Gifted Students’ Perceptions of the Influence of a Gifted Middle School Program on the Development of Their Achievement Orientation

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In social cognitive theory, the development of self-perceptions is a complex process involving personality and environment. While educators may have little influence on students’ personality traits, they can attend to environmental components that support the development of positive self-perceptions. Developing positive self-perceptions has been identified as a key precursor to developing achievement behaviors. Achievement orientations are viewed as positive learning orientations with students focused on learning new material in comparison to a standard of excellence. Motivational variables such as achievement goals, self-efficacy beliefs, and intelligence beliefs have been connected to the development of an achievement orientation. These motivational variables have been found to decline during transition periods such as from elementary to middle school. This basic, interpretive qualitative study presents 6 students’ retrospective self-perceptions of the development of their motivational variables and achievement orientation while participating in a gifted middle school program. Participants’ responses led to the development of the following conclusions: (a) challenging curricula within a supportive environment led to the development of positive self-efficacy beliefs and achievement behaviors (e.g., seeking help, studying, taking good notes) and (b) holding multiple achievement goals and/or fixed mindsets did not prevent the development of positive achievement orientations or behaviors.
Gifted Students’ Perceptions of the Influence of a Gifted Middle School Program on the Development of Their Achievement Orientation

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B.A., University of Louisiana at Lafayette, 2002
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Doctor of Philosophy Dissertation

Gifted Students' Perceptions of the Influence of a Gifted Middle School Program on the Development of Their Achievement Orientation

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CHAPTER ONE: INTRODUCTION AND OVERVIEW OF THE STUDY

The National Association for Gifted Children’s (NAGC) 2010 Programming Standards emphasize the importance of providing challenging learning experiences for gifted students to help them develop a positive academic achievement orientation. Elliot and Harackiewicz (1994) defined achievement-oriented individuals as those who “seek diagnostic ability assessment and feedback, place a high value on competent performance, and are motivated to attain high levels of skill in competition with a standard of excellence” (p. 970). McCoach and Siegle (2003) described individuals who are achievement oriented as those who (a) value the task or goal (goal valuation), (b) feel supported to complete the task within their environment, (c) recognize that they have the skills necessary to complete the task (self-efficacy), and (d) are able to set appropriate goals and self-regulate to accomplish those goals.

Developing positive self-perceptions has been identified as a key precursor to developing achievement behaviors (Bandura & Schunk, 1981). As noted in social cognitive theory, developing these self-perceptions is a complex process involving personality and environment (Bandura, 1986). While educators may have little influence on students’ personality traits because of the stability of personality (Soldz & Vaillant, 1999), they can attend to environmental components that support the development of positive self-perceptions.

The adoption of a particular achievement goal may be encouraged or discouraged within a school or class environment (Meece, Anderman, & Anderman, 2006; Shim, Ryan, & Anderson, 2008). Studies of specific cognitive and motivational variables such as achievement goals demonstrate that teacher feedback and emphasis on task learning versus task completion relate to specific students’ perceptions of these goals (Anderman, Maehr, & Midgley, 1999; Meece et al., 2006). Grant and Dweck (2003) also have connected certain achievement goals
with more persistence during challenging tasks. They hypothesized that students will not demonstrate motivational beliefs until they are presented with challenging situations. Teachers and school environments also can be highly influential in the development of self-efficacy beliefs, especially when a student is able to experience repeated success within the classroom (Britner & Pajares, 2006), he or she sees similar people succeed, or he or she is told that success is possible (Usher & Pajares, 2006).

**Statement of the Problem**

Motivational theorists posit that students decline in motivation during transitions such as the transition to middle school (Eccles et al., 1993; Wigfield & Eccles, 1994), providing fertile ground for the development of underachievement. For identified gifted students there may be additional challenges. One popular belief within the community of gifted education is that when students are given the opportunity to work in appropriately challenging classrooms with academic peers they may develop an academic achievement orientation (Moon, 2009). However, middle school gifted students do not always perceive that they have the opportunity to engage in an appropriately challenging environment (Gallagher, Harradine, & Coleman, 1997; Kanevsky & Keighley, 2003; Larson & Richards, 1991). These student perceptions of boredom and the lack of a challenging environment may influence their academic achievement orientation and lead to the development of underachieving behaviors (Kanevsky & Keighley, 2003). Students who develop underachieving behaviors in middle school are at risk for not being able to take high-level coursework in high school because of poor performance in middle school. Achieving at the high school level has been connected with students’ achieving in college (Peterson, 2000). The potential long-lasting effects of underachievement or achievement patterns highlight the importance of helping students develop an achievement orientation.
Developing an understanding of how to help students prepare mentally for challenge is of utmost importance. Dai, Moon, and Feldhusen (1998) noted the importance of understanding motivational patterns in the talent development process. Understanding how students develop cognitive and motivational variables, such as achievement goals and self-efficacy, within a variety of contexts and environments can help researchers, policymakers, administrators, teachers, and parents make decisions to best support students’ achievement orientation. The purpose of this study is to understand middle school students’ perceptions of the influence that participation in a gifted middle school program had on the development of their achievement orientation via motivational variables (achievement goals and self-efficacy) and incremental beliefs of intelligence.

**Definition of Terms**

Achievement orientation—Manifestations of achievement behaviors or a student’s general approach to learning strategies. Individuals who are achievement oriented (a) seek ability assessment and diagnostic feedback, (b) place a high value on competent performance, and (c) are motivated to attain high levels of skill in competition with a standard of excellence (Elliot & Harackiewicz, 1994). For this study, achievement goals, intelligence beliefs, self-efficacy beliefs, and environmental perceptions are considered influential components of a student’s achievement orientation.

Achievement goals—“Cognitive representations that guide behavior in a particular direction” (Elliot & Thrash, 2001, p. 144). Elliot and McGregor (2001) developed a 2 X 2 framework of achievement goals: (a) mastery-approach, (b) mastery-avoidance, (c) performance-approach, and (d) performance-avoidance.
Self-efficacy—“An individual’s judgments of his or her capabilities to perform given actions” (Schunk, 1991, p. 207). Self-efficacy beliefs are generally context-specific and future-oriented (Ferla, Valcke, & Cai, 2009).

Gifted students—Students who demonstrated at least an above average full-scale IQ score as determined by an individual intelligence test (e.g., Wechsler Intelligence Scale for Children-IV Edition) and above-average performance on an academic achievement test (e.g., Woodcock-Johnson Tests of Achievement) in reading and/or math.

**Background of the Study**

Research supports the assertion that students’ reasons for achievement, their self-efficacy beliefs, and their perceptions of classroom environment contribute to students’ classroom engagement (Greene, Miller, Crowson, Duke, & Akey, 2004). Valuable information on student achievement can be gained through investigating students’ self-perceptions (Bandura, 1989). Bandura’s social cognitive theory (1989) guided the development of this study. In social cognitive theory, Bandura (1989) postulated that behavior and environmental circumstances influence each other. The bidirectional influence leads to people’s becoming both “products and producers of their environment” and that “through their actions, people create as well as select their environments” (p. 4). Both environment and personal characteristics are important determinants of life paths. People “function as contributors to their own motivation, behavior, and development with a network of reciprocally interacting influences” (p. 8). Achievement goals and self-efficacy beliefs change over time within various environments (Ames & Archer, 1988; Anderman et al., 1999; Britner & Pajares, 2006).
Constructs Associated With Achievement Orientations

Constructs such as students’ achievement goals, self-efficacy beliefs, and beliefs about intelligence provide relevant information on how students will respond to challenging material.

Achievement goals. One important cognitive variable associated with student performance is achievement goals. Ames (1992) defined mastery goals as connected to development of competency and understanding of material or content, and performance goals as connected to a person’s sense of ability and/or self-worth. Elliot and MacGregor (2001) further developed conceptions of the nature of achievement goals with the 2 X 2 achievement goal framework to account for the approach and avoidance aspects of mastery and performance goals. In their experiments with college undergraduates, they found that a mastery-approach achievement goal was associated with an overall need for achievement, work mastery, self-determination, competence value, perceived class engagement, deep processing, and subsequent mastery approach goals. Students with a mastery-avoidance goal orientation were more likely to demonstrate fear of failure, entity theory, competence valuation, perceived class engagement, disorganization, test anxiety and worry. Holding a mastery avoidance goal was negatively related to self-determination and incremental theory.

Performance-approach goals related to overall need for achievement, competitiveness, fear of failure, competence valuations, overall exam performance, and subsequent performance approach. Performance-avoidance goals were positively correlated with fear of failure, entity theory, competence valuation, surface processing, test anxiety, and worry. This goal demonstrated a negative relationship with self-determination, deep processing, multiple choice performance, and short-essay performance. Elliot and MacGregor (2001) noted the need to help students develop approach goals.
While the results presented by Elliot and MacGregor (2001) are illuminating, they used undergraduates for their sample. Research investigating the implications of their studies with gifted middle school students is needed.

**Self-efficacy.** Self-efficacy has also been identified as an element of achievement orientation (Siegle & McCoach, 2005). Bandura (1986) identified perceived self-efficacy as a self-system of thought that has great influence in people’s everyday lives. Self-efficacy is not a global judgment; rather, it is more closely connected to specific activities. Ferla et al. (2009) stated that academic self-efficacy is context-specific and future-oriented, supporting Bandura’s (1986) statement that perceived self-efficacy influences the types of activities people engage in and how long they will persist in activities, noting, “People are disinclined to strive for rewards requiring performances they themselves are incapable of attaining. Nor do they passionately aspire to goals they judge they can never fulfill, unless they are bent on self-inflicted misery” (Bandura, 1986, pp. 430-431). Bandura also postulated that there are four sources of self-efficacy (a) mastery experiences, (b) vicarious experiences, (c) verbal persuasion, and (d) physiological state—highlighting that perceptions of self-efficacy are developed from a variety of sources of information including direct experiences, observations, and social comparisons. Studies over the past three decades have demonstrated the role of self-efficacy in the development of cognitive gains in specific content areas such as mathematics, writing, and science (Bandura & Schunk, 1981; Britner & Pajares, 2006; Chen & Pajares, 2010; Pajares, 1996; Pajares, Britner, & Valiante, 2000; Usher, 2009; Usher & Pajares, 2006).

Pajares (1996) studied gifted students’ self-efficacy for mathematical problem solving; results revealed that gifted students’ self-efficacy beliefs were influenced by cognitive ability rather than previous achievement. This finding indicates that gifted students’ self-efficacy beliefs
may be more “stable and resilient” as compared to non-identified students (p. 339). Pajares (1996) suggested that qualitative studies “aimed at exploring how efficacy beliefs are developed, how students perceive that these beliefs influence their academic attainments and the academic paths that they follow, and how the beliefs influence choices, effort, persistence, perseverance, and resiliency” (p. 566) should be completed to complement numerous quantitative studies.

**Implicit theories of intelligence.** Understanding students’ implicit theories of intelligence also may lead to insight into middle school students’ achievement. Implicit theories of intelligence suggest that individuals believe that intelligence is either fixed or malleable (Dweck, 2012). In early work, Dweck noticed that some students persisted in challenging behaviors, while other students demonstrated helpless behaviors. Blackwell, Trzesniewski, and Dweck (2007) found that adolescents who ascribe to a more malleable or incremental view of intelligence were better able to cope during transitions, developed more positive beliefs about effort, and overall responded with more adaptive behaviors to challenging mathematics material. Teachers who participated in the study reported that explicitly teaching students a theory of malleable intelligence increased student motivation in mathematics class.

**Gifted Students’ General Perceptions of Program Options**

Studies of gifted students’ perceptions of programming effects on the constructs listed above are limited. The studies that have been completed include students who have participated in a variety of educational contexts. Eddles-Hirsch, Vialle, Rogers, and McCormick (2010) found that fourth through sixth grade students in three specialized programs in Australia positively described their homogenous settings, noting that time spent in gifted programming helped them grow academically in both skills and motivation. Students appreciated the challenging experiences and time to work in a self-directed format. The researchers also found
links between the challenging nature of the classroom and students’ perceptions of the social context of the environment, motivation levels, and self-management.

Hertzog (2003) completed a retrospective study of 50 college students who had participated in gifted programming during their K-12 school experience. Participants were positive about the academic gains they accomplished in the gifted programs, commenting that their experiences led them to their current studies. The studies above examine general student perceptions, but do not fully examine student perceptions of the development of achievement goals or self-efficacy within the gifted classroom and on the students’ development of a positive achievement orientation. In addition, very few studies examine students’ perceptions within a single educational context.

**Methods**

The purpose of this study was to gain an understanding of students’ perceptions of the development of their achievement orientation, via various cognitive and motivational variables, during participation in a middle school gifted program. The following research questions guided the study:

1. How do gifted students describe the influence of a middle school gifted program on their achievement goals?
2. How do gifted students describe the influence of a middle school gifted program on their self-efficacy beliefs?
3. How do gifted students describe the influence of a middle school gifted program on their beliefs about the nature of intelligence?
4. How do gifted students describe their environmental perceptions of the gifted middle school setting?
5. How do gifted students describe the influence of a middle school gifted program on their future academic plans?

Study Design

Because the primary focus of the study was to understand how gifted students have created meaning around the experience in a gifted middle school program, a basic, interpretive qualitative approach guided the study. The basic interpretive approach includes gathering data to “build concepts, hypotheses, or theories rather than deductively testing hypotheses as in positivist research” (Merriam, 2009, p. 15) and may focus on “(1) how people interpret their experiences, (2) how they construct their worlds, and (3) what meaning they attribute to their experiences” (Merriam, 2002, p. 38).

Interviews were conducted with students who have experienced the phenomenon of attending a specialized gifted middle school and were capable of discussing the experience (Merriam, 2002). Prior to the interviews, an initial survey was mailed to the students’ homes (see Appendix A for the items on each survey/scale). Four instruments were used for the survey: (a) Achievement Goal Questionnaire-Revised (Elliot & Murayama, 2008), (b) Levy and Dweck’s (1997) Theory of Intelligence scale (as cited in Blackwell, 2002), (c) New General Self-Efficacy Scale (Chen, Gully, & Eden, 2001), and (d) the Perception of Classroom Goal Structure scale (Midgley et al., 2000). The participants were presented a double scale asking them to reflect on how they think they would have responded to the items in middle school and their current responses. Background data such as student transcripts were also examined to provide a full description of students’ academic achievement. The insights brought to light by the students allow researchers, policymakers, teachers, and parents to support the development of academic achievement orientation among gifted students.
Participants and Setting

The participants were purposively sampled for the study. It is important to note that this was also a convenience sample drawn from the school district in which I worked as an enrichment specialist (2005-2008), and as a teacher in the gifted middle school (2008-2010). Twenty-three students, who participated in a full-time gifted program for at least 2 years (2008-2012) during middle school (Grades 6-8), were invited to participate in study. Six participants completed two interviews, with each interview lasting approximately 20-45 minutes.

Students attended school in a rural, Title I district in the southeastern part of the country. The school district was responsible for the education of approximately 4,000 students district-wide while the participants’ were in middle school. In 2011-2012, 71.6% of students in the district received free and reduced lunch, and 66.8% were non-White. Prior to attending the gifted middle school, students were placed at several different schools and received 90 minutes of gifted programming a week. The gifted middle school was developed to meet the academic needs of identified gifted students in the school district. Students who decided to attend the school participated in reading and social studies classes with other identified gifted students, and best practices for gifted education (Robinson, Shore, & Enerson, 2007) were utilized in designing the courses. In seventh and eighth grade, the students were grouped with academic peers for math and science class based on their math scores on the Measures of Academic Progress assessment and scores on a state algebra readiness assessment. The students in the district were offered accelerated math and science and English and social studies classes that were based on best practices in gifted education.
Data Collection

The pre-interview survey was sent after a parent and his/her child reviewed and signed the consent/assent form. Each survey included an identifier to allow me to know which students returned the survey. Once a student completed and returned the survey, the first interview was scheduled with the student.

The interviews focused on gathering in-depth information about the influence of students’ experiences in the gifted middle school on their perceptions of environment and self-efficacy. Two interviews (see Appendix B for protocol) were conducted via video conference or on the phone and digitally recorded. Although in-person interviews would have been optimal, these long-distance interviews are also acceptable and will still yield rich, robust results (Hanna, 2012; Holt, 2010). Because I worked with all of the participants for at least one year as a teacher at the gifted middle school, student responses to interview questions may have been biased by our previous relationship. Therefore, 4 researchers who were not involved in the gifted program conducted the interviews. The researchers were given a protocol to follow for the interviews. Each interviewer was trained on the protocol, and practiced using the protocol with a fellow interviewer.

The initial interview focused on students’ perceptions of how they handled challenge, success, the school environment, and their plans for the future. After the initial interview, the recordings of the interviews were transcribed by a secondary transcriber who signed a confidentiality form, and copies of the transcripts and initial analysis were sent to the participants for member checking. Member checking was used to help ensure internal validity by allowing participants to verify that any interpretations made matched participants’ perspectives (Merriam, 2009). The second interview was conducted within the following 12 weeks. The second
interview focused more on the students’ experiences at the gifted middle school. The term Gifted Center was used in the interview questions because the name of the site included the term “Gifted Center.”

**Data Analysis Procedures**

Prior to the qualitative analysis, I attempted to list all my presuppositions about the phenomenon, and then discussed them with an independent researcher to uncover any additional presuppositions. Participants’ responses to the survey were analyzed qualitatively as a way to check for reliability of student responses to the interview questions. After each set of interviews, a careful transcription was completed. Transcripts were recorded in a word processor, and then entered into QSR International NVivo-10 software (2012), a qualitative data management program for coding purposes. I listened to the recordings of the interviews several times while reading the transcripts so I was thoroughly familiar with the data (Hycner, 1985). I kept a journal of notes during the process of interviewing the participants, reviewing the recordings, and reading/coding the transcriptions (Merriam, 2002). As Patton (2002) recommended, initial comments or notes were made directly on the data through annotations in NVivo-10 (2012).

Based on multiple readings and interpretations of the raw data, categories and themes were developed. Initially, open codes were created (Merriam, 2009). Codes were developed from “actual phrases or meaning in specific text segments” (Thomas, 2006, p. 241); and/or from the researcher’s words or “a concept from the literature” (Merriam, 2009, p. 178). Several readings followed to formally code in a systematic manner (Patton, 2002; Thomas, 2006). Once codes were developed, they were grouped together into categories through analytical coding (Merriam, 2009). Specific text segments were sometimes included in multiple categories. As codes and
categories were created, memos were also created to record the researcher’s thoughts (Merriam, 2009). Memos documented insights and created an audit trail.

Categories were developed from the initial coding process. Thomas (2006) suggested that 3-8 categories are ideal. Once coding was completed, and initial categories were created, each category was analyzed to determine how well the items in each category fit together and how distinctive each category was from the other categories. Each category has a label, description, examples of text, and links to other categories. In this process, the research questions guided the analysis of the data; however, themes that did not directly connect to the research questions were also noted.

The data were reviewed several times for support or contradiction to the categories. Additionally, the significance of each category was determined. To ensure trustworthiness, peer debriefings and consistency checks with participants were completed, and comparisons were made to previous literature on the same topic (Thomas, 2006). An additional researcher analyzed 20-30% of the raw data, using initial codes developed by the researcher. Once the additional researcher finished the analysis, comparisons were made, and if there were disagreements further discussion and analysis were completed. The discovery of disagreements led to further discussion and debate (Patton, 2002) until consensual agreement was met. This process allowed findings to be developed and confirmed through the analysis of the raw data. The independent researcher was also consulted to ensure that the final categories “(a) answer the research questions, (b) are exhaustive, (c) are mutually exclusive, (d) are sensitizing (capture the meaning of the phenomena), and (e) are conceptually congruent” (Merriam, 2009, pp. 185-186). The participants’ responses to the survey were used to triangulate the findings.
Limitations

A limitation to the study is its generalizability; however, the goal of qualitative research is not to generalize findings. Instead, rich descriptions of the environment, participants and participants’ perceptions will be provided to the reader so he or she will be able to determine the study’s applicability.

In addition, I was the language arts and social studies teacher of all the potential participants for 1-2 years and helped to start the gifted program at the middle school. Because of this relationship, students who chose to participate may have wished to share only positive perceptions of the program and the program’s influence on the development of their skills. To help ensure that students provided complete responses (including positive and/or negative experiences), 4 other researchers completed the interviews. The researchers asked probing questions to ensure that students were fully explaining their answers. In addition, surveys were given to the students prior to the interviews to support the findings from interviews. Students also may have been relying on memories of experiences; however, it is these memories that help form their perceptions that influence their academic achievement orientations.

In qualitative studies, the researcher is the primary instrument. This may lead to potential bias. I have identified the above subjectivities, and throughout the data analysis I have attempted to bracket these subjectivities.
CHAPTER TWO: REVIEW OF LITERATURE

In this chapter, an overview of the literature associated with the study is presented. First, the state of education for gifted students within middle school and rural settings is explored. Next, a summary of social cognitive theory, which provided the theoretical framework for this study, is described. Then, literature examining the development of achievement goals, self-efficacy beliefs, implicit theories of intelligence, and perceptions of the school environment and their connection to academic achievement is presented with an emphasis on studies in middle school contexts. Finally, research focused on acceleration and grouping practices is delineated as they are theorized to support the development of positive academic behaviors for identified gifted students.

Definitions of Giftedness

There are many definitions of giftedness. Giftedness may include academic competence only, artistic capability, leadership, creativity, or any other valued traits within a society.

The most recent United States federal definition of giftedness follows:

The term gifted and talented, when used with respect to students, children, or youth, means students, children or youth who give evidence of high achievement capability in areas such as intellectual, creative, artistic, or leadership capacity, or in specific academic fields, and who need services or activities not ordinarily provided by the school in order to fully develop those capabilities. (“No Child Left Behind Act” Definition of Gifted and Talented, 2002, Title IX, Definition 22)

The National Association for Gifted Children (NAGC) offers a slightly different definition of giftedness:
Gifted individuals are those who demonstrate outstanding levels of aptitude (defined as an exceptional ability to reason and learn) or competence (documented performance or achievement in top 10% or rarer) in one or more domains. Domains include any structured area of activity with its own symbol system (e.g., mathematics, music, language) and/or set of sensorimotor skills (e.g., painting, dance, sports). (NAGC, 2010b, para. 3)

A definition of giftedness that has influenced the researcher for this study is Renzulli’s (1978) three-ring conception that considers a combination of above average ability, creativity, and task commitment as integral components of gifted behavior. In particular, the inclusion of task commitment indicates that students need support in developing strategies and behaviors to help them stay engaged in tasks through difficulties. The cognitive and motivational constructs described later in this review are closely connected to student engagement and persistence in academic tasks. However, throughout the literature review, gifted students are students who have demonstrated the capability to perform at high levels in a variety of academic domains. It should be noted that participants for this study were identified through a state definition that focused on students’ performance on an intelligence test and an academic achievement test.

**Gifted Students and Middle School Settings**

While the definitions of giftedness may vary, a need for a continuum of services to address gifted students’ academic needs in middle school has been repeated in the research literature and through organizations such as the National Association for Gifted Children (NAGC) and the National Middle School Association (NMSA) (NAGC & NMSA, 2004). Having an appropriately challenging environment is important to the development of positive self-efficacy beliefs (Bandura, 1986) and mindsets (Blackwell et al., 2007). However, studies of
curricular practices in middle schools do not offer a positive view of challenge within heterogeneous middle school classroom (Brighton, Hertberg, Moon, Tomlinson, & Callahan, 2005; Moon, Callahan, Tomlinson, & Miller, 2002). In a national survey of middle school administrators and teachers, Moon, Tomlinson, and Callahan (1995) found that administrators and teachers generally believed that middle school students were predominantly interested in social pursuits. While they believed that students were very “social,” students were generally not encouraged to interact with each other in class. The researchers also found almost half the principals and teachers held the belief “that middle school learners are in a plateau learning period” (p. 6) “a theory which supports the idea that basic skills instruction, low level thinking, and small assignments are appropriate” (p. 92).

In an update to their 1995 study, Moon, Callahan, et al. (2002) shared results of middle school teachers’ reported instructional practices and student perceptions of the middle school classroom. They found that middle school teachers and middle school students reported that they rarely used independent student contracts to engage students, that students’ interests were rarely addressed in classrooms, and that teachers used the textbook as the basis for what should be taught. Students reported that in language arts, math, science and social studies, teachers taught lessons to ensure that the students would pass the chapter tests. In math, students reported that they enjoyed coming up with different answers for problems, but that teachers often expected a single method. As with the 1995 study, teachers confirmed using few differentiation techniques, such as tiered assignments, learning contracts, flexible grouping, and curriculum compacting. In the 2002 study, there was an increased focus on the state programs’ influence on the “delivery of instructional content” (p. 102) with much of the content being delivered through lectures to the whole class. While teachers continued to indicate that they thought differentiating instruction
was important, they “also indicate[d] that lack of planning time, concerns about classroom management, and the range of student academic diversity . . . [were] factors that hinder[ed] them in differentiating instruction” (p. 102).

Several researchers from the previous studies then developed a project to study the effects of providing instructional coaches to facilitate teachers’ implementation of either differentiated curricula or differentiated authentic assessment strategies. During class observations, Brighton et al. (2005) continued to discover that often teachers used lectures and seatwork as the primary instructional tools, and that students’ voices were often only heard in response to teachers’ question or prompt. State standards and standards-based testing were again noted as reasons why teachers were not able to differentiate curricula.

This collection of studies indicates that while teachers may profess to value meeting students’ needs in a heterogeneous classroom, instruction is often limited to lecture and a focus on state standards that often centers on minimum competencies and in some content areas cover a wide array of discrete facts. These findings suggest that many high achieving students in middle school may not have access to an appropriately challenging learning environment.

**Rural Gifted Programs**

In addition to concerns over the lack of challenge in middle school settings, studies set in rural schools indicate that gifted students may have limited access to appropriate academic challenges (Burney & Cross, 2006; Colangelo, Assouline, & New 1999; Cross & Stewart, 1995). In Burney and Cross’s (2006) analysis of Project Aspire, a program created to “identify poor rural students with academic potential and provide them with counseling and support in AP courses and their prerequisites,” (p. 15), researchers found that students from low-income families needed support to overcome low self-efficacy, low self-esteem, and low self-concept.
They also noted that students often thought that being smart meant being able to complete work easily, and that they needed to develop self-regulation skills (e.g., managing time, prioritizing and learning how to study) to help them overcome academic difficulties. One other pertinent finding was that faculty developing personal relationships with students of poverty was key in helping them develop their talent. Colangelo et al. (1999) asserted that many gifted students in rural schools feel isolated, indicating that there was a lack of resources to fully develop their talents. Students in rural settings may have limited access to appropriate academic challenges (Burney & Cross, 2006; Colangelo et al. 1999; Cross & Stewart, 1995). The findings from these studies indicate students in rural middle schools may not experience a challenging school environment.

**Social Cognitive Theory**

In addition to personal characteristics, the school context that students engage in is an important factor from a socio-cognitive perspective. In 1986, Bandura described his theory to understand human motivation, thought, and action in *Social Foundations of Thought and Action: Social Cognitive Theory*. Bandura explained that humans are not simply motivated to behave certain ways due to the behavioral conditions placed upon them. In the same manner, innate traits are not the sole motivators of human action. Instead, “environmental events, personal factors, and behavior all operate as interacting determinants of each other” (Bandura, 1986, p. xi), and people both influence their environment and are influenced by their environment.

Several human characteristics are integral in social cognitive theory. The first is people’s ability to use symbols to understand their world, allowing them the “means of altering and adapting to their environment” (Bandura, 1986, p. 18). People are not confined to learning from trial and error of their own actions; they are also able to learn and make decisions through
thought processes. Depending on the person’s level of reasoning ability, he or she may make foolish or wise decisions. Forethought capability is also important. Bandura (1986) emphasized that individuals anticipate likely outcomes, set goals for themselves, and plan for the future. Individuals’ beliefs about future events can influence “the behavior most likely to bring about their realization” (p. 19). Humans create mental models of possible outcomes through personal trial and error and vicariously through others. To highlight how people learn from others, Bandura explained that if a child is not exposed to the utterances that compose a language, then it is highly unlikely that the child will develop the “linguistic skills that constitute a language” (p. 20). He also expounded on the role that self-regulatory capabilities play in social cognitive theory. “People do not behave just to suit the preferences of others. Much of their behavior is motivated and regulated by internal standards and self-evaluative reactions to their own actions” (p. 20). While external influences may play a role in self-regulatory functions, people’s self-influence plays an important role in the determining “the course of one’s behavior” (p. 20). Humans’ self-reflective capabilities provide them with the means to “gain understanding through reflection” and “evaluate and alter their own thinking” (p. 21). These thoughts can produce truthful or faulty thought patterns. Through reciprocal causation, those thoughts can then confirm the initial truthful or faulty thought pattern. Here, Bandura highlighted the important role that efficacy beliefs play in decisions about action:

It is partly on the basis of self-percepts of efficacy that they choose what to do, how much effort to invest in activities, how long to persevere in the face of disappointing results, and whether tasks are approached anxiously or self-assuredly. (p. 21)

He also acknowledged that human nature is characterized by its plasticity and genetic influences. However, he rejects the idea that these are dichotomous influences on human
behavior. Instead, he argued that a triadic reciprocality—the interaction of behavior, cognitive and other personal factors, and environmental influences. Within social cognitive theory, these three elements each have a bidirectional influence on one another. In addition, the influence of each element is not necessarily equal in strength. The relative influence of the three elements can also change depending on the individual, the activity, and the circumstance.

When discussing the influences of the three factors Bandura clarifies that they are “inoperative as influencers unless they are activated.” Bandura (1986) explains that a particular environment cannot influence behavior unless it is experienced, i.e., “books do not affect people unless they select and read them” (p. 28). He also shares that a person who is knowledgeable can affect the group by sharing their accumulated knowledge, but if the person remains silent, then this knowledge remains unutilized. Therefore, within a group each person contributes to what will be actualized and what will remain unexpressed. “In social transactions, the behavior of each participant governs which of their potential qualities and interests will be actualized and which will remain unexpressed” (p. 29). He argues in favor of examining personal and environmental influences together to understand how each is conditional on the other. This highlights how individuals both shape their environment and are shaped by their environment.

Dai et al. (1998) explored the implications of a social cognitive theory framework within gifted education. They identified how “personal and contextual factors are mediated by these self-perceptions and self-concepts to influence achievement behavior” (p. 56). Within a social-cognitive approach, there is a focus on an increased understanding of how self-processes are influenced by “specific personal and social contexts” (p. 57). They also identified what is known about gifted education and the development of achievement motivation and behaviors from a social-cognitive perspective, and outlined some continuing questions. One question they
highlighted is how students respond to learning and performance goals in real educational settings. They noted that often goal theories were treated as either-or, but in a classroom,

[T]eacher feedback that emphasized effort, may come side-by-side with learning and peer comparisons that raises self-awareness of one’s ability; situations that heighten the concern for future consequences of doing well or poorly may parallel situations that produce immediate self-satisfaction and enjoyment.” (p. 58)

Dai et al. (1998) also identified the following topics as interesting lines of research: “how gifted students conceive their ‘possible selves,’ set their short-term and long-term goals, behaviorally commit themselves to pursuing these goals, and how these achievement behaviors are reinforced and nurtured in their social environments” (p. 59). While studies have investigated gifted students’ responses to various environments and settings (Adams-Byers, Whitsell, & Moon, 2004; Eddles-Hirsch et al., 2010; Hébert, 1993, 2010; Hertzog, 2003; Moon, Swift, & Shallenberger, 2002; Westberg, 2010), there is still much to understand about how gifted students respond to certain environments and settings, and how interactions among gifted students influence behavior, performance and perspectives.

Moving from a theoretical foundation to practice, specific goals of programming should be considered. Burney (2008) has identified five program goals based on social cognitive theory. Her suggestions include providing

1. a more rigorous curriculum than a regular classroom,
2. a social environment with similar peers
3. academically challenging opportunities
4. high-interest tasks
5. an environment that emphasizes learning and mastery goals (p. 135).
Providing students a challenging environment is supported (NAGC & NMSA, 2004); however, classroom practices for students may differ.

**Constructs Associated With Developing an Achievement Orientation**

While ability level is consistently considered highly influential in ultimate achievement, constructs such as achievement goals (Ames, 1992; Elliot & MacGregor, 2001; Grant & Dweck, 2003), self-efficacy beliefs (Bandura & Schunk, 1981; Pajares, 1996), and implicit theories of intelligence (Ablard & Mills, 1996; Blackwell et al., 2007) have been studied in connection with students’ development of positive academic behaviors such as self-regulation and seeking feedback. School and classroom contexts are also considered influential in the development of these achievement goals, self-efficacy beliefs, and implicit theories of intelligence (Ames & Archer, 1988; Anderman et al., 1999; Murayama & Elliot, 2009; Tapola & Niemivirta, 2008; Turner, Meyer, Midgley, & Patrick, 2003).

**Achievement Goals**

Achievement goals are one framework used to explain why and how students are motivated to achieve (Ames, 1992; Bong, 2001, 2009; Elliot & Harackiewicz, 1994; Grant & Dweck, 2003; Pajares et al., 2000; Shim et al., 2008). Several researchers have defined achievement goals, and while they approach achievement goals as a cognitive function related to motivation, the exact nature of the constructs within Achievement Goal Theory is debated (see Brophy, 2005; Harackiewicz, Barron, Pintrich, Elliot, & Thrash, 2002). Early conceptions of achievement goals focused on mastery and performance goals (Ames, 1992). More recently, a conception developed by Elliot and MacGregor (2001) is the 2 X 2 achievement goal framework. Students’ goals can be based on absolute or intrapersonal success, through mastery of the material, or through normative means or performance. They noted that approach goals are
defined as positive with students approaching success and avoidance goals are negative with students wishing to avoid failure. In this model, students demonstrate one of four goal patterns: (a) mastery-approach, (b) mastery-avoidance, (c) performance-approach, and (d) performance-avoidance. Bong (2009) examined the validity of the 2 x 2 achievement goal framework with 1,196 Korean elementary and middle school students. She found the four-goal model had the best fit for the Korean middle school students. In other studies with middle school students, Pajares et al. (2000) and Shim et al. (2008) adopted task/mastery, performance approach, and performance-avoidance goals, leaving out mastery-avoidance goals.

In response to the inclusion of approach and avoidance goals in achievement goal theory, Grant and Dweck (2003) offered a slightly different explanation of performance goals. They connected the mastery-approach goal to their learning goal, but they defined three performance goals: (a) outcome (wanting to do well), (b) ability-linked performance (seeking to validate ability), and (c) normative performance, which all connect to performance goals. Grant and Dweck proposed that these goals provide further nuance to the theorized performance-approach goal. Though further research needs to be completed to tease out the nature of achievement goals, several similarities exist in the various researchers’ findings on the connection between achievement goals and performance and motivation.

Mastery-approach and learning goals are usually linked with positive behaviors and emotions. In their studies with college students, Elliot and MacGregor (2001) have associated possessing a mastery-approach achievement goal with positive behaviors. Based on their experiments with undergraduates, Grant and Dweck (2003) reported students who adopted learning goals were intrinsically motivated, used planning skills, and were persistent in the face of academic struggles. In addition, these students did not decrease in intrinsic motivation when
faced with challenging tasks, they presented less time and effort withdrawal, and they planned and sought positive reinterpretation and growth. Similar to findings in previous studies with college students, Bong (2009) noted “[a] mastery-approach goal correlated positively with self-efficacy, strategy use, and performance in math and negatively with help-seeking avoidance and anxiety” (p. 891). Pajares et al. (2000) and Shim et al. (2008) also found positive associations with mastery goals and self-beliefs and performance for middle school students.

There is continued debate on the positive/negative nature of performance-approach goals or Grant and Dweck’s (2003) cluster of outcome, ability, and normative goals. Grant and Dweck also found performance-approach goals related to the overall need for achievement, competence valuations, overall exam performance, and subsequent performance approach, but they also connected to competitiveness, and fear of failure. Bong (2009) also had mixed results for students who adopted performance-approach goals. “A performance-approach goal showed mixed relationships with positive and negative motivational variables, with a significant relationship with math performance in only the middle school sample” (p. 891). Grant and Dweck (2003) found students with outcome goals demonstrated a loss of intrinsic motivation, but they were also likely to seek help.

Elliot and MacGregor (2001) asserted students with a mastery-avoidance goal orientation were more likely to demonstrate (a) fear of failure, (b) disorganization, (c) test anxiety and (d) worry. For the middle school students in Bong’s (2009) study, holding a mastery-avoidance goal was negatively correlated to math self-efficacy and math performance and positively correlated with help-seeking avoidance. However, “as students reported stronger mastery-avoidance goals, they also reported greater use of cognitive and self-regulatory strategies in math” (p. 892).
When examining performance-avoidance goals, Elliot and MacGregor (2001) found positive correlations to several negative thoughts and behaviors, including fear of failure, entity theory, competence valuation, surface processing, test anxiety, and worry. Bong (2009) found confirming evidence that students with performance-avoidance goals also had more maladaptive emotions and behaviors (i.e., they “felt more anxious, demonstrated stronger tendencies to avoid seeking necessary help, and performed more poorly in math” [p. 892]). In Grant and Dweck’s (2003) study students who held an ability goal demonstrated lower intrinsic motivation, loss of self-worth, low ability attribution, and time and effort withdrawal.

These findings and others have led researchers to recommend that mastery-approach goals should be promoted and encouraged with all students (Bong, 2009; Elliot & MacGregor, 2001; Grant & Dweck, 2003; Pajares et al., 2000; Shim et al., 2008).

**Multiple goals.** These theories imply that students demonstrate one type of goal more than others. However, some studies indicate that people hold multiple goals at the same time (Ablard, 2002; Harackiewicz et al., 2002; Lee, McInerney, Liem, & Ortiga, 2010; Pintrich, 2000). In a study of talent search participants from the Center for Talented Youth at Johns Hopkins, Ablard (2002) found that responses from 425 sixth grade students on the Patterns of Adaptive Learning Scales (PALS) demonstrated a wide range of learning-goal and performance-goal scores. In addition, there was no correlation between students’ performance and learning goal scores. Harackiewicz et al. (2002) demonstrated that multiple goals can be pursued, and there are potential benefits of a performance-approach goal. Similarly, Pintrich (2000) found “[s]tudents who were concerned about their performance and wanted to do better than others and, at the same time, wanted to learn and understand the material had an equally adaptive pattern of motivation, affect, cognition, and achievement as those just focused on mastery goals”
Lee et al. (2010) also found that mastery-approach and performance-approach goals can be held simultaneously, and posited that these two goals are separate constructs, and not two ends of the same construct. Conley (2012) studied the achievement goals, task values, competence beliefs, affect, demographics, and achievement with the domain of math of 1,870 seventh grade students from 148 math classrooms in Southern California. She identified seven patterns of motivation. Conley did not find a pure mastery goal type. She found that “[a]ll of the high mastery clusters also reported performance-approach and/or performance-avoidance goals that were at or above the mean” (p. 42). She concluded that multiple patterns exist, and they may be “equally adaptive,” signaling that there is no best way to be motivated (p. 44). Conley’s finding indicated more needs to be understood about how multiple achievement goals work together and the implications for students who hold both at the same time.

**Developmental aspects.** Pajares et al. (2000) “investigated the relationship between achievement goals, motivation constructs, previous achievement and gender in the areas of writing and of science with two samples of middle school students” (p. 408). While they did not find any association between performance-approach goals and writing self-efficacy beliefs in sixth grade students, they did find correlations between performance-approach goals and writing self-efficacy and science self-concept of Grade 7 students “and with the self-regulatory beliefs of Grade 8 students” (p. 420).

In a 2-year study of achievement goals during the middle school transition, Shim et al. (2008) found that, regardless of type, achievement goals declined over the 2-year period. They measured achievement goals utilizing the PALS scales at four time points, twice in sixth grade and twice in seventh grade. The biggest decline was within the school year. They also found performance-avoidance goals “consistently undermine achievement throughout early
adolescence” and performance-approach goals “are detrimental in elementary school and provide no benefit in middle school” (p. 669). They concluded that mastery-approach goals should be encouraged.

Bong (2009) noted an increase in performance-approach goals in middle school and suggested that this may happen because middle school is when students begin to understand the benefits of doing well in class with little effort, and where a student is rewarded for doing better than peers through the higher grades.

**Connection to future goals.** In a study focused on the relationship between achievement goals and future goals, Lee et al. (2010) found a correlation between achievement goals and future goals. They surveyed 5773 secondary students in Singapore from 13 schools of mixed abilities. They found “that both achievement goals and future goals can be categorized as intrinsic and extrinsic” (p. 276). Finally, they discovered that achievement goals appeared to predict future goals, which “suggests that an emphasis on encouraging mastery-approach and performance-approach orientations may be beneficial for enhancing a range of students’ life-ambitions” (p. 276). They suggest longitudinal studies to further tease out the findings.

**Summary.** While there are studies that examine the nature of students’ achievement goals (Ablard, 2002; Bong, 2009; Conley, 2012; Elliot & Harackiewicz, 1994; Grant & Dweck, 2003; Harackiewicz et al., 2002) and developmental aspects of achievement goals over time (Pajares et al., 2000; Shim et al., 2008), there are few studies that examine students’ perceptions of the development of achievement goals or how these perceptions develop for identified gifted students.

**Self-Efficacy**
Self-efficacy has also been identified as an element of achievement orientation (Siegle & McCoach, 2005). Bandura (1986) explained that self-percepts of efficacy have a role in determining “how they behave, their thought patterns, and the emotional reactions they experience in taxing situations” (p. 393). He further explained “[j]udgments of efficacy also determine how much effort people will expend in the face of obstacles or aversive events” (p. 394). He also identified the need to have a strong sense of self-efficacy, which aids in resilience during challenges, but also to have some uncertainty, which will lead to the “acquisition of knowledge and skills” (p. 394). This seems to indicate students need the belief that they can handle a challenge, but additionally a challenge needs to be presented so students will engage in self-development. According to Bandura, there are four sources of self-efficacy: (a) mastery experiences, (b) vicarious experiences, (c) verbal persuasion, and (d) physiological state. These perceptions may develop from sources of information including direct experiences, observations, and social comparisons.

Researchers have linked self-efficacy to cognitive gains for middle school students in mathematics (Bandura & Schunk, 1981; Pajares, 1996; Pajares & Graham, 1999; Usher, 2009), writing (Pajares et al., 2000), and science (Bong, 2001; Britner & Pajares, 2006). Bandura and Schunk (1981) noted that self-efficacy is not just a reflection of past performance, but these self-beliefs are “an inferential process in which self-ability inferences drawn from one’s performance vary, depending on how much weight is placed on personal and situational factors that can affect how well one performs” (p. 596). Clarifying statements by Bandura, Ferla et al. (2009) have more recently argued that academic self-efficacy is not a general belief, but rather it is context-specific and future-oriented. Sustained involvement in challenging activities “may require mastery experiences over a period of time before the self-efficacy derived from progressive
successes creates a strong interest in activities that were disvalued or even disliked. If, in fact, effects follow such a temporal course, the increased interest would emerge as a later rather than an instant consequent of enhanced self-efficacy” (p. 597). Additionally, Usher (2009) found that more self-efficacious students were more likely to utilize self-regulation strategies. In particular, self-talk and self-modeling are identified as ways that students worked through challenging assignments.

Generally, a collection of mastery experiences is thought to be the most powerful influencer in performance (Bandura, 1986). However, to fully develop self-efficacy in a wide range of students, they may need to experience a combination of mastery and vicarious experiences. In science, Bong (2001) found science mastery experiences, “vicarious experiences, social persuasions, and physiological arousal were significantly correlated with self-efficacy” (p. 495) for middle school students. Britner and Pajares (2006) found further evidence that for middle school students, mastery experiences, in particular, predicted self-efficacy beliefs. They also found some group differences in the development of self-efficacy beliefs. “For girls, social persuasions predicted self-efficacy . . . lending support to the contention that social persuasions may be more relevant to girls than to boys as girls form their academic confidence” (p. 11). For African American students, invitations, or uplifting and empowering self-messages, “accounted for 9% of the unique variance in self-efficacy” (p. 12).

In Usher’s (2009) study, participants acknowledged that parents, teachers, and peers influenced them and their beliefs about mathematics, including one student who believed that his own failure in math was due to his parents’ failures in mathematics. Usher’s findings illuminated the positive and negative role others can have in the development of students’ self-efficacy beliefs.
Pajares and Graham (1999) investigated self-efficacy and motivation constructs within mathematics for sixth graders entering a middle school. They reported strong positive correlations between efficacy and performance at the beginning and the end of the school year (.57 fall, .59 spring). However, general attitudes for mathematics declined. The researchers also found no significant differences on dependent sample t tests for several other constructs measured in the fall and the spring, and students rated mathematics “as less valuable (-.25) and reported lower effort and persistence (-.37) than at the start of the year” (p. 133). The findings from the study demonstrate the link between self-efficacy and performance remains strong, even as the other constructs decreased.

To more fully understand how self-efficacy develops, Usher (2009) completed a qualitative study of eighth grade students’ self-efficacy beliefs in mathematics. Students in the study were in one of four mathematics classes based on “achievement, ability and preference: pre-algebra, on-level algebra, advanced algebra, or honors geometry” (p. 279). Students reported high test scores and the ease of performing well in math as contributing to their high self-efficacy. However, one student noted the influence of a teacher who recognized her ability in math, and stated that her confidence in mathematics was due to her teacher’s skills (p. 291). For students with lower self-efficacy, long-term difficulties with math and low grades fueled beliefs that the students were not highly capable math students. Usher noted that “math course placement in Grade 8 seemed to communicate important information to the students about their mathematics capabilities” (p. 292). Ensuring students are placed in the appropriate setting is of great importance. If students are placed in a course that does meet their expectation, then teachers and parents should ensure that the students understand their placement.
**Gifted students.** While few research studies examined the self-efficacy beliefs of middle school gifted students, Pajares (1996) studied gifted students’ self-efficacy for mathematical problem solving. The results revealed that cognitive ability influences gifted students’ self-efficacy beliefs more than previous achievement.

In a comparative study, Pajares and Graham (1999) reported differences between students in regular education and gifted mathematics placements. They found that students in regular education math classes reported lower self-efficacy and self-concept in mathematics and had lower performance scores. They stated that the identified gifted students utilized the same curriculum as the regular education students, but the identified gifted students also received enrichment in math from a gifted-certified teacher. Nevertheless, the researchers reported few contextual differences in the regular education and the mathematics classrooms. Several factors within both the regular education and gifted classrooms may have contributed to the regular education students’ lower self-efficacy and self-concept.

**Summary.** Ample research supports the development of self-efficacy through a variety of experiences such as mastery experiences, vicarious experiences, and verbal persuasion. However, more research is needed to tease out the effects of environment and personal beliefs in challenging environments.

**Implicit Theories of Intelligence**

Dweck (2012) suggested that individuals believe that intelligence is either fixed or malleable, and she has made references to the connection of intelligence beliefs to achievement orientations. Her interest in this theory is based on her early work on learned helplessness. Studies of adolescents and their intelligence beliefs (Blackwell et al. 2007) revealed adolescents who ascribed to a more malleable or incremental view of intelligence were better able to cope
during transitions, developed more positive beliefs about effort, and responded with more adaptive behaviors to challenging mathematics material. Dweck has argued that teachers and parents should explicitly teach children that intelligence is malleable, and teachers who participated in the Blackwell et al. (2007) study reported that explicitly teaching students a theory of malleable intelligence increased student motivation in mathematics class.

**Gifted students.** With regards to gifted education, Dweck (2012) has argued that labeling students as gifted may predispose students to developing a fixed mindset, which is seen as less desirable than a malleable mindset. However, Siegle, Rubenstein, Pollard, and Romey (2010) posited, “high achieving students can recognize their ability and appreciate the importance it holds in doing well, without being paralyzed by the pitfalls Dweck and her colleagues reported are associated with a fixed entity belief” (p. 97).

Ablard and Mills (1996) examined gifted students’ (in Grades 3-11) perceptions of the stability of intelligence, finding “academically talented students exhibited a wide variation in beliefs about the stability of intelligence” (p. 145) with the largest group demonstrating a view that was moderately stable/unstable. The older students’ views generally were more stable than those of the younger students. Ablard and Mills also examined views of stability and the connection to ability, effort, and preference for challenge, and they found no significant relationships “between view of intelligence and any of the self-perceptions” (p. 143).

**Connection to achievement goals.** Theoretical and research-based connections between implicit theories of intelligence and achievement/learning goals have been made (Ablard, 2002; Chen & Pajares, 2010). Chen and Pajares (2010) investigated a link between implicit theories of intelligence and epistemological beliefs in science. Based on a survey of 508 Grade 6 students, Chen and Pajares found correlations between holding incremental theory of ability and a task
goal orientation to learning science (p. 80). Additionally, “[b]elieving that science ability is fixed was negatively correlated with task goal orientations (.30), and positively correlated to performance avoid goal orientations to learning science (.41)” (p. 80). They stated that results support “Dweck’s (2002) contention that implicit theories of ability become linked together to form a network with other beliefs, values, and goals, which in turn have consequences for students’ motivation and achievement” (p. 84), and they suggested “achievement goal orientations, attributions, and beliefs about effort, epistemological beliefs could also be linked to this ‘meaning system’” (p. 84). However, Ablard (2002) found student responses on the achievement goals instrument (PALS) and on an implicit theories of intelligence scale indicated that the two constructs were related, but they do not have a very strong relationship.

**Summary.** It is evident that believing that people are capable of growth is helpful when approaching challenging material. Nonetheless, there is still a need to understand how students develop these beliefs and how those beliefs influence the values and goals of students.

**Environment**

Several studies have investigated the connection between teachers’ promotion of each of the goals (Tapola & Niemivirta, 2008; Turner et al., 2003) and classroom structures (Ames & Archer, 1988; Anderman et al., 1999; Murayama & Elliot, 2009) to students’ personal achievement goals.

Tapola and Niemivirta (2008) asserted students bring their goals to a classroom, and this influences their perception of the class environment. However, other studies indicated that school and classroom practices also influence students’ adoption of mastery and performance goals. To aid in research connected to classroom influences on goal adoption, Ames and Archer (1988) defined climate dimensions in terms of mastery goals and performance goals. Classroom
climates demonstrating a mastery emphasis were theorized to (a) define success as improvement, (b) place value on effort, (c) view mistakes as a part of learning, and (d) focus evaluation on progress. Classrooms with a climate connected to performance goals would (a) define success in terms of high grades, (b) value high ability, (c) view mistakes as anxiety eliciting, and (d) evaluate students normatively (p. 261). Ames and Archer (1988) found that academically advanced junior high and high school students “reported using more learning strategies, preferred tasks that offered challenge, and had more positive attitude toward their class” (p. 263) when they perceived that the class focused on mastery goals. When a performance goal climate was perceived, students were more likely to attribute failure to their lack of ability and to task difficulty. Regardless of the perceived focus, students “tended to believe that ‘good’ study strategies were important to doing well” (p. 263). Their findings demonstrated that perceptions of classroom climate/structure can be influential in students’ achievement goals and subsequently the development of self-regulated learning. Murayama and Elliot (2009) also found that mastery goal class structures positively predicted students’ mastery goal orientations; however, they did not find a connection to students’ performance or performance-avoidance goals.

In a study that examined the effects of teacher practices and organizational dimensions on students at two schools over the course of Grades 5, 6, and 7, Anderman et al. (1999) found that, in general, students’ adoption of task (mastery) goals diminished from Grade 5 to Grade 6 and then again from Grade 6 to Grade 7. However, they also discovered that students who attended the school that developed an overarching task (mastery) focus were more likely to perceive a task oriented focus and to adopt task (mastery) goals than students at the other school where school practices more closely reflected a performance goal emphasis.
Turner et al. (2003) reported on differences in sixth grade student behaviors based on teacher support of autonomy and motivational support “through instructional interactions” (p. 377). The two teachers in the study varied on the level of supportive instructional and motivational responses during discourse. One teacher was consistently supportive, and the other teacher sent mixed messages to her students. While students in the two classes did not “differ significantly in their reports of self-regulation or positive coping . . . they did differ in their reports of negative affect about failure” (p. 367).

The previously discussed studies provide support that both student-level and environmental-level factors are important in the development of achievement goals, particularly mastery goals, and achievement behaviors.

**Programming for Identified Gifted Students**

Providing students with specialized services is perceived as a necessary component of schooling so students develop positive behaviors and as a means to prevent or ameliorate low self-efficacy, low self-esteem, and low self-concept (Burney & Cross, 2006). Offering students challenging and rigorous courses is considered an appropriate way to meet gifted students’ needs (Eddles-Hirsch et al., 2010; NAGC, 2010a). Acceleration and grouping have been utilized as methods to facilitate challenge for gifted students.

**Acceleration**

Acceleration is one programming option that has received research support as an effective option for many gifted students. However, acceleration options continue to be questioned by the public at large. In the Templeton National Report on Acceleration, *A Nation Deceived: How Schools Hold Back America’s Brightest Student*, 18 forms of acceleration are identified, including (a) grade-skipping, (b) subject matter acceleration, (c) self-paced
instruction, (d) curriculum compacting, (e) Advanced Placement, and (f) dual-enrollment (Southern & Jones, 2004). Rogers’s (2007) synthesis of acceleration studies reflects moderate to high positive effect sizes for 23 accelerative and grouping management strategies for academics. The effect sizes for social esteem outcomes were more mixed with some esteem outcomes demonstrating low negative effect sizes. In another meta-analysis of 38 studies through 2004, Steenbergen-Hu and Moon (2010) found that acceleration had a positive impact on high ability learners’ academic achievement and a slightly positive effect on social-emotional outcomes. Swiatek (2002) also noted that mathematically precocious students benefited academically from acceleration, and they did not suffer from any psychosocial issues.

Other studies demonstrated there were no differences in self-concepts for accelerated and non-accelerated students (Hoogeveen, van Hell, & Verhoeven, 2012). When examining questionnaires and structured diaries from 203 accelerated and non-accelerated students from the Netherlands, Hoogeveen et al. (2012) noted that students who were accelerated appeared to be “less susceptible to personal and environmental factors” and “accelerated and non-accelerated gifted students did not differ in the amount of social contacts” (p. 598).

In a study of students in 4 New Zealand secondary schools, students who were accelerated in mathematics, science, and/or English reported that they enjoyed the challenge of the accelerated classes, but also felt comfortable knowing that they could revert to a lower level class if they felt overwhelmed (Rawlins, 2004). Additionally, being treated the same as the older students in their accelerated class led to an increased feeling of self-worth and confidence. While the students made positive statements about accelerated classes, many students felt that graduating early was not warranted because the extra year in school would help them “broaden their academic base” (Rawlins, 2004, p. 47).
There are numerous studies of students who were identified as mathematically precocious (Lubinski, 2004; Park, Lubinski, & Benbow, 2013). In a study utilizing matched pairs, including participants in the Study of Mathematically Precocious Youth (SMPY) program in cohorts from 1972, 1976, and 1980, Park et al. asserted bright students appear to do well overall a lifetime; however, acceleration in the form of grade skipping did appear to allow for slightly earlier entry into doctoral programs, allowing for earlier career entry and slightly greater lifetime achievement. While concerns over acceleration continue to persist, ample research studies support the use of acceleration as an appropriate method to challenge gifted students.

**Homogeneous Grouping**

One method used to facilitate student engagement in appropriately challenging course work is through homogeneously grouping students. Studies of students’ perceptions of homogeneous groupings indicate that students recognize advantages and disadvantages from being grouped this way (Eddles-Hirsch et al., 2010; Moon, Swift, et al., 2002). Often, academic gains were found when students were homogeneously grouped (Eddles-Hirsch et al., 2010; Moon, Swift, et al., 2002). Eddles-Hirsch et al., (2010) studied students in fourth through sixth grade in three schools that used a variety of organizational structures. They recommended addressing students’ intellectual and social and emotional needs in gifted programs. Students often mentioned enjoying the challenge of the academic projects. Students also mentioned affective gains of feeling safe to be smart. Spending time with intellectual peers is considered to be an advantage by students.

Moon, Swift, et al. (2002) studied the effects of a self-contained gifted program for students in fourth and fifth grades with high (IQ > 145) to an extreme level (IQ > 165) of intellectual giftedness in its first year of implementation. Parents were generally happy about the
homogeneous grouping of the students. Parents commented that their child finally felt like he or she belonged, and that their child was comfortable in class for the first time. Students also shared positive reactions. In their focus groups, students listed the following educational advantages of the class: (a) greater challenge, (b) increased learning, (c) work at their level, (d) classmates at their level, (e) more choices, (f) more interesting work, (g) more projects and experiments, and (h) less reliance on textbooks. “I’ve finally met my match in education,” stated one of the students in focus group 1” (p. 70). Grouping appears to give students access to peers of similar ability; if students recognize this similarity, then it is possible that this grouping would allow students to learn vicariously through each other. Also, if students are comfortable, then perhaps they will share their ideas more often by contributing and shaping the classroom community.

Some students also consider homogeneous grouping as a disadvantage. A common complaint of students in homogeneous groupings is separation from friends (Adams-Byers et al., 2004; Eddles-Hirsch et al., 2010; Moon, Swift, et al., 2002). Adams-Byers et al. (2004) also found that some students did not enjoy the challenge of the gifted classroom, but they found

Of the remaining 34 students who listed disadvantages, 54% of the social/emotional disadvantages and 40% of the academic disadvantages related to increased competition and lowered self-esteem due to a more intellectually competitive environment in which they were no longer automatically the “top” student. (p. 11)

While many students may have mentioned this as a concern, Adams-Byers et al. (2004) stated that teachers may not have the same concern because

Highly able students who experience a drop in self-esteem when competing with equally talented classmates have “built their houses upon sand” in the sense that they have come
to define themselves as worthwhile in relation to less able peers, which also often means that they have expended little effort to excel. (p. 15)

Instead, teachers are concerned about students’ ability to overcome this concern, and focus more on becoming “autonomous, self-motivated learners.” Students also commented that even in homogeneous classrooms students differed on the ability to complete assignments, and one female student noted that she still was not challenged (p. 17).

**Conclusion**

Offering students specialized courses with accelerated content and like-ability peers has shown some promise for challenging students. However, offering the classes alone may not be enough (Eddles-Hirsch et al., 2010). Students may also need to develop the adaptive mindsets, and undergo a change in self-concept/self-efficacy when first attempting challenging material (Marsh, Hau, & Craven, 2004).

The question remains, if students are provided with a challenging, accelerated environment with intellectual peers, which goals, self-theories, and mindsets develop, and what are the contextual elements that promote achievement behaviors?
CHAPTER THREE: RESEARCH DESIGN

The purpose of this study was to gain an understanding of students’ perceptions of the development of their achievement orientation, via various motivational variables, during participation in a specialized middle school gifted program. The program was designed to help students learn to engage and persist in challenging schoolwork. For this study, students’ perceptions of the influence that the gifted program had on their achievement goals, self-efficacy beliefs, their beliefs on the nature of intelligence, and their future academic plans were examined. In addition, students’ perceptions of the general environment of the gifted middle school were explored. This basic, interpretive qualitative study (Merriam, 2009) presents 6 students’ retrospective perceptions of the development of cognitive and motivational variables and achievement orientation while participating in a gifted middle school program.

This chapter describes the methodology of the study, including sample procedures, school district and program description, recruitment and data collection, and research design. In addition, instruments used to provide triangulation are presented and discussed. Finally, a subjectivity statement is included.

Rationale and Research Questions

Researchers have conducted follow-up studies of student characteristics and perceptions of gifted programming (Delcourt, 1993; Eddles-Hirsch et al., 2010; Hébert, 1993; Hertzog, 2003; Westberg, 2010). Eddles-Hirsch et al. (2010) provided a clear overview of three differing programs and presented students’ perceptions while in the program. Several of these studies have described students’ experiences within the Enrichment Triad Model (Renzulli, 1977). Delcourt’s (1993) study focused on understanding the characteristics of Grade 9-12 students who completed independent or small group investigations, and Hébert (1993) interviewed students at the end of
high school to better understand the influence of participating in independent or small group investigations as elementary students. Westberg (2010) investigated former students’ perceptions 25 years after students participated in a program. This collection of studies has yielded important insights on the characteristics of students who engage in independent or small group investigations and the long-term outcomes of such programs. Because these studies situated the context, they provide valuable information for teachers interested in using this program model.

Providing a broader perspective, Hertzog (2003) completed a retrospective study of 50 college students from a variety of K-12 gifted programs. In her study, students commented on the academic gains they accomplished through gifted programs and how their experiences led them to their current studies. The studies above examined general student perceptions, but did not fully examine student perceptions of the development of achievement goals or self-efficacy within the gifted classroom, or on the students’ development of an overarching achievement orientation.

The purpose of this qualitative study was to gain deep understandings of students’ perceptions of the effect of an accelerated, enriched gifted program on constructs related to achievement. The aim of the study was to gather initial data to help teachers, administrators, and parents understand the students’ experience. The social cognitive framework (Bandura, 1986) employed by this study acknowledges the importance that people and environments have on each other and the importance of understanding how people create meaning within their environments. Because the primary focus of the study was to understand how gifted students have created meaning around the experience in the gifted middle school program, a basic, interpretative qualitative approach guided the study. The basic interpretive approach includes gathering data to “build concepts, hypotheses, or theories rather than deductively testing hypotheses as in positivist research” (Merriam, 2009, p. 15), and may focus on “(1) how people interpret their experiences,
Merriam, 2002, p. 38). No one methodology was used to focus the examination of the data (Thomas, 2006). The following research questions guided the development of the study:

1. How do gifted students describe the influence of a middle school gifted program on their achievement goals?
2. How do gifted students describe the influence of a middle school gifted program on their self-efficacy beliefs?
3. How do gifted students describe the influence of a middle school gifted program on their beliefs about the nature of intelligence?
4. How do gifted students describe their environmental perceptions of the gifted middle school setting?
5. How do gifted students describe the influence of a middle school gifted program on their future academic plans?

**Sampling Procedures**

It was important to invite students who have experienced the phenomenon and are capable of discussing the experience (Merriam, 2002) to participate in the study. Participants were purposively sampled for the study based on their attendance at a specialized school designed for gifted students. Twenty-three students (of both genders), who participated in a full-time gifted program for at least 2 years (2008-2012) during middle school (grades 6-8), were invited to participate in study. It is important to note that this was also a convenience sample drawn from the school district where I worked as an enrichment specialist (2005-2008), and as a teacher in the gifted middle school (2008-2010) (a full subjectivity statement is included at the end of the chapter). Of the 23 possible students who participated in the program, 6 students
completed the study (participant characteristics are included below, and full participant profiles are provided in Chapter Four).

**Participant Characteristics**

Of the 6 participants, all of whom were in high school at the time of data collection, 4 participants were juniors, 1 student is a sophomore, and 1 is a freshman (see Table 1). Four participants are female and 2 participants are male. Three of the participants are African American and 3 participants are White. They are all in good academic standing, with cumulative enhanced GPAs ranging from 3.6–4.3, and they have all completed a dual-enrollment course. Alisa\(^1\) and Johnny decided to attend the state residential school for math, science, and the arts. Mallory decided to graduate from high school a year early.

Table 1

*Participant Characteristics*

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Current Age</th>
<th>Current Grade</th>
<th>Grades Attended</th>
<th>Dual-Enrollment Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alisa</td>
<td>16</td>
<td>11</td>
<td>7-8</td>
<td>6</td>
</tr>
<tr>
<td>Augustus</td>
<td>17</td>
<td>11</td>
<td>7-8</td>
<td>13</td>
</tr>
<tr>
<td>Carlton</td>
<td>17</td>
<td>11</td>
<td>7-8</td>
<td>11</td>
</tr>
<tr>
<td>Gretchen</td>
<td>14</td>
<td>9</td>
<td>5-8</td>
<td>1</td>
</tr>
<tr>
<td>Johnny</td>
<td>15</td>
<td>10</td>
<td>6-7</td>
<td>1</td>
</tr>
<tr>
<td>Mallory</td>
<td>16</td>
<td>11</td>
<td>7-8</td>
<td>13</td>
</tr>
</tbody>
</table>

\(^1\) Participants selected their own pseudonyms.
School District and Program Profile

Sunshine School District is located in the southeastern part of the United States. The entire district is a Title 1 district in a community that also receives Title VI funds for a school in a rural location. The district is situated in a county that is divided by a river. The overall community is approximately 50% White and 50% Black (U.S. Census Data, 2011). Most residents in the community are high school graduates or higher at approximately 81%. Approximately 11% of the 25+ population has a Bachelor’s degree or higher (2007-2011).

About 4,000 students were enrolled in the school district during the participants’ middle school years. Most students in the district (71%) received free and reduced lunch and nearly 68% were non-White (2011-2012). The per pupil expenditure for students from 2009-2010 was roughly $13,000 (State Department of Education (DOE)\(^2\)). The average ACT score from 2006-2011 ranged from 19.1 to 20 (State DOE).

Students in the Gifted Middle School were drawn from 5 of elementary schools and both of the high schools in Sunshine School District. Students in the district were identified for the gifted program based on test scores and teacher recommendations. Students were involved in two phases of testing by one of the district’s diagnosticians and a school psychologist. Students were typically given the Woodcock-Johnson Tests of Achievement (WJ-III) and the Wechsler Intelligence Scale for Children (WISC-IV). Students had to achieve a score of 130 or above on the WISC-IV or have a combination of scores on the two tests that satisfied the requirements of the state matrix (i.e., 1 standard deviation above the mean on the WISC-IV, 3 standard deviations above the mean on the WJ-III Reading portion, and 2 standard deviations above the mean on the

\(^2\) To protect the confidentiality of the participants.
WJ-III Mathematics portion). Approximately 1-2% of the district population was identified as gifted based on these standards.

The gifted program in the district historically was shaped by the teachers who were hired to work with the students in a pull-out, enrichment program. Some years the program focused heavily on students’ preparation for Future Problem Solving competitions (see http://www.fpspi.org/ for program details). Other years, science experiments and demonstrations were the foci of the program. Prior to the development of a district-wide gifted middle school program, identified gifted students received 90 minutes of programming a week focused on research, career planning, and critical thinking training.

The specialized middle school gifted program was developed to meet the academic needs of identified gifted students in the school district, spurred by parents’ concerns over the lack of challenge in their children’s regular classrooms. Over the course of a year, a task force comprising district personnel, teachers, administrators, and parents developed the plan for the gifted middle school. The program was presented to all of the parents near the end of a school year. The first year, 3 fourth graders, 6 fifth graders, 6 sixth graders, 10 seventh graders, and 5 eighth graders elected to attend school at the specialized middle school. Five students did not continue in the program in the following year. However, 4 new students joined the program. Students were grouped into two multi-grade classrooms; the first was for fourth through sixth graders and the other was for seventh and eighth graders. Best practices in gifted education and the 2010 NAGC programming standards were utilized when developing the curriculum. In addition, curriculum units from The College of William and Mary (http://education.wm.edu/centers/cfge/curriculum/) were used in language arts, social studies, and science. Interact simulation units (http://www.interact-simulations.com/) were used in social
studies. The math curriculum was accelerated. Reading instruction occurred through Junior Great Books (http://www.greatbooks.org/programs-for-all-ages/junior/), and the Schoolwide Enrichment Model-Reading (http://www.gifted.uconn.edu/SEMR/). In seventh and eighth grades, the students received a combination of gifted services (language arts, social studies, and science) and accelerated course work in mathematics (e.g., Algebra I in seventh grade with any student in district who qualifies for Algebra I based on district [NWEA Measures of Academic Progress] scores in math and scores on a state algebra readiness assessment). Classes in art, music, and physical education were also offered. Through the gifted program and other accelerated courses offered to all qualifying students in the district, many students in the gifted program finished eighth grade with high school credit in Algebra I, Algebra II, Geometry, English I, Spanish I, Spanish II, World Geography, Keyboarding, and Physical Science. It is important to note that the district Early College/Dual Enrollment program was being expanded at the same time. The district offers dual-enrollment courses in technical fields (i.e., welding) and introductory college courses (i.e., American Government).

**Recruitment and Data Collection**

Initially, the superintendent of Sunshine School District\(^3\) was contacted, and he granted permission for district involvement in the study, including access to student course transcripts with participants’ assent and parent/guardian consent. The possible participants’ parents/guardians were contacted personally on the phone for recruitment (see Appendix C). As a former teacher, I maintained contact over the past 8 years with students and their parents/guardians through many forms of communication including phone, e-mail, and mail to discuss student’s progress. During and after my time at the school, I maintained a professional

\(^3\) All names have been changed to protect the confidentiality of the participants.
relationship with the families of my former students. Contacting the parents/guardians directly allowed me to answer any questions from the potential participants’ parents/guardians. During the phone conversation, the details of the study were addressed, and the parents/guardians were assured that participation was voluntary and their child should not feel obligated to participate in the study. Nineteen parents/guardians were contacted. They were all enthusiastic about the possibility of their child participating in the study. Once the parents/guardians gave verbal consent, a follow-up letter/consent form was mailed to outline the activities discussed during the phone conversation (see Appendix D). E-mail reminders (2 weeks, 4 weeks) were sent to parents/guardians who initially expressed interest, but who did not return the forms (see Appendix E).

I asked the parent/guardians to obtain written student assent—directions were included in the mailing. The parent/guardians were asked to review the assent form with the potential participants after parent/guardians reviewed and signed the consent form. A self-addressed stamped envelope, addressed to Micah Bruce-Davis, was included in the packet for the parental consent and student assent form. After 6 weeks of recruitment, consent/assent forms for 11 students were returned. Two additional consent/assent forms were received approximately 10 weeks after initial recruitment began. Once consent and assent were obtained, the survey was sent to each participant with a self-addressed stamped envelope addressed to Micah Bruce-Davis. Each survey included an identifier to allow the student researcher to know which students had returned the survey. In addition, student course transcripts from 2007 to the current term were collected from a district administrator once written consent/assent was obtained. After the participant returned a survey, I called or e-mailed each participant to schedule an interview with an independent researcher. Of the 8 participants who mailed in their surveys, 6 students were
able to complete both interviews. Scheduling conflicts prevented the completion of interviews for 2 students.

**Survey Instruments**

Four instruments were used to create a survey that took approximately 20-25 minutes to complete. The survey provided information on participants’ achievement goals, self-efficacy beliefs, perceptions of environment, and implicit theories of intelligence (i.e., malleable or fixed views of intelligence). After creating a profile of the participants’ answers for each research question, I examined any differences between participants’ responses in the interviews to those on the survey. This served as a reliability check.

The four instruments used for the survey were (a) Achievement Goal Questionnaire-Revised (Elliot & McGregor, 2001), (b) Levy and Dweck’s (1997) Theory of Intelligence scale (as cited in Blackwell, 2002), (c) New General Self-Efficacy Scale (Chen et al., 2001), and (d) the Perception of Classroom Goal Structure scale (Midgley et al., 2000). The participants were presented a double scale asking them to reflect on how they think they would have responded to the items in middle school and how they would respond to the items currently. Pratt, McGuigan, and Katzev (2000) and Hill and Betz (2005) have examined the use of retrospective surveys. Hill and Betz suggest when subjective changes are desired a retrospective pretest is suitable. The original response choices were utilized with the exception of Dweck and Levy’s (1997) instrument on Theory of Intelligence (original scale is 1 for Strongly Agree and 6 for Strongly Disagree—this survey response scale was changed to (1 Strongly Disagree to 6 Strongly Agree) so the responses for all four scales were presented in the same direction. Each instrument was presented on a separate page to help students attend to different response scales. Also, the phrase
“In our class” on the Perception of Classroom Goal Structure scale was changed to “In our school,” as this study did not focus on one particular class.

**Interviews**

Two interviews focused on gathering in-depth information about the influence of students’ experiences in the gifted middle school on their perceptions of environment and self-efficacy were completed via video-conference or on the phone (see Appendix B for protocol). All interviews were digitally audio-recorded to allow for transcripts to be created, and for the transcripts to be analyzed. Although in-person interviews would have been optimal, these long-distance interviews also are acceptable and viewed as able to yield rich, robust results (Hanna, 2012; Holt, 2010). Because I was one of the participants’ teachers at the gifted middle school, 4 other researchers who were not connected to the gifted middle school program and who have been trained in qualitative interview techniques completed the interviews. The researchers were given a protocol to follow for the interviews. Each researcher was trained on the protocol, and practiced using the protocol with a fellow researcher. After the initial interview, the recordings of the interviews were screened for identifying information, and then sent to a transcriber. Once the transcriptions were received, I listened to the interviews and filled in missing data where possible. Then, copies of the transcripts and initial analyses were sent to the participants for member checking. Member checking was used to help ensure internal validity by allowing participants to verify that any interpretations made match participants’ perspectives (Merriam, 2009). The second interview, which focused on the students’ experiences at the gifted middle school, was conducted within the following 6 weeks. Participants were again sent the transcripts and initial analyses for review and comment.
Data Analysis

The data from students’ survey responses, school records, and interviews were inductively analyzed. Prior to the qualitative analysis, the student researcher attempted to list all of her presuppositions about the phenomenon, and then discussed them with another researcher to uncover any additional presuppositions (see the end of the Chapter Three for the subjectivity statement).

Survey Responses and Course Transcripts

Participants’ responses to the survey were analyzed qualitatively as a way to check for reliability of student responses to the interview questions. Students’ responses to each survey were analyzed to see which statements they most agreed, and if their perceptions changed from middle school to high school. The course transcripts were examined to develop an understanding of the level of coursework the students have engaged in directly prior to, during, and after their time at the gifted middle school. The data from the course transcripts provided the interviewers with course names, allowing them to ask questions about courses participants may not have mentioned. In additional, the general level of courses taken and the number of dual-enrollment courses are included in the participant descriptions in Chapter Four.

Interviews

After each set of interviews, a careful transcription was completed. Transcripts were recorded in a word processor, and then entered into QSR International NVivo-10 software (2012), a qualitative data management program for coding purposes. I listened to the recordings of the interviews several times while reading the transcripts so I was thoroughly familiar with the data (Hycner, 1985). I also kept a journal of notes during the process of interviewing the participants, reviewing the recordings, and reading/coding the transcriptions (Merriam, 2002).
The initial open coding included a “word by word, line by line analysis questioning the data” (Gribch, 2007, p. 74). I focused on creating in-vivo codes, or codes consisting of the words of the participants, to highlight the voices of the participants (Saldana, 2013). While these codes were created, analytical memos were also created and documented in my researcher’s journal, providing a record of thoughts and analysis trail. I completed this process once after the first interview, and then I combined the transcripts for first and second interview and repeated the process.

This following segment, presented in Table 2, is an example of the first round coding process from Augustus’s first interview. Initially I highlighted at each section, and the comments “liked the environment,” “we had the same kids,” “small class,” and “good teacher” were created as in-vivo codes. In addition, I noted that the same “good” teacher for the three math classes was seen as a positive.

Table 2

<table>
<thead>
<tr>
<th>Transcribed Interview</th>
<th>In-vivo Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviewer: Was there anything in particular that you felt that helped you succeed in Algebra?</td>
<td>“liked the environment,”</td>
</tr>
<tr>
<td>Augustus: The teacher, and I liked the environment, because we had the same kids. It was a small class. We really didn’t know each other (at first),</td>
<td>“we had the same kids,” “small class”</td>
</tr>
</tbody>
</table>
and it was a good teacher. “good teacher” – note: the same good
She taught Algebra 2, Algebra 1, and teacher taught three of his math classes
Geometry.

The second round of coding consisted of axial coding (Saldana, 2013). This led to the
development of categories. Thomas (2006) suggests that 3-8 categories are ideal. Once coding
was completed, and initial categories were created, each category was analyzed to determine
how well the items in each category fit together and how distinctive each category was from the
other categories. Each category was given a label, a description, and examples of text. Within
each category, negative examples, or comments that were contradictory to the category, were
noted. In this process, the research questions guided the analysis of the data; however, themes
that were not directly connected to the research questions were recorded. After initial and axial
coding was completed, I reviewed each participant’s interviews as a complete unit and created
participant profiles. I then reexamined the participants’ interview responses as a complete group
to develop themes across the participants. The data were reviewed several times for support or
contradiction to the categories created. The categories, codes and sample text are included in
Table 3.
Table 3

**Categories, Codes, and Sample Text**

<table>
<thead>
<tr>
<th>Category Name</th>
<th>Codes</th>
<th>Sample Text</th>
<th>Research Question Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effort and Challenge</td>
<td>Reaction to challenge; “Study skills and time management” and strategies to do well; Out of comfort zone; “Maturity level”</td>
<td><em>I had to write a paper for World History, and I had to work on it for 2 or 3 weeks. The teacher that we have is actually really hard on papers.</em> (Alisa, March)</td>
<td>1</td>
</tr>
<tr>
<td>School Environment</td>
<td>“Interactive” classroom and hands-on; “This isn't normal, regular school”; “A smaller setting”; Relaxed, easy-going class environment; Fun or enjoyable experiences</td>
<td><em>It wasn’t always quiet and doing paper and notebook work. It was involved. Everyone got together. Everyone spoke. It wasn’t just the two people in our class who always said something, but we worked as a class as a whole.</em> (Carlton, April)</td>
<td>5</td>
</tr>
<tr>
<td>Nature of Giftedness</td>
<td>“Gifted in one thing but not another”; Testing; Gifted = thinking process; Learn more or become smarter</td>
<td><em>I took the gifted test. When I passed, I felt successful.</em> (Gretchen, March)</td>
<td>3</td>
</tr>
<tr>
<td>Planning</td>
<td>Planning for the Future; College and career plans; Choice</td>
<td><em>I had an idea of what I liked, but I didn’t know what I wanted to be, so I used multiple websites and resources to help me decide what I finally wanted to be.</em> (Johnny, March)</td>
<td>5</td>
</tr>
<tr>
<td>Category Name</td>
<td>Codes</td>
<td>Sample Text</td>
<td>Research Question Connection</td>
</tr>
<tr>
<td>---------------</td>
<td>-------</td>
<td>-------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Teacher and Peer Support or Lack of</td>
<td>“Teacher realizes that you have potential”; “We kind of pushed each other”; “They [the teachers] just cared”; “There's no need for all this advanced stuff”; Teacher support; Negative teacher experiences; Peers relationship and influence;</td>
<td>I guess it was nice to know that somebody thought of it as being intelligent and not being stupid, whenever I was thinking, I guess making intelligent jokes or something. (Mallory, April)</td>
<td>2 and 4</td>
</tr>
<tr>
<td>Motivation</td>
<td>“Fear of failing” and “didn't want to fail”; “Straight A’s” and Grades</td>
<td>I don’t know failing, when I fail, I get really, really disappointed in myself so I try to avoid that fear. (Alisa, April)</td>
<td>1</td>
</tr>
<tr>
<td>Reactions to the Center; Results of Attendance</td>
<td>Courses in High School- Especially College and DE; Regret or Worth It; Beneficial</td>
<td>I’m really glad I went through with this, like in the past. I really don’t regret anything. (Augustus, March)</td>
<td>5</td>
</tr>
<tr>
<td>Self-Concept-Theoretical</td>
<td>How a student sees him/herself as a student or learner</td>
<td>I didn’t think I was that smart. I just knew I was different. (Augustus, April)</td>
<td>1, 2, and 3</td>
</tr>
<tr>
<td>Self-Efficacy-Theoretical</td>
<td>Participant describes experiences where he/she gained self-efficacy</td>
<td>It [the Gifted Center] made me feel comfortable with challenges because at first I was like, “I can’t do this math or I can’t read this book because I’m just in fifth grade or sixth grade.” But I opened up to like new things and trying to adjust so I got smarter. (Gretchen, April)</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>Interesting not sure where</td>
<td>I learned how to work with different people in different ways and how to adjust my learning style depending on what the teacher wanted. (Alisa, April)</td>
<td>All</td>
</tr>
</tbody>
</table>
To ensure trustworthiness, peer debriefings and consistency checks with participants (via e-mail) were completed, and comparisons were made to previous literature on the same topic (Thomas, 2006). An additional researcher, who also interviewed participants, analyzed 20-30% of the raw data, using initial codes I developed. Once the additional researcher finished the analysis, comparisons were made, and if there were disagreements further discussion and analysis were completed (see Appendix F for Codebook). The discovery of disagreements led to further discussion and debate (Patton, 2002) until consensual agreement was met. This process allowed findings to be developed and confirmed through the analysis of the raw data. The additional researcher was also consulted to ensure that the final categories “(a) answer the research questions, (b) are exhaustive, (c) are mutually exclusive, (d) are sensitizing (capture the meaning of the phenomena), and (e) are conceptually congruent” (Merriam, 2009, pp. 185-186). The participants’ responses to the survey results were used to triangulate the findings. In addition, the student transcripts of courses taken/grades were used to demonstrate the level of coursework students have engaged in directly prior to, during, and after their schooling at the gifted middle school.

**Subjectivity Statement**

My previous work as a teacher of the gifted has led to my identification with this group of students. After undergraduate school, I spent 8 years teaching in rural areas in the South. The disparities between the schools I attended (which were close by) and the rural schools in which I taught led to my appreciation of the insularity that rural life can have. At first, I thought it was my job to help students escape their hometowns. However, there were some students who taught me that I had a lot to learn from them as well, and that their community had a large part in
making them who they were. My job was no longer to save them, but to help them become aware of possibilities and to help them open doors. I was invested in helping students learn that they could succeed at challenging work and attend selective 4-year universities.

In my fifth year of teaching, I helped start a Gifted Center within the district in response to parent and student concerns of a lack of rigor in the regular classroom. I was one of at least 4 teachers the students saw each day for 2 years at the Gifted Center.

Many students did not immediately love being challenged. Three students and their parents decided the rigor was just too much, and left the program during the first semester of the program. For the students who stayed, helping students understand that hard work was good was a continual goal.

I have employed the help of other researchers to ensure the trustworthiness of the finding. In addition, as I coded and reviewed the data I kept notes of my thought process as a means to help bracket my subjectivities. In this chapter I have explained the methods used in this study, in the next chapter the results of the analysis will be presented.
CHAPTER FOUR: FINDINGS

This study’s purpose was to develop an understanding of the perceived influence a gifted middle school had on students’ achievement orientations and behaviors. Five research questions guided the study, focusing on the development of achievement goals, self-efficacy beliefs, theories of intelligence, environmental perceptions, and participants’ academic plans.

In Chapter Four, I begin by providing profiles of each participant developed from the participants’ course transcripts, survey responses, and interview data. Then, the findings related to each research question are presented. The participants’ responses to the surveys are presented followed by their interview responses.

Participant Profiles

Of the 23 possible participants, 6 participants completed the study. This section includes individual profiles of each participant developed from their course transcripts and responses to the surveys and interview questions. All of the participants attended a middle school developed for gifted students for at least 2 years. Four of the participants recently finished their junior year of high school, one student completed his sophomore year, and one student completed her freshman year. The participants were making As and Bs in all of their classes at the time of the interviews. All of the participants have taken at least one dual enrollment class, and one student decided to graduate from high school early. The following participants’ profiles are syntheses of information from the individual student interviews in relation to the research questions.

Alisa

Alisa is a 16-year-old junior. She was identified for the gifted program right before the opening of the Gifted Center. To Alisa, giftedness means a person works really hard to be his or her best. People can show that they are gifted by working really hard and by doing well in
school. She explained her desire to be challenged and to be around other students who are willing to put in extra effort to do well in school was her motivation to attend the Gifted Center, commenting that students at her elementary school were willing to do the bare minimum. She found her classes at the Gifted Center challenged her, and it was easier to make friends at the Gifted Center because the students thought in similar ways. She also enjoyed the laid-back nature of classes where she was able to talk about ideas with classmates and to joke around with them. She felt like many of the teachers worked hard to make the material interesting, which helped her learn to enjoy studying and working hard. Alisa found support from peers, teachers, and her parents. Positive statements from teachers helped her see she is capable of succeeding. She sought out support when needed to do well in a class. Alisa commented teachers have met with her after class to help her better understand lessons, and she has had peers review her work. While at the Gifted Center, she learned to take “good notes,” which helped her study and do well on tests. She believes learning note-taking skills is what prepared her for her dual-enrollment courses. During her freshman and sophomore years of high school she completed 6 dual-enrollment courses, and she has consistently made grades of A in her classes.

Alisa stated her motivation to do well in a class was either because the class was meaningful/enjoyable or because she was afraid to fail the class. She expressed an interest in the arts, specifically graphic design, but she also enjoyed English and mathematics classes. She generally liked working hard for classes in those subject areas. Interactive classes in which teachers made an effort to engage and challenge her were fun. She also liked the opportunity to be creative, explaining her Art I and English I were two of her favorite classes because the teachers allowed her to be creative. For all of her other classes, she worked hard and studied hard so she could avoid failing.
She currently attends the state residential school for math, science, and the arts. She stated this decision was based on her desire to challenge herself and “get ahead.” She has a passion for graphic design, and hopes to pursue a degree in the field at a university focused on the arts.

**Augustus**

Augustus is a 17-year-old junior. He was identified for the school district’s gifted program in elementary school, and was in a gifted pull-out program for at least 2 years prior to his attendance at the Gifted Center. He attended the Gifted Center in seventh and eighth grades. He acknowledged he did not understand why he was in gifted pull-out program as an elementary student. However, during his time at the Gifted Center he defined giftedness as how quickly someone can learn new things. He stated, “I don’t think you can ever just get like smarter. You can definitely get more experience and more knowledgeable in certain things” (April, 2013)

Augustus decided to attend the Gifted Center because he believed his attendance would help him in the future. Some extended family members and friends discouraged him from attending the Gifted Center. They told him he would not need the courses he was taking and warned that he would be “too ahead” in his classes. Despite these comments, he felt the Gifted Center would be the best place to be challenged.

He stated his decision to attend the Gifted Center was the right one. He believed he was challenged, and that his experiences prepared him for the future. Augustus enjoyed small classes with peers who were capable of working on the same material at a similar pace. He also appreciated the hands-on learning opportunities, the field trips, and the deep relationships he developed with his classmates and teachers. He relied on classmates to help when the material
was really challenging, and noted the teachers listened and helped with classwork whenever he needed help.

Having challenging classes in middle school prepared him for high school dual enrollment classes. He learned to study, take notes, and manage his time. He also learned doing well in a class was up to him and how much effort he was willing to exert. Classes at the Gifted Center helped him learn to believe in himself and to think of himself as smart. In particular, he stated,

[T]he teachers were more confident in us than we were in ourselves. Or, at least with me, at the time, I didn’t have any confidence . . . . But they [the teachers] definitely helped me stay more confident and positive about it all. (April, 2013)

Doing well in accelerated courses made Augustus feel successful. The accelerated courses also afforded him the opportunity to take classes such as Calculus II, which he enjoyed because he could see how all the math from elementary school through high school math classes “came together.”

He completed 13 dual enrollment courses and maintained mostly grades of A. Even though he enrolled in high-level, dual-enrollment classes, he stated he has an extreme fear of failure. His fear of failure motivated him to work hard even if he did not enjoy the class because he was concerned about his report card grade. This was partially due to a long held perception that colleges would only accept him if he had straight As. He now understands he does not have to earn straight As to get into a good college. He also commented that he did want to take a class just make an “easy A.” He worries less about grades than he previously did. Yet, earning a B in a class still bothers him. He is currently attempting to balance his schoolwork and his social life.
He hopes to become a veterinarian. His interest in animal science began as a young child through his family’s involvement with animals, and his involvement with 4-H. He was impressed as a child by the work a veterinarian completed at his home. Recently, he was concerned about issues involved with becoming a veterinarian, but he stated his determination to pursue veterinarian school because it connects to his interest in animals. He also considered a career in chemistry, but he does not believe a job in this field would match well with his interests.

**Carlton**

Carlton is a 17-year-old junior. She was identified for the gifted program in late elementary school, and was in a gifted pull-out program for at least 2 years prior to her attendance at the Gifted Center. She attended the Gifted Center in seventh and eighth grades. She stated intelligence is a way people think and process challenging material. After attending the Gifted Center, she began to believe giftedness is the ability to develop a gift or talent in academics or in the arts. She also indicated being gifted does not mean that you have to easily make As in all your subjects without making any mistakes, and she acknowledged people can get smarter. She stated she has been determined to achieve since she was a young child. Once she begins anything, including a challenging class, she will finish that class and do well.

Carlton decided to attend the Gifted Center because she was excited about the possibility of accelerating, and her test scores helped her believe she was capable of completing the accelerated courses. However, she was worried about leaving behind her friends. Once she started taking classes at the Gifted Center, she realized there was a more academic focus at the Gifted Center than there would have been in a regular seventh grade class. This was partially due to being in classes with older students, whom she felt were more mature. Eventually, she
developed new, close friendships with the students at the Gifted Center. She also enjoyed the “easy-going” ways of the teachers.

She found the interactive, hands-on nature of class assignments motivating, and the relaxed nature of the classroom helped her to handle the stress of the challenging material. As work in these classes became more complex, she found the class increasingly enjoyable. In addition, Carlton appreciated that teachers at the Gifted Center connected her to areas of interest through field trips and guest speakers.

During high school, she has maintained an overall A average and has completed 11 dual enrollment courses. While she wishes she had not accelerated quite so much (she completed all of her required high school courses by the end of her junior year of high school), she explained that her experiences at the Gifted Center motivated her to continue to take challenging classes. She compared her progress to other students in her classes, and once she saw other students doing well in class she would put more effort into her coursework. Her peers served as resources, helping her study and edit her work. She has also met with her teachers in an effort to improve her work. She sees herself as her own advocate. She learned to take risks in classes and is willing to learn from those experiences. She appreciated being able to take college courses that match her interests. However, she wishes she had more courses at the high school. She would have liked an academically easy senior year, but it does not look like that will happen.

During the first interview, when she was asked if there anything else she would like to share, Carlton suggested students who are accelerated should have personalized counselors to support them and to help them select courses that connect to individual goals and interests. She felt like she did not have a full understanding of what accelerated curricula might mean for her high school coursework. She also felt like there was not enough planning for the accelerated
students—she even stated she felt “trapped” or forced into taking college classes while in high school. While planning for courses seemed to improve during the spring semester, she thought any connection to her future interests and the college courses was happenstance because the high school counselor was not aware of her interests.

Carlton hopes to pursue a career in mass communications with a minor in psychology. She decided on this option after participating in a speaking competition as part of an honor society. She would also like to pursue a master’s degree in psychology or business administration.

**Gretchen**

Gretchen is a 14-year-old freshman. She was identified as gifted immediately prior to attending the Gifted Center, where she went to school from fifth through eighth grade. For Gretchen, giftedness used to mean a person is “super brilliant” and that he/she just knows everything. After her time at the Gifted Center, she started to see a person could be gifted in different areas like music, art, and creativity. She related that giftedness is connected to how a person thinks—not just what he/she knows, and that people can become smarter. Being identified as gifted helped her see that she is capable of completing challenging work.

Her time at the Gifted Center helped her realize that she will not be the best at everything, and that working hard to do well is necessary. She began to make lower grades when she entered the Gifted Center, and this made her realize that she needed to start studying. She developed study skills, such as reviewing her notes each night, as a way to improve her grades because doing well in class was important to her. While succeeding in class was important to her, she also realized that she could learn from her failures, which she defined as “giving something your
all and it’s still not good enough” (July, 2013, follow-up e-mail). Even making a B on an assignment could signify failure to her.

She both enjoyed and disliked her time at the Gifted Center. She appreciated the relationships she developed with other students and the teachers at the Gifted Center, which she attributed to the small class sizes. Gretchen also enjoyed hearing different ideas and building off those ideas in class. She liked teachers who helped her connect classwork with her own experiences. She appreciated when one of her teachers graded her assignments based on how she improved. There were also times when she was discouraged in classes because she did not connect with the teacher. She also developed friendships that inspired healthy competition. This competition encouraged her to work hard to make good grades in class. She did not enjoy when people argued or debated a lot. She also noticed that people occasionally bullied her classmates, which bothered her.

Gretchen realized that while it is important to take hard classes, it is also important to have a social life. During her time at the Gifted Center, she developed time management strategies, such as completing homework during the week and saving fun events for the weekends.

Gretchen has completed one dual-enrollment course and maintained an A average in her classes. However, she still worried about being able to complete coursework, especially when peers mentioned that the classwork was really hard. Despite her concerns, she has taken many of the “hard” courses anyway. Her success with these courses and the encouragement she received from friends and teachers helped her to believe in her ability to complete challenging coursework and assignments.
Gretchen is still trying to decide on a future career, and people around her are trying to influence her potential choices. Her mother would like her to be a doctor or lawyer. She stated that she might want to be a lawyer, but the biomedical field also seems interesting.

Johnny

Johnny is a 15-year-old sophomore. He was a student at the Gifted Center in sixth and seventh grades. He decided to leave the gifted middle school after grade 7. He explained gifted is being motivated. He also believes to be gifted a person needs a base level of intelligence as judged by IQ. He does not think that people can improve their IQ scores. Being gifted also means being able to think “outside of the box.”

When he entered the Gifted Center, he quickly realized it was not like other schools, and school could be more challenging. During his time at the Gifted Center, he learned content that prepared him for more advanced classes. He also learned how to work independently, and to use tools, such as PowerPoint. He appreciated the care that teachers at the Gifted Center demonstrated, and he stated they knew him well enough to individualize his learning experiences. He also connected with other students whom he considered intellectual peers. While he often did not feel successful at the Gifted Center, his time there helped him see what was possible and helped him learn that he needed to work harder to succeed.

He has maintained an A average in high school, and he has completed one dual enrollment course. In high school, it has been important for him to do well in his classes. Johnny stated his motivation levels have changed over the past few years due to a general increase in maturity. The increased maturity helped him develop study and time management skills, and these skills helped him succeed in advanced courses. Generally, when facing a challenge, he
began to find ways to work harder. However, if he was not able to make the next highest grade in a class, he did not always do his best on the remaining assignments for the grading period.

He has been motivated by keeping up with others and doing well on tests, and he was very proud of his ACT score. Encouraging messages and high expectations from teachers have also driven him to work harder. He explained one teacher helped by not giving him a grade until he completed the work and by insisting that he complete his homework—he could not pass the class unless he completed his homework. In contrast, when asked about times when he was discouraged in school he shared an example of a teacher who demotivated the class.

I’m in a class right now, the teacher has an attitude with some students sometimes and it also discourages them from doing their work because they feel like the teacher is hateful towards them. She’s boring and she has an attitude a lot and it’s very discouraging for the students to have to tolerate her. (March, 2013)

Currently, he stated he is seeking a more challenging school environment, and he has decided to attend the state residential school for math, science, and the arts. He developed an interest in political science in his ninth grade Civics class. He hopes to pursue a career in political science, and has considered pursuing a doctoral degree.

Mallory

Mallory is a 16-year-old junior, and at the end of the school year she decided to graduate a year early. She attended the Gifted Center in seventh and eighth grades. She was identified for a gifted program as a young elementary student. For her, giftedness is about a how a person thinks. While a person can get smarter, she does not think a person’s IQ score changes much throughout his/her life.
Involvement with the Gifted Center gave her a chance to be an individual and provided her with a safe space to be herself. She stated the Gifted Center gave her more opportunities to learn and be challenged. Taking classes with other gifted students, where there were lots of discussions, gave her the opportunity to learn from them and to hear their opinions and thought processes. In classes like English, having discussions with classmates helped her learn to make connections without the teacher connecting the dots. The challenging level of the classes prepared her for future classes through content with the exception of social studies. She also believed she was prepared for high-level coursework because she learned to manage her time, and developed study skills.

She appreciated how teachers at the Gifted Center connected to her, listened to her, and helped her think through future decisions. She did not have this experience at other schools in her current school district. Mallory appreciated a learning environment in which teachers encouraged her to interact with her classmates, and where the teachers were not focused on everyone being quiet and completing assignments. She also believed she learned to present in new ways because of the class assignments. These experiences helped her grow and mature.

She completed 13 dual-enrollment classes and maintained an A average. She commented that she enjoyed learning just to learn, and she liked classroom assignments that made her think. Learning about theory fascinated her and motivated Mallory to engage in classes focused on theory. It was important that she continually was involved in a challenging school environment.

Getting good grades was one way that she knew she had done well in a class, and that made her feel successful. It also helped her know that she could do well in other difficult classes. Her teachers were a greater influence on her than students. Mallory found teachers’ belief in her to be encouraging. However, she did not let a teacher’s negative behavior influence her.
Mallory did not let anyone get in the way of learning something. She worked really hard to engage in coursework, which helped her reach goals and maintain educational pursuits. She was happy when others recognized what she had done, but gaining recognition from others was not what motivated her to study and learn. She seemed to be self-motivated, reporting that she often spent time outside of class trying to understand material on her own. Mallory studied a tremendous amount of time—spending up to 18 hours a day on schoolwork.

Mallory did not have a lot of help from school counselors when making plans for her future. Instead, she developed her own plan for her future and spent a lot of time researching career and college options. She hopes to work in the medical field, possibly completing research. She spent time working with faculty members at the high school and the local University, and completed a summer internship in a lab at a research university.

Findings for Research Questions

This section reports the findings across the participants by each research question. First, for the first 4 research questions the responses to surveys will be presented (question 5 did not have a corresponding survey), and then the findings from the analysis of interviews follow.

Research Question One

*How do gifted students describe the influence of a middle school gifted program on their achievement goals?*

**Survey responses.** One approach to understanding why and how students engage in achievement-oriented behaviors is through an analysis of their achievement goals. Several researchers found correlations between the goals a student subscribes to and subsequent behaviors (Elliot & MacGregor, 2001; Grant & Dweck, 2003). In their 2 x 2 framework explaining achievement goals, Elliot and MacGregor (2001) stated students can subscribe to
mastery (i.e., wanting to learn) or performance (i.e., perform or make a better grade) goals. They can also either approach or avoid learning situations (see Chapter Two for more information).

Table 4 presents the frequencies of the participants’ responses to achievement goal questions developed by Elliot and Murayama (2008). The question format was altered to include a double scale, whereby students offered retrospective and current perceptions. The response scale was (1) Strongly Disagree, (2) Disagree, (3) Neither Agree nor Disagree, (4) Agree, and (5) Strongly Agree. The responses to these questions provided an additional means to understand the development of the participants’ achievement goals.

Table 4 illustrates the participants subscribed to multiple goal structures. In addition, each participant’s achievement goal pattern varied. Their responses did not change greatly from middle school to high school; however, they were more likely to agree or strongly agree with mastery approach items in high school. The number of participants agreeing they wanted to perform better than other students decreased. However, they generally wanted to perform well as compared to other students. Regardless of mastery or performance orientation, the participants tended to agree with approach items more frequently in the surveys.

The biggest difference in responses came from Johnny. He did not agree with any items on the achievement orientation scale in middle school. In high school, he agreed or strongly agreed with 10 of the 12 items, neither agreeing nor disagreeing with item 14—My goal is to perform better than other students and strongly disagreeing with item 11—My goal is to avoid learning less than I possibly could.
Table 4

*Frequency of Participant Responses to Achievement Goals (2 X 2 Framework)*

<table>
<thead>
<tr>
<th>Middle School</th>
<th>Item Stem</th>
<th>High School</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5</td>
<td></td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td><strong>Mastery Approach Items</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 1 0 2 3</td>
<td>9. My goal is to learn as much as possible.</td>
<td>0 0 0 4 2</td>
</tr>
<tr>
<td>0 2 1 1 2</td>
<td>13. I am striving to understand the content of my courses as thoroughly as possible.</td>
<td>0 1 0 3 2</td>
</tr>
<tr>
<td>0 1 1 0 4</td>
<td>7. My aim is to completely master the material presented in class.</td>
<td>0 0 2 1 3</td>
</tr>
<tr>
<td><strong>Mastery Avoidance Items</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 1 0 4 1</td>
<td>17. I am striving to avoid an incomplete understanding of the course material.</td>
<td>0 0 0 6 0</td>
</tr>
<tr>
<td>0 0 2 1 2</td>
<td>15. My goal is to avoid learning less than it is possible to learn.*</td>
<td>0 0 2 2 1</td>
</tr>
<tr>
<td>0 1 2 2 1</td>
<td>11. My aim is to avoid learning less than I possibly could.</td>
<td>1 0 0 3 2</td>
</tr>
<tr>
<td><strong>Performance Approach Items</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 0 1 0 3</td>
<td>14. My goal is perform better than the other students.</td>
<td>1 0 4 0 1</td>
</tr>
<tr>
<td>0 1 0 2 3</td>
<td>8. I am striving to do well compared to other students.</td>
<td>0 1 0 3 2</td>
</tr>
<tr>
<td>0 1 0 3 2</td>
<td>10. My aim is to perform well relative to other students.</td>
<td>0 1 0 3 2</td>
</tr>
<tr>
<td><strong>Performance Avoidance Items</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 0 2 0 4</td>
<td>12. My goal is to avoid performing poorly compared to others.</td>
<td>0 0 2 3 1</td>
</tr>
<tr>
<td>1 0 0 2 3</td>
<td>16. I am striving to avoid performing worse than others.</td>
<td>0 1 0 2 3</td>
</tr>
<tr>
<td>1 0 1 1 3</td>
<td>18. My aim is to avoid doing worse than other students.</td>
<td>0 0 2 1 3</td>
</tr>
</tbody>
</table>

Augustus, Carlton, Gretchen and Mallory’s survey results indicated they subscribed to a variety of achievement goals, with each participant shifting slightly on their responses. Augustus, Carlton, and Mallory agreed the most to approach items, or a willingness to work towards a goal
instead of avoiding situations. They indicated they wanted to learn as much as possible, but they also wanted to perform well in comparison to others. Gretchen’s survey responses indicated she agreed mostly with performance goals in middle school, but in high school she agreed with more mastery-oriented items.

Alisa’s responses were identical for middle school and high school. She strongly agreed with items reflecting a performance goal more than any of the other goals, but she also strongly agreed with the item stating she wants to learn as much as possible. For Alisa, it was important to learn, understand the material, and improve, but it was also important to get high grades.

**Interview responses.** After the interviews were completed, transcripts were created from the audio recordings. The interviews were listened to and read several times, and then two rounds of coding, as described in Chapter Three, were completed. For research question one, three themes emerged: (a) they subscribed to mastery and performance goals, (b) they approached challenge strategically, and (c) some participants were motivated by fear.

**Subscribed to mastery and performance goals.** Participants’ responses on the survey and the interviews imply participants held both mastery and performance goals. Performing well for all the participants was validating. They stated they were motivated to earn good grades, as good grades helped them know they were successful.

Doing well in school for the majority of the participants meant both learning the material and earning good grades. Gretchen’s comments reflected the intersection of mastery and performance goals:

Like in [the Gifted Center] when I first went I didn’t study at all but my grades reflected that. Well, because I was always the one to be really like specific about my grades. I would never let my grades slip here or there. I always wanted my grades to be just all As.
That was the only thing I wanted. I wasn’t going to just let my grades slip by not studying and I really wanted to pass the class and actually learn something for it. I didn’t want to just ease on by so I felt like I really had to learn and pay attention to the work if I wanted to be successful in my seventh grade math class, which was Algebra 1. (April, 2013)

While Gretchen discussed the desire to earn As, she also really wanted to learn in class. Mallory also made statements that indicated she was focused on mastery. She commented the only time she was discouraged in class was when she was not able to comprehend material as quickly as she would like. She followed with, “I can do my best. And that’s actually the best I’m going to do. I was going to be my very best at it” (April, 2013). However she also mentioned, “I also wanted my project to be respectable and didn’t want people to think, well she didn’t put any the effort into that” (April, 2013).

Mallory shared a more global example:

Studying is a big thing and it’s not always the memorization of something but really trying to learn concepts of things and being able to understand the larger picture versus being able to understand every single little detail along the way, cause if you can understand what you’re actually supposed to learn it, you kind of keep the material for a trek of time and you get more involved in the material if you try to understand that overall versus the little details ‘cause if I focused down on the little details, I tend to not really get much out of what I’m supposed to get. (March, 2013)

She also admitted that grades were important to her because they “prove that you are capable of something” (March, 2013).

During her interview, Carlton gave examples of how she has approached her coursework and continually sought to master material and perform well in class. During an English class, at
first she began to meet with the teacher because the teacher said it was not possible to earn an A in the class; however, during the meetings with the teacher she was able to learn new writing skills and prove to her English teacher she was a capable writer.

Not all of the participants’ comments reflected this dual purpose. In particular, Johnny’s comments during the interview signified that he was focused mainly on performance, “I guess I just want to strive to be better than other people” (March, 2013). He also stated “I guess I have a need to not feel inferior” (May, 2013).

**Approached challenge strategically.** While they did not describe any specific changes to their goals while in middle school, 5 of the participants did state their time at the Gifted Center provided them with the opportunity to develop note taking, study, and time management skills. The participants reported continued use of these strategies in high school classes.

Alisa did not expect the Gifted Center to be challenging. She thought she would be able to continue to put forth the same amount of effort as she did at her previous school; however,

I got there [and] I learned study skills and time management. The teachers prepare[d] you for stuff like that; they t[old] you about them in the [Gifted Center]. They stress[ed] time management and study skills and they stress[ed] you being able to understand certain material and they stress[ed] you being able to remember that material and having to dig it up later for future concepts. (April, 2013)

She recognized, “when I got into my dual enrollment classes I was better at taking notes and so I was better at studying it and understanding it which essentially helped me get better grades” (April, 2013).

Gretchen also learned to study while at the Gifted Center:
Because in [the Gifted Center] the courses were a little harder than my regular school, it showed me that I had to start studying a little bit earlier. I learned how to, you know, get my study habits together in fifth grade rather than entering a hard class that I had to study for and not knowing how to study. I kind of already had a good grasp of that. (April, 2013)

Augustus commented on several experiences in middle and high school where he would go home and study for hours so he could make a good grade in a class. He also mentioned in his middle school social studies class, he learned to take notes and build his own study guides. Augustus felt that this experience prepared him for college classes.

These participants all found ways to cope with their challenging class material in middle school. Johnny, however, commented that in middle school if he knew he could not get a better grade then he would not exert extra effort to perform well on final assignments during the grading period. He described a sudden change in his motivation to approach challenging tasks in high school, and reflected, “the teachers had taught me; okay you need to do what you need to do in order to get what you want” (March, 2013). This advice appears to have helped him become more attentive to school work as a high school student.

Motivated by fear of failure. Several of the participants mentioned lower grades were not acceptable, and two participants specifically commented on being afraid of failure. During Augustus’ interviews, he made several comments about his fear of failure and his need to make As. Alisa also mentioned a fear of failure: “I have a fear if failing so I try to avoid that and disappointment at all costs” (April, 2013). Both participants described spending lots of time on assignments to avoid failure.
Augustus described Spanish II as the worst class he had ever taken because it was an online course and he did not have the teacher support he thought he needed. He stated he worked for 7 hours straight on the course before the final, and he felt successful when he passed the class. However, he also shared he would never take a Spanish class again.

When Alisa heard her World History teacher was a “hard grader,” she completed multiple drafts of a paper. In addition, she explained, “I had a friend read it for content, someone else read it for grammar, and then I had someone else who had taken it [the class] before read it to make sure that I’d covered everything else” (March, 2013).

Both of these participants reported learning study skills in middle school, and both successfully completed several high level courses. However, fear of failure motivated both of them to work hard to achieve. It is also interesting that the outcomes of their practice and work are different. Where Alisa was focused on learning and improvement, Augustus’s primary focus was on grades.

**Summary.** The participants’ responses to both the survey and the interviews indicated the participants subscribed to multiple achievement goals. They wanted to master material, but they also wanted to earn good grades. In middle school, they learned it was important to work hard to be successful in class, and were less likely to want to perform better than other students in high school. However, it was still important for all the participants to perform as well as other students. During middle school, they learned to study, take good notes, and manage their time. While they all worked hard to approach challenging situations, some participants were motivated to approach their assignments because they were afraid to fail.
Research Question Two

*How do gifted students describe the influence of a middle school gifted program on their self-efficacy beliefs?*

**Survey responses.** One construct studied in conjunction with understanding underachievement or achievement is self-efficacy (Siegle & McCoach, 2005). Self-efficacy gains have been linked to cognitive gains in mathematics (Bandura & Schunk, 1981; Pajares, 1996; Pajares & Graham, 1999; Usher, 2009), writing (Pajares et al., 2000), and science (Bong, 2001; Britner & Pajares, 2006). The following section includes participants’ statements on aspects of their middle and high school experience that either helped or hindered the development of self-efficacy beliefs. First, the participants’ responses to the scale (Chen et al., 2001) are presented. This scale focuses on general self-efficacy beliefs. A double scale was included to enable participants the opportunity to reflect on middle school experiences, on the left of the items, and current school experiences, on the right of the items. The response scale was (1) Strongly Disagree, (2) Disagree, (3) Neither Agree nor Disagree, (4) Agree, and (5) Strongly Agree. The frequency of participants’ responses on the scale, as seen in Table 5, provided an additional means to understand the development of their self-efficacy beliefs from middle school through the Spring of 2013.

The frequency of participants’ responses to the self-efficacy scale, as presented in Table 5, illustrated the participants’ increase in self-efficacy from middle school to high school. Augustus, Carlton, Johnny, and Mallory responded more positively to self-efficacy items on the high school scale than the middle school scale. Johnny changed his responses the most. On the middle school scale, he agreed with 2 of the 8 items for self-efficacy (i.e., *I will be able to achieve most of the goals I have set for myself* and *In general, I think that I can obtain outcomes*...
that are important to me). On the high school scale, he agreed or strongly agreed with all 8 items. Alisa’s responses were consistent—she agreed or strongly agreed with all the items on both scales. Gretchen agreed or strongly agreed to fewer items on the high school scale. Specifically, she no longer agreed with items 24. I am confident that I can perform effectively on many different tasks and 25. Compared to other people, I can do most tasks very well.

Table 5

Frequency of Participant Responses to Self-Efficacy Scale

<table>
<thead>
<tr>
<th>Item Stem</th>
<th>Middle School</th>
<th>High School</th>
</tr>
</thead>
<tbody>
<tr>
<td>19. I will be able to achieve most of the goals that I have set for myself.</td>
<td>0 0 1 2 3</td>
<td>0 0 0 0 6</td>
</tr>
<tr>
<td>20. When facing difficult tasks, I am certain that I will accomplish them.</td>
<td>1 1 1 3 0</td>
<td>0 0 0 4 2</td>
</tr>
<tr>
<td>21. In general, I think that I can obtain outcomes that are important to me.</td>
<td>0 0 1 4 1</td>
<td>0 0 0 2 4</td>
</tr>
<tr>
<td>22. I believe I can succeed at most any endeavor to which I set my mind.</td>
<td>0 1 2 2 1</td>
<td>0 0 0 2 4</td>
</tr>
<tr>
<td>23. I will be able to successfully overcome many challenges.</td>
<td>0 2 0 3 1</td>
<td>0 0 0 5 1</td>
</tr>
<tr>
<td>24. I am confident that I can perform effectively on many different tasks.</td>
<td>0 2 1 2 1</td>
<td>0 0 1 2 3</td>
</tr>
<tr>
<td>25. Compared to other people, I can do most tasks very well.</td>
<td>0 1 0 4 1</td>
<td>0 0 1 4 1</td>
</tr>
<tr>
<td>26. Even when things are tough, I can perform quite well.</td>
<td>1 0 2 0 3</td>
<td>0 0 0 3 3</td>
</tr>
</tbody>
</table>

**Interview responses.** The analysis of the transcripts included multiple rounds of coding and the development of categories in response to the research question (see Chapter Three for details). The most prevalent comments made by the participants, in addition to comments made multiple times by more than one participant, led to the development of the following themes (a) passing challenging courses, (b) scoring well on tests, (c) seeing peers’ successes and struggles,
(d) teachers’ influence, and (e) disregarding negative comments. The findings with supporting participants’ comments follow.

**Passing challenging courses.** Five of the participants commented that completing accelerated courses with good grades helped them believe that they were capable of completing the next course. The participants were asked to comment on times when they felt successful. For many of the participants, completing accelerated courses in both middle and high school with good grades helped them realize they were capable of engaging in rigorous coursework.

Gretchen, the youngest participant, reflected that the Gifted Center was helpful because it made me feel comfortable with challenges because at first I was like, “I can’t do this math or I can’t read this book because I’m just in fifth grade or sixth grade.” But I opened up to like new things and trying to adjust so I got smarter. (April, 2013)

Gretchen’s response demonstrated a global view, but more often the participants commented on specific classes. Augustus stated his feelings about Algebra I changed during the year he took it in middle school: “in the beginning, I thought it was going to be impossible. Towards the end, when I thought I was doing well and I actually understood it, it was a lot more enjoyable” (March, 2013). For Mallory, discussions and writing papers felt successful when she was able to “make connections more on [her] own” and she noted “during the process that we would have in our English classes and in our discussions it helped you to make conclusions on your own and to think for yourself” (April, 2013). Carlton learned that she could be successful in Gifted Center classes, when she was “discovering like actual answers to problems in the experiments that we were doing . . .” and she noticed, “once you sit down, you become patient and actually pay attention to what you’re looking for and you get it. Like, it is possible to succeed” (April, 2013).
Dual-enrollment courses also influenced participants’ self-efficacy beliefs. Augustus commented after taking Trigonometry in ninth grade and Calculus II in eleventh grade, he learned “not to be afraid to try things that may seem hard. Because who knows, you might succeed” (March, 2013). Carlton mentioned feeling successful when discussing her experiences in a ninth grade dual-enrollment course:

Well, I would probably say [it was] ninth grade year when it hit me that I was, actually in my first dual-enrollment class, a math class I started taking, and I felt so pretty successful to come out of the class with at least a B, and knowing that it was a college class and I was still in high school. [It was] possible to be successful. (March, 2013)

Mallory also commented, “I guess it’s whenever I first started taking college classes in high school and I was able to get a good grade on it, it just made me feel capable” (March, 2013). This helped her learn, “I can take on things and I can succeed at it, that I can go further than . . . like I know that I can succeed in trying to push to do things” (March, 2013). She was still nervous when she began Differential Equations as an independent study class because she had not done that for a math or science class. “But once I started working on problems, it made me really excited . . . when I did well on things, it made me really excited” (March, 2013).

Scoring well on tests. Scoring well on standardized tests has also helped two participants feel capable of completing challenging work. Gretchen and Johnny gained self-efficacy after doing well on standardized tests. Gretchen explained:

When they told me—when they asked me—to take the gifted test I felt like, “Oh no, that’s not me; I’m not smart enough.” But after taking it and seeing that I passed I saw that me just shutting myself off from trying new things wasn’t going to help me accomplish this.
Johnny commented that often he did not feel successful while at the Gifted Center; however, once he improved his score on the Measures of Academic Progress test, he felt like he would be able to complete Spanish I and Algebra I. Finally, Johnny commented, “I feel successful now, I guess you could say, because my grades have improved dramatically” (March, 2013).

**Peers’ successes/struggles.** Peers influenced 5 participants’ self-efficacy beliefs positively and negatively. It is interesting that peers in the accelerated courses and the Gifted Center classes tended to help participants believe they were capable of completing challenging work. Participants commented that peers who had previously taken the class or friends who were not in the class tended to discourage participants. Peers helped Carlton see she could succeed in a Gifted Center class. She reflected,

> When trying to figure out a problem, the answer to a problem, and you see the person sitting next to you going, “We got it.” And then, I’m still sitting there like no, I didn’t get it yet. And seeing that they were actually able to succeed, then I thought to myself okay, now I can get this. (April, 2013)

She noted there was “more of like a friendly competition in the classroom most of the time” (April, 2013). Gretchen also commented on the role of a peer in the middle school:

> Well, me and one of my close friends, are both gifted—we both went to the Gifted Center at the same time—so we kind of pushed each other . . . .There were some times when she would struggle and I could help her or we would just want to stop studying for a little while and go do something else. We kept each other on track.

Alisa noticed in high school, peers who previously took the class discouraged her, but when she saw in-class peers succeed, her self-efficacy beliefs increased.
I saw like it was, people will talk about his class, they think . . . this class is hard and it may not be as easy to pass. And then I went into it with that mindset along with everyone else in the classroom so when, like I don’t want to say, when it’s put into your head, I don’t know, mentally—I’ll just aim for a B. But when I saw the people in the class pulling off As I was like wait. It is possible to make an A in this class. (March, 2013)

Carlton had a similar experience. She commented on her experience with a friend in English class.

His capabilities and all his past history when it came down to English classes and his ability to get it right. I said okay, if he can’t make it through, then I can’t. And of course, the paper’s first time there was a B that came through, but as he started to learn the class and I saw As being able to be pulled off, I was like okay, it is possible. (March 2013)

The participants recognized they were similar to others in class and having continual interactions with their peers, especially those who were doing well, helped them gain self-efficacy beliefs, and encouraged them to work harder in class.

**Teachers’ influence.** Five participants also commented on the role that teachers had in the development of their self-efficacy beliefs. Alisa related, “I guess whenever [a] teacher realizes that you have potential in something and whenever [he/she] recognizes it and sees it, I guess that’s probably a lot of encouragement right there” (April, 2013). Augustus commented on the teachers at the Gifted Center, they “just encouraged us a lot,” and the “teachers were more confident in us than we were in ourselves. They definitely helped me stay more confident and positive about it all” (April, 2013). Johnny explained when the participants had to take a test to qualify for Algebra I and Spanish I, “I knew I was really getting down about it, and I really
couldn’t . . . I felt like I couldn’t get that score, and [my teacher] actually pushed me to do better. And I did succeed” (May, 2013).

Disregarding negative comments. In addition to being able to move past discouraging comments from peers, two participants also commented that others did not expect the participants to succeed in the accelerated courses. Augustus explained this when he was describing a moment when he felt successful “Probably in seventh grade, when I finished Algebra I . . . . They actually had seventh graders take Algebra 1, which was a ninth-grade class, and we had to do so much testing to get into that class. I don’t think anyone really expected us to succeed as well as we did” (March, 2013). Knowing that other people did not expect him to do well seems to have helped him gain further belief in himself. Carlton also noted she learned to “disregard what everyone said, that it is possible to get this jumpstart and still be successful” (March, 2013).

Summary. Participant responses on the self-efficacy scale indicated a general increase in self-efficacy beliefs from middle to high school. In the interviews, participants indicated this increase in self-efficacy beliefs was due to successful completion of challenging courses with support from teachers and peers. Seeing peers succeed in class also helped the participants believe in their own capabilities. For a few of the students just being identified as gifted or scoring well on tests helped them believe they were capable of completing challenging work. While not everyone in the participants’ lives was supportive, they were able to disregard the negative comments and believed they were more successful because they exceeded the expectations of others.
Research Question Three

How do gifted students describe the influence of a middle school gifted program on their beliefs about the nature of intelligence?

Survey responses. In trying to understand “the beliefs students have that can help or hinder their motivation to learn, their perseverance, and their resilience” (Dweck, 2012, p. 7), Dweck developed a theory of how students think about their intelligence. In her model, agreement with fixed mindsets indicates a person subscribes to a view of intelligence that is stable and unchanging. Agreeing to items reflecting a malleable view of intelligence reveals a person believes intelligence can change and grow. Researchers posit (Blackwell et al., 2007; Chen & Pajares, 2010) students’ perceptions of the nature of intelligence are linked to how students perform when provided a challenge. The participants’ responses to a scale of intelligence beliefs (Blackwell et al., 2007) are presented below. The survey was adapted through the use of a double scale, with middle school responses on the left of the items and high school responses on the right of the items, to allow for participants to share retrospective responses and current responses. The response scale was (1) Strongly Disagree, (2) Disagree, (3) Somewhat Disagree, (4) Somewhat Agree, (5) Agree, and (6) Strongly Agree. The participants’ frequencies of responses on the survey (see Table 6) provided another lens to understand how they perceived their beliefs changed.

The frequencies presented in Table 6 reflect the participants’ diverse and stable responses to the theories of intelligence scale. Alisa most strongly and consistently agreed with items representing a malleable view of intelligence. Carlton’s responses also suggested that she subscribed to a malleable view of intelligence. Augustus and Johnny’s responses to the theories of intelligence scale indicated they subscribed to a fixed version of intelligence in both middle
school and high school. Gretchen agreed with more items indicating a fixed mindset in middle school and more items indicating a malleable mindset in high school. Mallory’s responses on the implicit theories of intelligence scale indicate that she agreed with more items related to fixed intelligence—strongly agreeing with only item 3—*You can learn new things, but you can’t really change your basic intelligence*. However, she agreed with item 6—*No matter how much intelligence you have, you can always change it a good bit*, indicating that she may still be forming her understanding of what it means to be intelligent.

Table 6

*Frequency of Participants Responses to Theories of Intelligence Scale*

<table>
<thead>
<tr>
<th>Item Stem</th>
<th>Middle School</th>
<th></th>
<th>High School</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Your intelligence is something you can’t change very much.</td>
<td>2 1 0 2 1 0</td>
<td></td>
<td>1 2 1 0 2 0</td>
<td></td>
</tr>
<tr>
<td>2. You have a certain amount of intelligence, and you really can’t do much to change it.</td>
<td>2 0 3 1 0 0</td>
<td></td>
<td>2 0 2 1 1 0</td>
<td></td>
</tr>
<tr>
<td>3. You can learn new things, but you can’t really change your basic intelligence.</td>
<td>1 1 0 2 1 1</td>
<td></td>
<td>1 2 0 0 1 2</td>
<td></td>
</tr>
<tr>
<td>4. No matter who you are, you can change you intelligence a lot.</td>
<td>0 3 1 0 1 1</td>
<td></td>
<td>0 2 1 2 0 1</td>
<td></td>
</tr>
<tr>
<td>5. You can always greatly change how intelligent you are.</td>
<td>1 2 1 0 1 1</td>
<td></td>
<td>1 2 2 0 0 1</td>
<td></td>
</tr>
<tr>
<td>6. No matter how much intelligence you have, you can always change it a good amount.</td>
<td>1 0 1 3 0 1</td>
<td></td>
<td>1 0 1 2 1 1</td>
<td></td>
</tr>
</tbody>
</table>

*Interview responses.* In vivo codes, and then later categories created during the analysis (see Chapter Three for details), led to the development of four themes: (a) doing well on intelligence tests, (b) gifted is how quickly a person learns, (c) beliefs about the malleability of
intelligence varied, and (d) giftedness was more than just academics. The participants seemed to develop a more nuanced understanding of what it meant to be gifted while at the Gifted Center. Prior to their time at the Gifted Center, they associated giftedness with genius or the ability to quickly understand material without having to work hard. However, their own identification as gifted and their interactions with other identified gifted students challenged those ideas. Some participants mentioned that meeting the other students helped them see that someone could be gifted in just one area (e.g., mathematics, art, drama, music, writing).

**Doing well on intelligence tests.** Half of the participants commented intelligence tests helped them believe they were gifted. Johnny, Mallory, and Gretchen mentioned IQ tests when asked about what it means to be gifted. Johnny associated gifted with “how you think” and he stated his belief that “with IQ tests . . . you take them at a younger age or at an older age, your score really won’t fluctuate too much because it’s not the amount you know. It’s how you think” (May, 2013).

Mallory also appreciated the IQ tests.

[H]ere it’s based on your IQ what tested. It’s a little bit better when they’re testing it because that kind of measures one of the ways that you logically think [versus a third grade standardized test]. And I think that’s more important than just the knowledge that you have. (April, 2013)

Prior to being identified, Gretchen thought being gifted meant, “you must be really smart and you could do everything” (April, 2013). Because of this, “just by passing the gifted test itself made [her] feel successful.” She also stated, “after passing the test I felt like I was super smart” (April, 2013).
It is interesting Mallory hoped her identification would help her to engage in challenging coursework. “So to me it [being gifted] meant I got to actually challenge myself, or at least that’s what I [hoped] for” (April, 2013). She was not just looking for outside validation or a label to say she was smart—she wanted the identification to justify the opportunity to engage in challenging coursework.

**Gifted—how quickly a person learns.** Four participants further explained how giftedness is related to how people think, especially how fast people are able to learn new material. Augustus, Gretchen, Johnny, and Mallory all associated being gifted with how quickly a person can learn. Prior to attending the Gifted Center, Augustus was unsure of what it meant to be gifted or even why he spent Wednesday afternoons in a special classroom. After having discussions at the Gifted Center about the concept of giftedness, Augustus decided giftedness meant you are “eager to learn, I guess.” He further stipulated, “It isn’t like what you know, but it’s how well you’re able to understand that and how fast it took to understand—how quick you can pick up on things.” He described his experience in a driver’s education class to illustrate this point. He felt the other students were not able to understand “half of what’s going on” (April, 2013).

Johnny’s response was very similar: “It’s how you think. It’s not necessarily how much you know” (May, 2013). Mallory also included how people think in her definition of giftedness: “[I]n my opinion it’s learning to think and not what you know” (April, 2013). While Mallory connected giftedness and IQ scores, she explained, “I don’t classify people in my head and go Oh, this is a gifted person as far as people in a regular classroom” (April, 2013)

Gretchen had a similar definition of giftedness, but she added creativity to her definition:

I never really thought of myself as being “gifted” but I guess it means you think about something in a different way than the normal person your age would and just being
creative and stuff. . . . I think a lot of people feel like being “gifted” means, “Oh, you’re a genius and know everything about every subject” but it really has nothing to do—I almost feel like it has nothing to do with schoolwork. I feel like it has everything to do with like how you think about things in new ways. (April, 2013)

Beliefs about the malleability of intelligence. Participants’ comments during the interviews were closely related to their responses on the survey. The participants reflected beliefs in both the malleability and fixed nature of intelligence. Statements from Carlton, Alisa, and Gretchen reflected a belief in the malleability of intelligence, while statements from Augustus, Mallory, and Johnny were more closely connected to a fixed belief in intelligence. Carlton stated:

We always can build knowledge. Because, like I do believe in the phrase “you learn something new every day.” It’s not like you ever stop learning something. It’s like a constant build. Your brain never stops gaining knowledge. Because it continues all the time, it’s a constant learning experience, your life. (May, 2013)

Alisa offered a slightly different interpretation:

I think it’s a matter of determination. I guess it’s kind of like you can do whatever you put your mind to. A lot of material in school is just memorization and so I feel like if you can refine those skills and do better at that then you will be smarter I guess. (April, 2013)

Gretchen explicitly reflected on her own experience. She also commented that she learns new “stuff every day.” She indicated that she became smarter by learning things around the house or from her friends, and included “I think The Gifted Center made me smarter” (April, 2013).
Offering a different viewpoint, Mallory commented, people “usually gain information, and if you work towards it, it might appear on the outside . . . [that] the person’s smarter but the IQ is going to stay about the same intelligence, I guess” (April, 2013). Like Mallory, Augustus differentiated between gaining knowledge and being smart. “I don’t know if I would exactly describe knowledge and smartness as the exact same thing” (April, 2013). Augustus stated that people can gain knowledge, but they cannot get smarter. He did follow with “it depends on your definition of smart” (April, 2013), indicating his statements reflected his own beliefs and others may have different opinions.

Johnny explained, “[Y]ou have a certain base line of smartness, I guess you could say, I really don’t think that you can achieve more by just—it’s kind of hard to explain. You really can’t improve how you think.” However, Johnny did concede, “If you want the coursework, then I guess you could be gifted” (April, 2013).

**Giftedness—more than just academics.** Two participants acknowledged giftedness is not only in academics. They realized a person could be gifted in many different areas, including the arts. Moreover, a person does not have to be gifted at everything, instead he/she may have talent in mathematics or science, but not English.

Carlton and Gretchen explained their experiences with other students at the Gifted Center expanded their views of gifted. Carlton stated:

[B]efore, the Gifted Center, still, I thought of it as an advancement, but [before] mainly only in intelligence and strictly when you came down to academics. I never thought of it as being more than just book smart, should I say.” [What it meant to be gifted] broadened when I got to the Gifted Center. It wasn’t just the academic advancement. I felt that it
could have been something more than just book smarts but like in the arts, visual arts, or anything in like that kind of field, yeah. (April, 2013)

She also described learning her belief that society defined giftedness as genius, meaning a person could quickly understand material, and not “make mistakes.” Her time at the Gifted Center helped her see that gifted students were normal kids who might be really good at one “thing.”

Gretchen shared a similar belief:

You can be gifted in one thing and not another; some people can be gifted in music and art and just creativity. I always thought being gifted meant you could do more, but then I realized, when I got to the Gifted Center, I met some people that were just gifted in music and then I realized that I could be really good at math, but I’m not as good as I am in math as in English. (April, 2013)

Their exposure to other identified gifted students at a school where arts were included appears to have helped broaden their conceptions of giftedness.

**Summary.** The participants indicated they had diverse beliefs about the nature of intelligence through their responses to the survey and the interview questions. Intelligence tests were important indicators of giftedness for several of the participants, with some of them believing in the stability of IQ scores over long periods of time. While their retrospective and current responses on the survey were very similar, it does appear their understanding giftedness became more nuanced. Several of the participants mentioned their views on giftedness changed—learning people could be gifted in just one area, and that being gifted did not mean a person can do everything well without hard work.
Research Question Four

*How do gifted students describe their environmental perceptions of the Gifted Center setting?*

**Survey responses.** Perceptions of environment are also considered an important variable in the development of students’ achievement orientations (Ames & Archer, 1988; Anderman et al., 1999; Murayama & Elliot, 2009). Ames and Archer (1998) posited teachers and classroom environments support particular achievement orientations, including promoting a mastery and performance emphasis. This section presents the participants’ perceptions of the classroom environment with respect to mastery and performance goals and general views of how the environment did or did not support the development of achievement behaviors. The frequencies of participants’ responses to the survey (Midgley et al., 2000) are presented (see Table 7). The survey was adapted to include a double scale. This enabled the participants to share retrospective and current responses to the items, with middle school responses to the left of the items and high school responses to the right of the items. The responses were used to develop an understanding of the participants’ perceived changes. The response scale was (1) Strongly Disagree, (2) Disagree, (3) Neither Agree nor Disagree, (4) Agree, and (5) Strongly Agree.

The frequencies presented in Table 7 reflect the participants’ diverse perceptions of the achievement goals promoted in their middle and high school environments. However, they tended to agree the schools they attended supported the three types of goal structures in this scale, i.e. mastery-approach, performance-approach, and performance-avoidance. Augustus, Carlton, Gretchen, Johnny, and Mallory agreed or strongly agreed with fewer items on the high school responses. Augustus and Carlton responded in agreement with fewer items across the three goal structures. Reflecting slightly different responses, Gretchen, Johnny, and Mallory
agreed with fewer items reflecting a mastery approach goal structure on the high school response scale. Alisa perceived the environment at the Gifted Center and her current school to promote a mastery approach goal structure. However, she also viewed test scores as important indicators of success.

Table 7

Frequency of Participant Responses to School Goals Scale

<table>
<thead>
<tr>
<th>Middle School</th>
<th>High School</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td><strong>Mastery-Approach Goal Structure</strong></td>
<td><strong>Performance-Avoid Goal Structure</strong></td>
</tr>
<tr>
<td>0 1 0 1 4</td>
<td>27. In our school, trying hard is very important.</td>
</tr>
<tr>
<td>0 0 1 2 3</td>
<td>29. In our school, how much you improve is really important.</td>
</tr>
<tr>
<td>0 0 0 1 5</td>
<td>31. In our school, really understanding the material is the main goal.</td>
</tr>
<tr>
<td>0 0 0 3 3</td>
<td>34. In our school, it’s important to understand the work, not just memorize it.</td>
</tr>
<tr>
<td>0 0 0 1 5</td>
<td>36. In our school, learning new ideas and concepts are very important.</td>
</tr>
<tr>
<td>0 1 0 0 5</td>
<td>38. In our school, it’s OK to make mistakes as long as you are learning.</td>
</tr>
<tr>
<td><strong>Performance-Approach Goal Structure</strong></td>
<td><strong>Performance-Avoid Goal Structure</strong></td>
</tr>
<tr>
<td>0 2 1 2 1</td>
<td>30. In our school, getting good grades is the main goal.</td>
</tr>
<tr>
<td>0 2 0 4 0</td>
<td>32. In our school, getting right answers is very important.</td>
</tr>
<tr>
<td>0 0 1 3 2</td>
<td>39. In our school, it’s important to get high scores on tests.</td>
</tr>
<tr>
<td><strong>Performance-Avoid Goal Structure</strong></td>
<td><strong>Performance-Avoid Goal Structure</strong></td>
</tr>
<tr>
<td>0 1 1 2 2</td>
<td>28. In our school, showing others that you are not bad at class work is really important.</td>
</tr>
<tr>
<td>1 1 0 2 2</td>
<td>33. In our school, it’s important that you don’t make mistakes in front of everyone.</td>
</tr>
<tr>
<td>0 1 1 2 1</td>
<td>35. In our school, it’s important not to do worse than other students.*</td>
</tr>
<tr>
<td>Item Stems</td>
<td>Middle School</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------</td>
</tr>
<tr>
<td>0 2 1 1 2</td>
<td>37. In our school, it’s very important not to look dumb.</td>
</tr>
<tr>
<td>0 1 1 4 0</td>
<td>40. In our school, one of the main goals is to avoid looking like you can’t do the work.</td>
</tr>
</tbody>
</table>

*Augustus did not answer this question

**Interview responses.** Analysis of the interview data included creating in vivo codes to focus on the participants’ experiences and perceptions. The data were coded using both open and axial coding methods (see Chapter Three). Categories were created, and the following themes for question 4 were developed: (a) faster, more appropriate pace, (b) small student-teacher ratio, (c) like-minded peers, (d) more interactive classes, (e) teacher support and challenges, and, (f) new experiences and a relaxed environment.

Participants discussed the influence of peers, teachers, and coursework while at the Gifted Center. Elements of the classrooms led participants to believe that the Gifted Center was not like their old schools nor the school they would have attended. In particular, the participants appreciated the hands-on nature of many of the classes and being able to discuss interesting ideas with peers. They also felt the teachers demonstrated a caring and supportive attitude. The participants believed the teachers were more responsive to their needs, presented class material at a faster pace, and provided them with a variety of learning experiences (e.g., field trips, guest speakers). Below descriptions of the participants’ responses along with supporting comments are provided.

**Faster, more appropriate pace.** Five of the participants recognized the pace of the curricula was faster at the Gifted Center. They believed this pace fit their needs better, and allowed for continuous growth. Mallory commented, “I was able to advance at my pace because in a regular classroom you can only do so much.” Gretchen shared a similar thought:
The courses were designed at our pace—at my regular school you had to follow a curriculum of what the average fifth grader did and things like that but at the Gifted Center, if we were able to do eighth grade math then that’s what we did and we kept bringing it up and up until she saw we were struggling and we needed time to slow down and actually review and stuff. (April, 2013)

Augustus recognized the teachers “knew how fast you learn things . . . and we covered a lot more–even more than a normal class.” He also believed the Gifted Center had “a lot better taught classes” (April, 2013), and he did not want to be “bored” in class. “I just knew it would be better there [the Gifted Center] for me. In terms of like classes and stuff, I would be bored, if I went [to West Sunshine High]” (Spring 2013).

While the faster pace made the class seem different for some participants, Carlton stated the accelerated math class with non-identified students was a more of a normal class. Mallory also commented the mathematics class, while accelerated, did not go into increased depth and it was more like a normal class.

Small student-teacher ratio. Four of the participants connected the small environment and low teacher-student ratio to the development of positive relationships. Augustus commented he liked the environment of his math classes because “we had the same kids. It was a small class” (March, 2013). Carlton and Mallory also commented on the small class sizes. Mallory stated, “[W]e had a very small class in eighth grade English and we started having, lots of group things. I really enjoyed the small knit group there” (April, 2013).

Augustus and Gretchen stated that beyond the developing relationships with peers that they were able to connect with the teachers as well. Gretchen said, “So [we] got to connect to each other and the teachers in a different way” (April, 2013).
**Like-minded peers.** All 6 participants described their peers as helpful and understanding. They also explained they were able to have different conversations with their peers at the Gifted Center as compared to their prior schools. The participants also mentioned negative peer interactions, especially with friends who did not attend the Gifted Center.

The participants enjoyed many of their classes because of the conversations with peers. Mallory enjoyed English because

> It was more of a conversational and that was an opportunity to really learn insight on what other people, what they were thinking, especially since we were just a small knit group of gifted students. We were really able to dig deep into things and to have unique conversations that we wouldn’t ever have again most likely. (April, 2013)

Gretchen, who was in the class 2 years later, shared a similar sentiment, stating the class was special because she was “able to hear what my peers said and the ideas they came up with” (April, 2013).

Mallory was hoping to have peers at the same level when she decided to go to the Gifted Center, and she “really enjoyed the small knit group there” (April, 2013). Johnny explained, his peers at the Gifted Center were “like an intertwining of intellect, I guess you could say, because it was all . . . we were all like on the same wavelength of how we think, and I actually really liked that” (April, 2013). He found this experience beneficial. Carlton explained, “We all made a very close bond, very good friendships that came out of the Gifted Center” (April, 2013). Alisa also maintained the friendships she developed at the Gifted Center.

Alisa commented that prior to her time at the Gifted Center, she could not talk to her friends about all of her interests, however, at the Gifted Center,
We were kind of on the same learning level and we liked a lot of the same things, we knew a lot of the same things, we had a lot of the same classes and so it was very easy to get close to people and form really good relationships and friendships. (April, 2013)

These friendships continued throughout high school. Augustus commented his classmates . . . really help[ed]. We ha[d] common interests, and that really help[ed]. They really understood exactly what you were going through at the time and how hard it [was]. They’ve been through the same struggles as like taking all those classes. I know, they’ve been in that same position where they just wanted to give up, but they didn’t. I think that’s really cool.

The relationships with peers were not completely positive. While Gretchen commented on how she and her best friend supported each other, she also noticed I felt like we all were kind of in competition with each other secretly even if we didn’t know it. . . . Like some of my classmates would put down other classmates and say, “You can’t do this; I can do this and I’m good at this and you’re not” and things like that. It never really happened to me but I [saw] it happen. (April, 2013)

Johnny also recognized times when his peers did not get along. “Well, I just . . . whenever they would argue or fight, I just sat down, and I just let it happen . . . see how it would work out. I just tried not to get involved” (May, 2013). While the participants recognized being similar to peers, they also recognized the struggles between classmates.

**More interactive classes.** Five of the participants also shared the belief the Gifted Center offered more opportunities for hands-on work and interactive discussions. They appreciated the teachers’ efforts to engage them in their classwork. There was a general perception the
classrooms they would have attended would not have been so interactive. The interactive nature of the classrooms was also associated with fun or enjoyable experiences.

Augustus commented:

There were a lot of discussions. I remember in one class we did like this big official campaign. And we had Republicans and Democrats. And we, everyone had like this big speech thing and we had to do our own separate parties and we had to vote. . . . We had to write papers on, just arguments and papers on . . . we did a bunch of discussion. There was really good discussion in that class. We argued and we’d write about it. That was just a fun class. (April, 2013)

Augustus compared his experience to his cousin’s experience, stating, “They would get packaged things. I mean, they’d do a simple project, but they’d do like once every month.”

Carlton believed teacher involvement and not just working with “paper, notebook, pencils, and just working straight out of a textbook all the time” (April, 2013) made the school different. She explained one difference in her classes at the Gifted Center:

Like instead of assigning us a page in our workbook to complete, it was always, “Okay guys, we’re going to talk together. We’re going to discuss this as a whole, and see what’s everyone’s opinion on it is” rather than just working out a piece of the worksheet, type thing. (April, 2013)

She also described how in English and Social Studies classes there were a lot of discussions, and “breaking down” the material. For both subject areas, she commented the classes were different from a normal class because they focused on a depth of understanding.
Carlton also appreciated the complexity of her science class, “Well, we didn’t do like the straightforward, here’s what you have to do. It was more so we had to figure it out” (April, 2013). She followed with “that’s what I really, really enjoy[ed].”

Carlton summed up her experience at the Gifted Center:

It wasn’t always quiet and doing paper and notebook work. It was involved. Everyone got together. Everyone spoke. It wasn’t just . . . the two people in our class who always said something but we worked as a class as a whole. And that was every class that we took at the Gifted Center. (April, 2013)

Mallory discussed her English classes, “during the process we would have in our English classes and in our discussions it helped you to make conclusions on your own and to think for yourself, . . . and there were great conversations” (April, 2013). She shared an example from her eighth grade English I class:

We were studying a particular character in a book [his/her] motives or the symbolism of some event that that character went through. And we would debate back and forth on what that meant and I guess how connected to different times. We read 1984, and we would try to make this connection on what part of the history connected with what he was writing and stuff, so we would argue different things on what this could mean.

Gretchen also appreciated her eighth grade English I class:

I think for one of the topics . . . in our analytical essays, we had to take Shakespeare, which I thought would be so boring, because I don’t like Shakespeare; I didn’t know how to break it down. He told us to compare it to something else, and I compared King Lear to the Bible and saw Shakespeare in a different way. (April, 2013)
Alisa noted, in Social Studies, “[The teacher] was really interactive; she asked the students questions, she asked us what we thought about it, she asked us to give our opinions and our input to things that happened in history” (April, 2013). Mallory also noted “[social studies] was more in depth than in a typical room because they started making connections with the past and future” (April, 2013).

**Teacher support and challenges.** Having teachers who supported the participants helped 5 of the participants adjust to succeeding in the accelerated classes. Augustus commented that his success in math was due in part to “a good teacher. She taught Algebra 2, Algebra 1, and Geometry. It was just good” (March, 2013). Having the same teacher in three classes was seen as a positive. In other classes he commented, the teachers “just really supported us. . . if you ha[d] questions to prepare for the tests, or whatever, they really worked with you” (April, 2013). This made his on-line Spanish II class more difficult because he did not have a teacher available to help with learning to “pronounce words or how to conjugate this or that” (April, 2013). Johnny believed the personalized touch and the teachers’ understanding of gifted students at the Gifted Center helped them to individualize his learning, instead of having a “generalized” approach.

Alisa noted “it was really close-knit and that almost every teacher that we had, we felt comfortable enough to go to [him/her] if we needed help or we needed to talk about something personal” (April, 2013).

Mallory stated that she often asked teachers questions because the students do not have the answers. She also appreciated when teachers showed an interest in her. At her previous school, she believed, “no one was interested in what I had thought” (April, 2013). Mallory described a particularly difficult experience in sixth grade, where a teacher would “snicker
behind her back” because she was unhappy that Mallory had been accelerated. Mallory explained at the Gifted Center:

[T]he teachers, I think that they were more interested in what we wanted to learn than like beforehand, before we entered the Gifted Center. I remember I would have a lot of conversations and stuff with the teacher. [T]hey wanted to know what I wanted to learn and how I wanted to learn and what I wanted to get [out of my schooling experience]. (April, 2013)

The participants also commented on how much the teachers generally cared for them. Augustus explained:

They [were] not only like teachers, they [were] like therapists, you know. You could just talk about anything . . . . They [were] really there for you. Like, if you ha[d] any questions, if you ha[d] any comments or concerns. (April, 2013)

Johnny also described the care the teachers demonstrated:

I guess you could say they just cared more. It was just like . . . they had a true passion for actually teaching gifted instead of like . . . they wanted to do that [teach gifted] instead of teaching a normal class. (May, 2013)

Mallory commented on the teachers’ support in helping them learn:

But even if I made mistakes I wasn’t worried or discouraged because it’s not like the teacher would tell us any, the teacher wouldn’t tell us anything that made us feel bad about ourselves at the Gifted Center. I was never discouraged by anybody in particular. (April, 2013)

Not all of the participants’ experiences at the Gifted Center were positive. Johnny commented that in the first year at the Gifted Center, “[W]e were kind of all over the place
because I mean they had three levels to teach in one class. I just . . . it could have been better organized” (May, 2013). Gretchen also commented on a negative experience with a teacher at the Gifted Center.

[W]e couldn’t see eye-to-eye, but that was her with the whole class, and I felt like she was the reason. Ordinary assignments, I thought I gave my best and my all. I was compared to the other kids [who] got better grades than me. That’s the only time I felt like discouraged. (April, 2013)

New experiences and a relaxed environment. Five of the participants also commented on differences in the general environment. Gretchen found the environment so different that she described it as “strange and weird.” She was surprised at the differences between the Gifted Center and former school.

Like at our other school our field trips would be like to somewhere normal like the zoo and stuff—but at the Gifted Center our field trips were like to Washington DC to see the President[ial Inauguration]. We went to like Alabama for the space shuttle. [There were] some things we did in class that I thought were strange. Like we had this program called Lego League and we had to build a robot and make it do a specific task and come up with the reason why the robot would be helpful and things like that. I never knew they had that. My science teacher put us into some kind of competition where we had to build like a bridge out of Popsicle sticks and make an airplane out of a little air model and see which one could fly the highest. It was just stuff that I would have never experienced at my old school. (April, 2013)

Carlton commented,
It wasn’t so much of your strict kind of classroom. It was very easy-going. And then, with the easy-going ways of the teachers, it just made it even, like it was even a better environment because the teachers also got involved. Even when we would make side jokes, anything like . . . it wasn’t like the teacher was fussing, like pay attention, y’all. They would actually interact with us. . . . It was fun. (April, 2013)

Mallory also reflected that the Gifted Center was more relaxed. She explained, “for example, we got to chew gum in class and stuff” (April, 2013). For Mallory, the environment at the Gifted Center also provided her place to feel intellectually safe:

Overall at the Gifted Center it made me feel like I wasn’t stupid whenever I would laugh about certain things that other people wouldn’t laugh at. Like if I saw irony something that maybe nobody else saw and maybe I was (or wasn’t) the only one laughing about it.

(April, 2013)

She also explained, “I guess I felt more comfortable at being more free and open to things” (April, 2013).

Summary. The survey responses indicate participants believed middle school and high school classrooms promoted three achievement goal structures: mastery-approach, performance-approach, and performance-avoidance. Participants had a wide range of responses on each item, specifying they perceived the goals that were promoted slightly differently. During the interviews, their comments focused on how they were supported in learning material and how the Gifted Center was different from the school they previously attended or the one they would have attended. The participants felt very supported in the learning environment at the Gifted Center, and enjoyed interactive classes with like-minded peers. A few participants commented
on the challenges such as bullying and some disorganization. However, they generally felt very comfortable in the environment.

**Research Question Five**

*How do gifted students describe the influence of a middle school gifted program on their future academic plans?*

Research question five did not have a corresponding survey. The interview responses will be described in the next section.

**Interview responses.** After the interviews, the participants’ responses were transcribed and analyzed. In vivo and analytic codes were developed. There was an emphasis on using the participants’ words when creating the codes to maintain a focus on their perspectives (see Chapter Three). For this question, two themes were developed: (a) students were prepared for the future, and (b) there were some scheduling issues connected to acceleration.

The participants’ responses during the interviews indicated the accelerated nature of the Gifted Center led to participants’ having completed several high school classes as middle school students. All of the participants enrolled in dual enrollment courses during their ninth or tenth grade year of high school. Participants commented that they were prepared for these high level courses because of their classes at the Gifted Center. The participants described different reactions to the availability of dual-enrollment courses in high school, and some described frustration with the scheduling process.

*Prepared for the future.* The 6 participants mentioned that they felt prepared for future challenging courses because of the accelerated nature of the middle school program. Alisa, Augustus, and Johnny made generic comments about the benefits of attending the Gifted Center.
Alisa explained, “everything that I’ve done, like the Gifted Center and coming to school I’m at now is just to keep getting ahead and achieve my goals” (April, 2013). Augustus commented, I’m really glad I went through with this, like in the past. I really don’t regret anything. It really did help me. I’m happy where I’m at, and I know I wouldn’t be . . . if I wouldn’t have taken all of those classes and in that environment. (March, 2013)

Johnny was also happy with his decision to attend the Gifted Center, explaining, “. . . it all added up . . . it’s all working together like for my life today” (May, 2013). He was very happy with his decision to seek a more challenging environment at the state school for math, science, and the arts for his junior and senior years of high school.

Carlton recognized “that it is possible to get this jumpstart and still be successful” disregarding the advice of others (March, 2013). She stated that, once she moved past concerns about leaving friends behind, “I saw the opportunities that I was getting and that eventually I was going to have to break off from the whole wanting to be around friend thing, I sort of enjoyed it” (April, 2013).

Gretchen explained having to learn study skills at an early age as beneficial. Mallory also recognized how specific classes helped her:

English it helped prepare us to think. . . . And there were great conversations. It’s helped me once I got into high school because I was able to debate ideas and contracts and stuff. So I was prepared to be able to do this because I had made connections and been able to think through things on my own without somebody. In math it was more just an advanced course to get us ready for the higher stuff. (April 2013)

Augustus also commented on a specific class. Math “was rewarding, because the more you got into it, the more you understood” (March, 2013). He felt his success in later math classes
was due to “past math classes, and I learned from watching those. It definitely helped me enjoy my later ones, because I learned a lot in eighth and ninth grades” (March, 2013).

Augustus also commented on how the accelerated courses have helped him long-term:

It’s my third semester at the local university. Just being in a college atmosphere, and like with the teachers; it’s completely different. You do what you have to do to do well in class, and that’s it. You know your limits. I really did learn my limits taking these classes, that’s really helped me. Even general test-taking; class taking skills feels definitely improved. I feel like I’ll definitely be more prepared than anyone else going to college, because I know what to expect. I know how it is. I know how professors can be—more than a regular student. (March, 2013)

The participants’ comments focused on benefits for high school and college. They did not describe any specific influence of the middle school program on their career plans. Mallory and Carlton were able to take dual-enrollment courses closely connected to their intended majors, while Augustus’s courses will help him more with his general degree requirements (i.e., he was not able to enroll in an animal science course). In general, the participants’ career plans developed through personal interest and high school courses.

**Scheduling issues with acceleration.** While participants commented on the benefits of being accelerated, 3 participants related frustrating circumstances. Augustus commented that trying to schedule college classes while he was still in high school was hard because the schedule is crazy. You don’t get the classes you want. I wanted to take Art History, but I couldn’t take it because I can’t get there after school at 4:30 . . . [and] there [were] no animal science classes. (March, 2013)
Carlton also explained her frustration with trying to schedule courses at the local university. “I went to apply for the speech course and the only reason I was taking the other course is so that I could get into the speech class so I could attend [the local university].”

But she was unable to enroll because by the time the high school coordinator tried to enroll her in the Speech class, it was filled. “They end up enrolling me into another class, the mass communications class also which I was fine with because once again that’s in the direction that I plan on going to” (March, 2013).

She also commented that there was really no one to help with scheduling. When she was able to enroll in classes that connected to her interests, it was a coincidence. Carlton commented that a counselor who specialized in gifted education would have been a helpful addition. She stated that the adults in the school district did not seem to know what to do with them anymore. Even though she had completed all the required courses, she decided not to graduate early. She felt like she had to figure everything out, and she did not think she should have to make so many decisions.

Gretchen, who is a few years younger, shared that she had to ask for her schedule to be slowed down:

This year we just finished making our schedules for next year, and they were going to put me in Calculus, English III and IV, and Advanced Chemistry. I had to tell them that I wanted to take a little break between all those courses. . . . Like I said, it can get overwhelming, and I won’t have time for myself. I feel like I’m still . . . it’s still early, and I still can have fun and take electives right now, so I don’t overwhelm myself. (March, 2013)
Carlton mentioned that she wished she had slowed down a “tad bit” (March, 2013). However, Mallory continually sought out advanced courses and at the time of the interview she was trying to enroll in an Organic Chemistry II class at the local university. Alisa did not mention any concerns and was happy to state that she had several classes she was looking forward to her senior year at the state residential school.

**Summary.** Most of the participants explained the long-term benefits connected with their participation at the Gifted Center. In particular, they believed the acquisition of content knowledge, thinking skills, and study skills prepared them for classes in high school and college. While they all listed advantages, they also mentioned frustration with scheduling courses in high school. For participants who did not graduate early or decide to attend the state residential school, there were limited options for courses. One participant even suggested there should be specialized counselors for advanced students to help them deal with the complications of having completing so many accelerated courses.

**Chapter Summary**

In this chapter, I have presented full descriptions of each participant and the findings related to the 5 research questions. While their time at the Gifted Center does not appear to have made changes to their achievement goals, participants believed it offered them challenging curricula. Because of the challenge, the participants described learning study skills and time management while in middle school. The participants also described an increase in their beliefs that they would be able to complete challenging work because they knew how to work through problems and seek help in classes. For many of the participants, it appears their beliefs about intelligence closely reflected the accelerated nature of the gifted program (i.e., gifted students are able to learn material more quickly and in more depth). For a few of the participants their time at
the Gifted Center helped to expand their vision of what it means to be gifted. They perceived the class environment at the Gifted Center as one that allowed students to interact with others on a regular basis in an intellectually safe environment. Participant comments also revealed there was an emphasis on learning material rather than just on passing the test. They also appreciated the support they received from teachers and peers in these classes. They believed that their classes prepared them for the dual-enrollment courses in high school. While most of the participants appreciated the accelerated nature of the Gifted Center, at least two participants indicated a need for a slower pace and an opportunity to incorporate more electives in their schedule. In the next chapter, I will discuss the findings and connections to the literature; and present implications and limitations of the study.
CHAPTER FIVE: DISCUSSION AND IMPLICATIONS

As cognitive and educational psychologists build an understanding of the larger population of students’ motivational patterns through theories such as achievement goals, implicit theories of intelligence, and self-efficacy beliefs, there is a continued need to understand how these theories apply to academically talented students and a need to understand motivational patterns as part of the talent development process (Dai et al., 1998).

Social cognitive theory (Bandura, 1986) guided the development of this interpretive, qualitative study. In this theory, Bandura emphasized the bidirectional influence of behavior and environment, which leads to people becoming both “products and producers of their environment” (p. 4). The specific focus of the study was to understand middle school students’ perceptions of the influence that participation in a specific environment, a gifted middle school, had on the development of their achievement orientations via motivational variables and incremental beliefs of intelligence—of particular interest were the development of the participants’ achievement goals, self-efficacy beliefs, theories of intelligence, and perceptions of the environment. In addition, I sought to develop an understanding of their perceptions of the influence the program had on the development of their future academic plans. Previous studies have found constructs such as achievement goals and self-efficacy beliefs change over time within various environments (Ames & Archer, 1988; Anderman et al., 1999; Britner & Pajares, 2006); this study sought to understand students’ perceptions of those changes.

Thirteen students initially agreed to participate, and 6 of the possible 23 students who attended the rural gifted middle school completed the study. At the gifted middle school, identified gifted students were grouped for their courses. Curricula designed for the gifted were used within the classes, and acceleration practices were utilized (see Chapter Three for
specifics). Since middle school, all of the participants have done well in school. One participant decided to graduate a year early, 2 participants decided to attend the state residential school for math, science and the arts, and all the participants have completed dual-enrollment courses.

As part of the study, the participants completed a survey compiled from scales on achievement goals, self-efficacy beliefs, theories of intelligence, and environmental perceptions of achievement goals. They also participated in two interviews focused on developing an understanding of their self-perceptions and their development while at the gifted middle school and in high school.

Qualitative analysis of the participants’ survey and interview responses led to the development of several findings focused on “(1) how people interpret their experiences, (2) how they construct their worlds, and (3) what meaning they attribute to their experiences” (Merriam, 2009, p. 15). In this chapter, the connection between the findings, theory, and the literature will be discussed. In addition, limitations and implications for future practice and future research will be presented.

Discussion

One of NAGC’s 2010 Programming Standards emphasizes the importance of providing challenging learning experiences for academically talented students as a means for them to develop positive academic achievement orientations. For this study, the participants described their general academic experiences, responses to challenge, successes and failures, and the support they did or did not receive while at a gifted middle school, as well as their current high school experiences. Their responses led to the development of the following themes (a) the intersection of a challenging environment, like-minded peers, and supportive teachers and (b) multiple achievement goals and diverse mindsets. Participants indicated the connection between
a challenging learning environment, like-minded peers, and supportive teachers led to the development of positive self-efficacy beliefs and achievement behaviors. In addition, subscribing to multiple achievement goals led to achievement behaviors, but a student’s mindset or implicit theory of intelligence did not seem to connect to his or her achievement behaviors (see Figure 1).

![Diagram](image)

Figure 1. Development of self-efficacy beliefs and achievement behaviors.

**Intersection of a Challenging Environment, Like-minded Peers, and Supportive Teachers**

When examining the findings, I noted several connections between the challenging curricula, like-minded peers, and supportive teachers to the development of self-efficacy beliefs and achievement behaviors. This links to Bandura’s (1986) social cognitive theory as the participants described how they “create[d] as well as select[ed] their environments” (p. 4). They believed they were able to grow within the environment through the challenging curricula and support from teachers. They also perceived enjoyable and engaging classroom environments where they were able to contribute to the classroom learning experience through whole-group discussions with like-minded peers.

Many studies indicate gifted middle school students do not perceive a challenging middle school environment (Gallagher et al., 1997; Kanevsky & Keighley, 2003; Larson & Richards,
1991). Kanevsky and Keighley (2003) even warned this may lead to underachieving behaviors. However, the participants in this study perceived a challenging atmosphere. They appeared to have developed positive achievement orientations that should enable continued success. One example of developing positive achievement orientations is Johnny’s decision to seek a more challenging environment in high school. After 2 years at the Gifted Center, he left and returned to the regular middle school. However, while in high school, he became frustrated with the slow pace of the honors classes. In response to his frustration, he applied and decided to attend the state residential school for math, science, and the arts. His time at the gifted middle school helped him understand what he is capable of and that learning should require work.

Concerns over acceleration practices are well documented (see Colangelo, Assouline, & Gross, 2004). Moon et al. (1998) found that principals and teachers believed middle school students are at a “plateau learning period,” and that low-level assignments are given. Similarly, some participants in this study commented that adults and peers encouraged them to follow the normal path and avoid accelerated courses. Carlton even believed many people did not expect she and her classmates would succeed. However, the participants’ comments and high school transcripts, including dual-enrollment courses, present evidence they were able to engage in, perform well in, and enjoy accelerated and rigorous courses.

The participants mentioned advantages to the gifted middle school setting similar to those listed by students in Moon, Swift, et al.’s (2002) study, including (a) greater challenge, (b) working at their level, (c) classmates working at the same level, (d) more interesting work, and (e) more projects and experiments. Students in Eddles-Hirsch et al.’s (2010) study also mentioned enjoying the challenge of the academic projects.
In addition to the challenging courses, the participants’ relationships with teachers and peers were important as they dealt with increasing academic rigor. The participants believed the small student-teacher ratio was helpful because they had access to teachers before, during, and after class. Furthermore, they continually commented on the care they received from the teachers at the gifted middle school. Participants also enjoyed the time they had to talk with each other and to learn from each other. The ability to have content-focused discussions in class and hands-on assignments helped them learn to think for themselves. For instance, Mallory explained how listening to other students during class discussion helped her learn to “connect the dots” on her own (April, 2013). The participants reported how much they learned from each other which makes Brighton et al.’s (2005) finding that teachers used lectures and seat work as the primary instructional tools worrisome. Mallory, in particular, commented the environment at the Gifted Center provided her “more freedom in learning” (April, 2013). Participants in Eddles-Hirsch et al.’s (2010) study also mentioned the environment of a specialized classroom gave them space where they felt it was safe to be smart. Students in this study and others (Eddles-Hirsch et al., 2010; Moon, Swift, et al. 2002) want challenging learning environments where is it is safe to be smart, and it is vital to remember the power teachers and peers have in developing a community of learners where it is safe to be smart.

This challenging environment was critical because it gave students the opportunity to develop positive self-efficacy beliefs (Bandura, 1986). They learned “it was possible to succeed” (Carlton, March, 2013) in high-level, dual-enrollment courses as early as their freshman year of high school. Students’ development of self-efficacy beliefs and achievement behaviors may be especially valuable in a rural environment. Burney and Cross (2006) reported students from rural, low-income families needed support to overcome low self-efficacy. They also found
promoting self-regulation skills helped students overcome academic difficulties. Similarly, students in this study sometimes questioned their capabilities, wondering if they were smart enough. However, the participants’ completion of high-level courses in which they learned to study, take good notes, meet with teachers, and manage their time has helped them understand they are capable of completing challenging classes.

They shared the belief that working hard or engaging in achievement behaviors such as studying was important if you wanted to do well in a class. While taking courses on the college campus, Augustus learned how well he would do in a class depended on the amount of effort he was willing to expend—demonstrating his belief that it is necessary to work hard to be successful.

The sources of the participants’ self-efficacy beliefs were similar to findings in previous studies (Bandura & Schunk, 1981; Britner & Pajares, 2006; Usher, 2009; Usher & Pajares, 2006). They developed positive self-efficacy beliefs through mastery experiences, vicarious experiences, and verbal persuasion (Bandura, 1986). Usher (2009) noted that Grade 8 math placement, either in Algebra I or eighth-grade math, “seemed to communicate important information to the students about their mathematics capabilities” (p. 292). The participants in this study seemed to believe their placement in accelerated courses, such as Algebra I in seventh grade, along with teachers’ positive messages, indicated they were capable of completing rigorous work. Augustus’s comment, “they [the teachers] believed in us more than we believed in ourselves” highlights that the participants’ need to have a teacher or an adult believe in their capabilities.

Similar to Usher’s (2009) findings, participants in this research study acknowledged the role others played in the development of their self-efficacy beliefs both positively and negatively.
The participants were often inclined initially to believe classmates who told them courses were hard and making good grades was not possible. However, once the class started and the participants worked with the teacher or saw other students succeed, they began to work harder and started earning better grades. The participants shared examples of how they learned to study on their own and with other students.

The participants also reported being in the same class as older peers helped them mature faster. Rawlins (2004) found the students in her study connected being treated the same as older students led to an increased feeling of confidence. For Carlton, even being with students in the next grade helped her feel more mature.

Despite concerns students may not develop socially, all the participants, except for Johnny, discussed the role of peers as friends in accelerated classes. Hoogeveen et al. (2012) found accelerated students in the Netherlands did not have fewer friends than non-accelerated peers. Eddles-Hirsch et al. (2010) also identified that fourth through sixth grade gifted students considered spending time with intellectual peers to be an advantage.

The participants described developing positive self-perceptions at the same time as they developed achievement behaviors. The environmental components of the gifted middle school supported the development of positive self-perceptions through positive feedback from teachers. Learning vicariously through peers was also helpful. The participants also described developing achievement behaviors such as study skills, time management, and seeking help in response to the challenging nature of the classes and their desire to do well. Perhaps their personalities were predisposed to desire high achievement, but the challenging environment during middle school was also needed for them to learn how to work hard.

**Multiple Achievement Goals and Diverse Mindsets**
Dai et al. (1998) noted a need to understand how students respond to learning and performance goals in real educational settings. They also specified a need to learn how students develop short-term and long-term goals, how they commit to those goals, and how “achievement behaviors are reinforced and nurtured in their social environments” (p. 59). The participants wanted to learn and grow, but they also acknowledged the importance of performing well. First, performing well meant they had mastered the material, and secondly it was necessary to have good grades on their transcripts to help with college acceptance. Having good grades may have been especially critical for these participants because they all described plans for the future involving a college degree, and several students mentioned careers requiring multiple degrees. In the real world, grades matter—performance matters.

The findings closely connect to those of Lee et al. (2010) and Conley (2012) who found their participants held multiple goals simultaneously. In addition, Conley concluded both patterns may be equally adaptive. The participants in this study generally demonstrated agreement with both mastery and performance goals at high levels. Their agreement with these statements along with their descriptions of working hard to master material as judged by high grades suggests support for Conley’s suggestion that there may be no best way to be motivated. Regardless of achievement goals, participants indicated they had increased levels of self-efficacy and strategy use over time, and that they sought out help from teachers and peers. Similar to finding of other researchers (Bong, 2009; Elliot & Macgregor, 2001), the participants who wanted to avoid failing a test had a fear of failure and talked more about their worry of failure. However, in contrast to findings by Bong (2009), they did not avoid seeking help.

In addition, the participants did not indicate a decline in their perceptions of their goals and they maintained their grades. Perhaps for this population of students, focus on mastery
versus performance is not as important as their decision to approach their goals. While I am not advocating teachers promote performance goals over mastery goals, it is interesting to consider that these achievement goals may work best in conjunction with each other as long as there is an approach focus.

Blackwell et al. (2007) suggest that students who ascribed to a fixed view of intelligence had more issues dealing with transitions; however, it did not appear that participants who ascribed to a fixed view of intelligence had any more issues dealing with transitions than participants who ascribed to a malleable view of intelligence. Instead, as Siegle et al. (2010) posited, “high achieving students can recognize their ability and appreciate the importance it holds in doing well, without being paralyzed by the pitfalls Dweck and her colleagues reported are associated with a fixed entity belief” (p. 97). The participants who ascribed to both views of intelligence recognized the importance of working hard and seeking help when necessary. Ablard and Mills (1996) also found no significant relationships “between view of intelligence and any of the self-perceptions” (p. 143) for third through eleventh grade students. Interestingly, Alisa, whose response to the survey most closely connected to a malleable mindset, believing that people can grow and learn every day with hard work, also had a fear of failure. Perhaps her belief in the malleability of intelligence meant she was in constant danger of not being smart if she did not try exceptionally hard. On the other hand, Johnny’s fixed view of intelligence led him to believe he was capable of high-level work due to IQ (which he believed was stable). If he did struggle in a class, he just had to work harder. Doing well was more connected to motivation and behavior than to a person’s ability to become smarter.
Implications

In their study of underachievers, Kanevsky and Keighley (2003) identified control, choice, challenge, complexity, and care as components of learning experiences. The achieving participants in this study identified similar components of the learning experiences they valued. Their statements indicate teachers and administrators should find ways to challenge students early in their educational careers to help students gain self-efficacy beliefs and develop achievement behaviors such as study skills and note-taking skills. It is also important that teachers help create communities in which students feel comfortable asking for help when assignments become difficult. It is important to remember that assignment difficulty should not be judged by a student’s ability to make an A or a B. For some students not earning an A may mean the assignment is difficult, and if the goal is continuous improvement for all students, then high-achieving students as well low-achieving students deserve teachers’ time and attention.

The students in this study also indicated how much teachers who supported and cared for them mattered. It was apparent several of the participants did not feel the same level of support in other school environments, calling attention to the need for teachers to have an understanding of all students—high and low achieving.

Another consideration is the development of students’ achievement goals. The participants in this study connected to both mastery and performance goals. If students are to develop goals focused on mastery, then the outcomes that are rewarded should be considered. In an educational system that rewards high-test scores and high grades, it is likely students will continue to value performing well.

Regardless of the school type, several options are available to students as a way to challenge them within school districts. Small classes with teachers who understand the students’
capabilities appear to be a promising practice. Grouping students with older classmates also did not seem to negatively influence the participants in this study, providing school districts with flexibility as they plan for their high-achieving students.

Carlton’s comments on the state of counseling were also poignant. She was excited to be challenged as a seventh grader, and trusted the adults in the system to have a plan for her. However, as a junior she found they ran out of ideas. To find new challenging curricular options some of the participants decided to attend the state residential school. Other students, stayed at their local school and hoped challenging options would become available. Participants reported challenges making these decisions, and having a specialized counselor may have helped students make more informed decisions.

Students also may have been relying on memories of experiences—remembering with “rose-colored glasses”; however, memories helped form the perceptions currently influencing their achievement orientations and behaviors. In addition, all of the participants shared negative experiences while at the gifted middle school. Carlton shared thoughts about wishing she had not accelerated quite as much, and Gretchen had recently requested fewer dual-enrollment courses on her schedule.

The participants in this study shared examples of how their experiences with challenging curricula during middle school shaped their beliefs and motivational outlooks. It would be interesting to gain further insight into the participants’ development as they attend college and beyond. It would also be helpful to conduct studies tracing students’ development throughout their school experience, with both qualitative and quantitative designs.

There are many possibilities for students to complete high-level coursework while in middle and high school. Dual-enrollment opportunities for students appear to be increasing
(Steenbergen-Hu & Moon, 2010). Perhaps, on-line learning systems and adaptive computerized curricula will provide students from a variety of communities the opportunity to be challenged. Administrators should be encouraged to investigate the possibilities for their population of students, keeping high-achieving students in mind when planning the overall curriculum. However, they should not underestimate the power of a caring adult to help students through challenging curricula.

The participants’ beliefs in a supportive environment during the transition of middle school and the joy they had as they described the conversations with peers should warrant consideration of alternative classroom designs for high-achieving students. One would hope that schools would be places where being smart is okay; however, for many students they are not. All students’ needs should be considered when planning schedules and course designs. These students believed their middle school environment provided them with opportunities to learn and grow and to become better students.

**Limitations**

The goal of this study was to present participants’ perceptions of their development while at a specialized middle school, and to provide the reader with enough detail so he or she would be able to determine the applicability of the findings to his or her setting/situation. The findings of this study are not generalizable. However, the insights from the 6 high-achieving participants highlight the continued need for parents, teachers, and administrators to develop an understanding of the needs of high-achieving students. The participants’ comments provide further evidence that some students are capable of handling high-level work in middle and high school (e.g., accelerated courses).
It is also important to note only 6 of the possible 23 students were able to complete the study. Thirteen students agreed to participate, but 7 were unable to complete the study due to time constraints. It is possible the highest achieving students who had a positive experience were the only ones who completed the study; however, it is necessary that their story be told as well. It is vital to know what went right. In addition, not all of the comments were positive. Participants did share concerns with the middle school environment, including two participants who expressed some frustration with the scheduling process as they got older because there were no more high school classes available or the college classes they wanted to take were unavailable. One participant believed there were no counselors who understood the students’ needs. Their perceptions add to a larger body of research supporting gifted students’ time with academic peers (Rogers, 2007), and the power of accelerative experiences (Lubinski, 2004; Rawlins, 2004; Steenbergen-Hu & Moon, 2010; Swiatek, 2002), including the increase of self-efficacy beliefs as a result of completing high-level work.

Another possible limitation is my involvement with participants as the language arts and social studies teacher of all the potential participants for 1-2 years and my involvement in starting the gifted program at the middle school. In an effort to present valid and reliable findings, the participants were asked to complete a survey to help triangulate the findings, other researchers conducted the interviews to make it easy for participants to share negative experiences, and a second researcher coded 30% of the data with an agreement rate of 90% or above for all of the codes. Probing questions were asked to ensure that students were fully explaining their answers, and participants were explicitly asked to share negative examples. Discussions with the researchers who completed the interviewers indicated they felt the participants were sharing positive and negative aspects of their time at the gifted middle school.
I also made an effort to bracket my own subjectivities. I developed a subjectivity statement, had discussions with other researchers, including committee members and interviewers, to examine any potential bias, and I kept annotations noting when I thought a possible bias was occurring to inform the development of the findings.

**Directions for Future Research and Final Thoughts**

Future studies should focus on longitudinal designs directed at understanding how students, including high-achieving or gifted students, develop achievement orientations and behavior over time. For instance, it would be interesting to follow the 6 participants during college and beyond to understand how these variables develop. It would be ideal to collect data from students in rural locations at the time the experiences are occurring. Another possibility would be to complete multi-site studies in rural locations to allow quantitative data to be collected. However, the qualitative results in this study indicate students’ thoughts and reflections can provide valuable information capable of illuminating complex ideas, highlighting the importance of collecting qualitative data.

The participants described middle and high school environments that were challenging and engaging. They enjoyed their time and learned from like-minded peers. They also believed they were treated as individuals by their teachers who provided them with support with both academic and personal challenges and struggles, especially during middle school. It was their belief this support helped them become better students, highlighting the importance of remembering each student is an individual capable of growing and learning. One job teachers and administrators face on a daily level is to create environments where all students, including high-achieving students, feel safe to learn and grow. Mallory’s comments provide a voice to this sentiment.
Overall at the Gifted Center it made me feel like I wasn’t stupid whenever I would laugh about certain things that other people wouldn’t laugh at. . . . I guess I felt more comfortable at being more free and open to things. (April, 2013)
References


Appendix A

Survey

Survey of Self-Perceptions and Perceptions of School

For this survey, please think about how you thought or would have responded in middle school and how you feel now that you are in high school. Items on the first 3 pages ask you to think about yourself. The items on the last page ask you to think about your current school.

Please return the completed survey in the stamped, self-addressed envelope that was sent with the survey.

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<thead>
<tr>
<th>Middle School</th>
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<td>(1) Strongly Disagree</td>
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<td>(2) Disagree</td>
<td>(2) Disagree</td>
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<tr>
<td>(3) Somewhat Disagree</td>
<td>(3) Somewhat Disagree</td>
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<td>(4) Somewhat Agree</td>
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<td>(5) Agree</td>
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<td>(6) Strongly Agree</td>
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Part 1:

Please respond by marking X in the appropriate box for Middle School on the left AND High School on the right.

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<th>Middle School</th>
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Part 2:

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### Part 3:

*Please respond by marking X in the appropriate box for Middle School on the left AND High School on the right.*

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<th>Middle School</th>
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</table>

19. I will be able to achieve most of the goals that I have set for myself.  
20. When facing difficult tasks, I am certain that I will accomplish them.  
21. In general, I think that I can obtain outcomes that are important to me.  
22. I believe I can succeed at most any endeavor to which I set my mind.  
23. I will be able to successfully overcome many challenges.  
24. I am confident that I can perform effectively on many different tasks.  
25. Compared to other people, I can do most tasks very well.  
26. Even when things are tough, I can perform quite well.
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<th>Middle School</th>
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<td>(1) Strongly Disagree</td>
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<td>(2) Disagree</td>
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<td>(3) Neither Agree or Disagree</td>
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<td>(4) Agree</td>
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<td>(5) Strongly Agree</td>
<td>(5) Strongly Agree</td>
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<td><strong>Part 4:</strong></td>
<td><strong>Please respond by marking X in the appropriate box for Middle School on the</strong></td>
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<td><strong>High School (Current).</strong></td>
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<td>27. In our school, trying hard is very important.</td>
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<td>28. In our school, showing others that you are not bad at class work is really</td>
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<td>important.</td>
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<td>29. In our school, how much you improve is really important.</td>
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<td>30. In our school, getting good grades is the main goal.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>31. In our school, really understanding the material is the main goal.</td>
<td>1 2 3 4 5</td>
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<td>32. In our school, getting right answers is very important.</td>
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<td>33. In our school, it’s important that you don’t make mistakes in front of</td>
<td>1 2 3 4 5</td>
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<td>everyone.</td>
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<td>34. In our school, it’s important to understand the work, not just memorize</td>
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<td>35. In our school, it’s important not to do worse than other students.</td>
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<tr>
<td>36. In our school, learning new ideas and concepts are very important.</td>
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</tr>
<tr>
<td>37. In our school, it’s very important not to look dumb.</td>
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<tr>
<td>38. In our school, it’s OK to make mistakes as long as you are learning.</td>
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<tr>
<td>39. In our school, it’s important to get high scores on tests.</td>
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<tr>
<td>40. In our school, one of the main goals is to avoid looking like you can’t do</td>
<td>1 2 3 4 5</td>
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<td>the work.</td>
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Appendix B

In-depth Student Interview Protocol

Interview Protocol #1

Greet participant.
Remind participant about study purpose (I want to talk to you about your time at school).
Remind participant that this is a research study and that his or her responses should represent his or her own reflections.
Remind participant about confidentiality, right to not answer any question, and right to end participation in the study.
Ask for permission to digitally audio-record the interview. If the student does not give the participant permission to record the interview, then the participant will be thanked for his/her time and the interview will be ended.

Keep time to 1 hour 15 minutes.

Turn on the recorder and ask the participant to state his/her approval to be recorded.

Explain that he or she will receive a copy of the transcript and initial interpretations to review.

“Before we begin, do you have any questions?”

1. What would you like your pseudonym to be?

2. Describe a time in school when you felt successful. (Redirect to academic skills, if they are not mentioned.)
   a. Thinking back, was there anything specific that contributed to your success?
   b. What did you, as a student, learn from this experience?

3. Tell me about a time when you felt challenged by your classwork.
   a. How did you handle the challenge?
   b. What were the reasons that you either continued to or did not continue to work on the challenging project/assignment?

4. Tell me about your favorite class.
   a. What made it so special?
   b. Were your feelings about this class consistent from beginning to end, or did they change over time? (BREAK) How so?

5. Tell me about a time when you either felt encouraged or discouraged from succeeding in a class.
   Without naming names, was there any person (teacher or student) who encouraged you or discouraged you? (BREAK) How so?

6. How did you decide to take the courses that you are currently in?
7. Tell me how you felt when choosing X (high level) course. (Dual-Enrollment or Honors)

8. What are your plans for after high school? (BREAK) Are there any school experiences that led you to that decision? (BREAK) Can you tell me about one or two them? (Probe for college-where and what major)

9. Is there anything else that you would like to add?

10. Do you have any questions?

**Probing Questions**

Can you tell me more about . . . ?
What do you mean by . . . ?
Can you think of any other examples . . .
What I hear you saying is . . . Is this right?
You don’t sound sure. Did I miss something?

**Interview Protocol #2**

Greet participant.
Remind participant about study purpose (I want to talk to you about your time at the Gifted Center). Remind participant that this is a research study and that his or her responses should represent his or her own reflections.
Remind participant about confidentiality, right to not answer any question, and right to end participation in the study.
Ask for permission to digitally audio-record the interview. If the student does not give the participant permission to record the interview, then the participant will be thanked for his/her time and the interview will be ended.

Explain that he or she will receive a copy of the transcript and initial interpretations to review.

1. What were the reasons why you chose to go to the Gifted Center?

2. What 3 words would you use to describe your experiences in the Gifted Center?

3. Tell me about your experience at the Gifted Center.

4. What does it mean for someone to be identified as gifted? Can someone become smarter? Why or why not?

5. Tell me what being identified as gifted meant to you before attending the Gifted Center. Did that change after you started going to the Gifted Center? How?
6. Do you feel as if your experiences in the Gifted Center have prepared you for honors and dual-enrollment courses? How so?

7. *For questions 2-5 in the first interview, if the student participant did not mention middle school experiences, then repeat one or more of the previous questions including the term “while at the Gifted Center.”*

2. Describe a time in school when you felt successful while at the Gifted Center.
   a. Thinking back, was there anything specific that contributed to your success?
   b. What did you, as a student, learn from this experience?

3. Tell me about a time when you felt challenged by your classwork while at the Gifted Center.
   a. How did you handle the challenge?
   b. What were the reasons that you either continued to or did not continue to work on the challenging project/assignment?

4. Tell me about your favorite class while at the Gifted Center.
   a. What made it so special?
   b. Were your feelings about this class consistent from beginning to end, or did they change over time? How so?

5. Tell me about a time when you either felt encouraged or discouraged from succeeding in a class while at the Gifted Center.
   Without naming names, was there any person (teacher or student) who encouraged you or discouraged you? How so?

8. Is there anything else that you would like to add?

**Probing Questions**

Can you tell me more about . . . ?
What do you mean by . . . ?
Can you think of any other examples . . .
What I hear you saying is . . . Is this right?
You don’t sound sure. Did I miss something?
Appendix C

Initial Parent Phone Call Protocol

Hello {parent/guardian name},

It’s Micah Bruce-Davis.
How have you been? How has {student’s name} been?

I am currently working on my dissertation at the University of Connecticut. The purpose of this phone call is to see if you may be interested in allowing your child to participate in a study on the development of an achievement orientation while he/she participated in the middle school gifted program.

Do you have some time now to speak with me? (If yes, continue. If no, ask if another time would better? If the parent/guardian states that another time would not be better thank him/her for her time.)

Participation would include your child answering a survey. The survey will take approximately 20 to 25 minutes. Two interviews that will last between 45 to 60 minutes each will also be conducted. I also will request transcript of courses from the school for the years 2007-2013. The first 12-15 students who return the survey and the student assent forms will participate in the interviews. The interviews can take place anywhere that you and your child are comfortable. Your child will need to have access to either a telephone or Internet access. He or she will also have to agree to be audio-recorded. He or she will also be contacted via e-mail to review his or her responses to the interviews.

For your child’s participation there would be no compensation. But I believe this study has the potential to provide information to other gifted program personnel to help them become more knowledgeable on how to support student needs. There is no pressure to participate. You have 2 weeks to talk it over with your child and decide if this project is something in which you are willing to allow your child to participate. If at any time you or your child decides you want to discontinue participation, you are free to do so. Do you have any questions regarding the study?

Would you like me to send you more information, including the permission form? (If yes, continue. If no, thank the parent/guardian for his/her time).

You will be receiving a consent/student permission (assent) form in the mail. If you and your child are interested, please fill it out and return it. You will be mailed the student survey after these forms are received. Please give the survey and the stamped-self-addressed envelope to your child so he/she can answer the survey. If you have any further questions, please feel free to contact me at 225.266.1558 or micah.bruce-davis@uconn.edu. You may also contact E. Jean Gubbins, the principal investigator, at ejean.gubbins@uconn.edu. If you have any questions concerning your child’s rights as a research participant, you may contact the University of Connecticut Institutional Review Board (IRB) at 860-486-8802.
Thank you for your time. Have a nice afternoon.
Appendix D

Parent/Guardian Directions for
Child Assent Form for Participation in a Research Study

Principal Investigator: E. Jean Gubbins
Student Researcher: Micah Bruce-Davis
Study Title: Gifted Students’ Perceptions of the Influence of a Gifted Middle School Program on the Development of Their Achievement Orientation

Dear Parent/Guardian,

We previously spoke about child’s inclusion in a study titled Gifted Students’ Perceptions of the Influence of a Gifted Middle School Program on the Development of Their Achievement Orientation. Your child has returned a survey, and now we would like to ask your child to complete two interviews. Please review the attached assent form with your child to ensure that he/she understands that participating in the study includes completing two interviews that will last between 45 to 60 minutes each. The interviews will be completed in a place/time that you and your child feel comfortable with. Your child will need access to a webcam/internet or a telephone. The interviews will be digitally audio-recorded, and your child will be contacted via e-mail to review the transcripts and the conclusions that the researcher makes based on the interviews. Your child also should understand he/she can ask questions about the study and may withdraw from the study at any time.

Thank you for help. If you have any further questions, please feel free to contact me at 225.266.1558 or micah.bruce-davis@uconn.edu or E. Jean Gubbins at 860.486.4041 or ejean.gubbins@uconn.edu. If you have any questions about your child’s rights as a research participant you may contact the University of Connecticut Institutional Review Board (IRB) at 860-486-8802. The IRB is a group of people who review research studies to protect the rights and welfare of research participants.

Sincerely,

Micah Bruce-Davis
Student Researcher
University of Connecticut
micah.bruce-davis@uconn.edu
225.266.1558
Introduction

Your son/daughter is invited to participate in a research study about the development of his/her self-perceptions of achievement. Your child is being asked to participate because of his/her attendance at a gifted middle school.

Why is this study being done?

We are conducting this research study to learn more about the ways students develop academic goals, self-beliefs about ability, beliefs about intelligence, and their perceptions of the environment while at the gifted school. The study will help us understand how students develop self-perceptions that influence their achievement behaviors. This will help us to determine ways to support students while in middle school.

What are the study procedures? What will my child be asked to do?

If you give permission for your son/daughter to take part in this study, initially he/she will be asked to fill-out a survey, which should take approximately 20-25 minutes. Once the survey has been returned, he/she will be asked to participate in two interviews that will last approximately 45 to 60 minutes during a convenient time either through video conference (e.g., GChat or Skye) or telephone conversation. He/she will be asked open-ended questions regarding experiences with the school he/she attended in middle school. The first 12-15 students who return the survey and the student assent forms will participate in the interviews. In addition, background standardized test data and transcripts will be requested from your child’s school to help develop a full picture of your child’s educational background.

Your child also will be asked to review his/her responses to the interview questions (via e-mail) once they have been transcribed.

Your child’s full name will not be connected to the study. The interviewer will use only your child’s chosen pseudonym during the digitally audio-recorded interviews. When these interviews are transcribed, your child’s name will be removed from the written transcripts and replaced with a code.
You and your child will not be contacted further about the study.

Your child does not have to participate in this study if he or she does not want to. When you initially discuss this with your child, please don’t mention my name so he/she does not feel like the answers on the survey need to be done for “Ms. Davis.” If you give permission for your child to participate and your child agrees to participate, we ask that you and your child sign and date the last page of this form and return it to Micah Bruce-Davis or E. Jean Gubbins at the address listed below within 2 weeks of receipt.

**What other options are there?**

If you do not wish your child to participate, your child will not be included in the study.

**What are the risks or inconveniences of the study?**

There are no risks for your child to participate in this study.

**What are the benefits of the study?**

Your child may not directly benefit from this research; however, we hope that your child’s participation in the study may support your child’s teacher’s professional growth and the work of other teachers in the future.

**Will my child receive payment for participation? Are there costs to participate?**

There are no costs to you and your child for participating in this study. Your child will not be paid to participate in this study.

**How will my child’s information be protected?**

The following procedures will be used to protect the confidentiality of the data collected from your child. The researchers will keep all study records (including any codes to your child’s data) locked in a secure location. Research records will be labeled with a code. The code will be derived from your child’s first and last initial followed by a sequential 3 digit code number that reflects how many people have enrolled in the study. The names and codes will be maintained in a separate and secure location from any transcribed data.

The student researcher and an outside transcriber will transcribe the digital audio-recordings. All identifying information on the digital audio-recordings will be removed and kept indefinitely in a secure location. All electronic files (e.g., database, spreadsheet) containing identifiable information will be password protected. Any computer hosting such files will also have password protection to prevent access by unauthorized users. Only the members of the research staff will have access to the passwords. Data that will be shared with others will be coded as described above to help protect your child’s identity.
We will do our best to protect the confidentiality of the information we gather from your child, but we cannot guarantee 100% confidentiality. His or her confidentiality will be maintained to the degree permitted by the technology used. Specifically, no guarantees can be made regarding the interception of data sent via the Internet by any third parties.”

You should also know that the UConn Institutional Review Board (IRB) and the Office of Research Compliance may inspect study records as part of its auditing program, but these reviews will only focus on the researchers and not on your child’s responses or involvement. The IRB is a group of people that review research studies to protect the rights and welfare of research participants.

Can my child stop being in the study and what are my and my child’s rights?

Your child does not have to be in this study if you do not want him/her to participate. If you give permission for your child to be in the study, but later change your mind, you may withdraw your child at any time. Even if your child has completed the study, you may decide NOT to have your child’s data used in the study. In the surveys and the interviews, your child does not have to answer any question that he/she does not want to answer. He or she will be reminded of this prior to completing the survey or beginning the interviews. There are no penalties or consequences of any kind if you decide that you DO NOT want your child to participate.

Whom do I contact if I have questions about the study?

We will be happy to answer any question you have about this study. If you have further questions about this study or if you have a research-related problem, you may contact the principal investigator, E. Jean Gubbins, (860) 486-4041, or the student researcher, Micah Bruce-Davis, (860) 486-6265. If you have any questions concerning your child’s rights as a research participant, you may contact the University of Connecticut Institutional Review Board (IRB) at 860-486-8802.
Parental Permission Form for Participation in a Research Study

Principal Investigator: E. Jean Gubbins
Student Researcher: Micah Bruce-Davis
Study Title: Gifted Students’ Perceptions of the Influence of a Gifted Middle School Program on the Development of Their Achievement Orientation

Documentation of Permission:

I have read this form and decided that I will give permission for my child to participate in the study described above. Its general purposes, the particulars of my child’s involvement and possible risks and inconveniences have been explained to my satisfaction. I understand that I can withdraw my child at any time. My signature also indicates that I have received a copy of this parental permission form. Please return this form to the Micah Bruce-Davis or E. Jean Gubbins within 2 weeks of receipt.

____________________
Child’s Name

____________________  ______________________  _____________
Parent/Guardian Signature:  Print Name:  Date:

Relationship to Child (e.g., mother, father, guardian): _____________________________

____________________  ______________________  _____________
Signature of Person Obtaining Consent  Print Name:  Date:
Appendix E

2-Week Follow-up Email
Dear Parent,

Two weeks ago, I sent information about the study Gifted Students’ Perceptions of the Influence of a Gifted Middle School Program on the Development of Their Achievement Orientation. During our earlier phone conversation, you indicated that you were interested in allowing your child to participate in the study; however, I have not received your parental permission form. I have included an additional consent form. If you are interested in allowing your child to participate, please return the signed consent form as soon as possible. Thank you for your time and participation.

If you have any further questions, please feel free to contact me at 225.266.1558 or micah.bruce-davis@uconn.edu. You may also contact E. Jean Gubbins, the principal investigator, at 860.486.4041 or ejean.gubbins@uconn.edu. If you have any questions concerning your child’s rights as a research participant, you may contact the University of Connecticut Institutional Review Board (IRB) at 860-486-8802.

Sincerely,

Micah Bruce-Davis  
Student Researcher  
University of Connecticut  
micah.bruce-davis@uconn.edu  
225.266.1558

4-Week Follow-up Email
Dear Parent,

Four weeks ago, I sent information about the study Gifted Students’ Perceptions of the Influence of a Gifted Middle School Program on the Development of Their Achievement Orientation. During our earlier phone conversation, you indicated that you were interested in allowing your child to participate in the study; however, I have not received your parental permission form. I have included an additional consent form. If you are interested in allowing your child to participate, please return the signed consent form as soon as possible. Thank you for your time and participation.

If you have any further questions, please feel free to contact me at 225.266.1558 or micah.bruce-davis@uconn.edu. You may also contact E. Jean Gubbins, the principal investigator, at 860.486.4041 or ejean.gubbins@uconn.edu. If you have any questions concerning your child’s rights as a research participant, you may contact the University of Connecticut Institutional Review Board (IRB) at 860-486-8802.
Sincerely,

Micah Bruce-Davis
Student Researcher
University of Connecticut
micah.bruce-davis@uconn.edu
225.266.1558
# Appendix F

## Codebook

<table>
<thead>
<tr>
<th>Code</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reaction to challenge</td>
<td>Participant describes how they respond to challenging experiences in class</td>
</tr>
<tr>
<td>Study skills and time management and strategies to do well</td>
<td>Participant describes coping strategies for difficult work</td>
</tr>
<tr>
<td>Out of comfort zone</td>
<td>Participant describes a new experience where there was some discomfort</td>
</tr>
<tr>
<td>Maturity level</td>
<td>Participant describes how they matured or the general maturity level of class</td>
</tr>
<tr>
<td>“Interactive” classroom and hands-on</td>
<td>Participant describes classroom activities as engaging or inclusive of student input and hands-on learning</td>
</tr>
<tr>
<td>This isn't normal, regular school”</td>
<td>Participant describes differences in school settings</td>
</tr>
<tr>
<td>A smaller setting</td>
<td>Participant describes impact of small setting</td>
</tr>
<tr>
<td>“Relaxed, easy-going class environment”</td>
<td>The classroom environment is described as relaxed. Participant appears to be saying that it is different than settings with rigid rules</td>
</tr>
<tr>
<td>Fun or enjoyable experiences</td>
<td>Participant describes an enjoyable or fun experience</td>
</tr>
<tr>
<td>Gifted in one thing but not another</td>
<td>Participant describes giftedness as multifaceted</td>
</tr>
<tr>
<td>Testing</td>
<td>Participant describes the role that tests play in students' conceptions of themselves or their abilities</td>
</tr>
<tr>
<td>Gifted = thinking process</td>
<td>Participant describes giftedness as how you learn or how you think</td>
</tr>
<tr>
<td>Learn more or become smarter</td>
<td>Participant describes if people can become smarter</td>
</tr>
<tr>
<td>Planning for the Future</td>
<td>Participant describes how he/she learned about career options/colleges or times when he/she did not have help</td>
</tr>
<tr>
<td>Courses in High School-Especially College and dual enrollment</td>
<td>Participant describes experience with dual enrollment - especially scheduling</td>
</tr>
<tr>
<td>Choice</td>
<td>Participant describes having or not having a choice</td>
</tr>
<tr>
<td>Theme</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Fear of failing and “didn't want to fail”</td>
<td>Participant describes the role that fear played in schooling experience</td>
</tr>
<tr>
<td>Straight As and Grades</td>
<td>Participant describes role that obtaining certain grades had</td>
</tr>
<tr>
<td>“Teacher realizes that you have potential”</td>
<td>Participant describes teacher having high expectations or potential to complete high level work</td>
</tr>
<tr>
<td>“We kind of pushed each other”</td>
<td>Participant describes role of peers in challenging him/herself</td>
</tr>
<tr>
<td>“They [the teachers] just cared”</td>
<td>Participant perceptions of caring teachers</td>
</tr>
<tr>
<td>“There’s no need for all this advanced stuff”</td>
<td>Participant describes pushback from others for attendance at accelerated school</td>
</tr>
<tr>
<td>Teacher support</td>
<td>Participant describes a teacher who provided academic support</td>
</tr>
<tr>
<td>Negative teacher experiences</td>
<td>Someone tells a participant he/she is not able to achieve or discourages the participant</td>
</tr>
<tr>
<td>Peers relationship and influence</td>
<td>The participant describes peer relationships and influence</td>
</tr>
<tr>
<td>Self-efficacy beliefs</td>
<td>Participant describes experiences where he/she gained self-efficacy</td>
</tr>
<tr>
<td>College and career plans</td>
<td>Participant describes future plans and/or any school events that influenced the decision</td>
</tr>
<tr>
<td>Regret or Worth It Beneficial</td>
<td>Participant describes having or not having regret</td>
</tr>
<tr>
<td>Interesting not sure where</td>
<td>Anything that looks meaningful but does not seem to fit well</td>
</tr>
<tr>
<td>Self-Concept</td>
<td>How a student sees him/herself as a student or learner</td>
</tr>
</tbody>
</table>