I wasn’t going to do well in a task, I probably wouldn’t do it even if I might learn a lot from it,” Donna said she “Strongly Agreed.” When asked to elaborate, she replied, “Because it’s difficult. Sometimes I learn stuff, and I’ll remember some things. I still do stuff but I won’t remember it. I just forget, I guess. Like in math, I had a quiz the other day that had 22 questions, but they weren’t multiple choice. Like I think it’s more difficult when it’s open response. I think it’s easier for me if it’s a multiple choice—has different things. And like I gave up because I really didn’t know most of them. Well, actually I didn’t know any of them but like two, so I just gave up. And it’s hard.” Donna was asked what she did about it, and said, “Well, most of the class was having a difficult time, so she just gave it to us to take home as a take-home quiz. But she helps me sometimes in class with it because I still don’t understand. If I take it home, it makes me not understand when I’m in class.”

Donna’s final comments were about her response on the survey that indicated she feels she is an important part of the school most of the time. “I just like this school more than my other school because they’re more on you even though sometimes some teachers don’t care. But
there’s always teachers around that are like that, but to me, teachers are nice to me. They always make sure that I do my work, and sometimes I always do my work. A day—I’ll forget. I’m like sorry. I forgot. Can I bring it in tomorrow? They’ll let me because I’m a student that does all my homework. So that’s what I think. They believe in me.”

**Prominent Themes from the Interviews**

From the interviews, several prominent themes emerged about how students experience their freshman year of high school. All four girls spoke at length about these topics and felt strongly about how they affect their effort and achievement.

Table 5

*Themes identified through a close analysis of student interviews.*

- The relationships between students and teachers and amongst peers in the classroom greatly impacted students’ feelings of competency.
- The variation in responses relative to their implicit theory of intelligence.
- The effect of students’ self-ascribed sense of self-efficacy and their perceived ability to be successful.
- The degree to which a student’s perceived ability to be successful in school was impacted by teaching style and classroom management.

**The relationships between students and teachers and amongst peers in the classroom greatly impacted students feeling of competency.** The theme that resonated through all of the interviews was how much the relationships between students and teachers and amongst peers could impact students’ feeling of how competent they were. Learning is a very social endeavor, and the relationships between teacher and learners and among peers are an important dynamic. The students interviewed stated that these relationships have an effect on several aspects of their ability to be successful. For example, several comments were made about how teachers can make students feel about themselves in relation to their work. “They make me feel like I’m nothing compared to them.” “They don’t acknowledge what you did
good.” “I feel like the teachers can make you or break you.” Comments were also made concerning the effect of peer relationships on their performance in class. “I guess you’re more focused on what’s going to happen (drama) than on your schoolwork.” “Last year (in middle school) when you had to do presentations and stuff it was more easier because you knew everybody. But now it’s different people, so I find it less comfortable.”

The variation in responses relative to their implicit theory of intelligence. The second theme that was dominant in the interviews was the variation in responses relative to students’ implicit theory of intelligence. The contrast between the responses of the students who had scored in the growth mindset and the one who scored in the fixed mindset ends of the spectrum were starkly different. The effects of this construct on the ability to persevere in the face of academic and social difficulties were revealed in the students’ responses. There was also the interplay of students’ implicit theories and the social dynamics between teacher-student and student-student. The student who had high implicit theory scores (incremental theorists) made comments that revealed those beliefs, such as, “I hated getting straight A’s because I fell asleep in all my classes, and it didn’t mean anything. I think the entire grading system is kind of dumb.” “I knew that the reason I was getting C’s was because I was getting challenged for once.” “Sometimes it (frustrations with teachers) affects the effort, but like if I’m not doing good in a class, I’ll try harder.” “I’m going to look at what I got wrong.” “Like if I fail something, it doesn’t mean that I’m like stupid or something.” In contrast, the student with the low implicit theory score (entity theorist) made comments such as “I always do bad on the tests; I don’t know why.” “I’m a retard. I’m just not able to learn it.” “Because even though you tried, you’re not doing your best and getting a good grade.”
The effect of students’ self-ascribed sense of self-efficacy and their perceived ability to be successful. Another theme identified through an analysis of the interview transcripts was the effect of students’ self-efficacy on their perceived ability to be successful. Again, the contrasts in those students who scored high on self-efficacy to the one who scored low revealed a lot about how students are able to advocate for themselves in school, and the effects of the social dynamic on self-efficacy was also evident. Statements were made, such as this one from a student with a high self-efficacy score: “I’m going to pass and be successful no matter what.” Or these from the student with a low self-efficacy score: “Sometimes I give up because I don’t know it.” “I know I’m not going to pass it. I never think positive about myself.”

The degree to which a student’s perceived ability to be successful in school was impacted by teaching style and classroom management. The final theme that emerged from a close review of the interviews was the degree to which a student’s perceived ability to be successful in school was impacted by teachers’ teaching styles and classroom management. All four interviewees commented on the frustrations they feel when disruptive students and those who are not interested in school monopolize the attention of their teachers. They also commented on how a teacher teaches and their ability to manage the classroom affected their ability to learn something well. Every student interviewed indicated to some degree that a teacher’s teaching and classroom management style has an effect on their self-efficacy and ultimately their success. “I just feel like the way a teacher teaches it, even if you had the stuff before, if they teach it a certain way, you learn it deeper.” “She compared something, and so every time I hear that thing, I could think of what she was teaching that day because (of) how she compared it.” “I still did the work, but it wasn’t like as much effort as I could have put into it because I didn’t see the point if she was going to give me a 50 anyway because every time I did
do my work she wouldn’t have it, she wouldn’t mark it off, or she lost it.” “Every day it was like a problem where she would have to send kids out…and then she would go on to a different thing because she forgot what she was doing.”

**Findings of the Student Interviews in Relationship to the Survey**

Some comments made by the four students interviewed were consistent with their scores on the three scales. For example, Allison, who chose “Being challenged” on questions 18, stated that being challenged was more important than grades. The other students’ comments tended towards a focus on grades rather than being challenged.

The three students who were incremental theorists and had high self-efficacy also made comments about being able to find the information or help they needed in spite of any frustrations they may experience with teachers or other students; however, they also made comments that seemed to indicate that at times that frustration does become overwhelming and causes them to give up or, at the very least, put forth less effort than they are capable of.

Donna, the entity theorist with low self-efficacy clearly showed this by readily referring to herself as “retarded” and unable to learn when discussing how failing or low performance makes her feel. The other students, however, never once used words to disparage their intelligence. When asked about failure or lack of good performance, those students said they just needed to try harder or study more and took responsibility for their lack of effort. They were also more inclined to perceive outside influences as obstacles to overcome in order to be successful rather than an indicator of their lack of ability. Donna also related a story about a school program that, in her perception, she was not in control of at any level. She said, “They choose you to do” a particular program. She did not relate this scenario with any sense of autonomy over her future.
All four girls also spoke extensively about the affect of relationships, both peer and teacher, on the ability to be successful in high school. Although this aspect was not a focus of this study, it became a prominent theme during the interviews and will be discussed relative to the research findings in chapter 5.

Chapter V: Summary, Conclusions and Recommendations

The purpose of this study was to gain a deeper understanding of student’s perceptions of their ninth grade experience so that educators can consider opportunities to alleviate the significant drop in achievement amongst ninth graders. Across America, high schools experience significant drops in achievement in ninth grade and confront the highest drop out rates, failure rates, absenteeism, and behavioral referrals than in any other grade level. Many reforms and programs have been implemented over the years to affect this, but efforts have been met with moderate and sporadic success. Over the last two decades, there has only been a 7% increase overall in the percentage of all students who graduate on time, from 74% in 1990-91 to 80% in 2010-11, but that percentage is much lower for black (68%), Hispanic (76%), and Native American students (68%) (Kena et al., 2014). The problem still persists and is even worse in chronically underperforming high schools where the number of seniors enrolled is roughly 60% of those who enrolled as freshman three years earlier. Only 22 states have an 80% or better completion rate and seven have less than 70%. One state, Nevada, has a four-year completion rate of only 58% (Kena et al., 2014).

Status drop out rates paint an even more sobering picture where, although the rates overall and by ethnicity have dropped significantly in the last two decades, there are still significant numbers of our population 16-24 years of age who do not complete high school or go
on to get a GED equivalency diploma. Even at a 6.6% drop out rate, in 2012, that equates to 976,800 students who do not finish high school. It is these students we must try to understand and find ways to support their learning experiences.

This study was an attempt to understand this problem from a motivational perspective by considering their scores on motivational constructs and comparing those with their perceptions of the experience of being a ninth grade student. The goal was to discover the disconnect contributing to the continual decline in ninth grade achievement that every high school experiences to some degree, and although the numbers indicate moderate gains in some areas of the country, there are still thousands of students across the country that do not graduate on time or drop out altogether. Understanding the differences in the experiences of those who succeed and those who struggle may reveal ways in which educators can provide the supports to help all students be successful graduates and achieve to their highest potential.

The study was designed within the theoretical framework of social cognitive theory with an emphasis on self-efficacy, implicit theory of intelligence, and finally goal theory. Students’ belief systems about their intelligence and their ability to have an affect on outcomes can affect the type of achievement goals they set (Bandura, 2003, 2006: Dweck, 1999). Students were given a survey that revealed their implicit theory of intelligence (entity or incremental,) their self-efficacy beliefs, and their goal orientation (performance versus learning.) A small subset of these students was subsequently interviewed to gain insights into their belief systems and perceptions of their ninth grade experience to augment the survey results. This chapter will summarize the findings, subsequent conclusions, and recommendations based on the analysis of the survey data and the interviews. The research results will be interpreted and discussed in relation to the theoretical framework, the literature, and how the findings provide insights into
the ninth grade achievement gap, and finally the limitations of this study and recommendations for future research and practice will be presented.

**Discussion of Major Findings**

Although the findings of this study are sometimes contradictory and far from definitive, the information gained can be very useful for high schools that are interested in developing students who set learning goals and have the necessary cognitive processes to persevere through academic challenges in order to be successful. It would be of considerable value for high schools to analyze their school’s culture and their students’ achievement in terms of these findings.

**Students did not have strong belief systems.** The first important finding to consider is that this cohort of students did not present a definitive point of view from either perspective of very strong or very weak belief systems. Most students presented themselves with moderate belief systems with a few on either end of the spectrum.

Some students (28) had a strong incremental theory mindset, and 20 had a strong fixed mindset. That leaves 72 students in the mid-range without a strong belief system either way. These students are not going to attempt challenging learning tasks if they do not believe they are capable of learning. Their general self-efficacy beliefs were stronger with 94 reporting high to moderately high self-efficacy and only 2 indicating extremely low self-efficacy. Additionally, only 17 students indicated a strong orientation towards learning and competency goals. The disparity in their scores and the small number of students scoring in the high range on all three constructs is evidence that this cohort of students has not developed strong belief systems in all of the three constructs, which are important to developing students who are independent, self-regulated, and successful learners.
The most troubling aspect is that the majority of these students have a belief in intelligence that is likely to impede their levels of achievement. In addition, they more than likely may not persevere through difficult challenges, even with high general self-efficacy, and are going to choose goals that are not going to result in higher achievement. Their high general self-efficacy may not necessarily be a help to them in this situation. It may be that these students’ high general self-efficacy is a result of their community environment, but they may or may not be able to tap into their resources at school in order to persevere through difficult challenges. More specific research would need to be done to determine their self-efficacy for specific learning tasks.

With the scores presented, however, the majority of these students will fall into three possible categories: students who choose the easy task that ensures they ‘look’ smart and will get them a passing grade, students who fall into learned-helplessness that need increasing supports to pass their classes and graduate, and students who give up in the face of failure and setbacks and drop-out. It is important to point out that many students who have a history of high achievement in elementary and middle school that possess a fixes mindset will fall into one of these categories when confronted with their first major setback. These are the students who suddenly are choosing easier classes or doing just the minimum to pass. They are not taking risks so that they can maintain their ‘smart student’ status. Studying the belief systems of a high school’s students is fundamental in the quest to develop programs, policies and pedagogy to improve ninth grade achievement.

Students possessed a performance goal ideology. The second major finding to consider is the overwhelming tendency of this group towards a performance goal ideology. Of the 120 students surveyed, 103 scored as strong to moderately strong performance goal orientation. Only
17 presented with a learning goal orientation, and of those, only five had a very strong learning goal orientation.

The type of goals students strive for is an indication of the strength of the incremental theory, or growth mindset, of the students as well as the school culture. Despite students’ somewhat higher tendency towards an incremental theory mindset, they still are choosing performance goals, which may indicate a harboring of beliefs of an entity theory, or fixed mindset. Students may still be attributing their lack of success to lack of ability rather than the amount of effort expended. It may also be a result of the influence of the school’s culture overall. Teachers, teaching methods, and types and frequency of feedback given all contribute to the school’s culture around a growth mindset. The goals students choose may not involve risk-taking (attempting challenging tasks and/or classes) for fear of failure and appearing inept. These students may choose easier classes in order to ensure their successful performance rather than choose more difficult classes (honors or AP) to ensure higher levels of achievement and deeper learning.

**The disparity of perceptions between incremental and entity theorists.** The third major finding to consider is the disparity in the perceptions of the experiences between the subjects interviewed. Although small in number, it is the experience of this researcher that these perceptions are quite characteristic of students on either end of the achievement spectrum and provide clear insight into the way the growth mindset versus the fixed mindset affect student achievement.

The girls interviewed who had high self-efficacy and an incremental theory mindset spoke about their experiences without making disparaging remarks about themselves except to say things like “I didn’t put in as much effort” or if they failed a test it was because they didn’t
study enough. These girls recognized the internal and external barriers to their success and were able to see them as obstacles to overcome not indicators of their inabilities. On the other hand, the student with low self-efficacy and an entity theory mindset called herself “retarded” and made statements that indicated she “just can’t learn” the material. The obstacles to her success, both internal and external, were clearly perceived as things that only proved she was unable to learn. These perceptions are important for educators to understand and work to overturn. Students with a fixed mindset and low self-efficacy are the very students who are part of the high failure and dropout rates in ninth grade. Helping these students achieve is impossible without this understanding.

**Discussion of Findings Relative to Theoretical Framework**

The results of the survey revealed some interesting information about this group of ninth graders. This section will discuss the quantitative and qualitative findings in each construct with respect to the theoretical framework.

**Goal orientation.** First, only 14% of students indicated a learning goal orientation, which according to the literature, is contradictory to previous research. In Carol Dweck’s research, she found that implicit theory scores and goal theory scores highly correlated (1999; 2003). In this study, the opposite was true. The lack of correlation in these scores could be a result of the discord between the school’s transition program and the school’s culture. Whereas the transition program attempted to support students’ perseverance in academic tasks for the pursuit of learning (an incremental theory of intelligence), the culture of this school, and most schools, seems to support students’ performance goal orientation, which focuses, for the majority of students, on getting good grades, passing standardized tests, and graduation. Subsequently, this orientation may discourage students’ inclination to take risks for the benefit of their learning,
but rather pursue achievement for the sake of higher grades. If the culture of a school does not actively promote an incremental theorist perspective of learning, then efforts to develop those beliefs in students may be relatively, if not significantly, unsuccessful. This finding will be discussed further within the context of self-efficacy beliefs and students’ implicit theory of intelligence.

**Self-efficacy.** In terms of personal self-efficacy within the framework of social cognitive theory, these students presented themselves as highly self-efficacious with 78% scoring 4.1 or higher on their overall score for general self-efficacy. These students believed they are quite capable of achieving a goal or outcome. This is an encouraging finding for this group of students in this school; however, coupled with the goal orientation of the group towards performance rather than learning and growth, success will remain abstract and more difficult to attain than should be necessary for students without the strong belief that their actions are the key to accomplishment. Students who score low on self-efficacy are those students who have learned feelings of helplessness, which is very difficult to address when teaching low-achieving adolescents. Entity theorists with low self-efficacy will rely on more and more school supports and become trapped in learned helplessness just to get a passing grade. They will give up more readily, or they may give up entirely and, possibly, even end up dropping out of school. Students who hold an incremental perspective to learning and have a strong sense of self-efficacy will persevere through challenges and failure in order to achieve their goals.

The themes that emerged from the interviews provide interesting insight into the culture of the school’s teaching and learning environments from students’ points of view. Zimmerman and Cleary (2006) assert that self-efficacy beliefs are “distinctive because they are not only domain-specific but are also context-specific” (p. 47). Although the students interviewed who
were incremental theorists with high self-efficacy related instances where they persevered through challenges in order to achieve, it was clear from their comments that there were context-specific factors that may interfere with their sense of self-efficacy. For example, their comments revealed frustrations with teaching styles, classroom management, and teacher and peer relationships that caused these incremental theorists to withdraw from the learning environment. Schunk and Meece (2006) cited several studies that concluded that

“When classroom environments emphasize competition and normative evaluation (performance goals) rather than individual mastery and self-improvement, adolescents can experience a decline in their self-efficacy. In contrast, classroom environments that emphasize the importance of effort, meaningful learning, self-improvement, collaboration, and student interests help adolescents maintain positive perceptions of their efficacy and competence” (p. 80).

These students’ perceptions of their environment suggest that in some classes they experience teaching and classroom management styles that facilitate learning goals and therefore increase self-efficacy, but in other classrooms the motivation is focused on performance goals which can subsequently impact their sense of self-efficacy. The students interviewed who had high self-efficacy and were incremental theorists also expressed discontent in terms of having their voices honored, being supported by teachers, and classroom management issues. Comments such as, “…teachers can make you or break you,” or “they make me feel like I’m nothing compared to them” reveal that the quality of teacher-student relationships may indeed affect a student’s implicit theory and self-efficacy beliefs. Cindy explained well how a teacher’s response has different effects,
“I mean, if I fail something, it doesn’t mean I’m stupid or something. Like if I put in effort, if the teacher doesn’t answer your question or doesn’t teach you something, you can go on Google and search it. I feel like that can affect you. It depends on what kind of person you are. Like my friend, it makes her feel like terrible when the teacher’s like that. But me, it’s like, whatever…”

Donna further elaborates about her struggles in math from an entity perspective, “I would give up because even if I would try, it would be wrong, so I won’t get any points or anything for it, for even trying, so what’s the point of trying when you’re still going to get it wrong?” The literature reflects that classrooms that honor student voices, create supportive relationships and use learner-centered instructional practices have a more positive affect on self-efficacy (Schunk and Meece, 2006).

Their perceptions also indicate that the quality of their relationships with peers had a significant impact on their disposition to persevere through difficult classroom tasks. The students interviewed, despite being incremental theorists and having high general self-efficacy, made comments that revealed they “give up” or become “the quiet one” when confronted with negative peer relationships within the classroom, and they did not believe they had any real control over those relationships. Brenda explained, “Last year (in eighth grade) when you had to do presentations and stuff, it was more easier because you knew everybody. But now it’s so many different people…I just find it less comfortable.”

Implicit theory of intelligence. In terms of these students’ implicit theories of intelligence, according to the survey results, 62% of students are incremental theorists and believe in the malleability of intelligence. These students believe that through their efforts, they are able to increase their intelligence. This finding, although encouraging, has two noteworthy
points to consider. First, many, but not all, of these students had participated in a ninth grade transition program, which exposed them to the principles behind an implicit theory of intelligence and a growth mindset. This program may be responsible for some of the higher than expected incremental theory scores. Secondly, these students are predominantly performance goal oriented based on their survey response with 38% of students scoring solidly in the performance goal orientation range and another 48% scoring in the middle of the continuum. Only 14% indicated a solid learning orientation. This is contradictory to their strong self-reported incremental theory of intelligence beliefs. According to the literature, those who are incremental theorists have a learning goal orientation (Blackwell et al., 2007). The fact that these students do not have a learning goal orientation mitigates their implicit theory scores.

The perceptions of the students who participated in the interviews, however, do validate their implicit theory scores since they represented the two extremes. Donna, the student with low self-efficacy, an entity theorist and with a performance goal orientation, made some extremely revealing comments. Donna’s description of herself as “I’m a retard” when faced with failure is in stark contrast to the incremental theorists who did not use any self-deprecating terms to describe themselves in similar situations. In fact, the incremental theorists commented on whether the setbacks they encountered were due to their lack of effort, the result of someone else’s actions, or the general situation surrounding them. Donna, on the other hand, never spoke about the academic obstacles she faced as anything but her lack of ability. These students who do not have confidence in their abilities or the malleability of their intelligence are those students who routinely give up and do not take risks in learning situations. Although the incremental theorists reported situations where they did give up, they did not give up on the task as much as they gave up on changing the obstacle in front of them. They were still able to be resourceful in
order to accomplish the task, such as using technology or consulting with a friend or seeing the teacher after school. This is an important distinction between the two extremes as it may be helpful for educators to consider how students perceive and then respond to challenges when engaging their students in learning tasks.

A deeper analysis of the student interviews reveals that even though the incremental theorists were positively affected by their belief systems, they were unable to fully engage those beliefs because of the quality and type of teacher feedback, which is essential to a student with an incremental view of learning. Studies by Bandura and Cervone (1983) and as discussed in Carol Dweck’s book *Mindset* (2006), if someone adopts challenging learning goals, there will be no significant effect on their motivation if they do not receive frequent, meaningful feedback on their progress. The interviews revealed that these students do not always get feedback on their work in a timely manner, if at all. Brenda stated, “But other teachers won’t give you your test back. Like you won’t find out your grade and what you got wrong until the end of the term, and they won’t do anything about it” (the failed grade.) Cindy explained that some teachers allow her to retake tests but not in others. She will simply “look over (the material) because that’s going to be on a quarterly or something, and so I study the materials, so that way when quarters come, I don’t do bad on the same thing. I’m going to look at what I got wrong.” The question that remains, however, is whether this student can discover on her own how to correct her mistakes without the feedback a teacher could be giving her.

**Discussion of Findings Relative to the Literature**

The literature review was organized under the topics of the role of social and emotional skills on academic achievement, getting to the core of motivation, and ninth grade transition. The literature supports the findings of this study in many ways.
The role of social and emotional skills. The positive role of social and emotional skills on academic achievement is well established by extensive research. It is impossible and unwise to try to separate the emotional health of a student from their academic achievement. Studies found that students’ pro-social or anti-social behaviors had direct effects on their academic achievement, and that “failing to persevere at their work” (Beebe-Frankenberger, et al, 2005, p. 7) was cited as one of the specific behaviors contributing to a decline in or lack of achievement. This perseverance is at the heart of an incremental theory of intelligence. Students who are strong incremental theorists are able to persevere through academically challenging work and any obstacles to learning they may encounter in order to be successful. The majority of students in this study do not have a strong incremental theory belief system, and as evidenced by their propensity towards performance goals, will not have the type of perseverance that is necessary for them to achieve to their highest potential.

Skinner et al. (1990) found that teacher behavior influences a student’s perceived control and thus promotes or undermines engagement and academic performance. The discussion with the students who were interviewed revealed that, for them as well, the behavior of the teachers and relationships that these students had with those teachers had a considerable effect on their perception of the amount of control they had on their own outcomes. The students interviewed reported teachers who made them feel inferior, who didn’t care, or who did not have a strong handle on classroom management, and as a consequence, they made these students feel as if their only recourse was to “Google it,” not speak up in class, or do the minimum to make a good grade. Brenda reported feeling frustrated with some of her teachers and said, “I still did the work, but it wasn’t like as much effort as I could have put into it because I didn’t see the point if she was going to give me a 50 anyway because every time I did do my work on time, she
wouldn’t have it, she wouldn’t mark it off, or she lost it.” Cindy reported, “I just feel like the way a teacher teaches it, even if you’d had the stuff before, if they teach it a certain way, you learn it deeper.” Brenda also spoke to this point by saying, “I feel like the teachers can make you or break you. Like, if they don’t make it easy to understand, you’re just going to do bad, but if they make it easy for your to understand, then you can” remember it because of how they explained it. “So I feel like the teachers have a lot of impact on me.” Donna stated, “Some teachers don’t care at all. They just let some students fail.” She did indicate by her responses to other questions about her classes, that in classes she is doing well in, those teachers are perceived as being more supportive and allow her to redo assignments and tests to improve the quality of her work.

Students who have a strong sense of self-efficacy and are incremental theorists will be able to persevere through these obstacles and be relatively successful; however, those on the other end of the spectrum may not have the capacity to persevere and will struggle to varying degrees. Additionally, incremental theorists like Brenda and Cindy may not be achieving to their fullest potential either if their motivation and effort are diminished by frustrations with teachers.

The APA’s report entitled “Learner-centered Psychological Principles” states that “Learning is influenced by environmental factors, including culture, technology, and instructional practices” as well as “social interactions, interpersonal relations and communication with others” (November, 1997, p. 2-3). The classroom environment and school culture has a direct influence on students’ motivation to learn, but it is not only the quality of the relationships with teachers that is important, it is also the quality of relationships with peers. As the case studies revealed, students do not feel comfortable taking risks and putting forth their full effort when they feel judged not only by teachers but also by their peers. When asked about the drama
in school and if it interfered with their learning, all of the girls said it did. “I guess you’re kind of more focused on what’s going to happen.” Brenda also stated, “Last year (in middle school) when you had to do presentations and stuff, it was more easier because you knew everybody. But now it’s so many different people, I just find it less comfortable.” She goes on to talk about the trouble she had been having in “almost every single class” because of a particular girl. “I don’t like presenting in those classes because she’s in there and whether you do good or whether you do bad, if the person does not like you, they will find something wrong with it and then want to talk about it.” Cindy offered, “You’re judged in every factor when you come into high school.” It is clear that these girls are not expending their full effort because of the relationships they are encountering

Getting to the core of motivation.

The APA report goes on to state, “Without learners’ motivation to learn, the willingness to exert this effort is unlikely without coercion” (1997, p. 3). The effort being referred to is that required for the “acquisition of complex knowledge and skills” (p. 3). In order for students to acquire the level of understanding, knowledge and skills being expected of them, then they are going to need more effective strategies that develop student motivation, encourage effort and taking responsibility for their learning. Students with high self-efficacy and who are incremental theorists have an advantage over those on the other end of the spectrum, but the environment in which both learn can mitigate their effort and dedication to achieving to high standards. Students’ belief system scores and responses to the survey indicate that their ability to be self-motivated is not fully developed and may be hindered by the culture of the school. Although their incremental theory scores were higher than expected, the scores are mitigated by their clear propensity towards a performance goal orientation. According to the literature, there should be a
significant correlation between a person’s implicit theory and goal orientation; however, that was not the case with this study.

**Ninth grade transition.** The most significant correlation to the literature is through the lens of transitioning from middle school to high school. The differences in the learning environments and culture from one context to the next can be overwhelming to students and can be a contributing factor to the decline in student achievement. The findings of the present study seem to corroborate the findings of the studies of others and show that students are not prepared for the demands of high school, and this is confounded by the “larger, more impersonal, more competitive, and grade-oriented environment than they experienced in middle school” (Mizelle & Irvin, 2000, p. 57).

The students interviewed for this study, when asked if they were prepared for high school, the incremental theorists responded with “Not really,” “I feel like K-8 didn’t prepare me for that. I was so overwhelmed with like the first paper,” “Sixth grade prepared me more for high school than seventh or eighth grade. They were much more strict.” Donna, the entity theorist responded with “No. I need to be smarter. Like they should have shown me more things…like my math teacher…she does FOIL…and in elementary and middle school they really don’t show stuff like that.” These students’ responses clearly indicate a need and a desire for more learning strategy acquisition to prepare them for the increased demands of high school.

According to the studies by Eccles and Midgeley (1989, 1990, 1993) ninth grade students are encountering a learning environment that does not fit their developmental needs as adolescents. As stated in the APA report above, social interactions are important, and the high school transition experience “often serves to disrupt friendship networks, and thereby, interferes with students’ success in high school” (Mizelle & Irvin, 2000, p. 59). This is born out by several
statements made by the girls interviewed. One spoke about how she had to make all new friends and that the ones she had in middle school were no longer her friends. Another spoke about not feeling comfortable making presentations anymore in front of her classes because she did not know people well or there was someone in the class she was having a conflict with. All of the girls interviewed spoke passionately about the affects of the ‘drama’ on their ability to focus on schoolwork.

Although the ninth graders at the high school in which this current study took place participated in a transition program, and the affects of which cannot be measured, Smith (1997) points out that successful programs target not only all students but parents and high school staff as well. One student interviewed had participated in the program whereas the others had not.

**Summary**

Given the contradiction in implicit theory and goal orientation scores, along with this group’s self-efficacy scores, there is strong evidence that in this cohort of students, there are few students who have high self-efficacy, are incremental theorists, and have a learning goal orientation. On the positive side, there is also strong evidence that there are few students who have low self-efficacy, are entity theorists and have a performance goal orientation. The majority of students presented in a variety of combinations along the continuums of each construct. These results, despite seeming inconclusive, may be useful to educators in considering how to help students develop a strong sense of self-efficacy and adopt an incremental view of learning with a performance goal orientation. Knowing how students view their ability to achieve, how they think about intelligence, and how they choose goals can help educators make changes in school culture, transitional and instructional programs for 9th graders,
and teaching practices and classroom interactions (teacher-student and peer-to-peer) in order to help students achieve success.

Many students may not be in an environment that supports their sense of efficacy, incremental theory of intelligence, or a learning goal orientation. It would certainly be unfortunate if most students experience competitive learning environments that do not value process over product or teacher and peer relationships that positively affect their motivation to learn through challenging learning tasks.

**Limitations**

There are some limitations to this study worth noting. First, students took a general self-efficacy scale that, although reveals important information on student beliefs about their ability to succeed in school in general, does not reveal student beliefs about their ability to succeed in specific subject areas, such as math or writing, or at specific tasks within a subject area. High general self-efficacy may not translate into high self-efficacy in all domains.

Secondly, although many generalizations can be made with respect to high school students’ experiences in ninth grade, the small sample of students participating in the interviews in this study does not allow for a confident generalization of their perceptions across other students. More research is required in order to make the claim that all students with similar beliefs think and feel the same way as these students do.

The third limitation concerns the generalizability of results to other high schools. These results are probably unique to this school given their demographics and the fact that these students had been exposed to the principles of implicit theory of intelligence prior to this study. Schools who have different demographics and who have not exposed their students to those principles or who have a more rigorous program and a school culture dedicated to those
principles would more than likely have different results. Finally, because the survey questions were all self-reported, the results need to be viewed with some skepticism, as self-reported information on a short Likert scale survey may or may not be accurately and fully represent students’ actual perceptions and beliefs.

Recommendations

The ways in which students engage in learning, and the ways in which teachers interact with students, can do much to develop a student’s beliefs about intelligence, their abilities, and the reasons they choose to engage in an academic task or activity. Student belief systems that affect motivation and achievement can be improved upon by focusing on several aspects of the learning environment. Only the aspects that directly relate to the findings of this study will be discussed in depth in this section. First, I will discuss the ways in which adults in a school setting could change their behaviors that affect student beliefs and motivation. Second, I will discuss the ways in which students’ behaviors and thought processes could be impacted in order to achieve the desired results.

First, teachers and other adults in schools affect the development of students’ beliefs by the ways in which they model those beliefs. Teachers should hold high self-efficacy beliefs about their own abilities, which will be an effective model for students. The belief systems of teachers are an important aspect of the learning environment that deserves analysis and attention by teachers, administrators, and researchers. Teachers evidencing a high degree of self-efficacy can create classrooms that provide opportunities for exploration and skill development, “whereas teachers with low instructional self-efficacy undermine students’ cognitive development as well as students’ judgments of their own capabilities” (Pajares, 2006, p. 361). In addition, teachers can publicly model effective coping strategies whenever confronted with daily frustrations,
setbacks or mistakes within the classroom, which could in turn effect students’ own behaviors. Also, important is for adults to believe in the abilities of the adolescents they work with and to openly communicate that belief. As the students interviewed in this study revealed, the interactions students have with their environment and educators, who contribute to the development of strong belief systems or weaken them, affect the degree to which they can exercise control over that environment. There is validity in the old adage that students will live up to whatever expectations you have for them. Finally, educators need to constantly challenge students’ self-belief systems and be watchful for signs of students who have developed negative beliefs about their capabilities. Many a teacher can relate stories about students who insisted they were not capable of succeeding even when faced with evidence to the contrary. When these students are adolescents, it becomes even more difficult to combat their ways of thinking; therefore, districts need to be attentive to cultivating positive belief systems in their students, beginning in kindergarten and continuing until graduation and also helping parents learn how to cultivate those belief systems at home.

Other ways to cultivate positive belief systems in students include several changes to instructional practices. Many of these practices may not be new to educators, but the purpose of mentioning them here is to emphasize their importance in helping students become higher achievers. An important practice educators need to adopt is creating classrooms and schools that encourage students to see failure as feedback about their progress towards mastery and competency, and prevent students from attributing their failures to a lack of ability. Students need reinforcement of the idea that failure or mistakes are just part of the journey towards growth and improvement. Part of creating that environment is greatly minimizing students’ ability to compare their achievements and efforts to those of their peers. As evidenced by the incremental
theorists with high self-efficacy interviewed for this study, seeing failure as a way to gain insight into your own progress is key to continued perseverance and motivation. As Pajares (2006) writes, “Young people should be helped to develop their own internal standards for evaluating their own outcomes. The challenge is to ensure that these internal standards are rigorous without being debilitating, realistic without being self-limiting, fluid without being wishy-washy, consistent without being static” (p. 347).

Students’ ability to self-assess is also an important aspect of developing a learning goal orientation. If students are focused on short-term goals of mastering the steps in acquiring a skill, then they are able to see actual growth and accomplishment. As illustrated by Donna’s frustrations with having to be taught something over and over and still not passing the test, students who are solely focused on learning all of the material and passing the test will fail to see any progress being made. Students should be explicitly taught how to set short-term, meaningful learning goals and coached in developing strategies to accomplish those goals. This will not only facilitate mature self-regulation of learning but will also improve students’ beliefs about their ability to learn and grow.

Educators should also attend to the quality and frequency of student praise, which is an important component of teaching and learning. Much of the praise students receive in classrooms is vague and meaningless. In order for praise to facilitate a growth mindset and strong self-efficacy beliefs, praise should be sincere, students should have done something to earn it, and it should be memorable (Pajares, 2006). According to Dweck (2006), praise should be directed at a student’s effort and persistence with a difficult task. Praising students’ intelligence only reinforces an entity theory or fixed mindset and will result in students choosing performance goals over learning or mastery goals. Praise, coupled with an educator’s belief in a student’s
abilities as discussed above, will greatly enhance the development of students’ incremental view of intelligence along with a strong sense of self-efficacy and a learning goal orientation. Although teachers are evaluated on the presence of praise in their classrooms, the experience of this researcher is that the quality and type of praise is generally not emphasized.

Finally, the aspect of a learning environment that this researcher believes needs the most attention in schools is how instruction is structured for students’ individual abilities. For many years, teachers have received professional development on creating instructional practices that facilitate learner-centered classrooms; however, with the increased emphasis on standardized curriculum and testing, schools have been forced to shift their focus to practices that do not facilitate the development of students’ self-efficacy beliefs and a growth mindset. Many high schools function in a competitive atmosphere that does nothing but decrease a student’s sense of self-efficacy. Pajares (2006) elaborates by saying

Social-comparative school practices that emphasize standardized assessments, involve ability grouping and lockstep instruction, use competitive grading practices, and encourage students to compare their achievement with that of their peers, work to destroy the fragile self-beliefs of those who are less academically talented or prepared. These are instructional practices that can transform self-efficacy into self-doubt. (p. 348)

Conclusion

The students who are most vulnerable to the negative practices Pajares (2006) mentions are the students who are the inspiration for this study—the ones who experience the biggest decline in achievement in ninth grade, the ones more likely to repeat ninth grade, and the ones most likely to drop out. If educators are interested in improving the achievement of ninth grade students, then paying attention to these aspects, among many others, will increase the likelihood
that these ninth graders, as well as many more students, will be successful throughout grades k-12 and into post-secondary school and beyond.

One of the responsibilities of schools is to prepare the nation’s children for post-secondary education and to become life-long learners – it is one of the tenets of most high schools’ mission statement. In order to realize this goal, school districts must learn what the self-beliefs of their students and teachers are and make changes to practices and programs that are going to support each student’s and teacher’s progress towards of a growth mindset with strong self-efficacy beliefs and who approach teaching and learning from a learning goal orientation.

The emphasis on the high stakes test must shift and instead be on the process and opportunities for learning.

**Personal Reflection**

I have been teaching for over 25 years, and the majority of my career has been working with students who have a difficult time achieving to their potential for a variety of reasons. I have worked with secondary students with various learning and/or emotional disabilities in self-contained and co-taught classrooms in English, science, math, and social studies. I have struggled, however, in helping students develop their independence as learners. I have always wanted to help them find an excitement for learning so that they can be lifelong learners. I wanted to be able to give them the capacity to learn independently and not rely so heavily on others to complete tasks and accomplish goals. I wanted them to be able to set appropriate goals for themselves and be able to achieve them. All of my colleagues struggle with these same concerns with most of our students. I began a seemingly never-ending search long ago for ways to help them. I found a lot of ways to help my students, but it wasn’t until conducting the research for this degree that I found the key to those concerns.
Early in my career, I was introduced to a program developed by the University of Kansas Center for Research on Learning. This program is based on research conducted with learning disabled and low achieving students. The researchers developed a series of learning strategies to help students become independent learners in written expression, reading, and information acquisition. I have successfully used these strategies for over 20 years, but it was always a struggle to get students in high school to become truly independent learners who were able to decrease the level of support services they required in order to access the curriculum, meet academic standards, and reach their full potential. They may have been able to improve their reading and writing skills or become organized or improve their assignment completion rates, but they still relied on the adults to tell them what to do, when to do it, whether it was done correctly, and so on, and most had to be coerced into completing most tasks. Their comments were much like Donna’s revealing their belief that they were not capable of learning and succeeding. The self-motivation that was required for them to be independent learners was always elusive, and these students continued to be at risk of failure and dropping out.

There are other students who do not qualify for special education services who experience the same difficulties with learning and achievement in high schools everywhere. These students are also at risk and do not receive anywhere near the same support services. I believe this research revealed an important aspect of motivation to which educators should pay close attention. We cannot expect students to suddenly develop self-motivation and perseverance because we may have improved a specific skill. Granted, they may feel better about attacking a writing assignment, for example, but that does not guarantee that it will translate into a student who perseveres when those writing assignments are perceived as being challenging and difficult as they most certainly will be as they progress through the grades.
If school districts want to improve all aspects of student achievement, attendance rates, behavior occurrences, graduation completion and dropout rates, then I believe paying attention to the development of students with a growth mindset is essential. This attention should begin in kindergarten and continue through high school. School districts have a responsibility to help develop students’ capacity to learn to their potential and cannot do this job without support of parents. Parents play an equally important part in this development and should be included in all efforts to educate students and teachers about developing a growth mindset, strong self-efficacy, and providing the right type of feedback at the right time. And I believe this partnership between parents and educators should be developed early and nurtured throughout a student’s school career. The development of a student’s growth mindset should be a district’s number one priority because without it, nothing else a district does is going to have enough impact to alleviate the problem of decreased ninth grade achievement.
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Appendix A

Ninth Grade Student Survey

**Part I—Answer the following questions honestly and thoughtfully.**
*Read each sentence below and then circle the one number that shows how much you agree with it. There are no right or wrong answers.*

1. **You have a certain amount of intelligence and you really can’t do much to change it.**
   
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2. **Your intelligence is something about you that you can’t change very much.**
   
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3. **You can learn new things, but you can’t really change your basic intelligence.**
   
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4. **No matter who you are you can change your intelligence a lot.**
   
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5. **You can always greatly change how intelligent you are.**
   
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6. **No matter how much intelligence you have, you can always change it quite a bit.**
   
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7. **I can always manage to solve difficult problems if I try hard enough.**
   
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<td>Disagree</td>
<td>Strongly Disagree</td>
<td></td>
</tr>
</tbody>
</table>
8. If my grades fall, I can find the means and ways to bring them up.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Mostly Agree</td>
<td>Mostly Disagree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
<td></td>
</tr>
</tbody>
</table>

9. It is easy for me to stick to my goals and accomplish them.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
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<th>4</th>
<th>5</th>
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<td>Mostly Disagree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
<td></td>
</tr>
</tbody>
</table>

10. I am confident that I could deal with unexpected situations.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
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<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
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<td>Mostly Agree</td>
<td>Mostly Disagree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
<td></td>
</tr>
</tbody>
</table>

11. Thanks to my resourcefulness, I know how to handle unforeseen situations.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
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<th>5</th>
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<td>Mostly Disagree</td>
<td>Disagree</td>
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<td></td>
</tr>
</tbody>
</table>

12. I can solve most problems if I invest the necessary effort.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
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<th>4</th>
<th>5</th>
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</tr>
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<td>Mostly Disagree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
<td></td>
</tr>
</tbody>
</table>

13. I can remain calm when facing difficulties because I can rely on my coping abilities.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
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<th>3</th>
<th>4</th>
<th>5</th>
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<td>Mostly Disagree</td>
<td>Disagree</td>
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<td></td>
</tr>
</tbody>
</table>

14. When I am confronted with a problem, I can usually find several solutions.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
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<th>4</th>
<th>5</th>
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<td>Mostly Disagree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
<td></td>
</tr>
</tbody>
</table>

15. I can usually handle whatever comes my way.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
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<th>4</th>
<th>5</th>
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<tbody>
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<td>Mostly Disagree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
<td></td>
</tr>
</tbody>
</table>
16. If I am in trouble, I can usually think of a solution.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
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<td>Disagree</td>
<td>Strongly Disagree</td>
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</tbody>
</table>

(Chen, et al., 2001)

17. If I knew I wasn’t going to do well at a task, I probably wouldn’t do it even if I might learn a lot from it.

<table>
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<tr>
<th></th>
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<th>4</th>
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<tr>
<td></td>
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<td>Agree</td>
<td>Mostly Agree</td>
<td>Mostly Disagree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

18. Although I hate to admit, I sometimes would rather do well in a class than learn a lot.

<table>
<thead>
<tr>
<th></th>
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<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
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<tr>
<td></td>
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<td>Mostly Agree</td>
<td>Mostly Disagree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

19. It’s much more important for me to learn things in my classes than it is to get the best grades.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
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<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

20. If I had to choose between getting a good grade and being challenged in class, I would choose…(Circle one)

“good grade”
“being challenged”

(C. Dweck, 1999)

Part II

Please respond to the following items to help us better understand the challenges and successes of 9th grade students.

21. I am a:
   - [ ] male
   - [ ] female

22. I am enrolled in:
   - [ ] Regular English
   - [ ] Honors English
   - [ ] Other: _________________________________
23. I am enrolled in:
   - [ ] Geometry
   - [ ] Honors Geometry
   - [ ] Algebra
   - [ ] Honors Algebra
   - [ ] Other: _________________________

24. Please select the grades you typically earn in each of the following classes. If you do not take one of these classes, leave it blank.

<table>
<thead>
<tr>
<th>Subject</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
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</tr>
<tr>
<td>Math</td>
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<tr>
<td>Science</td>
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<td>Social Studies</td>
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<td>Foreign Language</td>
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<td>Art</td>
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<tr>
<td>Applied Technologies</td>
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<tr>
<td>Home Economics</td>
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<tr>
<td>Physical Education</td>
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<tr>
<td>Computer Technology</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Other: ___________________</td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

25. When I first started high school I felt prepared.
   - [ ] Agree
   - [ ] Disagree

26. I understand what I need to do to be successful in the classroom.
   - [ ] Agree
   - [ ] Disagree

27. When I have a problem this is the first person I go to.
   - [ ] Teacher
   - [ ] Student
   - [ ] Counselor
   - [ ] Parent
   - [ ] Other: ________________________

28. Please indicate the sports in which you participate:

29. Please list other non-athletic activities in which you participate:
30. Please indicate how important schoolwork is to you:
   □ Very important
   □ Important
   □ Somewhat important
   □ Not important

31. I ask questions in class.
   □ Always
   □ Sometimes
   □ Never

32. I answer questions in class.
   □ Always
   □ Sometimes
   □ Never

33. Most of my classes are:
   □ Easy
   □ Pretty easy
   □ Challenging
   □ Difficult
   □ Very difficult

34. I study for tests:
   □ Always
   □ Sometimes
   □ Never

35. I feel confident when I take tests:
   □ Always
   □ Sometimes
   □ Never

36. Please indicate your need for help in the following areas:

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note Taking Strategies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test Taking Strategies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using my textbook to maximize learning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study Strategies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Memorization Strategies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing Strategies</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

37. Please select the option you are mostly likely to pursue after graduation:
   □ Four year college or university
☐ Two year college
☐ Technical/vocational college
☐ Trade school
☐ On-the-job training
☐ Military
☐ Other: _______________________________________________
☐ Undecided

38. I have a plan to achieve the career goal I have set.
☐ Yes
☐ No

39. I feel I am an important part of this school.
☐ Yes
☐ Most of the time
☐ No

40. There is at least one adult at school whom I feel comfortable talking to about a problem I may have.
☐ Yes
☐ No

41. How would you rate your successfulness this year as a ninth grader?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A total failure—will have to repeat all or most of my classes</td>
<td>Not very successful—will repeat 1-2 classes</td>
<td>Pretty successful—but barely passing some classes</td>
<td>Successful—making at least a ‘C’ in all of my classes</td>
<td>Very successful—making a ‘B’ or higher in all of my classes</td>
</tr>
</tbody>
</table>

42. What do you think is the number one reason for your success rating in the previous question? (Please explain your answer as fully as you can.)