Gifted Secondary School Students: The Perceived Relationship Between Enrichment and Achievement Orientation

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Gifted and talented students have special needs that require interventions, such as academic acceleration and academic enrichment. Additionally, without appropriate modifications gifted and talented students are at risk of underachievement. Grounded in the Schoolwide Enrichment Model and the Achievement Orientation Model, the purpose of this qualitative case study was to build understanding of the relationship between participation in academic enrichment, achievement attitudes, and the resultant behavior (self-regulation) of gifted secondary school students. Achievement attitudes include self-efficacy, goal valuation, and environmental perceptions. Participants included 10 students enrolled in one distinctive enrichment program, their parents, and their classroom teacher. The enrichment program was distinctive because it emphasized Type III Enrichment activities, which are individual and small-group investigations of real-world problems. Data included student, parent, and teacher responses in semi-structured interviews, student work, and project assessments. Data were analyzed thematically. Findings indicated a relationship between participation in Type III Enrichment and achievement orientation attitudes and the resultant behavior of secondary school gifted and talented students. Specifically, students engaged in Type III Enrichment perceived their projects as meaningful, viewed their environment as supportive, and were proud of their efforts and the outcome of those efforts. Additionally, students credited participation in Type III Enrichment with helping them to
self-regulate. These findings can be used to inform gifted secondary school educational practices and specifically, how to design interventions that optimize learning experiences for secondary school gifted and talented students.
Gifted Secondary School Students: The Perceived Relationship Between Enrichment and Achievement Orientation

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B.S., University of Florida, 1986

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A Dissertation

Submitted in Partial Fulfillment of the Requirement for the Degree of Doctor of Philosophy

University of Connecticut

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Approval Page

Doctor of Philosophy Dissertation

Gifted Secondary School Students and Enrichment: The Perceived Effect on Achievement

Orientation

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CHAPTER 1: INTRODUCTION TO THE STUDY

Proponents of gifted and talented programs claim that gifted and talented students have special needs that require instructional interventions, including an accelerated and rigorous curriculum, teachers trained in gifted education pedagogy, opportunities for enrichment, and opportunities for acceleration (Colangelo, Assouline, & Gross, 2004; Gavin et al., 2007; Gentry & Owen, 1999; Gubbins et al., 2007; Kulik, 1992; Reis et al., 2007; Renzulli, Gubbins, McMillen, Eckert, & Little, 2009; Rogers, 1991; Tieso, 2002). Gifted programs are one intervention designed to support the special academic, social, and emotional needs of gifted and talented students. That being the case, there are many different approaches to gifted education and many different theories, ideas, and research findings that influence programming and practice (Renzulli et al., 2009). These approaches include acceleration and enrichment in various forms. Many researchers believe that a blended approach of acceleration and enrichment is the best method for supporting talent development in gifted and talented students (Renzulli 1997; Schiever & Maker, 2003; Sisk, 1997). Despite this recommendation, while gifted and talented programs at the elementary school level often incorporate a blended approach of acceleration and enrichment, gifted and talented programs at the secondary school level still consist primarily of academic acceleration (Callahan, Moon, & Oh, 2014; Foust, Hertberg-Davis, & Callahan, 2009; Hertberg-Davis, & Callahan, 2008; VanTassel-Baska, 2014). What is more, the Achievement Orientation Model (AOM; Siegle & McCoach, 2005) posits that achievement orientation attitudes, including self-efficacy, goal valuation, and environmental perceptions (such as a student’s belief that his or her environment supports his or her effort), collectively support self-regulation, and in turn self-regulation supports academic achievement (Siegle, 2013). According to the AOM, implementing interventions designed to foster the development of students’
achievement orientation attitudes can reduce instances of academic underachievement (Siegle, 2013; Siegle & McCoach, 2005).

In addition, Type III Enrichment activities in Renzulli’s Enrichment Triad Model (Renzulli, 1977) are a specific type of academic enrichment that involves individual or small group investigations of real problems based on students’ interests and skills with the aim of producing a product for real audiences (Renzulli & Reis, 1985, 1997, 2014). Type III Enrichment activities focus on (a) personalization of interest, (b) the use of authentic investigative and creative methodology, (c) addressing problems that do not have a single, predetermined correct answer, and (d) are designed to have an impact on one or more intended audiences (Renzulli & Reis, 1985, 1997, 2014).

**Statement of the Problem**

Currently, the predominant model for educating gifted secondary school students is through academic acceleration, such as Advanced Placement (AP) course options (Callahan, Moon & Oh, 2014), the International Baccalaureate (IB) program, and/or dual enrollment in college courses (VanTassel-Baska, 2014). In fact, a recent national survey of school administrators indicated that 90.7% of districts use AP as the main programing option for gifted students (Callahan et al., 2014). There are, however, indications that acceleration alone does not meet the needs of all academically capable students (Delcourt, 1988; Foust, Hertberg-Davis, & Callahan, 2009; Hébert, 1993; Hertberg-Davis & Callahan, 2008). One reason for this may be because acceleration modifies only the onset and pace of the regular curriculum, while “the content, learning processes, and expected products remain the same . . .” (Schiever & Maker, 2003, p. 166). Moreover, the singular use of one academic intervention that does not meet the learning needs of all gifted students is a problem because research suggests that when the special
needs of gifted students go unmet, those students are at risk of underachievement (Colangelo, 2002; Siegle, 2013).

Underachievement is defined as a discrepancy or a gap between a student’s expected achievement and that student’s actual achievement (Reis & McCoach, 2000; Siegle, 2013). With regards to this, the results of underachievement are harmful to both the individual student and to society as a whole. For example, individual students’ patterns of underachievement can negatively influence grades, college success, and occupational achievements (McCall, Evahn, & Kratzer, 1992). Additionally, when gifted and talented students fail to develop their potential, society suffers in the form of missed productivity. Davis, Rimm, and Siegle (2011) best summarize this occurrence, stating, “The underachieving gifted child represents both society’s greatest loss and its greatest potential resource. The child has the potential for high achievement and significant contributions, but is not using that talent in productive ways” (p. 287).

Some experts believe that gifted and talented students learn best through an approach to gifted education that includes a combination of academic acceleration and academic enrichment (Renzulli 1997; Schiever & Maker, 2003; Sisk, 1997). And yet, although much research has been conducted with regard to the effects of participation in academic acceleration on the attitudes, behaviors, and achievement of gifted and talented secondary students (Foust et al., 2009; Gross, 2006; Kell, Lubinski, & Benbow, 2013; Kulik, 2004; Lubinski & Benbow, 2006; Swiatek, 2007), comparatively little research has been conducted with regard to the effects of participation in academic enrichment on the attitudes, behaviors, and achievement of gifted and talented secondary school students. Additionally, current research on the Schoolwide Enrichment Model (SEM) focuses mainly on the Schoolwide Enrichment Model in Reading Framework (SEM-R; Housand & Reis, 2009; Reis, Eckert, McCoach, Jacobs, & Coyne, 2008; Reis & Fogarty, 2006;
Reis et al., 2007; Reis, McCoach, Little, Muller, & Kaniskan, 2011) and Renzulli Learning (Field, 2009; Housand, 2008), with little current research conducted specifically on Type III Enrichment. Finally, research supports that there is a relationship between students’ ability to self-regulate and their self-efficacy, perceptions of their classroom environment, and goal valuation (Greene, et al., 2004; Ritchotte, Matthews, & Flowers, 2014; Rubenstein, Siegle, Reis, McCoach, & Burton, 2012), meaningfulness, autonomy, and student mastery (Greene et al., 2004), and student autonomy, choice, interest, and achievement goals (Eccles et al., 1983; Greene, Miller, Crowson, Duke, & Akey, 2004; Miller & Brickman, 2003, 2004; Wigfield & Eccles, 2000). Despite commonality in these significant constructs, no research has been conducted on the relationship between student participation in Type III Enrichment and achievement orientation attitudes and behaviors. This study seeks to fill this gap by exploring Type III Enrichment through the lens of the AOM (Siegle & McCoach, 2005).

The purpose of this qualitative case study is to build understanding of the relationship between participation in Type III Enrichment and achievement orientation attitudes and the resultant behavior (self-regulation) of secondary school gifted and talented students as perceived by student participants, their parents, and their enrichment teacher. Achievement orientation attitudes include self-efficacy, goal valuation, and environmental perceptions.
CHAPTER 2: REVIEW OF THE LITERATURE

This research seeks to build overall understanding of academic enrichment and the relationship between participation in academic enrichment and achievement orientation attitudes and resultant behavior of secondary gifted and talented students. This understanding is created through an examination of student, parent, and teacher perceptions of enrichment experiences. To provide background information pertinent to this study, I will first review literature concerning academic acceleration and academic enrichment as a means of addressing the needs of gifted and talented students. After describing academic acceleration and academic enrichment, I will create a context for the focus of this study, Type III Enrichment, through an exploration of the Enrichment Triad Model (Renzulli, 1977) and the Schoolwide Enrichment Model (SEM; Renzulli & Reis, 1985, 1997, 2014). Finally, I will describe the AOM (Siegle & McCoach, 2005) and the related psychological constructs that serve as outcome measures for this study, specifically self-efficacy, goal valuation, environmental perceptions, and self-regulation.

Approaches to Intervention: Acceleration and Enrichment

Academic acceleration and academic enrichment are two approaches to intervention that help to meet the academic, social, and emotional needs of gifted and talented children. Acceleration can include advanced instruction or faster paced instruction, such as grade skipping or part-time grade acceleration, standard curriculum at a younger age or in lower grades, and/or faster-paced curriculum (Schiever & Maker, 2003). In addition, acceleration can also include early admission, Advanced Placement (AP) courses, International Baccalaureate (IB) programs, and Talent Search programs. In contrast, enrichment programs offer modified or enriched learning experiences with greater depth or breadth (Schiever & Maker, 2003). Fox (1979) differentiated between acceleration and enrichment as follows:
Any strategy that results in advanced placement or potential credit will be titled *acceleration*; strategies that supplement or go beyond standard grade-level work, but do not result in advanced placement or potential credit, (that is, anything else), will be called *enrichment*. (p. 104)

Comparatively, Davis et al. (2011) state:

> Acceleration implies moving faster through academic content, which typically includes offering standard curriculum to students at a younger-than-usual age. Enrichment refers to richer and more varied educational experiences, a curriculum that is modified to provide greater depth and breadth than is generally provided. (p. 125)

Additionally, Renzulli and Reis (2014) describe differences between acceleration and enrichment as follows:

> Acceleration enables students to engage in content that is appropriately challenging by joining students in a higher grade-level class or by doing advanced curricular materials while in the same class, a form of content acceleration (p. 256), while enrichment includes providing students with opportunities to develop interests and abilities based on individual learning style and preferred modes of expression.

In the same manner, both acceleration and enrichment can include modifications to either service delivery components or curriculum for the purpose of meeting the special needs of advanced learners (Schiever & Maker, 2003). In spite of being means to the same end, however, while major researchers in the field of gifted and talented education largely agree that academically capable students benefit from academic acceleration (Gross, 2006; Kell et al., 2013; Kulik, 2004; Lubinski & Benbow, 2006; Olszewski-Kubilius, 2002; Swiatek, 2007), such consensus does not exist with regard to enrichment. One reason for this limited support may be
the lack of research indicating the effectiveness of enrichment programs (Borland, 2012).

According to Borland (2012):

There is ample evidence that acceleration, as a means of differentiating instruction for high-ability students, does what it is intended to do: match content to the instructional needs of advanced students (see, for example, Colangelo, Assouline, & Gross, 2004). Similar evidence that enrichment is an effective means of meeting goals, other than the goal of providing enrichment, is exiguous at best. (n.p)

Despite this criticism, many researchers continue to support enrichment as a means of meeting the special needs of gifted students, although most frequently in combination with acceleration practices (Davis et al., 2011; Renzulli, 1997; Sisk, 1997; Schiever & Maker, 2003).

For example, according to Schiever and Maker (2003), “enrichment and acceleration are complementary components of a comprehensive curriculum for gifted learners” (p. 167) and according to Davis et al. (2011), “any well-rounded, coherent, and long range gifted and talented program will provide both, enrichment and acceleration opportunities” (p. 126). Even Borland (2012) concedes that occasionally public schools have enrichment programs with “substance, academic rigor, and a logical curricular sequence . . . that do great things for gifted students year after year” (n.p.).

Although the distinction between academic acceleration and academic enrichment is made clear in the literature, less clear is the optimal approach for educating gifted and talented students, specifically the optimal relationship between academic acceleration and academic enrichment. Research into this relationship is needed to inform gifted educational practices, as unmet needs of gifted and talented students may result in underachievement (Colangelo, 2002; Siegle, 2013).
Academic Acceleration

As stated earlier, types of academic acceleration include grade skipping, subject skipping, early admission, Advanced Placement (AP) courses, International Baccalaureate (IB) programs, and Talent Search programs. Copious research pertaining to these practices indicates that the long-term effects of acceleration on gifted children are positive (Foust, Hertberg-Davis, & Callahan, 2009; Gross, 2006; Kell et al., 2013; Kulik, 2004; Lubinski & Benbow, 2006; Olszewski-Kubilius, 2002; Swiatek, 2007). For example, Gross (2006) conducted a 20-year longitudinal study on 60 accelerated and nonaccelerated young Australians with IQs above 160. Findings indicated that radically accelerated gifted students had no regrets, won prestigious academic prizes, earned advanced academic degrees, and formed “warm, lasting, and deep friendships” (p. 415). In contrast, gifted and talented students who were not academically accelerated suffered from boredom and lack of social inclusion, had difficulties in school, suffered from depression and the imposter syndrome, and academically underachieved (Gross, 2006). A review of research conducted by Olszewski-Kubilius (2002) on the social and academic performance of early college entrants had similar findings, concluding that early entrants adjusted well socially and “continue to achieve at high levels” (p. 152).

Talent Searches

Talent searches are one method for meeting the needs of gifted and talented students through acceleration. Decades of extensive research on talent searches indicate that gifted and talented students benefit from participation and that the positive effects garnered from participation appear to sustain over time. For example, Lubinski and Benbow (2006) conducted a 35-year longitudinal study on 5,000 graduate and former talent search students. Results of the study indicated that, “special educational opportunities enhance the development of talent”
(Lubinski & Benbow, 2006, p. 316). More specifically, talent search participants were more likely to become tenure track professors and earn higher salaries than graduate students who were not talent search participants. Results of studies by Swiatek (2007) and Kell et al. (2013) supported these findings. Swiatek conducted a review of research on talent search programs and concluded “talent searches are considered by experts to be best practice within the field of gifted education” (p. 327). Additionally, Kell et al. conducted a study that included 320 former talent search participants who detailed occupational and creative accomplishments by age 38.

Consistent with Lubinski and Benbow and Swiatek, Kell et al. found that “many [former talent search participants] are outstanding creators of modern culture, constituting a precious human-capital resource” (p. 648).

**Advanced Placement (AP) and International Baccalaureate (IB)**

While overall research on academic acceleration, early entrance, and talent searches indicate positive results for participants, in comparison the results of research on AP and IB programs have produced mixed results. For example, the results of a qualitative study conducted by Foust et al. (2009) to assess the effects of participation in AP and IB courses on 84 students indicated that students enrolled in AP and IB programs benefitted from an improved learning environment, respectful relationships with teachers who were better prepared to meet their needs, comfort with classmates resulting in a special bond, and pride and self-confidence as a result of challenging coursework. Perceived disadvantages, however, included increased stress, fatigue, and isolation from non-AP or non-IB peers.

In summary, the overall results of research conducted on the various methods of academic acceleration indicate positive results. It should be noted, however, that imbedded within these results are also indications that suggest that academically talented students may
benefit from enrichment as well as acceleration, specifically with regard to interest, choice, and learning environments. For example, in reference to learning environments, Olszewski-Kubilius (2002) stated that academically accelerated secondary school students “. . . do not perceive the [high school] social environment to be especially supportive” (p. 156) and Gross (2006) found that gifted and talented students who experienced social rejection “deliberately underachieved for peer acceptance through much of their school career” (p. 425). In reference to interest and choice, Olszewski-Kubilius stated that in addition to acceleration, gifted students should also receive opportunities for early career counseling and Gross stated, “. . . we should not require young people with multiple talents to make decisions regarding specialization before they have explored possible pathways through which several of their talents might be optimized” (p. 425). These findings provide additional support for a blended approach to intervention for gifted students.

Academic Enrichment

As with types of academic acceleration, there are also numerous types of enrichment programs, including pullout programs, Saturday and summer programs, enrichment clusters, special schools, and even just modified, enhanced, or differentiated assignments.

Pullout Programs

With regard to elementary school students identified as gifted, the most commonly implemented method of enrichment is the pullout program (Callahan, Moon, & Oh, 2014; Borland, 2012; Swiatek & Lupkowski-Shoplik, 2003), which is a program where high ability students are taken from their mixed ability classroom to spend time with peers of similar high ability. The focus of the pullout program is usually enriching curricular extensions. Two organizational benefits that may account for the popularity of pullout programs include ease of
implemen
tation and cost effectiveness. For example, because students are pulled out of regular classes, there is no need to restructure the school schedule. Additionally, the pullout model allows for one teacher to serve many gifted students, often in different school buildings. Therefore, benefits of pullout programs include limited disruption of the school day for general education students and cost-effectiveness in terms of school budgets.

Several studies have found positive effects for students in pullout programs (Dimitriadis, 2011; Gubbels, Segers, & Verhoeven, 2014; Yang, Gentry, & Choi, 2012). These positive effects include higher levels of student interest, challenge, and enjoyment (Yang, Gentry, & Choi, 2012), higher levels of academic achievement (Dimitriadis, 2011; Vaughn, Feldhusen, & Asher, 1991), and positive effects on attitudes (Dimitriadis, 2011). For example, Dimitriadis (2011) conducted a study comparing attitudes and achievement of mathematically gifted students in a pullout program to those receiving within-class provisions, including grouping and setting. Within-class provisions consisted of ability groups and differentiated curricula, while setting included grouping students by ability but without differentiated curricula. Results of the study indicated that students in the pullout program had more positive attitudes and higher achievement gains than students who were grouped by ability within the regular classroom, regardless as to whether the curriculum was differentiated. Reasons for these differences may have been due to the fact that differentiation and enrichment were better achieved in the pullout programs, which added more depth and complexity to the mathematics. For instance, the pullout programs included different and more challenging work than the regular classroom. Additionally, the pullout programs had smaller group sizes that allowed for more interaction with the teacher, more time for thoughtful work, and less distractions. One observation of concern regarding the within class programs, which had more students than the pullout programs, was
that the teacher was more “attentive to the lower-ability children, leaving the higher-ability ones neglected all the time” (Dimitriadis, 2011, p. 255). This leads to a final common contributing factor to successful enrichment programs; successful enrichment programs had teachers trained in gifted education (Dimitriadis, 2011).

Despite these positive findings, the pullout program is often criticized for curricular and structural shortcomings. For example, according to Borland (2012), pullout programs lack a scope and sequence for curriculum and instead, employ a hodge-podge of activities that do not connect to the regular curriculum. Additional disadvantages include a limited amount of time for students to engage in enrichment and disruption of the regular class.

**Saturday and Summer Programs**

Saturday and summer programs are yet another enrichment approach to intervention. Opportunities for Saturday and summer programs for gifted children are supported by many major universities, including Mentor Connection at the University of Connecticut, the Center for Gifted Education (CFGE) at William and Mary, the Gifted Education Resource Institute (GERI) at Purdue University, and the Center for Talent Development (CTD) at Northwestern University, to name a few. Additionally, the Center for Youth Enrichment and Talented & Gifted Education (YETAG) at the University of Oregon offers enrichment programs for gifted learners in grades K-8 year round. In keeping with enrichment programs overall, such Saturday and summer enrichment programs offer academically challenging programs that allow academically capable students to explore specialized topics not necessarily covered by classroom curricula. In a study conducted by Olszewski-Kubilius and Lee (2004) regarding parent perceptions of the effects of attending a Saturday enrichment program at the Center for Talent Development at Northwestern University on their child’s talent development, survey responses from 187 parents indicated that
parents perceived that their children gained skills, knowledge, competence, and were more motivated and more interested after attending the Saturday program than before attending the Saturday program. Additionally, following the students’ attendance in the Saturday program, parents had increased academic expectations of their children. The children in the study ranged from grade 4 to grade 12.

**Enrichment Clusters**

Different from Saturday and summer programs, enrichment clusters involve groups of students with a common interest who come together during the school day to work with an adult mentor who has knowledge and expertise in that area. Enrichment clusters can be organized around special topics, content, themes, skills, interests, or just questions posed by students in the cluster. Positive results from enrichment clusters include the use of authentic and advanced methodologies, and the transference of those methodologies into the regular classroom (Reis, Gentry, & Maxfield, 1998; Reis, Gentry, & Park, 1995). Additionally, research indicates that parents, students, and teachers have positive perceptions of enrichment clusters (Fiddyment, 2014; Morgan, 2007). In a qualitative case study involving two enrichment specialists who coordinated enrichment clusters, Fiddyment (2014) found that the specialists had positive perceptions of enrichment clusters and believed that clusters provided a positive experience for both faculty and students.

**Special Schools**

Special schools, such as residential high schools, STEM schools, and Governors schools, are yet another means of meeting the special needs of gifted students. Such schools generally provide curriculum and instruction that more closely resemble college curriculum and instruction than that of the regular high school. For example, residential schools are more likely to have
rigorous academics and homework demands and to incorporate research, seminars, mentorships, and community service into the learning process. In addition, residential schools often offer a wide variety of extra curricular and campus activities and provide social support aids for the successful adjustment of students (Rapp, 2008). According to Stamps (2006), such schools provide gifted and talented students with innovative learning experiences in a unique environment designed specifically to meet their special needs. To illustrate, residential schools offer an enriched, well-rounded, and advanced curriculum; challenge students with extensive research programs; and integrate research, writing, critical thinking, interdisciplinary projects, and technology throughout the curriculum. Additionally, although academics are the main focus, many gifted students who attend residential schools “blossom into confident and independent individuals because they are educated with other students with similar abilities and passions” (n. p.).

One criticism launched at residential programs for gifted students includes that there is very little evidence to support that such programs are effective over time (Green, 1993; Rapp, 2008). Cross and Swiatek (2009) address this criticism in a longitudinal study of the social coping behaviors of 300 academically gifted students upon entering a state funded residential school for gifted adolescents. Although power was a factor, results of the study, which used pre- and post-test measures on the social coping questionnaire (SCQ; Swiatek, 2001), indicate that students attending the state-funded residential school for gifted adolescents were more likely to deny their giftedness and tended to report less social interaction after a year of academy enrollment than before enrollment. Results also indicated, however, that participants saw themselves as better accepted by their academy peers than they had been by peers in their previous high schools. Furthermore, results indicated that, “students relied less on extracurricular
activities to define themselves and identify potential friends at the academy than they did at their previous high schools” (Cross & Swiatek, 2009, p. 31). These findings suggest that students became more humble about their own academic ability after attending the residential academy and being homogeneously grouped with high ability classmates did not lower their personal perceptions of self.

Overall, the implications of this review of literature contradict statements that gifted and talented students do not benefit from participation in enrichment programs. Implications are that students who participate in enrichment programs experience challenge, gain skills, and benefit from positive peer relationships. In addition, students who participate in enrichment programs have better attitudes and higher levels of interest than those who do not participate in enrichment programs.

The Schoolwide Enrichment Model

Based on the Three Ring Conception of Giftedness (Renzulli, 1978), which posits that gifted behaviors are the manifestation of a combination of three interacting traits, including above average ability, creativity, and task commitment, The Schoolwide Enrichment Model (SEM; Renzulli & Reis, 1985, 1997, 2014) is an organizational plan for delivering enrichment and acceleration through an integrated continuum of services (see Figure 1). According to Renzulli and Reis (2014), this continuum of services is designed to meet the diverse academic, social, and emotional needs of gifted and talented learners. As such, the SEM includes both, administrative and theoretical components. For clarification, the administrative component of the model pertains to organizational elements that help the program run smoothly, such as when and where gifted students will be served. Comparatively, the theoretical component pertains to pedagogical elements that support quality experiences for students, such as instructional
practices and content of the curriculum. According to Renzulli and Reis (2014), the SEM “... is designed to improve academic achievement, student engagement in the learning process, and the professional skills and enthusiasm of teachers and principals seeking to infuse a more engaging brand of learning into their regular curriculum” (p. 38).

Research on the SEM over the past 30 years has indicated its effectiveness as perceived by key groups, such as principals (Olenchak, 1988). Additionally, research has also indicated the effectiveness of the model on student creative productivity (Burns, 1987; Delcourt, 1993; Gubbins, 1982; Reis & Renzulli, 1982; Starko, 1986), student personal and social development (Olenchak, 1991), and student self-efficacy (Schack, 1986; Schack et al., 1991; Starko, 1986).

At the heart of the SEM is the pedagogical model, called the Enrichment Triad Model (see Figure 2.2; Renzulli, 1977; Renzulli & Reis, 1985, 1997, 2014). The Enrichment Triad Model (Renzulli, 1977; Renzulli & Reis, 1985, 1997, 2014) is composed of three different types of enrichment called Type I, Type II, and the focus of this study, Type III Enrichment. According to Renzulli and Reis (2014), the use of Type I, Type II, and Type III Enrichment
promotes engagement and educational experiences that are enjoyable, challenging, and interest-based.

Figure 2.2. The Enrichment Triad Model. Reprinted with permission from Prufrock Press.

Type I Enrichment includes general exploratory activities designed to inspire students by exposing them to a variety of topics not covered in the regular curriculum. Examples of Type I Enrichment activities include guest speakers, demonstrations, performances, field trips, and movies (Renzulli & Reis, 2014). The purpose of Type I Enrichment is to expose students to activities that can stimulate new interests and consequently lead to increased motivation and internal commitment. Furthermore, for an experience to be considered a Type I, interested students must be provided with opportunities for follow up explorations.

Correspondingly, Type II Enrichment is designed to promote thinking and feeling processes that involve “individual and group training activities in a variety of cognitive, meta-cognitive, methodological, and affective skills” (Renzulli & Reis, 2014, p. 28). These are knowledge and process skills that include: (a) cognitive training, (b) affective training, (c) learning-how-to-learn training, (d) research and reference procedures, and (e) written, oral, and visual communication procedures. Cognitive thinking skills include creative, critical, logical
thinking, and problem solving, while affective skills include character development, interpersonal skills, and intrapersonal skills. How-to skills include the ability to listen, observe, perceive, read, take notes, outline, interview, survey, analyze, and organize data. Research skills include the ability to find and analyze sources, while written, oral, and visual communication procedures refer to the ability to effectively communicate findings in a multitude of ways. Furthermore, Type II Enrichment may be planned in advance, may arise in response to student interest, or may be necessitated by a student’s involvement in a Type III Enrichment activity.

Type III Enrichment involves “students who become interested in pursuing a self-selected area and are willing to commit the time necessary for advanced content acquisition and process training in which they assume the role of a first-hand inquirer” (Renzulli & Reis, 1997, p. 15). Many times these interests result from a student’s participation in a Type I Enrichment activity. Additionally, Type III Enrichment is a real-life investigation or creative production that encourages students to think, feel, and act like a practicing professional. Furthermore, Type III Enrichment is based on individual student interest, includes a real product for an authentic audience, and has methodological Type II skills embedded in the process. Additionally, according to Renzulli and Reis (2014), Type III Enrichment activities encompass four objectives:

1. To acquire advanced-level understanding of the knowledge and methodology used within particular disciplines, artistic areas of expression, and interdisciplinary studies
2. To develop authentic products or services that are primarily directed toward bringing about a desired impact on one or more specified audiences
3. To develop self-directed learning skills in the areas of planning, problem finding and focusing, management, cooperativeness, decision making, and self-evaluation
4. To develop task commitment, self-confidence, feelings of creative accomplishment, and the ability to interact effectively with other students and adults who share common goals and interests. (p. 28)

In addition to the infusion of rigorous methodologies into the process, Type III Enrichment differs from other enrichment activities in that the many available research-based forms, including the Secondary Interest-A-Lyzer (Hébert, Sorensen, & Renzulli, 1997; Renzulli, 1977; see Appendix A), Management Plan (Renzulli & Smith, 1981; see Appendix B), and Student Product Assessment Form (SPAF; Reis, 1981; Renzulli & Reis, 1981; see Appendix C) provide a structure that supports fidelity of implementation. Additional forms recommended by Renzulli and Reis (2014) for use with Type III Enrichment include the Student Product Self Evaluation Sheet (see Appendix E) and the Parent Evaluation of Student Product Form (see Appendix F), which are short answer surveys that facilitate assessment of Type III Enrichment through perceptions of student participants and their parents. Benefits of using this structured process include helping students to identify areas of personal interest, personal learning strengths, styles, and preferences, and to support the development of student self-regulation. Additionally, participation in Type III Enrichment encourages the development of task commitment, self-confidence, feelings of creative accomplishment, and the ability to interact effectively with others (Renzulli & Reis, 1997).

While the above information provides insight into the Enrichment Triad, specifically Type I, Type II, and Type III Enrichment, the following illustration from Renzulli and Reis’s (2014) book *The Schoolwide Enrichment Model: A How-to Guide for Talent Development*, provides a clarifying example the Enrichment Triad Model in practice:

A group of sixth-grade students were exploring various career areas of their choice (Type
I). The youngsters looked up information about educational requirements, salary range, working conditions, etc. and were in the process of preparing posters for display throughout the school. Ellen was interested in design and wanted to become an art teacher. When asked if she would like to develop some lessons and teach various aspects of design to small groups of second and third graders, she literally glowed with enthusiasm. A single question had opened the door to a possible Type III experience.

With the appropriate methodological and managerial assistance, she could be “thinking, feeling, and doing” like a practicing professional in a matter of weeks. (p. 182)

Ellen’s plan to create lesson plans and teach a lesson is an example of a prospective Type III Enrichment project because Ellen was interested in the topic, Ellen was creating a real world product (lessons) for a real world audience (second and third graders), and she would be acting, thinking, and doing like a real-world professional. In addition, the creation of the lessons and the act of teaching other students would require Ellen to employ learning methodologies, such as research methodologies, how-to skills, and communication skills.

Research Related to Type III Enrichment

Considerable research has been conducted linking participation in Type III Enrichment with positive academic and nonacademic outcomes (Baum, 1988; Delcourt, 1988, 1994; Hébert, 1993; Schack, 1986; Starko, 1988; Westberg, 2010). Hébert conducted a longitudinal study on the retrospective perceptions of nine high school seniors regarding their elementary school Type III Enrichment projects. Results of the study indicated that elementary school students’ Type III interests affected postsecondary plans. Additionally, findings indicated that the use of the Management Plan (Renzulli & Smith, 1981) during Type III Enrichment had long-term effects on the students’ ability to manage their time and set goals (self-regulate). Furthermore, results
indicated that students who participated in Type III Enrichment continued to demonstrate task commitment and creativity over time. Comparatively, results of a longitudinal study conducted by Westberg (2010) to investigate the relationship between students’ early interests and their subsequent vocations indicated a relationship between students’ early interests as depicted in their elementary school Interest-A-Lyzer (Renzulli, 1977) and subsequent interests 15 years later. Findings from both Hébert (1993) and Westberg (2010) supported those of two earlier studies conducted by Delcourt (1988, 1994), which indicated a link between participation in Type III Enrichment and high school students’ career aspirations.

Findings of studies conducted by Schack (1986), Starko (1986, 1988), and Schack et al. (1991) indicated a relationship between participation in Type III Enrichment and self-efficacy. Starko (1986, 1988) compared seventh and eighth grade students who participated in a Revolving Door Identification Model (RDIM; Renzulli, Reis, & Smith, 1981) with seventh and eighth grade students who were identified as gifted but did not participate in the RDIM. In addition to advocating for the identification of a larger percentage of the student population than traditional gifted programs, the RDIM uses the Enrichment Triad, and specifically Type III Enrichment, as its foundation. The mixed methods study included 58 identified and served gifted and talented seventh and eighth grade students and 44 identified but unserved gifted and talented seventh and eighth grade students from a neighboring district. Using qualitative analysis, findings indicated that “students participating in a RDIM program perceive Type III projects as influencing career plans, work habits and study skills, and attitude toward school more frequently than comparable students describing their most challenging school projects” (Starko, 1988, p. 296). In addition, qualitative results indicated a relationship between participation in Type III Enrichment and increased self-efficacy with regard to creative productivity. Initially,
results of a quantitative analysis using hierarchical linear modeling supported the qualitative findings, however, in contrast to the qualitative findings and initial quantitative findings, follow up analyses by Starko (1988) indicated that students in the RDIM group did not have higher self-efficacy than those in the comparison group.

Schack (1986) conducted a study of 294 gifted students in grades 4 through 8 who were all participants in a gifted program based on the Enrichment Triad Model. Student self-efficacy as creative producers was measured using the Efficacy Scale for Creative Productivity (ESCreP), a researcher developed instrument. The purpose of the study was to examine the effects of participation in a research methodology mini-course on both student self-efficacy and the number of Type III investigations initiated. Schack (1986) hypothesized that students would have higher self-efficacy and initiate more Type III projects after participation in the mini-course. Self-efficacy was measured at three points, prior to the intervention, immediately following the intervention, and at the end of the school year. Data were analyzed using stepwise multiple regression. Contrary to researcher expectations, findings indicated a negative correlation between participation in the research methodology mini-course intervention and student self-efficacy, as opposed to the positive correlation that was hypothesized. However, despite results indicating that the methodological Type II intervention failed to increase self-efficacy as hypothesized, results of the study did indicate that students “who participated in a Type III ended up feeling more confident of their abilities to do Type III’s” (Schack, 1986, p. 67).

Limitations in this review of literature pertaining to Type III Enrichment include a lack of current research, the broadness of Type III Enrichment as a construct, and limited sample populations. The majority of studies pertaining to Type III Enrichment activities were conducted in the late 1980s and early 1990s, with little current research. Additionally, Type III Enrichment
activities include differentiation of idea, process, and product and as such, encompass a wide range of behaviors, extensiveness, and quality. Furthermore, only one of the studies had a sample that included secondary school gifted and talented students.

**Achievement Orientation Model (AOM)**

The Achievement Orientation Model (AOM; Siegle, 2013; Siegle & McCoach, 2005) asserts that individuals’ motivation is regulated by self-perceptions and positive attitudes within three domains, including self-efficacy, goal valuation [meaningfulness], and environmental perception. Subsequently, motivation regulates task engagement and academic achievement (see Figure 3).

**Self-Efficacy**

According to Bandura (1986), individuals must believe that they have the skills to be successful at tasks before they will attempt them. Also according to Bandura (1986), individuals’ beliefs in their skills or their ability to perform tasks in general come from four sources: past performances, vicarious experiences, verbal persuasion, and physiological cues. The following quote by Mahatma Gandhi (2001) personifies self-efficacy:

> Man often becomes what he believes himself to be. If I keep on saying to myself that I cannot do a certain thing, it is possible that I may end by really becoming incapable of doing it. On the contrary, if I have the belief that I can do it, I shall surely acquire the capacity to do it even if I may not have it at the beginning. (p. 62)
Past performances. Sometimes referred to as enactive attainment or mastery experiences, previous experiences and performances have the strongest impact on individuals’ beliefs about their skills. Those who have been successful in the past tend to believe that they will be successful in the future. Likewise, those who have failed in the past may be reluctant to tackle tasks that they previously found difficult or challenging. Moreover, success requires sustained effort. Exposure to mastery experiences provides students with the opportunity to encounter and overcome obstacles through perseverant effort, which helps them develop a resilient sense of efficacy that allows them to persevere and quickly overcome setbacks in future endeavors (Bandura, 1994).

Vicarious experiences. When students observe someone whom they believe to be at their ability level or lower succeed, they gain confidence in their own ability to be successful. Unfortunately, when they observe someone whom they believe to be at their ability level fail despite high effort, they lose confidence in their own ability. While vicarious experiences do not have as strong an impact on efficacy beliefs as mastery experiences, vicarious experiences can strengthen or weaken beliefs based on mastery experiences and produce “significant and enduring change” (Bandura, 1986, p. 400).
Verbal persuasion. Parents and educators hold higher expectations for students who have been identified as gifted and often tell them that they can and should perform better (Milsom, 2004). This verbal persuasion can be both effective and damaging. Verbal persuasion can be effective if the person offering the encouragement is valued and viewed as credible by the student (Schunk, 1989), and the student experiences success shortly after receiving the encouragement. Additionally, verbal persuasion can help people to overcome self-doubt and put forth sustained effort (Bandura, 1986). However, verbal persuasion can also be damaging, particularly if it consists of unrealistic beliefs about the student’s competency that leads to failure (Bandura, 1986), or if it consists of negative comments about the student’s ability. When students receive negative comments regarding their ability they are more likely to develop non-efficacious behaviors, such as avoidance of challenging activities and quitting when faced with obstacles.

Physiological cues. Finally, physiological cues are mental or physical cues that can prompt students to doubt their ability to perform well. Examples of mental cues include stress reactions, such as nervousness or tension, while examples of physical cues include aches, pains, and fatigue. Students often view physiological cues as indicators that they are not capable of performing a given task, which can cause them to doubt their ability to perform well. A student who is able to control or eliminate stress-induced physiological cues increases perceived self-efficacy and improves performance (Bandura, 1986).

Goal Valuation

Gifted and talented students may underachieve because they do not find school meaningful, useful, important, enjoyable, or interesting. In addition, meaningfulness may be diminished due to the fact that many gifted students have already mastered content they
encounter (Reis et al., 1993) or because they do not find the material or instruction they are receiving intellectually stimulating (Siegle & McCoach, 1999).

In addition to being meaningful, useful, important, enjoyable, or interesting, goal valuation can also refer to the perceived current or future value of a task. According to Eccles and Wigfield (1995), people value tasks for one of four reasons: they are personally interested in the task; their identity is tied to the task; they view the task as something that is immediately useful; or they view the task as useful in the future. Motivated individuals tend to enjoy what they are doing or believe that what they are doing will produce beneficial results. They may also view what they are doing as useful now or in the future.

**Environmental Perceptions**

Environmental perceptions within the AOM refer to how a student perceives his or her environment. Specifically, these perceptions include goodness of fit between the child and the environment, including curriculum and relationships with others. These others can include teachers, parents, peers, and/or community members and according to Siegle and McCoach (2005), these perceptions affect students’ internal motivation. This claim is supported by research (Winton, 2013). For example, Winton (2013) found that gifted underachievers fixated on relationships with parents, teachers, and peers, that the presence of a positive relationship supported the students’ intrinsic motivation, and that when students did not believe teachers or peers cared about them, it adversely affected their motivation. Similarly, Robinson, Reis, Neihart, and Moon (2002) stated that most gifted students who encounter challenges, including social and emotional problems related to their giftedness, do so because they “live in environments that serve them poorly” (p. 267). According to Siegle and McCoach (2005), for individuals to stay motivated, they must expect to succeed, know that those around them will
support their efforts, trust that their efforts will not be thwarted by external factors, and trust that putting forth effort is not a waste of time and energy.

**Self-Regulation**

Self-regulation is the ability to monitor and control our own behavior, emotions, or thoughts, altering them in accordance with the demands of the situation. It includes the abilities to inhibit first responses, to resist interference from irrelevant stimulation, and to persist on relevant tasks even when they do not enjoy them. In other words, self-regulation is a student’s ability to effectively complete necessary and/or required tasks as opposed to doing tasks he or she may find preferable, for example can he or she stop playing video games and complete his or her homework when he or she needs to?

According to the AOM, self-regulation can be classified into three categories: (a) self-management strategies, (b) personal standards, and (c) self-monitoring (Siegle & McCoach, 2005). Examples of self-management strategies include study skills such as note-taking, outlining, and mnemonics, in combination with organizational skills, including creating schedules and using binders, folders, and organizers. Personal standards include setting high standards, or standards aligned with or slightly above personal ability. Self-monitoring refers to a student’s ability to monitor his or her own distractibility, practice-delayed gratification, and to be aware of performance avoidance or procrastination.

**Research on the AOM**

Although a relatively new model, research conducted on the AOM supports its validity (Ritchotte, Matthews, & Flowers, 2014; Rubenstein, Siegle, Reis, McCoach, & Burton, 2012). The model posits that motivation is a combination of a student’s self-perceptions regarding self-efficacy, goal valuation [meaningfulness], and environmental perceptions. The model also posits
that motivation directly affects self-regulation, which in turn affects academic achievement. Based on this, if a student has a low attitude on any one of the three constructs, motivation will be adversely affected, which in turn will adversely affect self-regulation and thereby increase the possibility of underachievement. Rubenstein et al. (2012) conducted two intervention studies testing the validity of the AOM. Phase 1 of the first study included 30 middle school gifted students identified as underachievers; 24 received personalized interventions and six were randomly assigned to a control group. After 6 to 9 weeks, a comparison of the intervention and control group indicated that both groups had increases in academic achievement; however, increases for the intervention group were greater. Neither group’s increase was statistically significant. For phase II of the study, 10 students were added to the treatment group. After 6 to 9 weeks of intervention, a comparison was made between treatment types. Findings indicated that students receiving interventions for self-efficacy and self-regulation showed little to no academic improvement while students receiving interventions for goal valuation and environmental perceptions showed the greatest academic improvement. The results of a fifth treatment that incorporated interest-based projects and classroom modifications using curriculum compacting, which are elements of the SEM, showed a slight increase in academic growth as measured by grades. Indications were that gifted students who did not value the goals of school and did not believe school was meaningful benefitted the most from AOM interventions and that making school more meaningful may have helped to reverse underachievement.

Study 2 was a mixed methods study of three gifted underachievers. Qualitative data consisted of interviews with the three students, the classroom teacher, and parents. Quantitative data consisted of weekly grades and information on classroom engagement. The intervention included promoting student autonomy and choice through Project Atlas (Autonomous Thinkers
Learning as Scholars). Project Atlas allowed students to differentiate all levels of learning, including content, process, and product. Results indicated that environmental perceptions affected achievement; specifically that a student’s home life affected a student’s school life and that exposure to caring adults may have affected academic achievement. Conversely, only one of the three students in the study took advantage of the opportunity to propose an alternative assignment. Nevertheless, for this one student the intervention was successful; her grades, confidence, attitude toward school, and self-regulation improved. Implications were that individual student characteristics might have affected the efficacy of differentiation as a response to underachievement.

Furthering research related to the AOM, Ritchotte et al. (2014) used a combination of subscales from the School Attitude Assessment Survey-Revised (SAAS-R; McCoach & Siegle, 2003), Challenges to Scholastic Achievement Scale (CSAS; McCoach, Picho, & Baslanti, unpublished manuscript), and the Engagement versus Disaffection with Learning Support–student report (EvsD; Skinner, Kinderman & Furrer, 2009) to measure the constructs of task meaningfulness, self-efficacy, environmental perceptions, self-regulation, and engagement of 156 mathematically gifted sixth and seventh grade students. In support of the AOM, results indicated that underachieving gifted middle school students had lower mean scores on all three constructs of the AOM than did achieving gifted middle school students. In addition, “gifted underachievers were 2.9 times more likely to have poor attitudes toward one of the constructs that comprises motivation when compared with gifted achievers” (Ritchotte et al., 2014, p. 194).

In addition to studies conducted by Ritchotte et al. (2014) and Rubenstein et al. (2012), Siegle, McCoach, and Shea (2014) applied the AOM to assess teacher job satisfaction. Similar to the AOM as a predictor of motivation for gifted students, the researchers hypothesized that the
AOM would also be a predictor of motivation for teachers and that motivation would likewise be an indicator of teachers’ job satisfaction. To this end, the researchers designed the *Factors Related to Job Satisfaction Survey-R* (2014) to measure self-efficacy, goal valuation, environmental perceptions, and teacher job satisfaction. After an exploratory factor analysis with 175 educators in the Northeast, the researchers conducted a confirmatory factor analysis with 139 educators in the Northwest. The resultant 13-item survey exhibited acceptable fit: $\chi^2 (62) = 114.827$, $p < .001$, comparative fit index = 0.96, root mean square error of approximation = 0.08, and Tucker-Lewis index = 0.94 (Siegle, McCoach, & Shea, 2014). Using data from the exploratory factor analysis (Sample 1), results indicated that standardized scores for the three constructs were predictors of teacher job satisfaction ($R^2$ of 53.8%), however, self-efficacy alone as a predictor was not statistically significant. Additionally, the environmental perceptions subscale and job satisfaction were the most highly correlated ($r = .0699$), and environmental perceptions alone explained about 48.8% of the variance in teacher job satisfaction. Results of regression analysis with Sample 2 yielded similar results; self-efficacy was not statistically significant as a predictor of job satisfaction while the environmental perceptions subscale explained 32.9% of the variance in teacher satisfaction. Thus, as with Sample 1, the environmental perceptions subscale was once again clearly the strongest predictor of teacher satisfaction. In contrast, after controlling for environmental perceptions in Sample 2, meaningfulness and job satisfaction were negatively correlated as opposed to positively correlated as in Sample 1. In light of these findings, contrary to the hypothesized relationship, the three constructs of the AOM did not hold equal importance as predictors of teacher job satisfaction. One reason for this may be that the outcome measure was satisfaction, as opposed to
achievement. Of interest, however, are results indicating that the environmental perceptions subscale was the single strongest predictor of job satisfaction.

**Summary**

This review of literature provided insight into the complex relationship between academic acceleration and academic enrichment and how both supported the special academic, social, and emotional needs of gifted and talented students. Furthermore, this review of literature indicated that failure to develop achievement orientation attitudes in gifted and talented students can manifest as underachievement, that there may be a relationship between Type III Enrichment and achievement orientation attitudes (Delcourt, 1988, 1994; Hébert, 1993; Schack, 1986; Schack et al., 1991; Starko, 1988; Westberg, 2010), that there is a scarcity of current research pertaining to Type III Enrichment, and that there is a scarcity of current research on secondary school enrichment programs. Overall, information garnered from this review of literature supported the need to build understanding regarding the effects of student participation in academic enrichment, secondary school enrichment, and the focus of this research, Type III Enrichment and achievement orientation.
CHAPTER 3: RESEARCH METHODS

The purpose of this qualitative case study was to build understanding of the relationship between participation in Type III Enrichment and achievement orientation attitudes and resultant behavior of secondary school gifted and talented students as perceived by student participants, their parents, and their enrichment teacher. The following research questions guided the study:

**Research Question 1:** To what degree did student participants engage in authentic Type III Enrichment?

**Research Question 2:** How do secondary school gifted and talented students, their parents or guardians, and the classroom enrichment teacher perceive the relationship between students’ participation in Type III Enrichment and the students’ achievement orientation attitudes, including self-efficacy, goal valuation, environmental perceptions, and the resultant behavior of self-regulation?

**Research Study Design**

The primary goal of this research was to examine the phenomenon of Type III Enrichment as implemented in one secondary school in a diverse suburban New England town and specifically, to understand how participation in Type III Enrichment affected the achievement orientation attitudes and resultant behavior of secondary school gifted and talented students, and participants’ perceptions of that experience. To accomplish this goal, I chose a qualitative case study design (Merriam, 1988). A case study is “a phenomenon of some sort occurring in a bounded context” (Miles & Huberman, 1994, p. 25) with one unit of analysis, such as “one particular program or one particular classroom of learners (a bounded system) . . . selected on the basis of typicality, uniqueness, success, and so forth . . .” (Merriam, 2009, p. 41). According to Merriam (2009), “By concentrating on a single phenomenon or entity (the case),
the researcher aims to uncover the interaction of significant factors characteristic of the
phenomenon” (p. 43).

This research fit the criteria for a case study; the one unit of analysis was a singular gifted
and talented program selected for its distinctiveness as a secondary school enrichment program
with a focus on Type III investigations. The number of student participants in the program bound
the study and the relationship between participation in Type III Enrichment and achievement
orientation attitudes and behaviors was the phenomenon under study. As the researcher, I aimed
to build understanding of the interaction of the significant factors, namely participation in Type
III Enrichment and achievement orientation attitudes, including self-efficacy, goal valuation,
environmental perceptions, and the resultant behavior of self-regulation.

The School and the Participants

The data for this research were collected from students enrolled in one enrichment
program for gifted students at one suburban New England secondary school, their parents, and
their classroom teacher. The school was both purposively and conveniently selected. It was
purposively selected because it is one of few secondary schools with a gifted and talented
program that includes academic enrichment in addition to academic acceleration. Additionally, it
was conveniently selected because the researcher worked in this school from 2004 to 2012, first
as a mathematics teacher and then as the gifted and talented teacher. The self-contained
enrichment class, called the Seminar program, meets for 90 minutes every other day for one
school semester. The Seminar program is not constrained by any one general education
classroom curriculum, but instead follows a procedure whereby content, process, and product are
differentiated to accommodate individual students’ interest and learning strength. In addition, the
Seminar program is modeled on the philosophy of the Schoolwide Enrichment Model (Renzulli
& Reis, 1985, 1997, 2014) and the Enrichment Triad (Renzulli, 1977) and is specifically designed to help secondary school gifted and talented students become creative producers through participation in Type III Enrichment. Although participation in the program was once mandated for all students identified as gifted and talented, in 2014 a policy change was implemented that made participation in the Seminar program optional for students identified as gifted and talented.

The population of the participating school was racially and ethnically diverse with over 69% of the students emanating from culturally diverse backgrounds. According to the school’s 2012-2013 strategic school profile, the entire student body consisted of approximately 1,140 students who represent a wide variety of ethnic and cultural backgrounds: 53% Black or African American, 31% White, 11% Hispanic, 4% American or Pacific Islander and less than 1% American Indian or Alaskan Native. Additionally, each of these subgroups represented a broad range of world cultures. Furthermore, 31% of the students were economically disadvantaged, as indicated by eligibility for free or reduced lunch.

Of the 1,140 students enrolled in the school, approximately 7% were identified as gifted using district-established criteria that included state test scores and teacher recommendations. Distinctive to the district, identification was subject specific; students needed only to excel in one of the four core academic areas, including English, math, social studies, and/or science to be considered gifted. Additionally, the identification criteria for each of these areas varied slightly. As an example, to be identified as gifted in language arts, students needed to score 75 or higher on the Degrees of Reading Power® (DRP), 9 or higher on the Direct Assessment of Writing (DAW), and also have a recommendation from their language arts teacher. The same was true for identification as gifted in social studies; students needed to score 75 or higher on the Degrees
of Reading Power® (DRP), 9 or higher on the Direct Assessment of Writing (DAW), and also have a recommendation from their social studies teacher. For identification as gifted in mathematics, students needed to score a 7 or higher on the Iowa Algebra Aptitude Test and also have a recommendation from their mathematics teacher. Similarly, for identification as gifted in science, students needed to score at goal or advanced on the science section of the state mastery exam and have a recommendation from their science teacher. Once they entered high school, identified students were grouped together in their core academic courses based on their individual academic strengths. The enrichment class, however, was cross curricular; all students identified as gifted were grouped together regardless of their individual academic strengths.

Identification for high school occurred at the end of grade 8 using data from the grade 7 state mastery test, as grade 8 state mastery scores were not yet available. Seventy students were identified for participation in the Seminar program for the 2014/2015 school year. Of those 70 students, 26 were scheduled to participate in the Seminar enrichment course during the fall semester and 44 were scheduled to participate in the Seminar enrichment course during the spring semester. This study was conducted in Fall 2014. Therefore, the population pool for this study included 26 gifted and talented grade 9 students enrolled in the 2014/2015-fall semester enrichment program, their parents, and their teacher. From this population pool, 10 students, 2 parents, and the enrichment teacher elected to participate in this research study. Of the 10 student participants, 6 were female and 4 were male, 5 were White and 5 were non-White. Both parents and the classroom teacher were White females.

**Recruitment and Consent Process**

This qualitative case study was bound by one gifted and talented program in one secondary school; therefore all participants in this study were students from a single district
enrolled in a single program called the Seminar program, their parents or guardians, and their enrichment teacher. To begin the study, I first contacted the school principal and the enrichment teacher and received verbal permission from both to conduct the research. In October 2014, I obtained written permission from the building principal.

After receiving IRB approval on November 21, 2014, I met with the enrichment teacher at the participating high school to obtain her consent as a participant and to establish dates for student and parent recruitment and student interviews. After signing the consent form on November 24, 2014 (see Appendix G), the enrichment teacher was considered a participant. Participation in this study was voluntary, and participants were able to withdraw at any time without penalty.

On November 24 and 25, 2014, I spoke to potential student participants in their enrichment classroom and handed out recruitment materials, including information sheets and parent and student consent forms (see Appendix H and I, respectively). I recruited participants on two different days as there were three different sections of the Seminar course and the participating school used an A day/B day block schedule format; therefore, not all Seminar classes met on the same day. During the classroom recruitment sessions, I explained the study and gave the students recruitment materials as previously described. The students were asked to bring these recruitment materials home and explain the study to their parent(s) and/or guardian(s). Students and parents were given 1 week to return the signed consent and permission forms to the enrichment teacher or mail them directly to me, the researcher, in the self-addresses stamped envelope that I provided. Although there were no costs or direct benefits to participants in the study, student participants were offered a $10 Visa card as a token of appreciation and as an incentive to complete both interviews.
I anticipated that 15 students, 5 parents, and the enrichment teacher would agree to participate, however, at the end of 1 week, only 1 student and the enrichment teacher had agreed to participate. At this point, I used contact information provided by the enrichment teacher to call the parents of students in the Seminar class on the telephone in a random order to explain the study. Because I anticipated that some students might not share information with their parents, and that this might adversely affect enrollment, the process of calling parents after 1 week for recruitment purposes was established protocol outlined in my original IRB, which specifically stated that if I had less than 50% enrollment in December, 2014, I would call parents and/or guardians of potential participants who had not already consented to explain the study and the recruitment process. Therefore, after calling the remaining 25 parents, 6 agreed to enroll their child in the study and 2 agreed to participate themselves.

Because I still did not have 15 student and 5 parent participants as I originally hypothesized, I filed an amendment to the IRB and received permission to set up an information table with recruitment materials at the Seminar program Type III Enrichment Fair in January of 2015. At this event, three more students agreed to participate in the study (See Table 3.1).

**Data Sources**

In this qualitative case study, the experiences of gifted and talented students were analyzed using data collected from multiple sources. The primary data source was student responses in an initial semi-structured approximately 30-60 minute interview and one subsequent approximately 20 minute follow up interview (see Appendices H, I, and J), parent responses in one approximately 30 minute semi-structured interview (see Appendix K), and two semi-structured 30-60 minute interviews with the enrichment classroom teacher (see Appendices L, M, and N). In addition to primary interview data, secondary data included: (a) the Secondary
Interest-A-Lyzer (Hébert, Sorensen, & Renzulli, 1997; Renzulli, 1977; see Appendix A); (b) the Management Plan (Renzulli & Smith, 1981; see Appendix B); (c) the SPAF (Reis, 1981; Renzulli & Reis, 1981; see Appendix C); (d) the Student Product Self Evaluation Sheet (see Appendix D); and (e) the Parent Evaluation of Student Product Form (see Appendix E); and (f) weekly accomplishment plans (see Appendix F). The participating enrichment teacher collected these data from students in the enrichment program as standard educational practice. I elected to include data from interviews with students, the classroom enrichment teacher, and parent or guardian participants to build a more complete understanding of the phenomena under study. In this way, the phenomenon is explored through various perspectives and the experiences of the participants are described using rich and thick descriptions (Merriam, 2009). Additionally, these data, along with field notes from each phase of the research, were used to triangulate data sources, which increased credibility of the findings.

Table 3.1. Participant Demographics and Number of Interviews Conducted

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Gender</th>
<th>Race</th>
<th>Number High Honors Courses</th>
<th>Number of Interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lilly</td>
<td>Student</td>
<td>F</td>
<td>W</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Paris</td>
<td>Student</td>
<td>F</td>
<td>B</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Brianna</td>
<td>Student</td>
<td>F</td>
<td>W</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Alpha</td>
<td>Student</td>
<td>F</td>
<td>B</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Robert</td>
<td>Student</td>
<td>M</td>
<td>W</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Jake</td>
<td>Student</td>
<td>M</td>
<td>W</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Star</td>
<td>Student</td>
<td>F</td>
<td>B</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Axel</td>
<td>Student</td>
<td>F</td>
<td>B</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Jay</td>
<td>Student</td>
<td>M</td>
<td>B</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Charles</td>
<td>Student</td>
<td>M</td>
<td>W</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Teacher</td>
<td>Teacher</td>
<td>F</td>
<td>W</td>
<td>NA</td>
<td>2</td>
</tr>
<tr>
<td>Parent 1</td>
<td>Parent (Brianna)</td>
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<td>W</td>
<td>NA</td>
<td>1</td>
</tr>
<tr>
<td>Parent 2</td>
<td>Parent (Jake)</td>
<td>F</td>
<td>W</td>
<td>NA</td>
<td>1</td>
</tr>
</tbody>
</table>

Note. Pseudonyms were used for participants’ names.
Data Collection

I collected data from student, parent, and teacher participant(s) through semi-structured interview protocols. Use of a semi-structured interview protocol allowed me to ask questions in any order and to use probes (Merriam, 2009). In total, I interviewed 10 student participants, 2 parent participants, and the classroom enrichment teacher. All interviews were audio recorded. Interviews with students were conducted in the school media center of the participating school at a time convenient to the student, including during their scheduled study hall, after school, or during the scheduled Seminar class time. Interviews with adult participants were conducted at a time and in a place of their choice; one was interviewed at her home, while the other was interviewed at the school. Additionally, I interviewed 7 of the student participants two times, once before the Seminar project exhibit and once after the Seminar project exhibit. This allowed me to build understanding of their perceptions of the enrichment process and how these perceptions changed over time. I interviewed an additional 3 students one time only after the enrichment project exhibit. Furthermore, I interviewed the enrichment teacher twice, once before and once after the enrichment project exhibit (see Figure 3.1). Interview times ranged between 20 and 60 minutes.

In addition to interviews, I also collected student work, including research-based forms designed to support students in completing Type III Enrichment and product assessment information.
All interviews were audio recorded by me, the researcher. A transcription service was retained to transcribe the interviews and the transcriber signed a confidentiality agreement (see Appendix R). I coded the information by developing an identity key that linked the subjects’ identity to a code number and only I had access to the code. Consent forms were kept in a locked

Figure 3.1. Interview timeline.

Confidentiality
drawer in the Principal Investigators office. Additionally, I kept all study records locked in a secure location. Audio recordings were not used as part of the dissemination plan for research; they served only as records necessary to transcribe the interviews. Audio recordings were kept on a password-protected device. Once transcribed, the electronic text files were kept on a computer secured with a password. Data collection was confidential, but not anonymous. I have the ability to trace interview data to subject identities.

Participant identities will not be revealed during future presentations of findings, including written or verbal. The participants chose their own pseudonyms and in any published or presented materials, participants will be referred to only by their selected pseudonyms. Researchers other than the principal investigator and the student investigator did not have access to any data that included participants’ names nor the code key. Additionally, the second coder did not have access to any data that included participants’ names nor the code key.

Data Analysis

Research Question 1

To what degree did student participants engage in authentic Type III Enrichment? To answer this question, I used a theory-driven approach of thematic analysis. A theory driven approach allows the researcher to begin with a theory and then to look for indicators that align with that theory (Boyatzis, 1998). The purpose of Research Question 1 was to determine whether and to what degree the program under study was being run with fidelity, and whether and to what degree students enrolled in this enrichment program where engaged in authentic Type III Enrichment. To this end, a deductive approach using an existing code was appropriate (Boyatzis, 1998). The following steps illustrate the process used to develop the theory driven code:
Step 1: Develop a code manual. Before beginning data analysis for this question, I first developed a code manual (Miller & Crabtree, 1992) using theory driven codes derived from literature and research related to Type III Enrichment and the SEM. Throughout this process, three themes or indicators of Type III Enrichment emerged, including personalization of interest, focusing on methodologies, and outlets and audiences. After I identified these codes, I then defined and described them (Boyatizis, 1998), again based on literature and research related to the SEM. Next, I consulted with and received feedback from two content knowledge experts in the field of gifted education to ensure that these codes adequately and accurately reflected the phenomena of Type III Enrichment. Revisions were made based on this feedback. For example, based on content expert feedback, I added category levels to the codebook so that fidelity could be visually depicted on a continuum (see Figures 3.2, 3.3, 3.4, 3.5). Additionally, I added arrows to indicate that these levels were indeed a continuum and not finite points. Once developed, this code manual served as a data management tool to organize segments of data for the purpose of determining credibility of the enrichment program (see Appendix T).

*Figure 3.2. Personalization of interest in project topic continuum.*
Figure 3.3. Personalization of interest in product continuum.

Figure 3.4. Real world audience continuum.

Figure 3.5. Focusing on methodologies continuum.
Step 2: Determine applicability to raw data. After I developed the code manual, I determined the applicability of the code to the raw data (Boyatzis, 1998). To facilitate this process, I used QSR International’s NVivo 10 for Mac qualitative data analysis software (2014) and coded interview data from students, parents, and the classroom teacher. I used queries to find occurrences of terms the same as, similar to, or related to terms in the code manual. Same word queries included words such as interest, audience, and creative, while similar words included derivations of these same words, such as creativity and productivity, and related words included research, interview, and PowerPoint. Once occurrences were located, I then used NVivo 10 for Mac software (QSR International, 2014) to code the data. In addition to queries using NVivo 10 for Mac, I also read and re-read the data, recalled my research question, my theoretical framework, and the literature review (Grbich, 2013), and frequently referred to the code manual with the labeled, defined, and described constructs of interest. Throughout this process, I circled key words and wrote notes in the margins of the interview transcripts. I then coded these segments in NVivo 10 and added these coded sections to the appropriate nodes.

In addition to interview data, I also coded student Interest-A-Lyzers and parent responses on the Parent Evaluation of Student Product. To code the Interest-A-Lyzer, I matched individual students’ description of their enrichment project from interview data to indicators of an interest in that area on the Interest-A-Lyzer. I used this same process to code interest in student product. To code parent responses on the Parent Evaluation of Student Product, I looked for the word interest in the text. For example, while describing her daughter’s behavior while working on her project, one parent wrote, “Her personal interest also rose . . .” while another wrote, “She seemed to have a high interest level during the project.” These segments were coded as interest.

Validating and using the code. These coded sections were then used to assess the fidelity
level of enrichment program and the authenticity of Type III Enrichment as conducted by student participants enrolled in the enrichment program.

In addition to coded data from interviews, I also looked through samples of student work for evidence that the students were using a research based structured process for Type III Enrichment as recommended by Renzulli and Reis (1985, 1997, 2014). Specifically, I looked for completed Interest-A-Lyzers, the Management Plan, and weekly accomplishment plans. Additionally, I looked for the Student Product Assessment Form (SPAF), the Student Self Evaluation Sheet, and the Parent Evaluation of Student Product.

**Research Question 2**

How do secondary school gifted and talented students, their parents or guardians, and the classroom enrichment teacher, perceive the relationship between students’ participation in Type III Enrichment on the students’ achievement orientation attitudes, including self-efficacy, goal valuation, environmental perceptions, and the resultant behavior of self-regulation?

Similar to Research Question 1, to answer Research Question 2, I analyzed the data thematically. According to Boyatzis (1998), thematic analysis is a method that can be used with “. . . most, if not all, qualitative methods . . .” (p. 4). Different from the deductive approach used with Research Question 1, however, I selected thematic analysis for Research Question 2 because it allowed for an inductive/deductive approach to data analysis that supported the integration of data driven codes, which were codes constructed inductively from the raw data (Boyatzis, 1998), with theory driven codes, which were codes predetermined by the theoretical foundation. This fit the purpose of this study, which was to align student, parent, and teacher perceptions of participation in Type III Enrichment with constructs of the AOM. Thus, by using an inductive/deductive process of data analysis as supported by thematic analysis, I was able to
capture the phenomena of student, parent, and teacher perceptions of a self-contained secondary enrichment program and to align these themes with constructs from the theoretical foundation.

As recommended by Miller and Crabtree (1992), I developed a code manual for Research Question 2 using theory driven codes derived from literature and research in relation to the AOM. These codes included self-efficacy, goal valuation, environmental perceptions, and self-regulation. After I derived these codes, I defined and described them (Boyatzis, 1998), again based on literature and research related to the AOM. The model originator confirmed the accuracy of the codes, definitions, and descriptions. Next, I read, re-read, and summarized raw interview data from four student participants to identify initial themes. Once I identified these initial themes, I continued to read and re-read interview data, and to code more data using an iterative process of looking at the inductively derived codes and the theory driven codes. I routinely wrote memos and reflected; while I was guided by both the preliminary data driven codes and the theory driven codes, I also wanted to be certain that I was open to new themes and not confined by these codes. At this point, I again used QSR International’s NVivo 10 for Mac qualitative data analysis software (2014) to organize the data (see Figure 3.6).

![Figure 3.6. Screenshot of NVivo codebook.](image)

The a priori constructs of the AOM were coded as parent nodes and data driven codes were coded as child nodes. When a fit between a parent and child node was apparent, such as the
fit between the inductive codes of connections and pillars of support with the deductive code environmental perceptions, the child nodes were then moved from specific topics to the more general topic. Additionally, I employed a second coder to independently code sections of the data. Coding completed by the independent coder was merged with the original coding completed by me. Moreover, the second coder assessed the clarity of the categories.

**Subjectivities**

Strauss (1987) states, “No proposal should be written without preliminary data collection and analysis” (p. 286). Although I completed no formal preliminary data collection or data analysis on the Seminar program, I did serve as the program teacher and coordinator from 2008-2013. In fact, my motivation to conduct this research was prompted by a comment made to me during a chance encounter with one of my former Seminar students almost 2 years after his participation in program. After recognizing me, he went out of his way to approach me. As I reminisced about his exemplary Type III, a marketing project for his homemade salad dressing, he shook my hand and stated, “It is the only meaningful thing I have ever done” [personal communication, June, 2014]. This simple statement caused me to wonder how other students who participated in Type III Enrichment perceived the experience, and to what extent they found meaning in that experience.

I was on a leave of absence from the participating school during the time of this study, and I officially resigned my position in February 2015. At no time, either in the past or during the study, did I teach any of the students enrolled in the Seminar program for the 2014/2015 school year. I do, however, acknowledge that my view of the research was both helped and limited by my past relationship with the program. I increased validity through researcher reflexivity, specifically “the process of reflecting critically on the self as researcher, the ‘human
as instrument’” (Lincoln & Guba, 2000, p. 183). I also enhanced critical reflection through a process of writing about my subjectivities in a subjectivity statement and iteratively memoing my thoughts. Additionally, other precautions were taken to ensure trustworthiness of the study. These precautions are discussed in the follow section.

In addition to a former affiliation with the participating school, I also have an affiliation with the model originators for both the AOM and SEM. I was both helped and hindered by this relationship. For example, the model originators gave feedback on my research throughout the process. This ensured that I accurately interpreted the models, but also increased the risk of bias. To limit this bias, I read and re-read original works on both models and enhanced critical reflection by journaling. I also consulted with a group of peers in gifted education not related to the models. In this way, new understanding, insights, and connections often surprised me.

**Rigor of Design**

**Trustworthiness**

Trustworthiness refers to the extents to which the findings of a study are “worth paying attention to, worth taking account of” (Lincoln & Guba, 1985). Precautions were employed to increase the trustworthiness of this study, including measures to improve credibility, confirmability, dependability, and transferability (Lincoln & Guba, 1985).

**Credibility.** Although there is no truth or objective reality in qualitative research (Merriam, 2009), there are a number of techniques or strategies that can increase credibility of findings. These strategies include triangulation, member checks, reflexivity, and peer debriefings (Lincoln & Guba, 1985; Merriam, 2009). I discuss each below in turn.

**Triangulation.** For this study, I approached triangulation through the use of multiple data sources that were collected at multiple times, as well as through the use of multiple methods of
data collection, and by enlisting a second coder for data analysis. These multiple data sources included interviews with students, parents, and the classroom teacher, which provided a view of the phenomena from three different perspectives. What is more, I increased credibility of the study findings by conducting two interviews with 8 of the 13 participants, including 7 of the 10 student participants and the classroom teacher. This allowed for a comparison of perspectives occurring at different points in time. Finally, I also collected and analyzed data from three different format sources, including interviews, short answer surveys, and student work. Thus data were triangulated by source, format, and time.

In addition to triangulation of data sources by source, format, and time, I also shared data and preliminary inductive and a priori codes with a second coder as a means of warranting that codes corresponded with code descriptions, that raw data were being appropriately and consistently coded, and that inductive codes were fitted to appropriate a priori codes.

**Member checks.** According to Maxwell (2005), member checks are “the single most important way of ruling out the possibility of misinterpreting the meaning of what participants say . . .” (p. 111). For this study, I conducted member checks during the interviews by asking the participants clarifying questions, by restating and summarizing information, and then asking the participant to agree or disagree with those summaries. The following is an example of a member check conducted during my first interview with Robert on December 23, 2014 that involved asking for clarification of a statement:

R: . . . like I had to have my e-mail open, because he was sending me links, and using any passwords that I should remember; then I had Filezilla open, and then I had the actual site, itself, open, and then I was talking to my friend of how to like – what we want for the designed aspects of it. So, it was a lot of things that I needed to learn; um,
we started using, uh, somewhat of a Java’s group, which is like a coding thing, and he taught me, like how to do basic coding, just to like – so, if I wanted like the page to do a specific thing, when I went to a new page, like squirrel or something, he like put it in.

INT: So, by “he,” you mean your uncle, who – is your uncle your mentor?

R: Yeah. He’s my mentor.

Robert’s repeated use of pronouns during his interview, in this case the pronoun “he,” could easily have lead to a misinterpretation. By asking for clarification, I was able to confirm that he was talking about his uncle, who was also his mentor. This was an important clarification, since the relationship between participants and their mentors was a significant finding in this study.

**Reflexivity.** Reflexivity involves the process by which the researcher reflects critically on biases, dispositions, or assumptions that he or she may have regarding the study. To this end, I wrote a subjectivity statement, which is included in this research study, as a means of explaining and addressing my biases, assumptions, and experiences related to the topic of study.

**Peer debriefings.** Peer debriefings were also used in this study. Peer debriefings involved sharing information and findings with other researchers, allowing me the opportunity to be challenged and to test and defend my emerging hypothesis, and also to help me assess how my biases and assumption were influencing data analysis.

**Confirmability.** Confirmability refers to the extents to which the findings of the study are shaped by the respondents and not researcher bias (Lincoln & Guba, 1985). As with credibility, confirmability was improved through triangulation, member checks, and reflexivity.

**Dependability.** Dependability is often associated with reliability. In quantitative studies, reliability refers to consistency or repeatability, that is, “if the study is to be repeated, to what
extent would it yield the same results?” (Merriam, 2009). Different from quantitative research, qualitative research does not assume that there is a single reality, and such, rather than repeatability, dependability refers to whether the findings are consistent with the data collected (Merriam, 2009). Methods used for improving dependability of this study included triangulation, peer debriefings, and an equity audit (Lincoln & Guba, 1985; Merriam, 2009). Triangulation and peer debriefings were discussed in context with credibility. An equity audit, however, involves having researchers not associated with the research determine if the data support the findings. For this study, four external researchers provided feedback and guidance throughout the research process, which increased the consistency of the findings with the data collected.

Transferability. Transferability is often associated with external validity, or how generalizable are the results of the study (Merriam, 2009)? This is a case study with purposefully sampled participants, as such; the results do not represent all secondary school gifted enrichment programs. That being said, methods to support transferability were employed, including the use of rich and thick description. For example, participant profiles provide a rich and thick description of the study participants and findings were supported using participant quotes from interview data and evidence from documents.
CHAPTER 4: FINDINGS

In this chapter, I will present findings of this qualitative study. The first research question investigated whether and to what degree student participants were engaged in authentic Type III Enrichment as proposed by Renzulli and Reis (1985, 1997, 2914). Data collected to answer this research question included student, parent, and teacher responses during one or two semi-structured interviews, as well as secondary data that was collected from students by the classroom enrichment teacher as part of regular education practices. These secondary data included forms recommended for use in structuring Type III Enrichment by Renzulli and Reis, specifically: (a) the Secondary Interest-A-Lyzer (Hébert et al., 1997; Renzulli, 1977; see Appendix A); (b) the Management Plan (Renzulli & Smith, 1981; see Appendix B); (c) the SPAF (Reis, 1981; Renzulli & Reis, 1981; see Appendix C); (d) the Student Product Self Evaluation Sheet (see Appendix D); and (e) the Parent Evaluation of Student Product Form (see Appendix E). Additionally, I also collected (f) weekly accomplishment plans (see Appendix F), a teacher designed form to help students self-regulate.

The second research question investigated the perceptions of students, parents, and the enrichment teacher regarding the relationship between participation in Type III Enrichment and students’ achievement orientation attitudes and their resultant behavior. Data collected to inform this research question included responses in either one or two semi-structured interviews, student responses on the Student Product Self Evaluation Sheet (see Appendix D), and parent responses on the Parent Evaluation of Student Product Form (see Appendix E).

Also in this chapter, I provide profiles of the 13 study participants, including 10 students, 2 parents, and the one classroom enrichment teacher. These profiles were constructed based on participant interview data. Of the 26 students enrolled in the Seminar program in Fall 2014, 10
elected to participate in this study, and 2 of their parents elected to participate. Additionally, the one classroom enrichment teacher also elected to participate. As stated earlier, the population of the participating school is diverse and participants in this study reflected that diversity (see Table 3.1).

All student participants were in their first semester of high school, which is grade 9. In addition, all student participants were identified as gifted and talented using district level criteria. Furthermore, all student participants were enrolled in a one-semester enrichment class for students identified as gifted and talented with a focus on Type III Enrichment called Seminar. Additional information provided in the description of student participants includes their name (participant selected pseudonym), grade, race, gender, course schedule including the level for each course and self-reported grade in those courses, areas they consider themselves to be an achiever and areas they consider themselves to be an underachiever, why they enrolled in Seminar (default, parent, or self selected), whether they attempted or completed a Type III in the past, a description of their current Type III Enrichment project, and a description of their project mentor.

The participating school has three levels of courses, including college, honors, and high honors. Contrary to expectations, college level courses are therefore a lower level course. To avoid confusion that may arise from this misnomer, college level courses within this research will be referred to as base level courses. Furthermore, honors level courses are considered mid level and high honors level courses are considered advanced. Additionally, the participating school offers AP courses, however, as grade 9 students, no study participants were enrolled in AP courses. A variation in this description of course level for grade 9 students occurs in mathematics, which further complicates understanding the level system. For example, some
grade 9 students are enrolled in Algebra I, while others are enrolled in Geometry. Regardless of categorization as college, honors, or high honors, grade 9 students placed in Geometry are considered more mathematically advanced than students placed in Algebra I. As an example of this, honors Geometry is a higher-level math course than honors Algebra I. In addition, high honors Geometry is considered both advanced and accelerated. Contrastingly, students deemed in need of extra math support are enrolled in an Algebra I lab in addition to the college level Algebra I course. Therefore, course levels for mathematics can be misleading.

Prior to the 2014/2015 school year, participation in the grade 9 Seminar program, which is a high honors course, was mandatory for all students identified as gifted and talented. However, a Board of Education policy change in 2014 resulted in the Seminar program becoming an optional program for students identified as gifted and talented. Letters informing parents of this change were mailed to identified students’ homes over the summer of 2014. Therefore, participants were not required to enroll in Seminar. However, many students were unaware of this policy change and so were enrolled in the class by default, they did not know that dropping the course was an option. Other students, however, were aware of the policy change and for various reasons, elected to stay enrolled. Students’ reasons for taking the class are noted in the profiles.

In addition to student participants, two parents of student participants and the one classroom enrichment teacher also participated in this study. Information for parent participants includes gender, race, and the name of their child, while information for the classroom enrichment teacher includes gender, race, years of teaching, and teaching credentials.
Participant Profiles

All student participants were enrolled in a single gifted program in one Northeastern secondary school. Additionally, all student participants were in their first semester of grade 9.

The following student profiles were compiled from student, teacher, and parent responses to interview protocols (SP1, SP2, SP3, TP1, TP2, TP3, PP1) and secondary data including Parent Evaluation of Student’s Product (PE), and the Student Product Self Evaluation (SE; see Table 4.1). Because of time factors, student interview protocol 1 and student interview protocol 2 were combined into one interview session (SP12). Likewise, teacher interview protocol 1 and teacher interview protocol 2 were also combined into one interview session (TP12).

<table>
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<th>Data Source</th>
<th>Abbreviation</th>
<th>Time</th>
</tr>
</thead>
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<td>Interview Protocols 1 and 2</td>
<td>SP12</td>
<td>First Interview-Before Enrichment Fair</td>
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<td>Student</td>
<td>Interview Protocol 3</td>
<td>SP3</td>
<td>Second Interview-After Enrichment Fair</td>
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<td>Students Interviewed one-time only-After Enrichment Fair</td>
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<td>Interview Protocols 1 and 2</td>
<td>TP12</td>
<td>Teacher Interview Before Enrichment Fair</td>
</tr>
<tr>
<td>Teacher</td>
<td>Interview Protocol 3</td>
<td>TP3</td>
<td>Teacher Interview After Enrichment Fair</td>
</tr>
<tr>
<td>Parent</td>
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<td>PP1</td>
<td>Parent Interview-After Enrichment Fair</td>
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<tr>
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<td>PE</td>
<td>Written Parent Assessment-After Enrichment Fair</td>
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<td>Student</td>
<td>Evaluation of Student Product</td>
<td>SE</td>
<td>Written Student Reflection-After Enrichment Fair</td>
</tr>
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</table>

Alpha

Alpha is a Black female in her first semester of high school. She is enrolled in 7 classes and a study hall. Her classes include honors level English and social studies, and base level science, Latin I, and Algebra I and Algebra I lab. Alpha was originally enrolled in high honors
English and for this reason she was automatically enrolled in Seminar, however, she said that she did not really like high honors English, so she made the decision to drop to honors level. Therefore, Alpha enrolled in Seminar by default; she appeared to be unaware that the course was optional and in fact, that by dropping her one high honors course, she no longer met the identification criteria for enrollment.

Alpha has two base level math classes, including Algebra I and the Algebra I lab, and she stated that she “kind of really likes it [Algebra]” and also that the two Algebra classes are “really good” (SP12, December 23, 2014). In addition to her two Algebra classes, Alpha likes her integrated science class, which is also base level. According to Alpha, she has an A in English and her grades in her other courses range from B’s to D’s. She considers herself to be an achiever in art and reading because she has always received good grades in those areas and because she earns good grades, she really likes those two areas. She considers herself to be an underachiever in social studies and math, unless the social studies topic is Ancient Greece, because she has an interest in Ancient Greece and mythology. Alpha explained that she considers herself to be an underachiever in social studies and math because she does not really understand these subjects, especially math. She thinks that she could do better in social studies, however she finds it boring.

Alpha had never done a Type III project before enrolling in Seminar. For her Type III project, Alpha elected to make a painting of things that she perceived as being wrong with society, such as racism, gender issues, issues related to immigration, and issues related to religion. She elected to do this for the purpose of raising awareness of and drawing attention to these issues. She hopes to get her painting into a gallery one day so that people can go see it, and “realize what’s wrong” (SP12, December 23, 2014). Her art teacher served as her mentor.
Axel

Axel is a Black female of Puerto Rican descent in her first semester of high school. She is enrolled in high honors English, early global studies, and Seminar, honors science and Spanish, base level math, including Algebra I and an Algebra I lab, and study hall. Axel elected not to reveal her grades in those courses, although she did state that she thought she had an A in Seminar. Axel perceives herself as an achiever in Spanish because it is easy for her, however because she is from Puerto Rico and her Spanish teacher is from Spain, Spanish class can sometimes also be difficult. Axel considers herself an underachiever in science because according to Axel, “It was just never one of my best subjects. I get confused easily with all this O₂ and carbon monoxide or whatever. All those things confuse me” (SP12, January 7, 2015).

When asked why she elected to enroll in Seminar, Axel stated that she did not, it was chosen for her. This indicates that Axel enrolled in Seminar by default; she was unaware that she could drop the course. She had never done a Type III prior to this year.

For her project, Axel elected to explore her school’s academic eligibility policy for participation in sports. As a cheerleader, Axel had a personal interest in this policy. She created a PowerPoint with information as to why this policy should be changed and at the time of her interview, Axel had an appointment with the school principal to show him the PowerPoint. She was excited about the prospect of getting the policy changed. One of the school guidance counselors served as her mentor.

During her first interview, the classroom teacher identified Axel as a student that she was worried about. According the to teacher, at the time of the first interview Axel had a C in Seminar, not an A as Axel self-reported. Additionally, the teacher reported Axel’s grades in her other classes as D’s and F’s (Teacher, TP12, December 4, 2014).
Brianna

Brianna is a White female in grade 9. She is enrolled in high honors English, science, and global studies, and honors Geometry and French. She also has choir, Seminar, and study hall. Brianna has A’s in all of her classes except for Science; she has a B+ in science. She considers herself to be an achiever in math and English, because she likes and understands these subjects, and when she likes and understands subjects, she usually gets good grades in them. She considers herself to be an underachiever in science and global studies, because she sometimes has trouble with the concepts and she does not feel that the teachers explain them very well. According to Brianna, she enrolled in Seminar, “Because it was required; I thought it was required to be taken” (SP12, December 23, 2014). Therefore, Brianna enrolled in Seminar by default. When asked if she would have enrolled had she known it was optional, she stated, “No. I probably wouldn’t; it’s a lot of work” (SP12, December 23, 2014).

Brianna completed Type III Enrichment projects in grades 3 through 5, including one where she and a partner raised money to adopt a whale and another where she and a group arranged for people to make and donate toys for the animals at the Humane Society. Her current project was informing people about concussions. This project was of personal interest to her as she suffered a concussion during softball season. Her audience was children and her final product was going to be an illustrated book she was creating using a website. Brianna’s English teacher was serving as her mentor.

Charles

Charles is a 14 year-old White male who is a freshman in high school. Charles was enrolled in a mix of base, honors, and high honors level courses, including high honors Geometry (which is accelerated and advanced), honors English, science, early global studies,
Spanish, base level construction, and Seminar, which is high honors. Additionally, Charles also had a study hall. Charles believed his grades ranged from a D+ in Geometry to an A+ in both Seminar and construction. He considered himself to be an achiever in all of his classes except for Geometry and he based this opinion on his grades in those courses and the fact that he finds Geometry confusing. Charles elected to take Seminar because he heard from other students that the course was complex, and he wanted to challenge himself. Additionally, he thought it would be nice to learn more about himself and what he likes to do. Charles had never done a Type III project before enrolling in Seminar and he felt that the experience was “definitely worth it” (SP123, January 14, 2015).

For his Type III project, Charles worked with Cat Connection, an organization whose main purpose is to find forever homes for homeless cats. He chose this organization because he believed it was a well deserving cause. Charles spent every Monday after school caring for the cats and cleaning the facilities, and also collected funds that he donated to the organization. Charles’ main focus, however, was researching the effects of cat ownership on people’s health. He found that there were considerable health benefits to owning a cat. Two people, both of whom were employed by Cat Connection and passionate about saving cats, mentored Charles.

Jake

Jake is a White male in his first semester of grade 9. He is enrolled in high honors English, and honors science, early global studies, Spanish 2, and Algebra I. He is also enrolled in Seminar, principles of business, and a study hall. According to Jake, his grades range from B’s to D’s. Jake considers himself an achiever in math and social studies, because he is usually “one of the first ones done in those classes” (SP12, January 5, 2015), and he gets the material easily. Jake considers himself an underachiever in Spanish, because even though he studies, he doesn’t get
the material. He also considers himself an underachiever in science, which he also does not get. Jake enrolled in Seminar by default, in his words, “it was just on there [on his schedule]; I didn’t even know what it was until we started it this year. I’m being serious; I had no idea what it was until we started it” (SP12, January 5, 2015). Additionally, Jake had never done a Type III Enrichment project prior to enrolling in Seminar.

For his project, Jake originally planned to oppose a Board decision to expand a recreational center, which would have been built on a park near his mother’s house. Prior to his starting the project, however, the proposal to expand the recreational center had already been rejected. So instead, Jake elected to create a web log to provide people with information about parks in his town. Jake’s mentor was a computer science teacher at his high school.

**Jay**

Jay is a Black male in his first semester of grade 9. He is enrolled in high honors English, science, Spanish 2, and early global studies. Although his math is listed as honors level, he is also accelerated, taking Geometry as opposed to Algebra I. Additionally; Jay had engineering drawing, Seminar, and a study hall. He believed that he had A’s in both Spanish and Seminar, and that the rest of his grades were B’s. Jay elected to enroll in Seminar because his brother took it previously and he “said it was pretty cool”(SP123, January 14, 2015) and because his mom wanted him to take it. He said that he did not really know what the class was at the time that he elected to take it, but that he “learned to like it” (SP123, January 14, 2015).

Jay considers himself an achiever in engineering drawing because he is “really good” (SP123, January 14, 2015) at it and explained that the only reason he has a B is because there is so much material in that class. Although Jay was really good at science last year, the concepts
are eluding him this year. This has never happened to him before, however, because of this, he considered himself an underachiever in science.

Because Jay has always loved flight and hopes to one day become either a pilot or an aerospace engineer, for his Type III project he elected to research the future of air travel. His father served as his mentor and his final product was a web log.

**Lilly**

Lilly is a White female in her first semester of grade 9. All of her core academic courses are high honors, including English, science, early global studies, and Geometry. She is also enrolled in computer science, Seminar, and choir. Lilly reports that she has “some variation of A’s” (SP12, December 17, 2014) in all of those courses. She considers herself to be an achiever in math and science because she has always had an interest in those two areas. In her own words, “those two have always interested me a lot, like science has always been something that was really cool, with, like, experiments and all that. And math has just been, I guess kind of easy, always, so it’s just been something I’ve been interested in” (SP12, December 17, 2014). Despite having an A, Lilly considers herself an underachiever in English, most likely because she gets over confident of her ability in this area, does not put as much effort into the work as she should, and as a result, her work does not always turn out as well as she thought that it would. Lilly knew that enrollment in Seminar was optional and she elected to take the course anyway because she thought, “it sounded cool” (SP12, December 17, 2014), despite the fact that others told her not to because it “would be boring” (SP12, December 17, 2014).

Lilly had never done a Type III project before enrolling in Seminar, and in fact, she had never heard the term and indicated that she was surprised when the teacher told them what they would be doing. For her project, Lilly elected to explore why so few females were in the field of
computer science. This interest was sparked by her personal experience in a computer science class in her school. Based on her early interest and passion for her project, the classroom enrichment teacher identified Lilly as the student she believed was most likely to accomplish an exemplary Type III Enrichment project. Lilly’s computer science teacher served as her mentor.

**Paris**

Paris is a 14-year old Black female in her first semester of 9th grade. She is enrolled in a mix of base, honors, and high honors level courses, including base level Spanish, honors level Algebra I, integrated science, and early global studies, and high honors English and Seminar. Additionally, she also takes P.E. and has a study hall. For grades, Paris believes she has an A in P.E., a D+ in science, and B’s in all of her other classes. She is hopeful that when her teacher updates the grade book, that her D+ in science will go up. Paris considers herself an achiever in math, because she is “pretty good at math” (SP12, December 23, 2014) and English, because she likes to read. She considers herself both an achiever and an underachiever in science. She believes she is an underachiever because of her low grade, however, she likes science, and because she likes science, she believes she is also an achiever. Paris enrolled in Seminar because her English teacher in middle school suggested it to her. According to Paris, “I think she was saying that it would help me in my classes, so I just kind of kept it on my schedule” (SP12, December 23, 2014).

For her current Type III project, Paris decided to study rudeness in the hopes of discovering what constitutes rudeness, the relationship between stress and rudeness, and then create a brochure to raise awareness of rudeness, and hopefully to make people a little kinder. Paris’s project was appropriately entitled, *Why You Gotta be so Rude?* This project was Paris’s first Type III. Her guidance counselor served as her mentor.
Robert

Robert is a 14 year-old White male in his freshman year of high school. He is enrolled in mostly honors level courses, including Algebra I, integrated science, early global studies, Spanish 2, and Latin. His one core high honors course is English, and because of his placement in high honors English, he was also enrolled in Seminar. Even though Seminar was listed on Robert’s course schedule when he received it, he was aware that it was an optional course. According to Robert, he elected to stay enrolled because “it [Seminar] counts as another High Honors credit, and I had some friends tell me that it was a good program. So I took it for the first couple of days, and then I really liked it . . .” (SP12, December 23, 2014). In addition to his seven classes, Robert also has a study hall.

Robert describes his grades as mostly B’s, with an A- in early global studies and it is in early global studies that he believes he is an achiever. This belief is based on his interest in the discipline, an interest that he shares with his father and grandfather. According to Robert, he finds:

it easier to like focus in class if I like what I’m doing, and instead of like – if I’m like not dealing with something I don’t like, then I mean, I’m not going to be as focused, but if it’s something I like, I like learning more about it, and then I start to get interested, and then I start studying it more. (SP12, December 23, 2014)

Even though Robert’s one high honors course is English, it is in this area that he considers himself to be an underachiever. He says he likes English, and the reading is easy for him, however, he does not push himself in English and ‘the writing part just kills me” (SP12, December 23, 2014). He admits that it is weird that he considers himself an underachiever in the one discipline where he was recommended for high honors.
Robert plays video games competitively in tournaments, and for his Type III project, he
designed a website with tips and tricks for new players. His mentor for this project was his uncle, who is a web app designer. This was Robert’s first experience with Type III Enrichment.

**Star**

Star is a Black female in her first semester of grade 9. She is enrolled in high honors Early Global Studies and Seminar, honors level English and Geometry, and base level science, accounting, and Spanish. She is also enrolled in gym. Star enrolled in Seminar because her mother thought it would help her “later on in life and with colleges” (SP123, February 25, 2015).

Star did not disclose her grades, but stated that she believes she is an achiever in math because she is good with numbers and an underachiever in social studies and Spanish. She believes she is an underachiever in social studies and Spanish because she does not like them. For example, she does not like social studies because “all we do is talk about the past” (SP123, February 25, 2015). However, she also stated that she likes hearing people talk Spanish, and so she is getting to like Spanish.

Star is an athlete, is on both the indoor and outdoor track team, and aspires to be an Olympian. For her project, she created a video on how to train to become an Olympic athlete. Her audience was her track team and others who were interested in running. Her track coach served as her mentor. This was Star’s first Type III Enrichment project.

**Parent 1**

Parent 1 is a White female. She is the mother of Jake.

**Parent 2**

Parent 2 is a White female. She is the mother of Brianna.
Table 4.2. *Student Projects*.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Project</th>
<th>Product</th>
<th>Audience</th>
<th>Mentor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpha</td>
<td>Raise awareness of problems in society</td>
<td>Painting</td>
<td>Society</td>
<td>Art Teacher</td>
</tr>
<tr>
<td>Axel</td>
<td>Academics and extra-curricular activities: Changing the school academic eligibility policy</td>
<td>Presentation to Principal</td>
<td>Principal</td>
<td>Guidance Counselor</td>
</tr>
<tr>
<td>Brianna</td>
<td>Raise awareness of concussions, including prevention and care</td>
<td>Children’s book</td>
<td>Children</td>
<td>English Teacher</td>
</tr>
<tr>
<td>Charles</td>
<td>Support Cat Connection, an organization that finds forever homes for homeless cats</td>
<td>Volunteer to care for cats and raise funds to support cats</td>
<td>Cats at cat connection</td>
<td>Employers at Cat Connection</td>
</tr>
<tr>
<td>Jake</td>
<td>Provide information about local parks</td>
<td>Web Log</td>
<td>People interested in visiting local parks</td>
<td>Computer Science Teacher</td>
</tr>
<tr>
<td>Jay</td>
<td>Research the future of air travel</td>
<td>Web Log</td>
<td>People interested in air travel</td>
<td>Father (Mechanical Drafting)</td>
</tr>
<tr>
<td>Lilly</td>
<td>Women in computer science</td>
<td>Teach a class</td>
<td>People interested in learning why there are so few females in STEM fields</td>
<td>Computer Science Teacher</td>
</tr>
<tr>
<td>Paris</td>
<td>Research on rudeness and the causes of rudeness</td>
<td>Brochure</td>
<td>Society</td>
<td>School Counselor</td>
</tr>
<tr>
<td>Robert</td>
<td>Tips and tricks for new video game players</td>
<td>Website</td>
<td>New video game players</td>
<td>Uncle (Web Ap. Designer)</td>
</tr>
<tr>
<td>Star</td>
<td>How to become an Olympian</td>
<td>Presentation</td>
<td>Track team and others interested in becoming an Olympian</td>
<td>Track Coach</td>
</tr>
</tbody>
</table>
Teacher

The teacher is a White female with over 26 years of teaching experience in grades K-12 and over 20 years of teaching gifted and talented. Before taking over the high school gifted program last year, she was a gifted teacher at an elementary school in the same district. Additionally, she was previously voted teacher of the year by her elementary school co-workers. Furthermore, the teacher had undergraduate degrees in Teaching K-9 and Art Teaching K-12, and a master’s degree in gifted education and talent development.

Research Question 1

Research Question 1: To what degree did student participants engage in authentic Type III Enrichment?

To determine whether and to what degree student participants were engaged in authentic Type III Enrichment, I analyzed data that included student, teacher, and parent responses to interview protocols (SP1, SP2, SP3, TP1, TP2, TP3, PP1) and secondary data that included Student Interest-Alyzers (SIA), Parent Evaluation of Student’s Product (PE), and the Student Product Self Evaluation (SE; see Table 4.1). These data were analyzed for evidence of interest, methodologies, and audience in students’ enrichment projects. Once identified, I coded these data and applied the fidelity scale created for each code as described in Chapter 3. Based on this, although there was variance in the degree of fidelity, I found that student participants were engaged in authentic Type III Enrichment; specifically I found that students pursued topics based on personal interest, created authentic products for authentic audiences, and learned and applied various methodologies in the process. In addition, an examination of student work supported that students used research-based forms recommended by Renzulli and Reis (1985, 2007, 2014) to structure the enrichment process. Contrary to recommendations for Type III Enrichment,
however, student time on projects was limited to one school semester. Additionally, students were issued a course grade that reflected their process and the quality of their product. While Renzulli and Reis do not recommend grading Type III Enrichment projects, issuance of grades does not in and of itself negate classification as a Type III.

**Personalization of Interest**

In keeping with standards for authentic Type III Enrichment, data indicated that all 10 student participants selected the topic for their Type III Enrichment project based on personal interest, as opposed to being assigned a topic by the classroom teacher, or selecting a project that reflected the interest of peers, parents, or others. In addition to this, 8 of the 10 students selected products based on their personal interest as opposed to creating a product that was assigned or selected for them. In support of these findings, when talking about her project topic, Paris stated, “I wanted to study it” (SP3, January 13, 2015), and when talking about his product choice, Robert stated, “I am really into websites” (SP12, December 23, 2014).

In addition to determining whether students selected projects and products based on personal interest, however, I also sought to determine to what degree students selected their projects and products based on personal interest. To do this, I first analyzed and coded data pertaining to student interest in both project and product choice and then applied these coded data to the interest fidelity scales; this allowed me to assess fidelity on a continuum (see Figures 4.1 and 4.2). As indicated in the code book (see Appendix T) and in Chapter 3, the continuum for the interest fidelity scale for project topics included three data points: (a) The project idea did not come directly from the child or is not based on personal interest; (b) The project idea did come directly from the child and is based on personal interest; however, the interest was topical or current; and (c) The project idea did come directly from the child and is based on personal
interest, and this interest was long standing. These data points were constructed based on the The Intake Interview Checklist for Type III Enrichment (Renzulli & Reis, 2014), an instrument designed to measure student readiness to initiate and complete an independent research project. The concern regarding projects based on new or current student interests as opposed to long term interests is that current interests are more likely to be faddish or short lived. As an example of a project considered topical and current, Brianna stated that she was inspired to research and write a children’s book on concussions because, “last year I got a concussion during softball season” (SP12, December 23, 2014). In contrast, Jay’s project to research the future of flight and create a web log for others who were interested was sparked by a childhood event, and therefore served as an example of a project that was based on a long-standing interest. In describing how he selected his topic, Jay stated,

It’s just when I was little like something just triggered in my mind. Like I saw a plane once, then all of a sudden I’m like, I want to be a pilot. It’s just so weird. And then ever since it just stuck. (SP123, January 14, 2015)

Because his was a long-standing interest, Jay was rated as higher on the personalization of interest continuum than Brianna. The concern over current interests as being possibly faddish or short lived was justified in the case of Brianna, who after completing her Type III project admitted she wished she had picked a different topic. According to Brianna, “I wasn’t very interested in it [concussions] once I got going on it. I wish I picked something like a sport that I enjoyed to do and not a medical injury” (SP3, March 23, 2015). In contrast, after completing his Type III project, Jay indicated that the only modification he would make included spending more time decorating his display board.
In assessing personalization of interest, multiple data sources were used, including interview data, the Interest Inventory, and parent evaluation sheets. This triangulation of data sources added credibility to the findings. As an example of the importance of triangulating data sources, I share the story of Lilly. In describing why she selected her project, Lilly stated,

Uh, my project is about getting more women into the field of computer science, because in my class that I’m taking, there used to be three girls, but one moved away, so now there’s only two. And I believe when I got my information, in all of the classes, there were, like, 10 girls total out of, like 30- or 40-something students. And so I was kind of interested about why—why there weren’t more girls involved in that sort of thing. (SP12, December 17, 2014)

Based on an analysis of data from this singular source, Lilly’s interest in researching women in science would have been categorized as current and topical, and therefore, Lilly’s interest would have been assessed in the middle of the continuum. Lilly’s responses on the Secondary Interest-A-Lyzer, however, supported that her interest in science and programming pre-existed her experience in her computer science class. For example, when asked to list three occupations that she would like to explore in a mentorship, Lilly listed “programming, science, and editor” (SIA, September 8, 2014). Furthermore, data provided by the classroom teacher supported that Lilly’s interest was long standing. According to the classroom teacher,

she [Lilly] came in [to the class] with this passion about computer science, and her feelings, you know, that women needed to be encouraged in the sciences, and into the field. Um, so, she knew right off the bat, that’s where she wanted to be. (TP12, December 4, 2014)
Therefore, these data indicated that Lilly’s experience in her computer science class served to reinforce her pre-existing interest in science, technology, and gender equality, as opposed to sparking a new interest. So as a result of using multiple data sources, I moved Lilly higher on the interest fidelity continuum than she was originally placed as determined by her interview data alone.

Based on this process of data analysis, findings indicated that all 10 students selected their projects based on current, topical, or long-standing interests, and therefore ranged from the middle to the high end of the established continuum. Specifically, 3 of the 10 student participants, including Jake, Brianna, and Axel, selected their topics based on an interest sparked by a recent experience, while 4 of the 10 student participants, including Lilly, Robert, Jay, and Star, selected their projects based on a long-term interest or an interest tied to their personal identity. Alpha, Charles, and Paris were rated between data points two and three because, although their project choices were not based specifically on a long-standing interest, their choices aligned with long standing interests. For example, Paris researched rudeness and created a brochure to inform people of her findings. Although rudeness was not a specific long-term interest, Paris’s mother indicated that the project choice aligned with Paris’s long term interests, stating, “she [Paris] is always interested in social and world affairs” (PE, January 15, 2015). Similarly, Charles wanted to help a worthy cause and Alpha wanted to raise awareness of problems in the world.

These findings indicated that students enrolled in the Seminar program and therefore participating Type III Enrichment, selected project topics based on personal interest with a moderate to high level of fidelity (see Figure 4.1).
Figure 4.1. Applied fidelity scale for authentic personalization of interest in topic.

Also, as indicated in the code book (see Appendix T) and in Chapter 3, the continuum for the fidelity of interest in product choice included three data points: (a) The product idea did not come from the child; (b) The product idea did come from the child, however, there are little data to support that this product choice was inspired by personal interest; and (c) The product idea did come directly from the child and there is evidence to support this product choice was inspired by personal interests. As with interest in topic, data from multiple sources were analyzed to assess student interest in their product choice, including student, parent, and teacher interview data, and student responses on the Secondary Interest-A-Lyzer. As an example, Brianna stated in her interview that she selected to write a children’s book for her product, however, in her Secondary Interest-A-Lyzer she indicated that she would not be interested in submitting one of her original writings for publication. Therefore, she was placed in the middle of the continuum: She selected the product, but data do not support that she had a strong interest in this product. In contrast, both
Lilly and Paris stated that their mentors selected their product, and they were therefore placed at the lower end of the continuum. Paris created a brochure, while Lilly taught a class. As an example of a student at the upper end of the continuum, Alpha stated that she liked “painting and I wanted to do something with art” (SP3, January 13, 2015). Additionally, in her Secondary Interest-A-Lyzer, Alpha indicated that she had past experience painting and sketching people, objects, and landscapes, indicating that this was a long-term interest. Therefore, data supported that Alpha selected her product, which was a painting of societal issues, and that this choice was based on personal interest. As a result, Alpha rated high on the continuum for interest in product.

Results of these findings indicated that students enrolled in the Seminar program and therefore participating Type III Enrichment selected products based on personal interest with a moderate level of fidelity (see Figure 4.2).

![Figure 4.2. Applied fidelity scale for authentic personalization of interest in product.](image-url)
**Authentic Audience**

In addition to being sparked by personal interest, all student participants also indicated that they created a product for an authentic audience. For example, Alpha created “a painting of things that are wrong with society” and she hoped to “get it in a gallery, so people can go see it. And realize what’s wrong” (SP12, December 23, 2014). Likewise, Brianna wrote a book for children about concussions, Jake created a website to provide information to people about the parks in his town, Jay created a web log about the future of flight and stated “I’ve had some pilots read it and they said it was pretty good” (SP123, January 14, 2015), and in addition to volunteering to care for cats, Charles stood outside of a grocery store on New Year’s Eve and collected money to support the organization.

While all students created products with a sense of an authentic audience, the degree to which audiences interacted with these products varied. For example, websites and web logs had immediate audiences, as did Charles’s fund raising efforts and volunteer work. While their products were created for an authentic audience, however, Alpha’s painting has yet to be hung in a gallery (although it is displayed in the school library) and Brianna’s book has yet to be published. The continuum developed to assess fidelity of outlets and audiences included the following three data points: (a) The student had no sense of a real-world audience; (b) The student had sense of a real world audience; and (c) The student had sense of a real world audience and the real-world audience observed or interacted with the product. Using this continuum, findings indicated that fidelity of the audience and outlets for student projects ranged from slightly below the midpoint to the upper end of the continuum (see Figure 4.3).
As an aside, one possible reason that audiences may not have interacted with some student products could be insufficient time. As stated in the description of the Seminar program, due to organizational constraints, students had only one semester to complete their projects, as opposed to the unlimited time structure recommended for Type III Enrichment projects by Renzulli and Reis (1985, 2007, 2014).

**Type II Methodologies**

In addition to creating a product for an authentic audience based on personal interest, for a project to be considered Type III Enrichment, Type II Methodologies must be embedded in the learning process. These methodologies add rigor to the enrichment process. As stated previously, Type II Methodologies include cognitive thinking skills, character development and affective process skills, how-to skills, advanced research skills and reference materials, and written, oral and visual communication skills. Also as stated earlier, the continuum scale for

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**Figure 4.3. Applied fidelity scale for authentic audience.**

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**Type II Methodologies**

In addition to creating a product for an authentic audience based on personal interest, for a project to be considered Type III Enrichment, Type II Methodologies must be embedded in the learning process. These methodologies add rigor to the enrichment process. As stated previously, Type II Methodologies include cognitive thinking skills, character development and affective process skills, how-to skills, advanced research skills and reference materials, and written, oral and visual communication skills. Also as stated earlier, the continuum scale for
fidelity regarding Type II methodologies included: (a) There is no indication that the student learned, used, or applied learning methodologies; (b) The student learned advanced methodologies; or (c) The student learned and applied advanced methodologies. To determine if methodologies were embedded in the enrichment process, I analyzed the interview data and then created an outline (see Addendum V). In this outline, I listed each learning methodology as delineated in Type II Enrichment and then aligned those methodologies with data from individual student and teacher interviews, identifying information such as student names (pseudonyms), interview number (1 or 2), and page number of the transcript. In this way, I determined that all student participants learned advanced methodologies and that all student participants applied those methodologies to their enrichment project, thus supporting high fidelity of implementation.

For example, all student participants learned components of research in the Seminar class, including how to use databases and how to analyze a source for authority, accuracy, currency, coverage, and objectivity, and all student participants used these research components while working on their enrichment project. Again, this finding was supported by data from multiple sources, which increased credibility. For example, in her first interview, the classroom teacher made repeated references to student research, including, “they [students] have to go through the research process,” “she has been researching,” and “just the whole idea of extending research” (TP12, December 4, 2014). In addition, all 10 students echoed the intense focus on research in the Seminar class. For example, when describing an obstacle he had to overcome to complete his enrichment project Jake stated, “when I was doing the research for it [Type III] . . .” (SP12, January 5, 2015). Similarly, when asked to describe a challenge she encountered, Paris also cited research. According to Paris,
it [the challenge] was when we were doing research, because they [the teacher and the school media specialist] give us a lot of tips, and stuff on how to find a Web site that would help us, but then I – I didn’t know how to do it. (SP12, December 23, 2014)

Likewise, Robert stated,

the hardest part was probably the information . . . . we have to like get a whole bunch of like information from different sites, and put it on there to make sure all the information is actually correct, and credible, so we had to like look through a whole bunch of things. (SP12, December 23, 2014)

In addition to using advanced research skills and reference materials, all Seminar students were required to present their projects at the culminating enrichment fair, which entailed written, oral, and visual communication skills. As a visual and written component of these presentations, all students created tri-fold boards to display their information. Additionally, all students prepared an oral presentation to convey their ideas, process, and product to fair attendees. Prior to this presentation, students first presented to their Seminar classmates, which allowed them to receive feedback and to modify and improve their presentations prior to presenting at the fair.

In addition to written, oral, and visual communication skills, all Seminar students learned how-to skills, including reading, note-taking and outlining. For example, as a part of the curriculum, all Seminar students read excerpts from the books Flow (Csikszentmihalyi, 2008) and Outliers (Gladwell, 2011), and answered questions related to these readings.

Furthermore, in addition to cognitive skills necessary for completing their enrichment projects, such as to research, read, write, and present, the curriculum for the Seminar class also included units designed to help students develop intra- and interpersonal skills, including a unit on intelligences and learning styles that was frequently referenced by students as a time they
were happy in Seminar. During this unit, students regularly reflected on their own talents, abilities, learning preferences, and interacted and engaged with Seminar peers.

Overall, indications are that student participants who were engaged in Type III Enrichment as implemented in the Seminar program at the participating school learned, practiced, and applied multiple and rigorous learning methodologies. As such, fidelity for focusing on methodologies is high on the continuum (See Figure 4.4).

Research-based Structure

As stated previously, all students in the Seminar class were required to keep a folder that included various research-based forms designed to support the Type III Enrichment process. These folders were sent home with students at the completion of the course, which occurred on January 23, 2015. Prior to this, however, on Thursday January 15, 2015, I made copies of the
contents of each participant’s folder. Later, I received copies of student product assessments from the classroom teacher. An examination of these data indicated that all 10 student participants completed the Secondary Interest-A-Lyzer, all 10 student participants completed or partially completed a Management Plan, and 7 of the 10 student participants completed the Student Self Evaluation. In contrast, only 4 of the student participants’ folders included a Parent Evaluation of Student Product. In addition to the research-based forms, all student participants completed between 6 and 9 teacher developed weekly accomplishment plans. Based on this information, I determined that the classroom teacher used research-based forms as recommended by Renzulli and Reis (1985, 1997, 2014) to structure the enrichment process.

Conclusion for Research Question 1 Findings

The purpose of Research Question 1 was to ascertain the fidelity of Type III Enrichment as implemented in the gifted program that was the focus of this study. This was accomplished through an analysis of data that included participant responses in semi-structured interviews and student work on research-based forms recommended for use with the SEM. Analysis of these data indicated that although quality of Type III Enrichment projects varied among participants, the program elements were implemented with fidelity. Overall, data from students, parents, and the classroom teacher supported that students selected their projects based on personal interest. This finding was also supported by secondary data in the form of the Secondary Interest-A-Lyzer, which each student completed for the Seminar class. In addition, data indicated that students selected their products based on interest with a moderate level of fidelity. Furthermore, data indicated that Type II Methodologies were embedded in the enrichment process. Finally, data indicated that students developed their products for an authentic audience, although the degree to which these products reached the authentic audience varied. One reason that students
may have been unable to get their products to their audience included lack of time, which was limited due to the organizational structure of the school. Lastly, students were issued a grade for their project. Despite these two limitations, the majority of data supported high fidelity of the enrichment program and high fidelity that students were indeed engaged in authentic Type III Enrichment.

**Research Question 2**

Research Question 2: How do secondary school gifted and talented students, their parents or guardians, and the classroom enrichment teacher, perceive the relationship between students’ participation in Type III Enrichment and students’ achievement orientation attitudes, including self-efficacy, goal valuation, environmental perceptions, and the resultant behavior of self-regulation? I found that there was a relationship between student participation in Type III Enrichment and the constructs of the AOM. Specifically, students engaged in Type III Enrichment experienced factors related to goal valuation, including interest, meaningfulness, and identity. Additionally, goal valuation interacted with self-regulation. Students’ viewed their enrichment projects as challenging, worked hard to accomplish their goals, and were proud of their accomplishments. The most noteworthy finding, however, was the construct of environmental perceptions, which participants credited as positively affecting both cognitive and affective development.

**Goal Valuation**

Goal valuation is an a priori code from the AOM defined as the extent to which people find tasks meaningful, useful, important, enjoyable, or interesting. Also according to the AOM, if students are not engaged in tasks that they find meaningful, useful, important, enjoyable, or interesting, they are at risk of underachieving. In relation to this, there are three subcategories of
goal valuation, including intrinsic value (interest), utility value (immediately useful or useful in the future), and attainment value (identity; Eccles & Wigfield, 1995). Upon completion of data analysis, I determined that these deductive codes from the AOM closely aligned with inductive codes that emerged from the raw data, including *interest*, *beneficial*, *it helps you in the future*, and *identity* (see Table 4.3). Again, the purpose of this study was to build understanding of the relationship between participation in Type III Enrichment and the constructs of the AOM. As such, I find that there is a relationship between participation in Type III Enrichment and the construct of goal valuation. Specifically, I find that students involved in Type III Enrichment selected project topics based on interest, utility, and identity. Additionally, I find that students who selected projects based on an authentic interest were more likely to enjoy working on their enrichment projects, were more able to self-regulate during the project, and were more likely to maintain interest throughout the project and remain interested after the project was completed. Furthermore, I find that students who selected Type III Enrichment projects based on perceptions of their identity were more likely to have benefits they perceived as being valuable in the future. As such, I find that goal valuation was both a pre-condition for and an outcome of students’ participation in Type III Enrichment.

*Table 4.3. Goal Valuation Inductive and Deductive Code Alignment*

<table>
<thead>
<tr>
<th>Inductive Codes (A Priori)</th>
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<th>Deductive Codes</th>
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<tbody>
<tr>
<td>Intrinsic value (Interest) (\Leftrightarrow)</td>
<td>Interest</td>
<td></td>
</tr>
<tr>
<td>Utility value (\Leftrightarrow)</td>
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<tr>
<td>Immediately useful (\Leftrightarrow)</td>
<td>Beneficial</td>
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<tr>
<td>Useful in the future (\Leftrightarrow)</td>
<td><em>It helps you in the future</em></td>
<td></td>
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<tr>
<td>Attainment value (Identity) (\Leftrightarrow)</td>
<td>Identity</td>
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</tr>
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*Intrinsic value \(\Leftrightarrow\) Interest.* Interest was both an inductive code that emerged from the raw data and a deductive code from the AOM. Data supporting interest as an inductive code as
related to project choice was provided in Research Question 1, however, here I provide additional support as to how interest as a component of goal valuation related to other constructs of the AOM, including meaningfulness and self-regulation. I do this by first sharing a story from Jake. I selected to share this story because it neatly illustrates the relationship between Type III Enrichment, interest, meaningfulness, and self-regulation. In his first interview, Jake described his project as follows:

Um, well, initially my project was going to be – it was kind of like more focused, because where I live in [town] in mom’s house, there’s this park, [town] Park, and they were having like a discussion about, like, taking over some of the park to put like a recreational center, and so I didn’t think that was fair, because that’s where I grew up; that’s where a lot of people spend a lot of their time, and they were just going to cut down the area, so they can add to the recreational center, which already has a lot of things in it. And so, I was going to do it on that, but by the time I really started the project the Board had already voted on it, and they decided not to do it. So, I switched over to, like, the importance of, like, parks in general, about how they’re important things of young kids’ lives, but they kind of stay with you your entire life, because you can go there to like exercise, or just walk a dog, or just walk yourself, and then there’s like basketball courts, football fields, etc., and it’s just kind of like a place where anyone can meet up, or hang out, and do activities together. And so, um, I’m making a Website on it, like about some of the information, and some of the parks in [town], and stuff. And it’s like – it explains why parks are important, and it talks about, like the parks in [town], and there’s some pictures of them, because the only park in [town] that has its own Website is [town] Park, and so I deal with like all the other parks in [town],
too. (SP12, January 5, 2015)

At this point, Jake seemed to be equally interested in his project topic despite the switch in focus. Furthermore, Jake’s mother corroborated that he had an interest in the history of his town. For example, during her interview she stated that Jake often shared stories about town history while they rode their bikes. Therefore, she believed that relating his interest in historical aspects of his town to local parks was an appropriate medium for Jake’s interest.

After completion of his project, however, Jake relayed to me that he was unhappy about the change in his project focus from advocating to save the park near his mother’s house to researching and creating a website that presented information about parks and that this unhappiness affected his ability to self-regulate. The following exchange occurred during our second interview and was Jake’s response to the prompt “If you could go back in time and re-do this project, what would you do differently and why?”

**Jake**: I would probably pick a different topic because at first I thought I was really into it, and then I realized halfway through that I wasn’t really so much into it. And I stopped caring as much when I was doing the work, and I kind of lost inspiration when I was working on it. And so if I could go back, I would just pick something that I know I could keep inspiration and work with the entire time. And that way it was something I was more interested in.

**INT**: Can you tell me more about what you think you might be more interested in?

**Jake**: I’m not really sure because the project I picked originally was something I thought I was interested in. And then I had to switch for a little bit because of what it was originally, and so I wasn’t as interested in the switch that I made as I was in the original idea. But I wouldn’t really be sure what I would want to switch into.
INT: So your original idea was to keep them from building the recreation center on the park near your mother’s house?

Jake: Yeah.

INT: Do you think that—can you tell me if you think you would have maintained interest had that been your project?

Jake: Yeah. Having that for a project I would have maintained interest, but they had already made the vote at the very start of the project, so there was nothing for me to do. (SP3, February 25, 2015)

Key elements of this discourse included Jake’s statement that if he could go back in time, he would have picked something that he knew he could “keep inspiration and work with the entire time” (SP3, February 25, 2015), which indicated that Jake perceived a relationship between his inspiration for his topic and working the entire time, or his ability to self-regulate. Further discourse indicated that he believed the reason he was unable to maintain inspiration and work the entire time was because he “wasn’t as interested in the switch that I made as I was in the original idea” (Jake, SP3, February 25, 2015). Specifically, he was not as interested in researching parks and creating a website as he was in researching parks and presenting to the Board for the purpose of saving the park. Additionally, Jake believed that if he had been able to do his original project idea, he “would have maintained interest” (SP3, February 25, 2015), implying that this maintained interest would have helped him to work the entire time (self-regulate). Implications are that there is a relationship between students’ interest in the topic, how meaningful they perceive the project, and their ability to self-regulate.

Findings also suggested that interest was an output of participation in Type III Enrichment as well as an input. For example, Alpha stated that after completing her project, “I
wanted to be more of an artist than I had originally intended. Like not just freelance illustration but more” (SP3, January 13, 2015). Additionally, in the Parent Evaluation of Student Product, Lilly’s father wrote, “Lilly committed fully to her project on code writing and the need for more females in the industry. Her personal interest also rose . . .” (PE, January 10, 2015). Moreover, Brianna’s father stated that she had “a high level of interest during the project” (PE, January 14, 2015). According to the classroom teacher, one possible reason for students’ increased interest after they completed a Type III Enrichment project may be that they have had few previous opportunities to explore areas of personal interest. She blamed this on the new common core and what she believes to be the movement of education towards standardization. In reference to this movement, the teacher stated “so much of what we’re doing right now in schools is getting everyone to do everything the same at the same time of the day. . . . [so] sometimes they [students] don’t think they have any interests, but [after engaging in Type III Enrichment] they start finding out maybe they’re more interested in the world than they think” (Teacher, TP12, December 4, 2014).

**Attainment Value ⇔ Identity.** Findings also indicated that there was a relationship between student participation in Type III Enrichment and attainment value, or student identity, and that this relationship affected project choice, product choice, and peer interactions. For example, Alpha’s choice of product, a painting, was connected to her identity as an artist. Alpha was proud of this identity and shared that her friends also considered her an artist. As an illustration, when describing a time her Seminar classmates selected her as a leader, Alpha stated, “I went to everyone, and I said, ‘Guys, I have an idea.’ And they’re like, ‘Okay, you’re the artist. Let’s go with that’” (SP12, December 23, 2014). In a like manner, Robert’s interest in web log design was entrenched in his intense identification with his uncle, who designed
websites, and Lilly’s interest in researching women in STEM fields came from her identification as a female who was academically strong in both math and science.

**Utility Value ↔ Beneficial and It Helps You in the Future.** In addition to interest, meaningfulness, and identity, findings also indicated a relationship between participation in Type III Enrichment and utility value. That is, student participants engaged in projects that were immediately beneficial or that they believed would benefit them in the future. The teacher referenced this relationship when she stated, “If you know that you can connect individual kids with what their passions are, um, you’re really preparing them to start thinking about their own futures” (Teacher, TP12, December 4, 2014). In fact, students supported that this was happening; Jay believed that his project better prepared him to become a pilot in the future, while Robert believed that working as a web designer helped him to decide what he wanted to be as an adult, and also that the skills and experiences he gained designing his website might enable him to get a job in the future. According to Robert, “now I know like what actually goes into it [designing a website] and everything because that’s what I wanna do, like when I’m older and everything . . . so it just opens a lot more doors” (SP12, December 23, 2014). These data were inductively coded *Beneficial and It Helps You in the Future*, which was a natural fit to utility value.

Furthermore, findings indicated that students who selected projects related to perceptions of their identity and future career aspirations, like Jay and Robert, were more likely to perceive their projects as meaningful and as having value now and in the future. This was also true of Star. Star was a member of the track team and hoped to be an Olympian in 2020, so for her project, she selected to research how to become an Olympian and then presented her findings to her teammates and others who might also be interested in becoming Olympians. In describing her project, Star stated, “My project topic was how to become an Olympian, and I chose that
because I want to become an Olympian, and I plan on going to the Olympics in 2020” (SP123, February 25, 2015). In further describing her project, Star stated, “I mostly focused on running because I’m a runner myself” (SP123, February 25, 2015). So Star selected her project based on both attainment and utility value; she identified as a runner and a future Olympian, she is a runner, wants to be an Olympian, and plans on going to the Olympics in the future.

Goal Valuation and Self-Regulation

As supported by the AOM, findings suggested a relationship between goal valuation and self-regulation; that is, students who viewed their projects as interesting, meaningful, related to their identity, or helpful now or in the future, were better able to self-regulate than those who did not view their projects as interesting, meaningful, related to their identity, or helpful now or in the future. This occurred in spite of all students’ self-proclaimed proclivity towards procrastination. Also, students who engaged in enrichment projects with identity and/or utility value made a connection between achieving their future goals and the need to do well in areas beyond their enrichment project, indicating that participation in Type III Enrichment may have a positive impact on students’ achievement attitudes and behavior outside of the Seminar class. Both Star and Robert provided an example of this transference.

In response to the prompt, “has completing this project affected your plans for the future and, if so, in what way?” Star responded,

Star: Um, kind of not really. Doing this project and learning about how — what Olympians do to go where they are, that helped me talk about — explaining to me how I need to work harder in school and on the track.

INT: Um, can you explain how it made you want to work harder and keep on the track, like in what ways?
Star: Um, well, they [Olympians] talk about how they trained for at least 36 hours a week. And, um, that and then how they eat well and how they always make sure that their schoolwork is done. So that helps because I’m a procrastinator, once again, so my schoolwork needs to come first because I’m a student before an athlete. (SP123, February 25, 2015)

Although Star initially stated that completing her project did not affect her plans for the future, she then however outlined what she learned and clarified how applying what she learned would help her to achieve her future goals. Additionally, she identified as both an athlete and a student. Likewise, the following is an excerpt from Robert’s response to the prompt, “On a scale of 1 to 10 with 1 being doubtful, and 10 being completely confident, how confident are you that you’re going to accomplish all of the goals that you established for yourself in the Seminar program in this project?” Robert ranked himself as a 10.

Robert: . . . I want to do it [his project] to the best of my ability, because I have a record [of] being a procrastinator, back then, like in middle school, and everything, and then high school, I — I’ve realized that this [school] actually like really matters, and everything. A lot of the colleges come look at like your freshman year, and everything, especially the college I want to go to, like Annapolis, the Naval Academy, so they just have to look at everything, so if I keep up all my work, I will succeed in my course.

(SP12, December 23, 2014)

In comparison to Jake, who reported he had difficulty self-regulating through his project once it lost meaning, Star, Robert, and Jay reported relatively little difficulty in self-regulation, despite self-proclaimed tendencies toward procrastination. In addition, as opposed to Jake who lost interest, Star, Robert, and Jay maintained interest in their topic even after the project was
completed. Indications are that when students viewed the outcome of the project as meaningful and/or the project was related to their identity, they were more able to maintain interest and more able to self-regulate than students who did not view the project outcome as meaningful and/or did not perceive the project as related to their identity.

**Summary for Goal Valuation Findings**

Findings indicated that student participants were engaged in enrichment projects that they found meaningful, useful, important, enjoyable, and interesting. In addition, students were personally interested in the task, their identity was tied to the task, they viewed the task as something that was immediately useful, or they viewed the task as useful in the future (Eccles & Wigfield, 1995). Therefore, this finding suggested a relationship between participation in Type III Enrichment as established in the SEM and the construct of goal valuation as established in the AOM.

In addition to a relationship between participation in Type III Enrichment and goal valuation, findings also suggested a relationship between Type III Enrichment, goal valuation, and self-regulation. Specifically, that students engaged in Type III Enrichment were more likely to self-regulate when they viewed their projects as related to their perceived identity and when they viewed their project as related to their future goals. Additionally, students engaged in projects that they viewed as beneficial in the future experienced transference of goal valuation, that is they began to realize that they needed to put more effort into other areas outside of their enrichment project.

**Environmental Perceptions**

Data indicated that student participants, who were enrolled in the Seminar class and therefore participating in Type III Enrichment, had overall positive perceptions of their
environment and that they received support in various forms from people within this environment, including school and home. In addition to support from people within the school and home, data indicated that students also received support from their project mentors. Moreover, the majority of student participants perceived differences between their Seminar peers and their regular education peers, and the extents to which these peers supported their efforts and shared their values. Finally, findings indicated that positive environmental perceptions had significant interactions with the other constructs of the AOM, including self-efficacy, goal valuation, and self-regulation.

Relationships as Pillars of Support. Initially, the theme of connections emerged during inductive analysis of the raw interview data. An In Vivo code, connections was derived from the teacher’s description of one student’s project. This student, who was not a participant in this study, created a garden for her grandfather, who had Amyotrophic Lateral Sclerosis (ALS). In describing this student and her work, the teacher stated,

and then she ended up writing a poem of dedication to her grandpa, so – and she came to me after all this, and told me that it had totally changed her life. So, I think, you know, the best case scenario is someone just gets so connected, and it really becomes part of who they are, or what’s really valuable to them. (TP12, December 4, 2014).

At this point, I realized the theme of connectedness permeated the Seminar program and that this theme of connectedness transcended the students’ connection to learning and encompassed the relationships between the students and various stakeholders, including those in the school, home, and community. In addition to encompassing relationships between students and stakeholders, these connections also encompassed relationships among the various stakeholders. Originally, these connections were coded as teacher-student connections, teacher-
parent connections, teacher-mentor connections, student-mentor connections, parent-mentor connections, parent-student connections, and student-student connections, which simply illustrated that various stakeholders interacted. As the study evolved, however, it became clear that the code of connections did not adequately convey the finding. Therefore, this finding was recoded to reflect a conceptual frame more representative of the phenomena, which included the finding that connections with and between stakeholders created pillars of support for students’ successful engagement in enrichment. Consequently, these new codes included: The teacher as a pillar of support, parents as a pillar of support, mentors as a pillar of support, and peers as a pillar of support. Continuing with the data analysis, these codes were then aligned with the deductively derived code of Environmental Perceptions (EP) from the theoretical frame. This was a natural fit, as environmental perceptions is defined as the extents to which individuals know that those around them will support their efforts and the extent to which people view their environment, including school, home, and peers, as friendly and reinforcing.

**The teacher as a pillar of support.** All participants viewed the classroom teacher as a pillar of support and credited this support for students’ successful engagement in the enrichment process. As a pillar of support, the teacher used her knowledge of best practices in gifted education to create a curriculum that was useful, meaningful, and engaging, and a classroom space that was welcoming and adaptable. More importantly, she demonstrated that she cared about her students and that she was interested in helping them to succeed. To accomplish this, she fostered relationships with and between stakeholders and regularly engaged and interacted with her students. As a result, students viewed the classroom teacher as caring, knowledgeable and fair. Furthermore, the teacher as a pillar of support also contributed to students’ ability to
self-regulate. All of this contributed to students’ positive perceptions of the classroom environment.

The classroom teacher had an advanced degree in gifted education and during her interviews, she demonstrated that she was knowledgeable and passionate about gifted education, and that she was committed to helping her students discover their interests and develop their talents. During our first interview, she described how she strived to create a physical space that was safe and adaptable for her students, or as she stated, “a safe environment where ideas can be openly shared” (Teacher, TP12, December 4, 2014). To physically create this safe space, she replaced all of the desks in her classroom with tables, which were frequently moved and rearranged to create different student groupings within lessons. She also hung posters around her classroom with inspirational messages. In addition to a safe and welcoming physical space, the teacher sought to create an academically safe and yet challenging space. To do this, she developed curriculum that infused interest based learning with rigorous learning methodologies. For example, while student projects were differentiated for idea, process, and product, all students also learned, practiced, and applied cross-curricular skills. In addition to traditionally recognized cross-curricular skills, such as those that supported the development of cognitive thinking ability, she also focused on skills that supported the social and emotional development of her students, such as character development and affective process skills. For this purpose, she developed units on learning styles and conceptual blocks that helped her students to develop a better understanding of themselves and to provide them with opportunities to interact with their classmates. In reference to this, the teacher stated,

One of the things I talk to the kids about is when we look at the intelligences and we look at interpersonal and intrapersonal, that those kind of become umbrellas over the other
ones. And so knowing who you are and your values, your motivations, kind of how you interact with other people, and kind of having that honest sense of self . . . (TP3, February 24, 2015)

The teacher was also very reflective of her practices. When describing a unit designed to help her students think divergently, she stated,

Um, well, I think one of the things that I find difficult with the kids is getting them to understand some of the abstract concepts . . . . And I’m always playing with that in my head. How can I make this clearer? How can I get them to get it? (TP3, February 24, 2015)

Data from student interviews indicated that in addition to creating a safe academic environment and developing curriculum that supported students’ academic, social, and emotional growth, the classroom teacher also regularly engaged with students during classroom activities and that this engagement contributed to students’ positive perceptions of the classroom environment. For example, when asked how the teacher responded to student engagement in a class activity focused on kinesthetic learning and teambuilding, Robert stated, “Um, she liked it, too. We even had her join in in one of our races, and then she even did some of the stuff with us” (SP12, December 23, 2014). In addition to engaging with students during class activities, the teacher also supported and engaged in humor, which contributed to students’ positive environmental perceptions. For example, when asked to describe how the teacher reacted to student engagement in an activity designed to help them explore artistic intelligence, Paris stated, “She laughed along, too, with some of our funny stories, and some of the things we said” (SP12, December 23, 2014). In describing this same activity, Star stated, “She enjoyed seeing our class
work together because we were like—we were a fun class, so we all were cracking jokes and stuff” (SP123, February 25, 2015).

Another way that the classroom teacher fostered positive environmental perceptions was by demonstrating that she cared about her students as individuals. She did this by regularly conferencing with students on an individual basis and by connecting with various stakeholders to build and strengthen the support system between school, home, and the community. In support of this finding, the teacher made frequent references to her conferences with students, stating that during these conferences, the students, “come up, and we talk about things that are their passions” (TP12, December 4, 2014). The teacher also made frequent references to her connections with parents during her interviews, such as “In fact, when I conferenced with her parents . . .” (TP12, December 4, 2014), and “I had a conversation with mom . . .” (TP12, December 4, 2014). In addition to her connection to students and parents, the teacher also encouraged her students to connect with their parents. At one point, the teacher described how she verbally encouraged a student to share a heartfelt poem he wrote about overcoming obstacles and being successful in school with his mother, stating, “take this home and give it to your mom” (TP12, December 4, 2014). In addition to data from teacher interviews, data from student interviews also substantiated that the teacher regularly connected with parents. In describing in what ways her teacher supported her, Axel stated,

She called my mom a few times when I think I was doing well, but she was like, oh, I feel—I’m concerned for Axel, because I feel like she’s far behind or whatever. And even though I wasn’t, I still appreciate it that she was concerned. But I was doing just fine. (SP12, January 7, 2015)
During this exchange, it was evident that there was some animosity between Axel and the classroom teacher. At one point Axel stated that she and the teacher both had “big personalities” (SP12, January 7, 2015) and sometimes “clashed heads” (SP12, January 7, 2015). In her initial interview, the teacher identified Axel as the student she most feared would not successfully complete her Type III project. Despite this, the teacher was unwavering in her support of Axel and Axel appreciated that she was concerned. Furthermore, when asked if she believed the classroom teacher supported her efforts, Axel stated that yes, she did. Charles also iterated this perception, stating, “Uh, she [the teacher] really did help us find out what our projects were and guided us along the path to do this” (SP123, January 14, 2015).

To further build and strengthen environmental supports between the home, school, and community, the teacher facilitated connections between students and mentors, and personally engaged with mentors with regards to student progress. In describing the role of the mentor in the enrichment process, the teacher stated, “all the students get a mentor, so it would be someone who is an expert in their area. And so that’s part of the process” (TP12, December 4, 2014). And additionally, “It’s the fact that you get the expertise of mentors, and that professionalism, those things that I think are the – what I would consider the elevation pieces in a class like this” (TP12, December 4, 2014). The following story shared by the classroom teacher provided an example of how her connection with project mentors contributed to the creation of a network of caring people that supported students engaged in enrichment. In this story, the teacher shared about one of her students who, although he had mostly completed his enrichment project, had such a high level of frustration that he decided not to attend the culminating enrichment fair. In telling this story, the classroom teacher stated,
So, he [the student] basically decided he wasn’t going to show it – his project at all. So, then afterwards, I ended up having to talk to his mentor – you know, I talked to his mentor, and he [the student] did actually well on the SPAF [Student Product Assessment Form]. (TP12, December 4, 2014)

Indications are that through the support of his teacher and his mentor, despite a high level of frustration, the student was able to complete his project and also to receive a good grade, indicating that he did quality work on his project.

*The teacher and self-regulation.* In addition to being a pillar of support who created a safe, engaging, and academically challenging classroom, connected with students, and connected with various other stakeholders, the classroom teacher also provided support and structure that helped students to self-regulate throughout the semester long project. In fact, all 10 student participants credited the teacher and the use of weekly accomplishment plans as helping them to self-regulate. According to Jay,

> [the teacher] would basically give benchmarks like of where are you supposed to be. She would kind of check in on us to see how we were doing and she’d give us feedback if there was something that we didn’t do right or that we could do better. (SP123, January 14, 2015)

To establish these benchmarks, the teacher had the students complete weekly accomplishment plans (see Appendix F). Alpha described the accomplishment plan as “a set of goals that we want to accomplish, and at the end of the week, we write down what we had planned to accomplish, and then you turn it in. We do that every week. . .” (SP12, December 23, 2014). Alpha also stated that the weekly accomplishment plans “really help” (SP12, December 23, 2014) while
Paris stated that they help her “keep on track” (SP12, December 23, 2014). Robert provided a more detailed account, stating,

Yeah. [the teacher], she really pushes us, like to make sure that all of us, our stuff is done, like we had these things called “accomplishment plans,” so like on a week basis, like she gave us from this date, to this date, then we had to like do a certain amount of things that she wanted us to do, plus whatever we could do. . . and every time like we were slacking, or something, she would like talk to us about it, and be like, “All right, you didn’t like do this much, so you have to start doing this.” And she gave us like this whole calendar, like which day everything should be done by, so pretty much, if you followed that calendar, you’d be finished in no time. (SP12, December 23, 2014)

Data indicated that all student participants appreciated the teacher and her efforts to help them learn and self-regulate, and that students overwhelming liked and respected the classroom teacher. In fact, when asked the question “Do you think the classroom teacher is supporting your efforts on this project? In what ways and how so?” all 10 student participants provided a positive example of teacher support. According to Charles, “Well, I mean, she’s also a teacher. Her job is to teach and I believe she did that well” (SP123, January 14, 2015). And in concluding his interview, Charles stated,

Uh, I actually wanna say something about the teacher. You did pick a very good teacher for this course. She knows what she’s talking about. She knows how to do what she’s talking about. She knows how to get to the students. It’s very good. (SP123, January 14, 2015)

The mentor as a pillar of support. Data also indicated that participants perceived mentors as playing an important role in the enrichment process and that student participants
valued relationships and time spent with their mentors, in addition to the academic support
mentors provided. This was a surprising finding, as participants were not specifically asked
about mentors; however, 8 of the 13 participants, including 7 students and the classroom
enrichment teacher, mentioned the mentor in the context of responding to protocol questions
related to other factors. For example, when responding to the question “Tell me about your
process for completing your project, like how you decide when, where, and how to do things,”
Charles stated, “Um, I told myself I have to do four sub topics and type them this week and then
I have to meet with my mentor every Monday . . .” (SP123, January 14, 2015). Because the
interviews were semi-structured and included the use of probes (see Appendix K), I was then
able to gather more information by using a probing question prompt, specifically “Can you tell
me more about . . .” to further explore Charles’ perceptions of his mentor. Again, because the
unprompted mentioning of mentors occurred frequently, the role of the mentor was an
unexpected and yet important finding.

As an example of the student-mentor relationship, I share the following story from Charles:

I had two mentors, Liz and Kathy. They were very, very, um, welcoming people. When I
walked in there, I was very confused. I was walking into Cat Connection. They didn’t say
I was confused. They thought that I was very professional at that. I didn’t think so. Um, I
walked in on a day that they weren’t supposed to have people come in and the —my
mentor was the first person I saw and she said, um, “I’ll talk to my manager, Kathy, and
she can help you on this project.” She really —at first, she kind of, um, sent me to Kathy
and then I tried to go back to Liz. Um, I went back to Liz and then I met with her every
Monday, um, to help clean up cages and do a lot of work with the cats, which I really
liked. (SP123, January 14, 2015)
This discourse indicated that Charles initially lacked self-efficacy. For example, Charles described himself as confused when he first walked into Cat Connection and he further pointed out that he walked in on the wrong day, a day that they weren’t supposed to have people come in. In spite of these self-perceived shortcomings, however, his mentors thought he was professional, even though he did not think so. Charles went on to describe his relationship with his mentors as follows:

— they [his mentors] really did guide me on how to, um, understand my subtopics. I mean I never felt as good as when I was petting one of those cats at the Cat Connection. It felt like I was doing something really nice and really well. (SP123, January 14, 2015)

In helping Charles to understand his subtopics, his mentors helped him to acquire academic content knowledge. More importantly, however, by believing in Charles and giving him the opportunity to engage in a real-world experience that he viewed as meaningful, they also helped Charles to find purpose and to develop a sense of his own self-worth. According to Charles, he was doing something really nice and really well, and he never felt as good.

Furthermore, although Charles stated that he “had to get past a little bit of procrastination in the beginning [of the project]” (SP123, January 14, 2015), he successfully fulfilled his commitment to volunteer every Monday for the 10 weeks of his Type III Enrichment project. Furthermore, at the time of our final interview, he was contemplating continuing to volunteer after his project commitment ended.

In going back to the construct of environmental perceptions, according to the AOM, students benefit from trusting relationships, such as when significant others demonstrate that they care about the student, know them personally, and are interested in helping them succeed. The shared story of Charles and his mentors exemplified this relationship, as did stories
conveyed by other participants. Some students’, however, relayed stories that indicated they did not perceive that their mentors cared about them. For example, according to Axel, while her mentor provided background information on academic eligibility, she did not feel that she and her mentor spent enough time together. In reference to this, Axel stated, “I didn’t get that many mentor meetings; like I got like maybe two or three, and I would have liked to meet with my mentor more . . .” (SP3, January 13, 2015). Additionally, based on Axel’s statements and tone when making those statements, she seemed resentful that her mentor did not attend the culminating Enrichment Fair, even though she personally invited her. According to Axel, this was “not helpful” (SP3, January 13, 2015), because her mentor “didn’t see what I accomplished” (SP3, January 13, 2015).

In comparing and contrasting mentor accounts from Charles and Axel, Charles received academic support as well as emotional support, while Axel received only academic support. Additionally, Charles perceived his mentor experience as positive, while Axel perceived her mentor experience as disappointing. Indications are that student participants’ craved emotional support from their mentor in addition to academic support, and that student participants’ valued time spent with their mentor. It could be that mentors who connected emotionally and spent time with students were perceived as more caring. For example, mentors who attended the enrichment fair were viewed as more caring than those who did not attend the enrichment fair. Furthermore, when student participants felt that their mentors were not caring, they may have felt resentment that adversely affected their perceptions of their environment.

*The mentor as the guide on the side.* Student participants were also more likely to perceive their relationship with their mentor as positive when the mentor guided and facilitated, as opposed to directed and controlled. In keeping with environmental perceptions, guiding
students required mentors to have knowledge of the student as an individual, and students perceived this knowing as caring. For example, Jake, who had positive perceptions of his relationship with his mentor, described his mentor as supportive and guiding, stating,

Um, like we would stay after and go to the computer lab, and I would start working on the Website, and if I needed help she would come over, and then she would – you know, like tell me some things that could help me, but she wasn’t – you know, like giving me all the answers or anything, like she was just kind of guiding me, and like if I needed help she would just guide me in the right direction, and it helped a lot, because I got stuck a couple of times when I stayed after. (SP12, January 5, 2015)

In contrast, Lilly described her mentor as taking control and “kind of hindering” (SP12, December 17, 2014). According to Lilly,

I knew who I wanted my mentor to be from the beginning, but when she gave me her idea about what she wanted to do, how she wanted me to, like, teach a class, I was like, “Oh, alright.” (SP12, December 17, 2014)

From this statement, it appeared that Lilly felt pressed by her mentor and that by acquiescing to this pressure, she may have experienced feelings of resentment. This impression was supported by Lilly’s word choice when she talked about her mentor, such as her idea, what she wanted, and how she wanted. Within the context of environmental perceptions, however, it also seemed that Lilly may have felt resentment because her mentor did not take her learning preferences, feelings, or opinions into consideration, or perhaps because Lilly did feel known by her mentor. Even worse, in Lilly’s mind her mentor projected her personal learning preferences onto Lilly, and placed her own interests and ideas above Lilly’s, which Lilly felt was uncaring.
Overall indications are that relationships with mentors affected the environmental perceptions of students engaged in Type III Enrichment, and that those perceptions were more positive when students’ perceived those mentors as caring. For example, students who spent more time with their mentors viewed the relationship as more positive than those who spent less time with their mentors. In addition, students viewed relationships with mentors who supported and guided them as more positive than relationships with mentors who controlled and directed. Finally, students appeared to desire and appreciate relationships with people who cared about them, spent time with them, and understood them. Thus, findings indicated that students’ environmental perceptions were more influenced by affective components of mentor relationships than cognitive components.

**The parent as a pillar of support.** Student participants had parents who regularly interacted with them, monitored their progress, and supplied them with resources necessary to complete their projects. In addition, having actively involved parents added to students’ ability to self-regulate throughout the enrichment process. Furthermore, this relationship between students and their parents positively affected students’ perception of their environment.

Although students were not asked about the marital status of their parents, of the 10 student participants, 9 directly referenced their mother as having helped them with their project, 5 directly referenced their father, and 2 students who did not directly reference their father used the pronoun “they” when referring to their parents, indicating more than one parent. Additionally, 3 students stated that their parents were divorced, and one directly stated that her parents were married. All three students who indicated that their parents were divorced, however, also credited both parents with helping them to complete their projects. Only one student stated that her mother was not able to help her because her mother was going to school, nevertheless,
this same student also stated, “I guess she really likes, um, the fact that I’m working so hard on it” (Alpha, SP12, December 23, 2014), indicating that although her mother was busy, she was also caring. Overwhelmingly, all student participants had parents who cared, helped, and/or supported them in completing their enrichment projects.

There were a number of different ways that parents showed their children that they cared about them and that they were interested in helping them succeed. Some parents simple talked to their child about the project, some provided resources, while others provided academic support, such as editing and assisting with math calculations. The following story from Jay provided an example of a father who supported his son in his project by spending time with him, suggesting that he was interested in the project and interested in his son’s passion. According to Jay,

My dad helped me with this project. Basically what he did was every 2 weeks or so he would check in with me to see how I was doing. We’d meet for like 2 or 3 hours to just talk about where I was going with the project, what could I do for the product, which ended up being a blog. (SP123, January 14, 2015)

Other parents, according to Lilly, Charles, Brianna, and Axel, showed interest and caring by helping with academic elements of the project. According to Lilly, her father helped her with “the numbers and statistics” (SP12, December 17, 2014) and both of her parents helped her with writing and “making sure everything sounds nice and, like, professional, instead of kind of childish, like how kids my age normally write things” (SP12, December 17, 2014). Charles described his mother as “very artistic” (SP123, January 14, 2015) and as such, she helped him create his display board and “All the detail work [that] made the project come together” (SP123, January 14, 2015). Brianna’s father “read over the book with me, and he helped me, like, write
the book, and stay organized with it” (SP12, December 23, 2014), and Axel’s mother helped her type her information and taped that information onto her display board, as did Brianna’s.

Another way parents demonstrated caring and a desire to help their child be successful was by providing resources, including transportation. When describing how his parents supported him, Jake stated,

Um, they helped me, because I needed to get to the different parks to take like pictures of it, and stuff about the different areas, and like since I live in [town] at my mom’s it’s not that easy to go to [Dad’s town], and go around and take a bunch of pictures at the parks. So, you know, they would drive me around, and help me take pictures and stuff for it. (SP12, January 5, 2015)

Although the student participants were diverse in terms of race, gender, and family structure, they were all the same in that they perceived their parents as caring and supportive. Overall, indications are that all student participants perceived their parents as caring and supportive, and that this perception contributed to positive environmental perceptions.

Parents and self-regulation. In addition to adding to students’ positive perceptions of their environment, these caring relationships between parents and students also contributed to students’ reported ability to self-regulate. In fact, the student participants overwhelmingly described their parents as providing support, and in some cases discipline, to encourage them to self-regulate. For example, according to Brianna, “My mom keeps on reminding me to keep doing it [her project]. She doesn’t let me forget that I have to do it, or she takes my phone until I get something done with it” (SP12, December 23, 2014). And according to Star,

My parents made sure that I went to the library and got all my research done. They made sure I got the board from my teacher, and I had everything, all the pictures and stuff,
everything typed up and printed it. They just like—they made sure I got my work done. (SP123, February 25, 2015)

In the same manner, Robert gave the following description,

My mom pushes me to the limit; she just – I mean, I love my mom, and all, but she – [laughter] – she just pushes me like she’s the person that like is very persistent about something; she just keeps on pushing me, and pushing me to make sure that it’s done. Like if I start slacking off, then she like – is like, “All right, you need to go into here by yourself; you need to do this work, and then you can’t do anything else until you’re finished.” So, pretty much if I want to like go outside and be with my friends in the next hour or so, I had to finish my work before I did anything. And when I get home, I have to do my homework, and if I don’t have homework, I had to like work on my project a little, and then I could do what I needed to. (SP12, December 23, 2014)

**Peers as a Pillar of Support.** Student participants’ also perceived their gifted and talented Seminar classmates as supportive and encouraging. They credited these peers with helping them to select their project ideas, giving them academic feedback, and encouraging them throughout the enrichment process. In addition to ideas, feedback, and encouragement, student participants also perceived classroom interactions with their gifted enrichment course peers as positive and engaging, and this occurred even when group activity outcomes were less than favorable. For example, when asked to describe a positive experience in the Seminar class, Alpha described a time when the class was “split up into two groups . . . and my group failed” (SP12, December 23, 2014). This statement was followed by laughter and Alpha’s acknowledgement that although her group did not win, the team still viewed the experience as fun. Likewise, in describing the same activity, Robert stated that the students all tried “to work
together, like to see what would work, and like we even did test runs of some things to see if [they] actually would work . . .” (SP12, December 23, 2014). These accounts indicated that positive environmental perceptions were more highly correlated with positive interactions and perceptions of caring and supportive peer relationships than with outcomes of or performances on tasks. Robert summarized this point by stating, “I thought it was like positive, because everybody was working together” (SP12, December 23, 2014).

Lilly gave an account that supported the finding that students’ valued caring relationships, however, Lilly was also the only participant to express disappointment with her Seminar classmates. Again, this disappointment was in regards to Lilly’s perceptions of her Seminar peers as uncaring as opposed to academic factors. According to Lilly,

When we all talk about our projects in class, and like what we’re doing, everyone is very supportive of each other. But, uh, when I did my, like, teaching thing, there was only one person out of our class that came. (SP12, December 17, 2014)

As a reminder, for her project Lilly taught a class on women and in math, science, and technology. Indications are that although non-Seminar peers attended this session, only one of her Seminar peers attended this session. Again, implications are that student participants desired trusting, supportive, and caring relationships with others within their environment. Furthermore, there seemed to be a positive relationship between students’ environmental perceptions and students’ perception of their relationships with peers as trusting and caring. In other words, students who perceived their relationships with peers as trusting and supportive also seemed to have more positive perceptions of their environment.

Despite Lilly’s story, overall, the majority of student participants perceived their gifted enrichment course peers as helpful and supportive. According to Brianna, her peers helped her to
name the characters in her book, while according to Charles, his Seminar peers would, “pose theories about what’s wrong with it [his project] and why I should add more to it or add work” (SP123, January 14, 2015). In addition to this academic feedback, peers were also a source of social and emotional support, which positively affected students’ ability to self-regulate. In describing his Seminar peers, Jay stated, “they don’t judge you on anything you do. They’re very supportive when it comes to like if you’re giving up or something like you don’t want to do it anymore they encourage you to keep going . . .” (SP123, January 14, 2015). In contrast, when describing his non-gifted courses, Jay stated, “Sometimes there’s some kids that don’t really pay attention or don’t care. They talk when you’re talking and they don’t listen and stuff like that . . .” (SP123, January 14, 2015).

Similarly, Robert provided a very thorough description of differences he perceived between the environment in his gifted class and the environment in his general education classes, including peer interactions. The following is an account provided by Robert in response to the prompt, “Tell me a story that will help me to understand how your experience in the Seminar class is the same, or different, from your experience in your other high school classes?”

Robert: Um, it’s – well, one story is that on the first day of school we all realized that like we’re a really, really small class, and all of us, like knew each other very well, since like from sixth grade, all the way to high school, all of us were like very fond of each other, like some of us knew each other from like even elementary school, so we all had like some sort of like chemistry together, all of us wanted like the same goal to succeed, because we’re all put in the class, because of our qualities, and everything, so we all just tried our best, and everybody just works together; nobody fights; there’s no like huge arguments that there could be between two kids in another class, like sometimes in my
other classes, like two kids have like a disagreement about something, and then it turns into something that it shouldn’t be, but between like our six kids nothing happens. Like we may like argue for like a second, and then we’re like, “All right, you know what? Whatever.” We’re just – we move past it, and none of us really do fight.

**INT:** Can you tell me more about why you think kids in the other classes are more likely to get in fights?

**Robert:** Because some of the kids, like, don’t really think that school is like serious, and everything. They might think like freshman year; I mean, it’s my first year. I’m not going to get a lot of work; it’s not going to matter, but then they’re also taking like not too hard of the classes, so they don’t really understand, like what time management really does mean, because like with my classes, I have a lot of homework that I need to get done, and then some other kids that may not like each other, and maybe it’s for just attention, in general; they just want attention from everybody else, since there’s a lot of people in the class. (SP12, December 23, 2014)

So based on this discourse, Robert described his gifted class peers as all wanting the same goal, *to succeed*, and as such, they all *tried their best*. In contrast, he did not perceive his general education peers as thinking school was serious or that they took hard classes. Additionally, according to Robert, when peers in his gifted class disagreed, they did not fight, as opposed to classes with general education peers, where disagreements *turn into something that they should not*.

In summary, indications are that students’ who participated in Type III Enrichment had mostly positive environmental perceptions of their enrichment classroom and their enrichment classroom peers. In contrast, student participants did not have these same positive perceptions of
their regular education peers or of classroom environments with regular education peers.

Suggestions are that student participants had more positive perceptions of their environment when they were homogeneously grouped based on academic ability. This preference appeared more focused on social and emotional factors than cognitive factors. Reasons for this may have included similar goal valuations and the ability to display socially acceptable classroom behaviors. Other factors influencing these environmental perceptions outside of homogenous grouping may have included smaller class size and more familiarity with classmates. Based on these findings, however, implications are that student participants had more positive perceptions of their environment when they were homogenously grouped by academic ability and that these benefits derived more from social and emotional factors than academic.

Summary for Environmental Perceptions

Findings suggest that students engaged in Type III Enrichment benefitted from pillars of support in the school, home, and community, and from interactions among and between those pillars. In the same fashion, student participants benefitted from trusting relationships with those around them and their belief that those around them cared about them and supported their efforts, including parents, mentors, classroom peers, and the classroom teacher. Moreover, student participants benefitted from a teacher with an advanced degree in gifted education and expansive content knowledge in research-based educational practices. Furthermore, student participants benefitted from homogenous grouping with like-minded peers. Overall, findings indicated that student participants who were engaged in Type III Enrichment had positive environmental perceptions and that pillars of support contributed to these positive perceptions. Moreover, in addition to the finding that student participants’ had positive environmental perceptions and that pillars of support contributed to these positive perceptions, findings also indicated that these
pillars of support contributed to student participants’ ability to successfully self regulate throughout the semester long project.

**Self-Efficacy ✰ Pride and Seminar is Hard Work**

Findings from this study suggested a relationship between participation in Type III Enrichment and students’ perceived self-efficacy. This finding made sense, as elements that support self-efficacy as outlined in Self-Efficacy Theory (Bandura, 1986), including vicarious experiences, verbal persuasion, and participation in a mastery experience, were all evidenced as factors in Type III Enrichment as implemented in the participating school. For example, vicarious experiences were supported through homogeneous grouping, mentors, and through reading biographies. Examples of feedback from and relationships with like-minded peers and mentors were discussed previously. As an illustration of a vicarious experience provided through literature, Star reported that she read biographies on two Olympians for her project, Usain Bolt and Shelly-Ann Fraser-Pryce. According to Star,

. . . that was pretty — that was meaningful to me because their life stories showed me how they grew up and how they make it to the Olympics. So they didn’t have any sob story, like I only grew up with one parent, but they grew up in the kind of household that I’m growing up in. I have two parents that both care for me, so it helped. That helped.

(SP123, February 25, 2015)

Additionally, all students reported that they received verbal support both while they were working on their projects and after they completed their projects. This verbal support came from significant others who formed pillars of support, as well as from assorted members of the school and community in response to the quality of the products displayed at the enrichment fair.

Furthermore, statements from all students supported that participating in Type III Enrichment
served as a mastery experience and that the successful completion of that experience positively affected their perceived self-efficacy. A common theme was that students initially did not believe they could accomplish the goals of their project, and when they did, they experienced an intense sense of pride as a result. For example, when describing how they felt after completing their enrichment projects, Charles stated, “I just felt like I did something that I didn’t think I could do” (SP123, January 14, 2015). Similarly, Paris stated, “I’m proud because I didn’t think I would be able to do it . . .” (SP3, January 13, 2015). In keeping with an inductive/deductive approach to Thematic Analysis, these statements were inductively coded with codes Seminar is hard work and pride and these two codes were deductively fitted to the a priori code self-efficacy. Additional support for the relationship between participation in Type III Enrichment and perceived self-efficacy can be found in statements made by Robert, Jay, and Star. For example, statements made by Robert point out how he processed a vicarious experience,

Well I’m proud of our product because like I was looking at other peoples’ websites in this stuff and they didn’t have like an actual domain, which is like dot com, dot net or something. They would have like dot webs, dot com which is like a free website building and everything so I felt kind of proud because it was mine – like it was my actual domain. (SP3, January 14, 2015)

In short, Robert was proud because he created a product that was uniquely his. In addition, Robert believed that the quality of his product, a website, was superior to that of comparable products produced by people in the field with more expertise. In this case, Robert’s vicarious experience included perceptions that his accomplishment exceeded that of others whom he viewed as more capable.
Likewise, Jay also expressed pride in his product. In addition to self-efficacy as a result of creating a product he perceived as high quality, Jay was also proud as a result of going outside of his normal comfort zone to accomplish his goals. In describing this, Jay stated,

I’m proud of myself, that I was able to actually produce something that was unique to me, because I’m not usually the kind of person that likes to talk to people a lot. I’m more of an introvert I guess. (SP123, January 14, 2015)

This is interesting because it indicated that for Jay, the challenge in the enrichment or mastery experience, in this case going outside of his comfort zone and talking to people, resulted from a non cognitive challenge as opposed to an academic challenge.

The culmination of these findings indicated that students’ experienced increased self-efficacy as a result of hard work, positive interactions, and feedback from others on that hard work. Feedback from others occurred during the enrichment process, when the students were interacting with the authentic audience, and also when students presented their projects at the culminating enrichment fair. A brief statement made by Star outlines her thoughts as she progressed through these stages of enrichment, and what about going through these stages made her proud. In response to the prompt, “What are you proud of?” Star stated,

I think it would be the project that —and —no, um, my product for my Seminar project. I was proud of that because at first I didn’t know what to do. I didn’t know if I should create a website. And then I was like, I should make a video, and I felt —I was very proud of that because it was kind of hard to make. And then my audience enjoyed it. My Seminar teacher liked it, so I felt very proud of myself. (SP123, February 25, 2015)

Star’s statement, “I was very proud of that because it was kind of hard to make” (SP123, February 25, 2015) supports that she was engaged in a mastery experience, while her account
that her audience and her teacher liked her product indicated that she felt proud as a result of positive feedback from others. As stated previously, these factors, mastery experiences and verbal persuasion, are both factors known to influence perceived self-efficacy (Bandura, 1986). Additionally, both of these factors were present in students’ Type III Enrichment experience. Therefore, a relationship exists between the constructs.

In keeping with the AOM, during this study it was noted that the relationship between self-efficacy and other constructs of the AOM appeared to continually interact with each other. For example, students with goal valuation and positive perceptions of their environment were able to self-regulate through a long-term project. Students successfully completed the Type III Enrichment project despite compulsions to procrastinate, being pushed outside of their comfort zone, and rigorous academic requirements. After working hard, producing a product that was better than they thought they could produce, and receiving praise from significant others, students experienced increased self-efficacy. Based on this, successful completion of Type III Enrichment served as a past experience that resulted in increased efficacy, or confidence in their own ability when they engage in similar projects in the future. Jay summarized his project experience as follows,

> When we finished the project because it was just this feeling of like I did it. I like actually finished the project and I thought when we first started, I thought it was going to be super hard, super I don’t know, like just something I wasn’t going to enjoy but once I started doing it I realized that I did enjoy it and it was actually one of the best experiences I’ve had in high school so far. (SP123, January 14, 2015)
Conclusion for Research Question 2 Findings

Analysis of interview data from gifted students engaged in Type III Enrichment, their parents, and their classroom teacher, indicated that participants perceived a relationship between engagement in Type III Enrichment and achievement orientation attitudes and behavior. Goal valuation was both an input and an output of participation; students selected projects based on interest, meaningfulness, and current and future value, and students experienced either an increase or decrease in goal valuation as the project progressed. Students who selected projects based on their identity, current, or future goals were more likely to experience an increase in interest while those who selected projects on a whim or a recent occurrence were more likely to experience a decrease in interest. Additionally, student participants all perceived their environment as supportive, regardless of differences in student race, gender, or marital status of their parents. Aspects of the environment that supported these perceptions included an experienced teacher trained in gifted education, homogenous grouping with like-minded peers, connections between the school, home, and community, engaged parents, and access to a mentor who shared the student’s interest and possessed expertise and knowledge in that area. Students who received emotional support in addition to academic support had more positive perceptions of their environment than students who received only academic support. Moreover, participants credited the combination of goal valuation, supportive people within the environment, and classroom structure as reasons that students were able to self-regulate. Participants credited these factors with helping all students to successfully complete their Type III Enrichment project despite initial misgivings, and as a result of success in this challenging experience, all students indicated they felt proud.
CHAPTER 5: DISCUSSION OF FINDINGS

The purpose of this study was to investigate the relationship between participation in Type III Enrichment and achievement orientation attitudes and the resultant behavior of self-regulation in secondary school gifted and talented students. I hoped to identify factors that helped to create student success. In this chapter, I provide an overview of the major findings, situate these findings within research regarding gifted and talented students, discuss implications of these findings, address limitations of the current study, and suggest recommendations for future research.

Overview of Major Findings

This study focused on gifted and talented students and their perception of the benefits of participation in academic enrichment, specifically Type III Enrichment. Expressly, I sought to discover whether and to what degree students’ who participate in Type III Enrichment perceive that experience as affecting their self-efficacy, goal valuation, environmental perceptions, and self-regulation. Given the need for research on academic enrichment, specifically as it relates to secondary school gifted students, it is important to know how gifted secondary school students perceive their enrichment experience. Themes developed to represent these factors include (a) *It takes a whole village to raise a single child*, (b) *Non-cognitive before the cognitive*, and (c) *Type III’s as a Type I for life*. The results of this study are not causal, that is significant factors may have been pre-existing, however, they were named as factors that support the achievement orientation of secondary school students engaged in Type III Enrichment.

It Takes a Whole Village to Raise a Single Child

The findings of this study suggest that gifted and talented students benefit from caring relationships with stakeholders in the school, home, and community. These findings are
significant as they highlight the link between meaningful relationships and student success; therefore meaningful relationships are a factor that helps to create student success. These meaningful relationships involve family members, educators, community members, and peers, and together constitute a communal effort to support the gifted child. This is not a surprising finding but is a belief long embedded in lore, such as that commonly iterated by the African proverb *It takes a whole village to raise a single child*. In fact, students in this study benefitted from being a part of a communal network created by caring people, or pillars of support, within their school, home, and community. These student participants report that they have positive relationships with their gifted peers, parents who monitor their progress and provide support in various ways, mentors who give both academic and emotional support, and a teacher who is knowledgeable about gifted education, including curriculum, practice, and pedagogy. As suggested by the AOM, students also credit these relationships with helping them to self-regulate through a semester long project, which many of them had never done before.

The results of this study support findings from previous research on enrichment and the AOM, specifically those of Dimitriadis (2011) and Rubenstein et al. (2012). For example, findings in this study suggest that gifted students benefit from a teacher formally trained in gifted education. Similarly, in a study of gifted students in an enrichment based pullout program, Dimitriadis (2011) also found that gifted students benefit from teachers who are formally trained in gifted education. Additionally, findings from this study suggest that gifted students benefit from relationships with caring and supportive adults, such as parents, mentors, and the classroom teacher. Likewise, in a study of the AOM, Rubenstein et al. (2012) also found that students’ benefit from exposure to caring adults.
In addition to supporting the findings of previous research on enrichment and the AOM, findings of this study also parallel those of previous research studies on academic acceleration, including AP and IB programs, and residential schools. For example, findings from this study indicate that gifted students do not find the high school environment outside of their gifted classroom particularly supportive, while a study of academically accelerated students conducted by Olszewski-Kubilius (2002) had the same findings. Furthermore, like the results from a study conducted by Cross and Swiatek (2009) on gifted students who attend a residential school, results of this study also indicate that gifted and talented students feel better accepted by their gifted peers than by their regular education peers and that being homogenously grouped does not appear to lower their self-perceptions. Additionally, similar to findings from studies on students who participate in AP and IB courses as found by Foust et al. (2009) and Gross (2006), results of this study indicate that students who participate in Type III Enrichment benefit from an improved learning environment, respectful relationships with teachers who are better prepared to meet their needs, comfort with classmates resulting in a special bond, and pride and self-confidence as a result of challenging coursework. Reasons for similar research findings between gifted students who participate in academic acceleration and those who participate in enrichment are at least partially due to the fact that gifted students share common characteristics regardless of the intervention in which they engage. Pertaining to the invention, however, similarities in findings may be because Type III Enrichment tackles many of the commonly levied criticisms of enrichment programs, such as lack of structure and learning methodologies. As stated previously, the Seminar program employs a research-based structured process and curriculums specifically designed to academically challenge as well as intellectually stimulate gifted students. If this is the case, by merging elements traditionally associated with academic acceleration, such as a
structured process and rigorous learning methodologies, with elements traditionally associated with enrichment, such as interest based learning and self-discovery, Type III Enrichment may be the perfect storm.

**Non Cognitive Before the Cognitive**

The purpose of education is commonly viewed as the acquisition of content knowledge, and for gifted students, that purpose is often translated into the acquisition of *advanced* content knowledge. This intense focus on knowledge acquisition and cognitive processes fails to take into consideration the importance of non-cognitive processes in education, such as those associated with goal valuation. The findings of this study support those of Eccles and Wigfield (1995), that is that students value education when they are personally interested in the topic, their identity is tied to the task, they view the task as something that is immediately useful, or they view the task as useful in the future. In addition, when students enjoy what they are learning, they are more motivated to learn and therefore more able to self-regulate.

Furthermore, implications from this study align with findings from Siegle and McCoach (1999), specifically that gifted students may underachieve because they do not find the material or instruction they are receiving intellectually stimulating. Although this study used the AOM as a theoretical foundation, this was not per se a study of underachievement and the students in this study were not selected based on their identification as a gifted underachiever. In fact, this is a case study of gifted secondary school students engaged in enrichment and as such, the student participants were purposefully and conveniently sampled from a single gifted enrichment program. The only criterion for student participation was that they be participants in this gifted program. That being said, one participant emerged as an underachiever. I consider her an underachiever because she was identified by the school district as a gifted student; however,
indications are that her grade point average was so low that she was academically ineligible to participate in sports, which provided incentive for her Type III Enrichment project, which was appealing the school’s academic eligibility policy. Appealing this school policy was meaningful to her because she valued participating in sports. Additionally, changing this rule would provide immediate and future benefits. As a result, she was interested. I did not gather data on students’ final grades in all of their courses, I did, however, gather data for students’ scores on their Type III Enrichment project. The underachiever received a 97% on the product rubric, 100% on her display board, and 75% on the SPAF. These scores are all above the 71% required for academic eligibility at the participating school. This signifies that the student was more academically successful when engaging in Type III Enrichment than when engaging in regular education coursework. Suggestions are that when students find learning interesting, meaningful, and enjoyable, and when they are personally interested in the topic, their identity is tied to the task, they view the task as something that is immediately useful, or they view the task as useful in the future, they are more likely to engage and achieve. In essence, if we want students to achieve academically, we must appeal to the non-cognitive before the cognitive.

**Type III’s as a Type I for Life**

According to Bandura (1997), perceived self-efficacy refers to “beliefs in one’s capabilities to organize and execute the courses of action required to manage prospective situations” (p. 2). These beliefs are made stronger when people encounter and successfully engage in mastery experiences, or challenging activities that require perseverant effort to complete. Easy successes do not lead to increases in perceived self-efficacy, nor does failure. Additionally, mastery experiences involve “acquiring the cognitive, behavioral, and self-regulatory tools for creating and executing appropriate courses of action to manage ever-
changing life circumstances” (Bandura, 1997, p. 3). In other words, success requires using both cognitive and non-cognitive factors to persevere in challenge.

A primary finding of this study is that students who engage in, work hard, and successfully complete Type III Enrichment feel proud and have an increase in their perceived sense of efficacy. The structure of the Seminar course in conjunction with pillars of support aids students in “acquiring the cognitive, behavioral, and self-regulatory tools” (Bandura, 1997, p. 3) that they need to successfully overcome obstacles, self-regulate, and persevere. This is of course reminiscent of mastery experiences as described by Bandura (1986). Based on self-efficacy theory and the idea that Type III Enrichment serves as a mastery experience for gifted secondary school students, we can believe that participants who engage in and successfully complete Type III Enrichment projects will experience these same benefits, including a resilient sense of efficacy whereby they have a greater belief in their own ability, and that this greater belief will result in greater success in the future.

Greater success in the future also connects to students’ career aspirations. Gifted and talented students often have multiple talents and learning strengths, and this can complicate career choice. For this reason, Gross (2006) stated that gifted students should not make “decisions regarding specialization before they have explored possible pathways through which several of their talents might be optimized” (p. 425). Additionally, Olszewski-Kubilius (2002) advocates early career counseling for gifted students. Many of the students engaged in Type III Enrichment did select projects related to future career goals, and many of these students were able to shadow professionals in the field. Indeed, these are the students that most valued the experience and who had the least regrets about project choice. Furthermore, students who selected projects that turned out to be based on faddish or fleeting interests were able to more
quickly move past these interests. Moreover, a goal of the Seminar program as identified by the classroom teacher is to connect students with interests so they are more ready for their future. So regardless, the experience is valuable in helping students to discover who they are and therefore to be better able to select a career path suited to their strengths, interests, and passions. Ergo, Type III experiences serve as a Type I for life.

Conclusion

The findings of this study offer some interesting insights into the relationship between gifted secondary school students, engagement in Type III Enrichment activities, and achievement orientation attitudes and behavior, and potentially about educational practices as they pertain to secondary school gifted students. As factors that support student success, educational practices for gifted students should include rigorous academics in combination with personally meaningful learning experiences, nurturing environments, and caring relationships. Clearly, gifted students learn best when they are intellectually stimulated and nurtured in addition to being academically challenged. It is my hope that these findings will help stakeholders in gifted education to move beyond the either or perspective of the acceleration versus enrichment debate and instead employ a holistic approach that will best meet the needs of all gifted students.

Implications for Future Research

Findings from this study suggest that there is a relationship between participation in Type III Enrichment and achievement orientation attitudes and behavior. In this section, I discuss implications of these findings and suggest directions for future research.

Secondary School Gifted Programs

Findings from this research have implications for secondary school enrichment practices. Expressly, findings indicate gifted and talented secondary school students who participate in
Type III Enrichment experience both cognitive and non-cognitive benefits. Accordingly, these findings support recommendations for a blended approach to gifted education (Renzulli 1997; Schiever & Maker, 2003; Sisk, 1997). Factors that contribute to these cognitive and non-cognitive benefits include curriculum designed to motivate and challenge gifted learners, a teacher trained in gifted education pedagogy, homogenous grouping with like-minded peers, and a multitude of supports within the environment. Recommendations for the future include more research on academic enrichment, Type III Enrichment, and secondary school enrichment. This research is necessary to better inform best practices in gifted education and particularly, best practices in secondary school gifted education. Furthermore, recommendations for future research include an extension of this study to build understanding of the relationship between participation in Type III Enrichment and academic achievement. Moreover, results of this study indicate that students may benefit from homogenous grouping due to behavioral similarities, including the desire to learn. Therefore, recommendations for the future include more research into homogenous grouping, with particular attention to non-cognitive factors that may affect achievement. For instance, it could be that the ability to display appropriate classroom behaviors and having a desire to learn are a better basis for grouping strategies than intellect.

**Outliers: Lilly and Axel**

Educational research should take into account all outliers. In fact, the study of outliers often leads researchers to new and significant insights. Although participants in this study were all secondary school students identified as gifted and talented, outliers emerged even within this focused group. These outliers include Lilly and Axel. Academically, Lilly was a top achiever among the top achievers. Her course load supports this, as do her grades in those courses, and comments made by her classroom teacher. Lilly, however, also exhibited perfectionist...
tendencies. For example, although Lilly had support from significant others, she was often
critical of these supports. Despite her critical perceptions, however, Lilly successfully completed
her Type III Enrichment project and also experienced a great deal of pride in her
accomplishment. If indeed the construct of environmental perceptions is a factor that supports
student success as indicated by most participants in this study, then Lilly appears to be an
anomaly. There are several possible reasons for this. It may be that students with perfectionist
tendencies have a different experience with Type III Enrichment than those who do not exhibit
perfectionist tendencies. It may also be that extremely gifted students have a different experience
with Type III Enrichment. Or it may be that the existence of environmental supports is more
important than students’ perception of those supports. That is, that Lilly benefitted from
relationships with caring others despite her sometimes critical perceptions of those relationships.
If this is the case, then the term environmental perceptions may not adequately describe the
phenomenon. Additionally, if this is the case, future research into perfectionists and/or the
extremely gifted engaged in enrichment can add understanding to these findings.

Axel was also an outlier in this study. Despite being identified as gifted, Axel had poor
grades in most of her classes and based on this, Axel was the only student participant who fit the
description of a gifted underachiever. In addition to poor grades, however, Axel’s attitude was
also different from that of her peers. She had the same supports within her environment as her
classmates, including a teacher trained in gifted education who monitored, supported, and
encouraged her, and a parent who monitored her progress and intervened when she did not
complete assignments, nonetheless, Axel indicated that she was resentful of these relationships.
According to Axel, she would rather chill, eat, sleep, and watch T.V. than do this “dumb project”
(SP3, January 13, 2015). Her resentment was also evident when asked if she was proud of her
accomplishment, stating, “I’m proud that I completed the course, and I’m done with it” (SP3, January 13, 2015). Despite this negativity, Axel did complete her project, she attended the enrichment fair, and she received a passing grade. Additionally, Axel acknowledged that the teacher and her mother were both caring. Like Lilly, it appears that Axel benefitted from supports within her environment despite indications that she did not have positive perceptions of those supports. Again, it could be that the presence of environmental supports is more important than the perception of those supports, however, it could also be that underachievers perceive the experience of Type III Enrichment differently than achievers. Moreover, it could also be that Axel simply misrepresented her perceptions. Again, more research is needed to tease out the relationship between participation in Type III Enrichment and gifted underachievers. Of particular interest is whether gifted underachievers are more successful when engaging in Type III Enrichment than in their regular education classes and whether this success leads to increased academic motivation overall.

**Environmental Perceptions**

Finally, the sub construct of environmental perceptions was a noteworthy finding. Indeed, the curriculum in the Seminar class was interesting, meaningful, and challenging, and the students had relationships with others who expected them to succeed, gave them academic and emotional support, and who were excited about learning and passionate in their interests. In this way, student participants had positive role models as recommended by Bandura. Additionally, all students indicated that they were prone to procrastination and that self-regulation was a problem area. All student participants, however, were able to surmount their procrastination and all student participants credited this to supports within their environment. This is similar to findings by Siegle et al. (2014) and Siegle, McCoach, Greene, and Reis (2000). According to Siegle et al.,
students are most successful when they believe they are in an environment where their efforts will be supported. Furthermore, they must be challenged by the work they are given, encouraged when they are struggling, and then recognized for their efforts and their skill development when they succeed. Despite this, there is little research on environmental perceptions. Therefore, recommendations for future research include more research into the construct of environmental perceptions.

Limitations

According to Merriam (2009), the results of case studies are limited to describing the phenomenon, not describing future behavior. Therefore, although I provide a thick description in an effort to build understanding of the relationship between Type III Enrichment and the constructs of the AOM, the results of this study are not transferable.

Another possible limitation of this study includes fidelity of the enrichment program. As found in Research Question 1, student participants engaged in authentic Type III Enrichment as indicated by fidelity scales created for personalization of interest, learning methodologies, and authentic audiences for student products, however, school organizational structures necessitated that students complete the project in one semester, as opposed the untimed structure suggested by the SEM. Additionally, while participation in the Seminar program is optional, students enrolled in the Seminar program were given the opportunity to explore a topic of interest as opposed to being assigned to the class because they wanted to explore a topic of interest.

Additionally, my relationship with the originators of the two theoretical foundations for this study, as well as my former association with the Seminar program, could be a possible threat to the credibility of this study.
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This is an informal interest inventory which will serve as a foundation for developing your specific areas of interest throughout the school year. The information you provide is completely confidential. As a result of this survey, we hope to provide you with meaningful educational experiences that will further develop your interests, nurture your talents, and challenge your learning potential.

Read each question carefully and provide us with as much detailed information as possible so we may obtain a clear understanding of your interests.

Name ______________________________________________________
Grade ___________                Date ______________________________
School _____________________________________________________
You are fed up with the course offerings at your high school. Your principal has asked you to design the perfect course for people with your same interests. What would the course be called? What would be taught?

Rather than provide money for a class trip, the board of education has decided to give money to each individual student for a trip of his or her choice! Where would you go? List three (3) places you would visit and explain what you would do while visiting there. Why?

You have written your first book which you are ready to submit for publication. What is the title? What is the book about?

You have been asked to plan a concert for your high school. You have an unlimited budget! List three (3) choices of musical performances that you would schedule for that evening’s program.
The science teachers at your high school are planning a Speakers’ Bureau for their department based on a variety of special topics. Sign up for the 1st, 2nd and 3rd choices of presentations you would be interested in attending from the topics listed below:

- toxic waste
- health issues for teenagers
- genetic engineering
- endangered species
- weather mapping
- forensic medicine
- robotics
- insecticide applications in our environment
- entomology
- scientific research and methods
- nuclear energy issues
- green house effect
- environmental issues
- volcanic erosion
- meteorology
- rain forests
- astronomy
- ecology
- medicine and medical issues
- Other: __________

In connection with a Law Day celebration, a conservative and a liberal attorney in your community have been invited to your high school to debate a topic. What are your three preferred choices for possible debate topics? Why are they important issues?

You are a photographer and you have one picture left to take on your roll of film. What will it be of? Why?
Teenagers in your community have been asked to prepare individual time capsules for future generations. You are allowed to include 10 personal possessions that are representative of you. What would you include in your capsule?

You have the opportunity to work with an editor of your choice on the local newspaper staff. Which department would you work for? Rank order your choices 1 through 3 and feel free to prioritize beyond your third choice.

<table>
<thead>
<tr>
<th>National events</th>
<th>Household management and improvement</th>
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<tbody>
<tr>
<td>Culinary arts and nutrition</td>
<td>Movie reviews</td>
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<tr>
<td>Political cartoons</td>
<td>Crossword puzzles</td>
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<tr>
<td>Local history</td>
<td>Horoscopes</td>
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<td>Stock market analysis</td>
<td>Music</td>
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<td>Fashions</td>
<td>Consumer reports</td>
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<td>Personal advice</td>
<td>Business</td>
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<tr>
<td>Humor and cartoons</td>
<td>Editorials</td>
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<td>Celebrity column</td>
<td>Math puzzles</td>
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<td>Children's page</td>
<td>Book reviews</td>
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<td>Travel</td>
<td>Sports</td>
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<td>Economics</td>
<td>Political commentary</td>
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<tr>
<td>Local events</td>
<td>Gossip column</td>
</tr>
<tr>
<td>Economics</td>
<td>International events</td>
</tr>
<tr>
<td>Legal issues</td>
<td>Other: ________________________</td>
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</tbody>
</table>
10. You have had a dream in which you have been transported back in time and have become an active participant in that historical time period. Which period has this dream taken you to? Who did you meet while you were there?

11. If you could conduct an interview with a man you admire, past or present, who would it be? What three (3) questions would you ask him?

12. If you could conduct an interview with a woman you admire, past or present, who would it be? What three (3) questions would you ask her?

13. If you could be an exchange student in any other country for half a school year, what country would you like to be in as a student? Why?
You have the opportunity to learn foreign languages from native speakers. What three foreign languages would you want to learn? Explain your selections.

An after school group has been planned to meet and discuss important issues facing young people. Select the 1st, 2nd, and 3rd choices of seminars you would be interested in attending.

- contemporary moral issues
- national security
- career opportunities & choices
- gender issues
- death and dying

- peer relationships
- world peace
- family structure
- issues in ethnicity
- Other: ______________________

The school board is sponsoring a school-wide Olympiad. Any and all physical related activities will be featured. If you were to participate, what three (3) events would you like to compete in? Specify if your preference for being judged would be based on individual or group performance.

Have you ever designed a computer program? If you have, describe your program. If you could design a computer program, what would it be?
A mentorship program is being arranged to allow you to work with a person in the community involved in a profession/occupation you are interested in. List three (3) occupations that you would like to explore in a mentorship.

List the titles/authors of your three (3) favorite books. State the type of book (science fiction, poetry, non-fiction, etc.) and briefly explain what it’s about.

List 5 magazines that you enjoy reading. Rank order your choices.
Do you collect anything? Briefly describe your collection(s). What would you like to collect if you had the time and money?

You have been asked to participate in producing the film of your choice. What type of film will this be? List your favorite three (3) choices.

- documentary
- musical
- biographical
- travelogue
- fantasy
- mystery
- horror
- science fiction
- classic
- foreign
- comedy
- a popular release for teenage audiences
- adventure
- general drama

You have been asked to be a member of a social action committee in your town. Your task will be to work with elected officials to work on issues of importance. What three issues do you think need to be discussed? Why?
Respond to the following questions by checking all of the responses that might apply:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Yes, I would do this</th>
<th>No, I would not do this</th>
<th>I might be interested in doing this</th>
<th>I have had experience with this activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>submitting one of your original writings for publication?</td>
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<td>repairing a car, stereo or household appliance?</td>
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<td>conducting a scientific experiment?</td>
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<td>establishing a school newspaper?</td>
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<td>being a photographer for a magazine?</td>
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<td>starting an astronomer’s nighttime observation group?</td>
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<td>studying the stock market?</td>
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<td>organizing a new school club or team?</td>
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<td>starting a musical group/band?</td>
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<td>acting in a theatrical production?</td>
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<tr>
<td>starting your own business?</td>
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<tr>
<td>creating your own comic strip?</td>
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<td>painting or sketching people, objects and landscapes?</td>
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<tr>
<td>Activity</td>
<td>Yes, I would do this</td>
<td>No, I would not do this</td>
<td>I might be interested in doing this</td>
<td>I have had experience with this activity</td>
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<td>working on a political campaign?</td>
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<td>learning a handicraft such as jewelry making, pottery, or silkscreening?</td>
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<td>designing costumes, clothing or furniture?</td>
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<tr>
<td>designing a building?</td>
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<tr>
<td>designing your own invention?</td>
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<tr>
<td>having your own photo lab and developing your own photography?</td>
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<tr>
<td>visiting a museum or historical site?</td>
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<td>keeping a personal journal or diary?</td>
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<td>organic gardening?</td>
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<td>being involved in a neighborhood project?</td>
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<td></td>
</tr>
<tr>
<td>belonging to a social action group like the Sierra Club?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>developing &amp; maintaining a computer bulletin board?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>volunteering your time to a charitable organization?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Management Plan for Individual and Small-Group Investigations

<table>
<thead>
<tr>
<th>Name: _______________________________</th>
<th>Grade: _______</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher: __________________</td>
<td>School: _______</td>
</tr>
<tr>
<td>Estimated Beginning Date: _______</td>
<td>Ending Date: _______</td>
</tr>
<tr>
<td>Progress Reports Due on Following Dates: _______</td>
<td></td>
</tr>
</tbody>
</table>

### General Area(s) of Study
- [ ] Language Arts/
- [ ] Science
- [ ] Personal and Social Development
- [ ] Social Studies
- [ ] Music
- [ ] Other (Specify) __________ |
- [ ] Mathematics
- [ ] Art
- [ ] Other (Specify) __________ | Specify Area of Study
Write a brief description of the problem that you plan to investigate. What are the objectives of your investigation? What do you hope to find out?

### Intended Audiences
Which individuals or groups would be most interested in the findings? List the organized groups (clubs, societies, teams) at the local, regional, state, and national levels. What are the names and addresses of contact persons in these groups? When and where do they meet?

1. ____________________________
2. ____________________________
3. ____________________________
4. ____________________________
5. ____________________________

### Intended Product(s) and Outlets
What form(s) will the final product take? How, when, and where will you communicate the results of your investigation to an appropriate audience(s)? What outlet vehicles (journals, conferences, art shows, etc.) are typically used by professionals in this field?

### Methodological Resources and Activities
List the names and addresses of persons who might provide assistance in attacking this problem. List the how-to books that are available in this area of study. List other resources (films, collections, exhibits, etc.) and special equipment (e.g., camera, tape recorder, questionnaire, etc.). Keep continuous record of all activities that are part of this investigation.

### Getting Started
What are the first steps you should take to begin this investigation? What types of information or data will be needed to solve the problem? If "raw data," how can it be gathered, classified, and presented? If you plan to use already categorized information or data, where is it located and how can you obtain what you need?
Appendix C: Student Product Assessment Form

Student Product Assessment Form (SPAF)

Some of the items may appear to be unusually long or “detailish” for a rating scale but our purpose here is to improve the clarity and thus inter-rater reliability for the respective items. After you have used the scales a few times, you will probably only need to read the Key Concepts and Item Descriptions in order to refresh your memory about the meaning of an item. Research has shown inter-rater reliability is improved when items are more descriptive and when brief examples are provided in order to help clarify any misunderstanding that may exist on the parts of different raters.

Non-Applicable Items

Because of the difficulty of developing a single instrument that will be universally applicable to all types of products, there will occasionally be instances when some of the items do not apply to specific products. For example, in a creative writing project (poem, play, story) either the Level of Resources (No. 3) or Diversity of Resources (No. 4) might not apply if the student is writing directly from his/her own experiences. It should be emphasized however, that the non-applicable category should be used very rarely in most rating situations.

How to Rate Student Products

1. Fill out the information requested at the top of the Summary Sheet that accompanies the Student Product Assessment Form. A separate Summary Sheet should be filled out for each product that is evaluated.

2. Review the nine items on the Student Product Assessment Form. This review will help to give you a “mind set” for the things you will be looking for as you examine each product.

3. Examine the product by first doing a “quick overview” of the entire piece of work. Then do a careful and detailed examination of the product. Check (√) pages or places that you might want to reexamine and jot down brief notes and comments about any strengths, weaknesses or questions that occur as you review the product.

4. Turn to the first item on the Student Product Assessment Form. Read the Key Concept, Item Description and Example. Enter the number that best represents your assessment in the “Rating” column on the Summary Sheet. Enter only whole numbers. In other words, do not enter ratings of 3 1/2 or 2 1/4. On those rare occasions when you feel an item does not apply, please check the N/A column on the Summary Sheet. Please note that we have only included an N/A response option for Item 9a on the Overall Assessment.

5. Turn to the second item and repeat the above process. If you feel you cannot render a judgment immediately, skip the item and return to it at a later time. Upon completion of the assessment process, you should have entered a number (or a check in the N/A column) for all items on the Summary Sheet.

6. Any comments you would like to make about the product can be entered at the bottom of the Summary Sheet.
# Student Product Assessment Form

## Summary Sheet

<table>
<thead>
<tr>
<th>Name(s)</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>District</td>
<td>School</td>
</tr>
<tr>
<td>Teacher</td>
<td>Grade</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
</tr>
</tbody>
</table>

Product (Title and/or Brief Description)

Number of weeks students worked on product

<table>
<thead>
<tr>
<th>Factors</th>
<th>Rating*</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Early Statement of Purpose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Problem Focusing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Level of Resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Diversity of Resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Appropriateness of Resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Logic, Sequence and Transition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Action Orientation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Audience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Overall Assessment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Originality of the Idea</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Achieved Objectives Stated in the Plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Advanced Familiarity with the Subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Quality Beyond Age/Grade Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. Care, Attention to Detail, etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F. Time, Effort, Energy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G. Original Contribution</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments:

Person completing this form:

*Rating Scales:*

- Factors 1-8: 5 = To a great extent, 3 = Somewhat, 1 = To a limited extent
- Factors 9A-9G: 5 = Outstanding, 4 = Above average, 3 = Average, 2 = Below average, 1 = Poor

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Student Product Assessment Form

Joseph S. Renzulli
Sally M. Reis

1. EARLY STATEMENT OF PURPOSE
   Is the purpose (theme, thesis, research question) readily apparent in the early stages of the student’s product? In other words, did the student define the topic or problem in such a manner that a clear understanding about the nature of the product emerges shortly after a review of the material?
   For example, in a research project dealing with skunks of northwestern Connecticut completed by a first grade student, the overall purpose and scope of the product were readily apparent after reading the introductory paragraphs.

<table>
<thead>
<tr>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>To a great extent</td>
<td>Somewhat</td>
<td>To a limited extent</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. PROBLEM FOCUSING
   Did the student focus or clearly define the topic so that it represents a relatively specific problem within a larger area of study?
   For example, a study of “Drama in Elizabethan England” would be more focused than “A Study of Drama.”

<table>
<thead>
<tr>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>To a great extent</td>
<td>Somewhat</td>
<td>To a limited extent</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. LEVEL OF RESOURCES
   Is there evidence that the student used resource materials or equipment that are more advanced, technical, or complex than materials ordinarily used by students at this age/grade level?
   For example, a sixth grade student utilized a nearby university library to locate information about the history of clowns in the twelfth through sixteenth century in the major European countries.

<table>
<thead>
<tr>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>To a great extent</td>
<td>Somewhat</td>
<td>To a limited extent</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Student Product Assessment Form

4. DIVERSITY OF RESOURCES
Has the student made an effort to use several different types of resource materials in the development of the product? Has the student used any of the following information sources in addition to the standard use of encyclopedias: textbooks, record/statistic books, biographies, how-to books, periodicals, films and filmstrips, letters, phone calls, personal interviews, surveys or polls, catalogs and/or others?

For example, a fourth grade student interested in the weapons and vehicles used in World War II read several adult-level books on this subject which included biographies, autobiographies, periodicals, and record books. He also conducted oral history interviews with local veterans of World War II, previewed films and film strips about the period and collected letters from elderly citizens sent to them from their sons stationed overseas.

<table>
<thead>
<tr>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>To a great extent</td>
<td>Somewhat</td>
<td>To a limited extent</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. APPROPRIATENESS OF RESOURCES
Did the student select appropriate reference materials, resource persons, or equipment for the topic or area of study?

For example, a student who was interested in why so much food is thrown away in the school cafeteria had to contact state officials to learn about state requirements and regulations which govern what must and can be served in public school cafeterias. With the aid of her teacher, she also had to locate resource books on how to design, conduct and analyze a survey.

<table>
<thead>
<tr>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>To a great extent</td>
<td>Somewhat</td>
<td>To a limited extent</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. LOGIC, SEQUENCE, AND TRANSITION
Does the product reflect a logical sequence of steps or events that ordinarily would be followed when carrying out an investigation in this area of study? Are the ideas presented clearly and logically and is there a smooth transition from one idea or subtopic to another?

For example, a student decided to investigate whether or not a section of his city needs a new fire station with a salaried staff rather than the present volunteer staff. First the student needed to research different methods of investigative reporting such as appropriate interview skills. Next the student conducted interviews with both salaried and volunteer fire station staff. He then needed to learn about methods of survey design and reporting in order to analyze local resident opposition or support for the new fire station. After other logical steps in his research were completed, his accumulated findings led him to interviews with the Mayor and the Board of Safety in the city and then to several construction companies that specialized in bids on such buildings. His final product was an editorial in the local newspaper which reflected his research and conclusions.

<table>
<thead>
<tr>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>To a great extent</td>
<td>Somewhat</td>
<td>To a limited extent</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Student Product Assessment Form

7. ACTION ORIENTATION
   Is it clear that the major goal of this study was for purposes other than merely reporting on or reproducing existing information, ideas, or knowledge? In other words, the student's purpose is clearly directed toward some kind of action (e.g., teaching ways to improve bicycle safety, presenting a lecture on salt pond life); some type of literary or artistic product (e.g., poem, painting, costume design); a scientific device or research study (e.g., building a robot, measuring plant growth as a function of controlled heat, light and moisture); or some type of leadership or managerial endeavor (e.g., editing a newspaper, producing/directing a movie).

   For example, a student decided to study the history of his city. After an extensive investigation, the student realized that other history books had been written about the city. He found, instead, that no one had ever isolated specific spots of historical significance in the city which were easily located and accessible. He began this task and decided to focus his research on producing an original historical walking tour of the city.

   To a great extent  Somewhat  To a limited extent
   5  4  3  2  1  N/A

8. AUDIENCE
   Is an appropriate audience specified or readily apparent in the product or Management Plan?

   For example, the student who researched the history of his city to produce an original walking tour presented his tour to the city council and the mayor. They, in turn, adopted it as the official walking tour of the city. It was reproduced in the city newspaper and distributed by the local historical society, library and given out to registered guests in the city's hotels and motels.

   To a great extent  Somewhat  To a limited extent
   5  4  3  2  1  N/A

9. OVERALL ASSESSMENT
   Considering the product as a whole, provide a general rating for each of the following factors and mark the space provided to the right of the item:

   SCALE
   5 = Outstanding  4 = Above Average
   3 = Average  2 = Below Average
   1 = Poor

   A. Originality of the idea.  
   B. Achieved objectives stated in plan.  
   C. Reflects advanced familiarity with the subject matter for a youngster of this age/grade level.  
   D. Reflects a level of quality beyond what is normally expected of a student of this age and grade.  
   E. Reflects care, attention to detail, and overall pride on the part of the student.  
   F. Reflects a commitment of time, effort and energy.  
   G. Reflects an original contribution for a youngster of this age/grade level.
Appendix D: Student Product Self-Evaluation Form

Student Product Self-Evaluation Form

Name: ___________________________ School: ___________________________
Grade: __________________________ Date: ___________________________

1. Describe your feelings about working on your project. Did you enjoy working on it?

2. List some of the things you learned while working on your project.

3. Were you satisfied with your final project?

4. List some of the ways your enrichment teacher helped you on your project.

5. Do you think you might like to work on another product in the future? Do you have any ideas for this product?
Appendix E: Parent Evaluation of Student’s Product

Parent Evaluation of Student’s Product

Name: ____________________________________________________ Date: ______________

Students’ Name: _________________________________________

1. Has your child discussed his or her product with you at home?

2. Have you noticed any changes in your child’s interests or use of free time since he or she began working on the product?

3. Please comment below on your child’s task commitment, involvement, and interest level while the independent study or group project was being developed.

4. Please assess the overall quality of your child’s product below.

5. Please add any other comments about the enrichment program that you would like to offer.
Appendix F: Weekly Accomplishment Plan

Weekly Accomplishment Plan

Date______________ Day ________________

Name ____________________________________________

Goal for next class on __(insert day and date)______________:

________________________________________________________

________________________________________________________

________________________________________________________

________________________________________________________

☐ Accomplished ☐ Not accomplished
Appendix G: Teacher Consent Form

Consent Form for Participation in a Research Study

Principal Investigator: Del Siegle, Ph.D.
Student Researcher: Carla Brigandi
Study Title: Gifted Secondary School Students and Enrichment: The Perceived Effect on Achievement Orientation

Introduction

You are invited to participate in a research study regarding the effects of participation in a gifted and talented enrichment program (Seminar class) on secondary students’ achievement orientation attitudes, including self-efficacy, goal valuation, environmental perceptions, and their ability to self-regulate. You are invited to participate because you are the teacher for the enrichment program at XX High School for the 2014 Fall Semester.

Why is this study being done?

The purpose of this research study is to build understanding of how participation in academic enrichment affects academically capable secondary school students. Currently, the primary method of educating academically capable secondary students is through academic acceleration, such as Advanced Placement (AP) courses. Many people believe that academically capable students benefit from a combination of both, academic acceleration and academic enrichment however, few secondary school students have opportunities for academic enrichment. As a secondary enrichment program, the Seminar program at XX High School offers a unique opportunity for researchers to gather data that could inform future practice pertaining to the education of academically capable secondary students.

What are the study procedures? What will I be asked to do?

If you agree to take part in this study, you will be asked to participate in three 30-60 minute interviews. If you agree to be interviewed, you will be asked approximately 10 open-ended questions per interview pertaining to your perceptions of the enrichment program, the process you use to structure the enrichment process, and your perceptions of the affects of participation on your students. An example of an interview question is, “What are common problems that students have completing enrichment projects in Seminar?” Additionally, all interviews will be audio taped by the researcher. You will be given the opportunity to review the researchers findings to make sure that the information you gave was accurately interpreted. With the exception of verifying your data for accuracy, you will not be contacted again after the final interview.
What are the risks or inconveniences of the study?

We believe there are minimal risks associated with this research study; however, a possible inconvenience may be the time it takes to complete the study.

What are the benefits of the study?

You may not directly benefit from this research; however, we hope that your participation in the study may benefit others by helping to build understanding of the effects of participation in academic enrichment on secondary school gifted and talented students.

Will I receive payment for participation? Are there costs to participate?

There are no costs and you will not be paid to be in this study.

How will my personal information be protected?

The following procedures will be used to protect the confidentiality of your data. The researchers will keep all study records (including any codes to your data) in a locked and secure location. Research records will be labeled with a code. The code will be derived from a number sequential 3 digit code that reflects how many people have enrolled in the study. Your pseudonym will be used as the code on your audiotape and resulting transcript. A master key that links names and codes will be locked in a secure file cabinet located in the principal investigators office at the University of Connecticut. Audio recordings will be kept on a password protected device for the duration of the research period and then deleted. Study records may be kept indefinitely, but will be stripped of all identifiable information. All electronic files (e.g., database, spreadsheet, etc.) 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 team will have access to the passwords. Data that will be shared with others will be coded as described above to help protect your identity. At the conclusion of this study, the researchers may publish their findings. Participants will be identified only by their pseudonym.

We will do our best to protect the confidentiality of your identity, but we cannot guarantee 100% confidentiality. In certain situations, such as the disclosure of concerns related to child abuse or neglect, members of the research staff would be unable to maintain your confidentiality.

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

Can I stop being in the study and what are my rights?

You do not have to be in this study if you do not want to. If you agree to be in the study, but later change your mind, you may drop out at any time. There are no penalties or consequences of any
kind if you decide that you do not want to participate. Additionally, you do not have to answer any question that you do not want to answer.

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

Take as long as you like before you make a decision. 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, (Del Siegle at 860-486-0616 or del.siegle@uconn.edu) or the student researcher (Carla Brigandi at 860-416-4945 or carla.brigandi@uconn.edu). If you have any questions concerning your rights as a research participant, you may contact the University of Connecticut Institutional Review Board (IRB) at 860-486-8802.

**Documentation of Consent:**

I have read this form and decided that I will participate in the project described above. Its general purposes, the particulars of involvement and possible risks and inconveniences have been explained to my satisfaction. I understand that I can withdraw at any time. My signature also indicates that I have received a copy of this consent form.

---

**Participant Signature:** ___________________________  **Print Name:** ___________________________  **Date:** ___________________________

**Signature of Person Obtaining Consent**

________________________  **Print Name:** ___________________________  **Date:** ___________________________
Appendix H: Parent Consent Form

Consent Form for Participation in a Research Study

UCONN
UNIVERSITY OF CONNECTICUT

Principal Investigator: Del Siegle, Ph.D.
Student Researcher: Carla Brigandi
Study Title: Gifted Secondary School Students and Enrichment: The Perceived Effect on Achievement Orientation

Introduction

You are invited to participate in a research study regarding the effects of participation in a gifted and talented enrichment program (Seminar class) on secondary students’ achievement orientation attitudes, including self-efficacy, goal valuation, environmental perceptions, and their ability to self-regulate. You are invited to participate because your child is enrolled in the Seminar class at XX High School for the 2014 Fall Semester.

Why is this study being done?

The purpose of this research study is to build understanding of how participation in academic enrichment affects academically capable secondary school students. Currently, the primary method of educating academically capable secondary students is through academic acceleration, such as Advanced Placement (AP) courses. Many people believe that academically capable students benefit from a combination of both, academic acceleration and academic enrichment however, few secondary school students have opportunities for academic enrichment. As a secondary enrichment program, the Seminar program at XX High School offers a unique opportunity for researchers to gather data that could inform future practice pertaining to the education of academically capable secondary students.

What are the study procedures? What will I be asked to do?

If you agree to take part in this study, you will be asked to participate in one 30-60 minute interview and to allow the researchers access to your completed Parent Evaluation of Student Product Form. Interviews will be conducted in February 2015 at a location convenient for you. The Parent Evaluation of Student Product form is a resource tool recommended for use in assessing enrichment projects, like the project your child is completing for the Seminar program, through perceptions of parents. In addition, all parents of Seminar students are asked to complete the Parent Evaluation of Student Product as part of their child’s Seminar course requirements. So you will not need to complete an extra form, only allow the researchers access to the form you complete for your child’s Seminar classroom teacher. An example of a question on the Parent Evaluation of Student Product is “Has your child discussed his/her project at home?”

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If you agree to be interviewed, you will be asked approximately 8 to 10 open-ended questions pertaining to your child’s confidence, motivation, goals, and work habits. For example, “Tell me about your child’s project. Why do you think he/she picked that project?” Additionally, all interviews will be audio taped by the researcher. You will be given the opportunity to review the researchers findings to make sure that the information you gave was accurately interpreted. With the exception of verifying your data for accuracy, you will not be contacted again after the interview.

What are the risks or inconveniences of the study?

We believe there are minimal risks associated with this research study; however, a possible inconvenience may be the time it takes to complete the study.

What are the benefits of the study?

You may not directly benefit from this research; however, we hope that your participation in the study may benefit others by helping to build understanding of the effects of participation in academic enrichment on secondary school gifted and talented students.

Will I receive payment for participation? Are there costs to participate?

There are no costs and you will not be paid to be in this study.

How will my personal information be protected?

The following procedures will be used to protect the confidentiality of your data. The researchers will keep all study records (including any codes to your data) in a locked and secure location. Research records will be labeled with a code. The code will be derived from a number sequential 3 digit code that reflects how many people have enrolled in the study. Your pseudonym will be used as the code on your audiotape and resulting transcript. A master key that links names and codes will be locked in a secure file cabinet located in the principal investigators office at the University of Connecticut. Audio recordings will be kept on a password protected device for the duration of the research period and then deleted. Study records may be kept indefinitely, but will be stripped of all identifiable information. All electronic files (e.g., database, spreadsheet, etc.) 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 team will have access to the passwords. Data that will be shared with others will be coded as described above to help protect your identity. At the conclusion of this study, the researchers may publish their findings. Participants will be identified only by their pseudonym.

We will do our best to protect the confidentiality of your identity, but we cannot guarantee 100% confidentiality. In certain situations, such as the disclosure of concerns related to child abuse or neglect, members of the research staff would be unable to maintain your confidentiality.

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

Can I stop being in the study and what are my rights?

You do not have to be in this study if you do not want to. If you agree to be in the study, but later change your mind, you may drop out at any time. There are no penalties or consequences of any kind if you decide that you do not want to participate. Additionally, you do not have to answer any question that you do not want to answer.

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

Take as long as you like before you make a decision. 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, (Del Siegle at 860-486-0616 or del.siegle@uconn.edu) or the student researcher (Carla Brigandi at 860-416-4945 or carla.brigandi@uconn.edu). If you have any questions concerning your rights as a research participant, you may contact the University of Connecticut Institutional Review Board (IRB) at 860-486-8802.

Documentation of Consent:

I have read this form and decided that I will participate in the project described above. Its general purposes, the particulars of involvement and possible risks and inconveniences have been explained to my satisfaction. I understand that I can withdraw at any time. My signature also indicates that I have received a copy of this consent form.

____________________  ____________________  __________
Participant Signature:  Print Name:            Date:

____________________  ____________________  __________
Signature of Person Obtaining Consent  Print Name:            Date:
Appendix I: Parent Permission Form

Parental Permission Form for Participation in a Research Study

Principal Investigator: Del Siegle, Ph.D.
Student Researcher: Carla Brigandi
Study Title: Gifted Secondary School Students and Enrichment: The Perceived Effect on Achievement Orientation

Introduction

Your child is invited to participate in a research study regarding the effects of participation in a gifted and talented enrichment program (Seminar class) on secondary students’ achievement orientation attitudes, including their belief in their own ability, future goals, ability to complete long-term projects, and their perceptions of the Seminar classroom environment. Your child is being asked to participate because he/she is enrolled in the Seminar class at XX High School for the 2014 Fall Semester.

Why is this study being done?

The purpose of this research study is to build understanding of how participation in academic enrichment affects academically capable secondary school students. Currently, the primary method of educating academically capable secondary students is through academic acceleration, such as Advanced Placement (AP) courses. Many people believe that academically capable students benefit from a combination of both, academic acceleration and academic enrichment however, few secondary school students have opportunities for academic enrichment. As a secondary enrichment program, the Seminar program at XX High School offers a unique opportunity for researchers to gather data that could inform future practice pertaining to the education of academically capable secondary students.

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

If you give permission for your child to take part in this study, he/she will be asked to:
Participate in approximately three voluntary 30-60 minute interviews between November 2014 and February 2015.
Answer brief follow-up questions electronically to verify research findings.
Allow the researchers access to student work completed as general educational practice in the Seminar program, including the Secondary Interest-A-Lyzer, Management Plan,
Accomplishment plans, Student Product Assessment Form, and Student Product Self Evaluation Sheet, and the Parent Evaluation of Student Product.

During the interviews, your son/daughter will be asked about the Seminar program, the Seminar classroom environment, and also about his or her personal confidence, goals, and ability to self-regulate. Examples of interview questions that your son/daughter will be asked include, “How is Seminar different from your other classes” and “What is your project and why did you chose it?” The student researcher will conduct all student interviews at XX High School in a location selected by XX High School administrators. The interviews will be audiotaped by the student researcher and transcribed by a transcription service and the transcriber will sign a confidentiality agreement.

Your child will be given the opportunity to review the researchers findings to make sure that the information he/she gave was accurately interpreted. With the exception of verifying his/her data for accuracy, your child will not be contacted again after the final interview.

Additionally, your child will be asked to give verbal assent prior to each interview. The following script will be read:

My name is Carla Brigandi and as you know, I am Doctoral Candidate at the University of Connecticut. I am conducting a study on the Seminar program and specifically how participating in academic enrichment affects academically capable students, and I would like to ask you some questions about that. I would also like to audio record our conversation, so that I can get your words accurately. If at any time during our talk you feel uncomfortable answering a question please let me know, and you don’t have to answer it. Or, if you want to answer a question but do not want it recorded, please let me know and I will stop recording. If at any time you want to withdraw from this study please tell me and I will erase the recording of our conversation. I will not reveal your identity beyond myself and my Professor, Dr. Siegle, who is the Principal Investigator of this study and whom I trust to maintain your confidentiality. I will do everything I can to protect your privacy, but there is always a slight chance that someone could find out about our conversation. You do not have to be in this study if you do not want to. Now I would like to ask you if you agree to participate in this study, and to talk to me about your perceptions of the Seminar program and how participating in the Seminar program has affected your belief in your own ability, your future goals, your ability to complete long-term projects, and your perceptions of the Seminar classroom environment. Do you agree to participate, and to allow me to audio record our conversation?

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

We believe there are minimal risks associated with this research study; however, a possible risk may be loss of class time. This risk will be minimized by scheduling interviews during study hall, or before or after school whenever possible.

**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 benefit others by helping to build understanding of the effects of participation in academic enrichment on secondary school gifted and talented students.

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

There are no costs or direct benefits to your child for participating in this study, however student participants who complete all three interviews will receive a $10 Visa card as a token of appreciation for participating in this study immediately following the final interview. Students who do not complete the study will not receive the $10 Visa card.

How will my child’s information be protected?

The following procedures will be used to protect the anonymity of the data collected from your child. Research records will be labeled with a code. The code will be derived from a number sequential 3 digit code that reflects how many people have enrolled in the study. Students will select their own pseudonym. That pseudonym will be used as the code on your child’s audiotape and resulting transcript. A master key that links names and codes will be maintained in a will be locked in a secure file cabinet located in the principal investigators office at the University of Connecticut. Audio recordings will be kept on a password protected device for the duration of the research period and then deleted. All electronic files (e.g., database, spreadsheet, etc.) 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. At the conclusion of this study, the researchers may publish their findings. Your child will not be identified in any publications or presentations except by their pseudonym.

We will do our best to protect the confidentiality of your child’s identity, but we cannot guarantee 100% confidentiality. In certain situations, such as the disclosure of concerns related to child abuse or neglect, members of the research staff would be unable to maintain your child’s confidentiality.

You should also know that the UConn Institutional Review Board (IRB) and Research Compliance Services 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 who 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. There are no penalties or consequences of any kind if you decide that you do not want your child to participate or if you decided to withdraw your child from the study. Additionally, your decision to allow or not allow your child to participate in this research study
will not affect your child’s grade in the Seminar class. Nothing that your child says during the interviews will affect your child’s grade in Seminar. Additionally, your child does not have to answer any question that he/she does not want to answer.

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

Take as long as you like before you make a decision. 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, (Del Siegle at 860-486-0616 or delsiegle@uconn.edu) or the student researcher (Carla Brigandi at 860-416-4945 or carla.brigandi@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.
Return Slip

Principal Investigator: Del Siegle, Ph.D.
Student Researcher: Carla Brigandi
Study Title: Gifted Secondary School Students and Enrichment: The Perceived Effect on 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 child’s teacher by (insert date).

____________________  ______________________  ______
Child Signature:    Print Name:    Date:

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

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

____________________  ______________________  ______
Signature of Person Obtaining Consent    Print Name:    Date:
Appendix J: Student Assent

Student Assent:

My name is Carla Brigandi and as you know, I am Doctoral Candidate at the University of Connecticut. I am conducting a study on the Seminar program and specifically how participating in academic enrichment affects academically capable students and I would like to ask you some questions about that. I would also like to audio record our conversation, so that I can get your words accurately. If at any time during our talk you feel uncomfortable answering a question please let me know, and you don’t have to answer it. Or, if you want to answer a question but do not want it recorded, please let me know and I will stop recording. If at any time you want to withdraw from this study please tell me and I will erase the recording of our conversation. I will do everything I can to protect your privacy, but there is always a slight chance that someone could find out about our conversation. You do not have to be in this study if you do not want to. Now I would like to ask you if you agree to participate in this study, and to talk to me about your perceptions of the Seminar program and how participating in the Seminar program has affected your belief in your own ability, your future goals, your ability to complete long-term projects, and your perceptions of the Seminar classroom environment. Do you agree to participate, and to allow me to audio record our conversation?
Appendix K: Student Interview Protocol 1

Student Interview Protocol #1

Greet participant.

Read aloud the student assent.

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.

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. Besides Seminar, what other classes are you taking this year?

3. What are your grades in each of those classes?

4. In what area or courses do you consider yourself to be an achiever?
   a. Why so?

5. In what area or courses do you consider yourself to be an underachiever?
   a. Why so?

6. Why did you elect to enroll in the Seminar program?

7. Have you ever done a Type III project before this year?
   a. If yes: Tell me about your project.
   b. What challenges did you encounter?

8. Describe your current project and why you chose it. (GV)

9. In what ways do you think you will benefit from completing this project, either now or in the future? (GV)

10. On a scale of 1 to 10, with 1 being “doubtful” and 10 being “completely confident,” how would you rank your belief in your ability to accomplish the goals you have established
for yourself in the Seminar program? (SE)

   a. Tell me about some the reasons that you used to determine that your ability to accomplish your goals is a ___? (SE, SR, EP)

11. Tell me about an experience that you had in Seminar that you perceived as positive and what made it so? (EP)
   a. Possible follow-up: How did your peers react? (EP)
   b. Possible follow-up: How did your teacher react? (EP)

12. Tell me about an experience that you had in Seminar that you perceived as negative and what made it so? (EP)
   a. Possible follow-up: How did your peers react? (EP)
   b. Possible follow-up: How did your teacher react? (EP)

13. Describe some of your personal characteristics or personality traits that help when you are working on your Type III project. (SR)

14. Describe some of your personal characteristics or personality traits that get in the way while you are working on your Type III project. (SR)

15. Tell me a story about a time when you felt proud of your work in Seminar and why you felt proud.

16. Is there anything else you want to tell me about the class, your project, your teacher, or your peers?

**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 L: Student Interview Protocol 2

Student Interview Protocol #2

1. What do you still need to do to complete your project?

2. How confident are you that you will finish your project? Why? (SE, SR, EP)

3. Describe a challenge or obstacle that you encountered while working on your Type III and how you handled it. (SR)

4. Do you think that your teacher is supporting your efforts on this project? In what ways or how so? (EP)

5. Do you think your peers are supportive of your efforts to complete your Type III? In what ways or how so? (EP)

6. How about your parents. Tell me about a time your parents helped with your project. (EP)

7. Tell me about your process for completing your project, like how you decide when, where, and how to do things for your project. (SR)

8. Is there any part of this project that you think will help you in the future? (GV)

9. Tell me a story that will help me to understand how your experience in the Seminar class is the same or different from your experience in your other high school classes? (EP)

10. Is there anything else you would like to tell me about doing a Type III, your classroom, teacher, parents, or peers?

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 M: Student Interview Protocol 3

Student Interview Protocol #3

1. You have completed your Seminar project and you have displayed and presented your
   Type III at the Seminar enrichment fair. If you could go back in time and re-do this
   project, what would you do differently and why? (SE, GV, EP, SR)

2. Tell me about a time when you where feeling discouraged while working on this project.
   What happened and how did you get out of the situation? (SR)

3. Tell me a story about something that happened while you were working on this project or
   something that you learned that is particularly meaningful for you. (GV)

4. Has completing this project affected your plans for the future? If so, in what ways? (GV)

5. Tell me about something related to this project or Seminar in general that you are proud
   of and why it makes you proud. (SE)

6. Are there ways that Seminar could be structured differently to make it more supportive?
   (EP)

7. How would you describe what you do in the Seminar program to people who are not
   familiar with it? (EP)

8. Let’s talk about achievement. How does achievement or success in this class compare to
   how you think about achievement or success in your other classes?
   a. How are they similar?
   b. How are they different?

9. Let’s talk about meaningfulness. What classes are you currently taking that you consider
   meaningful and why.

10. Is there anything else you would like to add about the program or project or yourself?
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 N: Parent Interview Protocol 1

Parent Interview Protocol #1

1. Tell me about your child’s project, why you think he/she selected that topic. (GV)
   a. Possible follow-up: Why do you or why do you not believe that the choice of topic was the best choice for your child? (GV, SR)

2. Tell me a story about a time when your child was working on his/her Seminar project. (SR)

3. Describe your child’s working habits during this project, what does this look like?

4. How would you describe the Seminar program? (EP)

5. How would you describe the Seminar teacher? (EP)

6. Describe the week before the final the project was due, including the week before the project exhibit. What was that week like? (SR)

7. To what degree do you believe that your child is proud? Why or why not? (SE)

8. Do you believe that your child’s experience with Type III Enrichment was beneficial? If so, in what ways? (GV)

9. Is there anything else you would like to tell me?

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 O: Teacher Interview Protocol 1

Teacher Interview Protocol #1

1. Describe the Seminar classroom environment and explain how it is the same or different from regular education classes? (EP)

2. Describe the process that you use to facilitate Type III Enrichment with your students and how this process does or does not correspond to the process recommended for implementing Type III Enrichment by Renzulli and Reis (1985, 1997, 2014).

3. Describe the objectives of the Seminar program and the intended goals of participation.

4. What do you want students to know, think, be able to do after they participate that they didn’t know, think, or couldn’t do before they participated? (SE, GV, SR)

5. Tell me a story that exemplifies the effect that you believe participation in the Seminar program and Type III Enrichment has on participating students. (SE, GV, SR)

6. In the past, what are common problems that students have in doing or completing Type III Enrichment? (SE, GV, SR)

7. Describe what you believe is the greatest benefit for students who participate in this program. (SE, GV, EP, SR)

8. Tell me about your students, who do you think will be able to accomplish exemplary Type III project and why? Who do you think will have trouble completing their Type III project and why?

9. Tell me about any doubts that you have that your current students will be able to accomplish their Type III Enrichment project and why you have those doubts. (SE, GV, EP, SR)

10. Is there anything else you would like to tell me?
**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 P: Teacher Interview Protocol 2

Teacher Interview Protocol #2

1. Tell me about the Seminar students’ progress in the Seminar program and specifically, their progress on their Type III Enrichment projects. (SR)
2. Describe a day typical day in the Seminar classroom. (EP)
3. Do you feel that the goals and objectives of the program are being evidenced by student progress so far? How so? (SR, SE, GV, EP)
4. Tell me about a person who is excelling and why you think they are excelling. (SR, SE, GV, EP)
5. Tell me about a student that you are worried will not be successful and why you think they are not excelling. (SR, SE, GV, EP)
6. Tell me a story about a day when the kids were excited about learning in Seminar. (EP)
7. Tell me a story about a day when the kids were frustrated with you and why they were frustrated. (EP)
8. At this point in the semester, describe what you see as the biggest or most common obstacle that may potentially prevent some of the students from accomplishing their goals? (SE, SR, GV, EP)
9. Describe the way the students treat each other in Seminar. (EP)
10. Is there anything else you would like to tell me about your class, your students, their projects, their parents, or yourself?

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 Q: Teacher Interview Protocol 3

Teacher Interview Protocol #3

1. Tell me about this past semester in the Seminar.

2. What do you believe went well and what do you wish had gone better?

3. Tell me about one student who you think exemplifies the goals of the Seminar program and participation in Type III Enrichment. In what ways is he/she an exemplar? (SE, GV, SR)

4. Tell me about one student who did not accomplish these same goals.

5. What do you think is the main difference between these two students? Why was one able to accomplish at high levels while the other was not able to accomplish at a high level? (SE, GV, SR, EP)

6. How might you have better supported the student who did not accomplish his/her goals? (SE, GV, SR, EP)

7. What were your students’ major areas of growth? (SE, GV, SR)

8. Where was there not as much growth as you would have liked? (SE, GV, SR)

9. Summarize your perceptions of the semester.

10. Is there anything else you would like to tell me about your students, their projects, their parents, or yourself as the teacher?

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 R: Transcription Service Confidentiality Agreement

Confidentiality Agreement
Transcription Service

I, ____________________________, transcriptionist, individually and on behalf of _____________________________[name of business], do hereby agree to maintain full confidentiality in regards to any and all audiotapes an/or written documentation received from Dr. Del Siegle or Carla Brigandi related to their study titled Gifited Secondary School Students and Enrichment: The Perceived Effect on Achievement Orientation. Furthermore, I agree:

1. To hold in strictest confidence the identification of any individual that may be inadvertently revealed during the transcription of audio-recorded interviews or in any associated documents.
2. To not disclose any information received for profit, gain, or otherwise.
3. To not make copies of any audiotapes or computerized files of the transcribed interview texts.
4. To store all study-related audiofiles in a safe, secure location.
5. To complete and return all study materials and transcribed files in a timely manner.
6. To delete all electronic files containing study-related documents from my computer hard drive and any back up drives.

I am aware that I can be held legally liable for any breach of this confidentiality agreement, and for any harm incurred by individuals if I disclose identifiable information contained in the audiofiles or other paper files to which I have access. I am further aware that if any breach of confidentiality occurs, I will be fully subject to the laws of the State of Connecticut.

Transcriber name ____________________________
Transcriber signature ____________________________
Transcriber name of business and title (if applicable) ____________________________
Transcriber phone number ____________________________
Transcriber email address ____________________________
Appendix S: Recruitment of Students

Script for students in the classroom:

Hi. My name is Carla Brigandi and I am a Ph.D. student at the University of Connecticut. My professor Dr. Siegle and I would like to do some research about how participating in an enrichment program, like Seminar, affects gifted high school students, like you. Since XX is one of the few schools with an enrichment program for gifted kids in the high school, we would like for all of you to be in our study.

If you decide to participate in our study, I will interview you here at XX High School between 2-3 times for about 30-60 minutes each interview. Additionally, I will record all of the interviews. I will ask you questions like “Tell me about an experience that you had in Seminar that you perceived as positive and what made it so?” I will interview you this month, maybe again in December, and then a final time sometime in the week following the enrichment fair, in January 2015. I will try not to interrupt your classes, so interviews will happen at a time convenient for you and your teachers; like during study halls, during Seminar if Mrs. XX says it is O.K., or before or after school.

In addition to interviewing you, if you decide to participate I will have access to all of the forms that you complete for Mrs. XX while you work on your project. These forms are the Interest Inventory, Management Plan, Student Product Assessment Form, Timeline Management Form, Accomplishment Forms, Student Product Self Assessment, and the Parent Assessment.

As a token of appreciation for your time, I will give all students who participate and complete all of the interviews a $10 Visa Card immediately following the final interview.

Also, after the final interview and while I am working on my research, I may send you parts of your interview and how I interpreted what you said. It is important to me that I get your words right and that I don’t misinterpret what you say. So you will have the opportunity to can tell me if I what I say is accurate.

I would also like your parents or guardians to participate in this study. I will ask them questions like “To what degree do you believe that your child is proud? Why or why not?” Parents who decide to participate will be interviewed once for about 30-60 minutes in January or February 2015. Parents won’t be interviewed here at XX High School, they can pick where they want to be interviewed and I will meet them there.

I have information packets with consent forms for you and your parents. Because you are under 18, if you want to participate, your parents need to give permission. Also, there are separate forms for your parents or guardians if they want to participate.

I am asking that you bring these packets home and share them with your parents. If you and/or your parents decide to participate, you can return the signed forms to Mrs. XX here in the Seminar classroom and she will give them to me or you can mail these signed forms directly to me at UConn, using the self-addressed stamped envelope I provided with the forms.
I plan to get started on this research as soon as possible, so if you want to participate you should return the forms this week. If you or your parents need more information or have questions that you want to ask in private, you can call me or email me. My information is on the consent forms and the information sheet.

Do you have any questions now?
## Appendix T: Codebook
Pre-determined codes on Type III Enrichment from the Enrichment Triad (Renzulli, 1977) and Schoolwide Enrichment Model (SEM; Renzulli and Reis, 1985, 1997, 2014)

<table>
<thead>
<tr>
<th>Larger Grouping</th>
<th>Sub grouping</th>
<th>Definition</th>
<th>Description</th>
<th>Continuum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type III Enrichment (Inputs)</td>
<td>Personalization of Interest in Topic</td>
<td>Students are provided with opportunities for applying interests, knowledge, creative ideas and task commitment to a self-selected problem or area of study.</td>
<td>Students select both the topics and the products they wish to pursue. Rather than define each product and determine the materials and outcome, teachers help guide and facilitate the learning process of independent and small-group work.</td>
<td>The project idea did not come directly from the child’s personal interests. The project idea did come directly from the child’s personal interest; however, the interest is topical or current. The project idea did come directly from the child’s personal interests, and this interest is long standing.</td>
</tr>
<tr>
<td>Personalization of Interest in Product</td>
<td>Students are provided with opportunities for applying interests, knowledge, creative ideas and task commitment to a self-selected problem or area of study.</td>
<td>Students select both the topics and the products they wish to pursue. Rather than define each product and determine the materials and outcome, teachers help guide and facilitate the learning process of independent and small-group work.</td>
<td>The product idea did not come from the child. The product idea did come from the child; however, there is little data to support that this product choice was inspired by personal interest. The product idea did come directly from the child and there is evidence to support this product choice was inspired by personal interests.</td>
<td></td>
</tr>
</tbody>
</table>
| Focusing on Methodologies        | Students acquire advanced level | Rigorous learning is embedded in the | There is no indication that the

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| Outlets and Audiences for Student Products (Authentic Audience) | Students develop authentic products that are primarily directed toward bringing about a desired impact upon a specified audience. | Students develop products for an authentic audience, as opposed to developing products for the teacher to be graded. | The student had no sense of a real-world audience. The student had sense of a real world audience and the real-world audience observed or interacted with the product. | understanding of the knowledge (content) and methodology (process) that are used within particular disciplines, artistic areas of expression, and interdisciplinary studies. enrichment process. For example, students regularly engage in Type II Enrichment activities and then use and apply these activities and the skills developed through these activities into the context of their Type III. Type II methodologies include cognitive thinking, character development and affective process skills, learned how-to skills, advanced research skills and reference materials, and written, oral, and visual communication skills. The student’s role is transformed from lesson learner to first hand inquirer. student learned, used, or applied learning methodologies. The student learned advanced methodologies. The student learned and applied advanced methodologies. |
# Appendix U: Codebook

Pre-determined codes from Achievement Orientation Model (AOM; Siegle and McCoach, 2005)

<table>
<thead>
<tr>
<th>Larger Grouping</th>
<th>Sub grouping</th>
<th>Sub-sub grouping</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self Efficacy</td>
<td></td>
<td></td>
<td>An individual's belief that he/she has the skills to be successful at tasks (Bandura, 1986)</td>
<td>Helping students acknowledge past growth is an important contributor to future growth.</td>
</tr>
<tr>
<td></td>
<td>Past performances or Mastery</td>
<td></td>
<td>Students' successful experiences boost self-efficacy, while failures erode it.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vicarious experience</td>
<td></td>
<td>Observing a peer who is viewed as equally or less skilled succeed at a task can strengthen beliefs in one's own abilities. Observing a peer who is viewed as having similar or superior skill fail can lesson beliefs in one's own abilities.</td>
<td>Provide students with models similar to themselves who perform well and who verbally share their process in reaching these successes.</td>
</tr>
<tr>
<td></td>
<td>Verbal persuasion</td>
<td>You can do this</td>
<td>Teachers can boost self-efficacy with credible communication and feedback to guide the student through the task or motivate them to make their best effort. Reword: credible communication and feedback to guide the student through the task or motivate them to make their best effort.</td>
<td>When I teacher tells a student, &quot;you can do this.&quot; Verbal persuasion is more effective when students feel that the person giving the persuasion is credible and trustworthy. A teacher provides a student with feedback on how to improve something, providing direction and alleviating fear that he or she is not good enough.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physiological cues</td>
<td></td>
<td>A positive mood can boost one's beliefs in their ability to accomplish tasks, while anxiety can undermine it.</td>
<td>If a student has anxiety before and event, he or she can use relaxing techniques.</td>
</tr>
<tr>
<td>Goal Valuation</td>
<td></td>
<td></td>
<td>The extents to which</td>
<td></td>
</tr>
<tr>
<td>people find tasks meaningful, useful, important, enjoyable, or interesting</td>
<td>A person may read a book because they find reading enjoyable.</td>
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<tr>
<td>Intrinsic value (Interest)</td>
<td>People engage in tasks that they find enjoyable</td>
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<td>Utility value (Immediately useful or useful in the future)</td>
<td>People engage in tasks because they value the outcome of the activity, that is, the task relates to their current or future goals</td>
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<td>Attainment value (Identity)</td>
<td>People may engage in tasks because their identity is related to that task</td>
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<td>A person who does not find reading enjoyable may read a book because they value a college degree, which will help them to get a job in the future.</td>
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<td>Environmental Perceptions</td>
<td>The extents to which individuals know that those around them will support their efforts, including school, home, and peers. Specifically, environmental perceptions refer to building trusting relationships.</td>
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<td>School level Teachers</td>
<td>Students benefit when teachers demonstrate that they care about their students, know them personally, and are interested in helping them succeed.</td>
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<td>The teacher can treat students as if they are enthusiastic learners, for example, by explaining how an activity is enjoyable, useful, and interesting. The teacher can modify curriculum to create an optimal level of challenge; too much challenge may frustrate students, while too little challenge may bore students.</td>
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<td>Role</td>
<td>Benefits</td>
<td>Example</td>
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<td>Knowledgeable teachers</td>
<td>Students benefit when teachers' have advanced content knowledge and can connect that information to other disciplines.</td>
<td>The teacher interacts and engages with students in a positive way, and also provides a positive role model. The teacher connects with other people to create a caring community for the student.</td>
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<td>Bias-free teachers</td>
<td>Students must believe that teachers are treating them fairly.</td>
<td>The teacher is comfortable having discussions with his or her students as opposed to sticking to the textbook and does not fear that that discussion will bring him or her into unfamiliar territory.</td>
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<td>Home Parents</td>
<td>Students benefit when parents' demonstrate that they care about their child, know them personally, and are interested in helping them succeed.</td>
<td>The parents provide resources. The parents monitor their child. The parent supports and encourages their child. The parent provides a role model.</td>
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<td>Mentors</td>
<td>Students benefit when mentors' demonstrate that they care about their protégée, know them personally, and are interested in helping them succeed.</td>
<td>The mentor provides the student with academic content knowledge. The mentor provides the student with real world learning experiences. The mentor supports and encourages the student. The mentor is a role model.</td>
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<td>Peers</td>
<td>Students benefit when peers' demonstrate that they care about them, know them personally, and are interested in helping them succeed.</td>
<td>Peers are respectful. Peers give academic feedback. Peers supports and encourages each other.</td>
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<td><strong>Self Regulation</strong></td>
<td>An integrated learning process, consisting of the development of a set of constructive behaviors that affect one's learning. These behaviors include self-management strategies, personal standards, and self-monitoring.</td>
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<td><strong>Self-management strategies</strong></td>
<td>Self-management strategies include study skills such as notetaking, outlining, and mnemonics; and organizational skills, including creating schedules and using binders, folders and organizers. A student will create note cards of information to better learn the material. A student will create a timeline as a means of staying on task throughout a long project.</td>
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<td><strong>Personal standards</strong></td>
<td>Personal standards include setting standards aligned with or slightly above personal ability. Students who have not been challenged in the past may think that their work is &quot;good enough.&quot; Students can improve personal standards by evaluating their performance without comparing it to others.</td>
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<td><strong>Self-monitoring</strong></td>
<td>Self-monitoring refers to a student's ability to monitor his or her own distractibility, practice-delayed gratification, and to be aware of performance avoidance or procrastination. A self-monitoring student who loves to play video games will be aware that these games are distracting and will then elect to study in the room farthest away from these games. Or, a student who loves a particular T.V. show may reward his or herself with watching this T.V. show after he or she has completed his or her work.</td>
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Appendix V: Chart of Type II Methodologies and Supporting Data

1. Cognitive Thinking Skills
   • **Creative Thinking Skills**
   • **Creative Problem-Solving & Decision Making**
     Everyone: e.g. Alpha, how to make people aware of problems? Make a representative painting and display it.
   • **Critical and Logical Thinking** (All kids planned out project timeline)
     Alpha, I, 12, Riddles (so teaching skill out of context)
     Robert, 2, 1, compare and contrast
     All: Planning
     Jake, I, 9, that’s my plan…
     Jay, 1, 6, Decision making: I was thinking about designing an airplane at first but I realized with the time that I had that would take way too long…

2. Character Development and Affective Process Skills
   • **Character Development**
   • **Interpersonal Skills**
     Paris (It was helpful to people who looked at it, (II,3))
     Brianna, analogy for children’s book, I, 4
     *Alpha I, 4, group assignments and we split into two groups, voted for leader, teamwork
     Robert, 1, 3&4, worked collaboratively with uncle and friend, friends gave feedback. I, 5 group activity.
     Jake, I, 5, everyone works together; I, 6, teamwork
     *Axel, 1, 3, So I had to call people, and I don’t like talking on the phone; (1, 4) So I talked to Mr. Sills, the principal…
     Jay, I, 5, They [Seminar peers] listened up when I was talking and they asked questions at the end
   • **Intrapersonal Skills**
     Paris, intelligences, artist, (I, 4); procrastination; perfectionism (I, 6)
     *Brianna, I, 6
     * Alpha, I, 8, pop up thing representing ourselves; I, 9 Everyone basically did something that reflected on themselves, and it was all really different, and cool…
     Robert I, 5, people, what their strengths and weaknesses are…
     *Jake, I, 8, Put what represented you; I, 9, “I didn’t really go with kinesthetic…
     Jake, I, 12, three rings, and depending on what you are…; I, 12, “so it helped you figure out like they way you are…
     Jay, I, 8,
     Charles, 1,4, I thought it [Seminar] was a very nice choice to learn more about myself

3. Learning How-To Learn Skills
   • **Listening, Observing, & Perceiving** (overlap with interviewing)
     Brianna (learn doctor procedure, I, 4)
     Jay 1, 6, feedback from pilots and friends
   • **Reading, Note-taking, & Outlining** (All, subtopics)
Paris (we were reading this book, (1,5)); we read books and answered questions (II, 3)
Brianna, I, 7; (and I made sure I took good notes, 1,8)
Alpha, I, 6; I, 11
Robert, I, 3, we had to type a whole bunch of notes on what we had to do,
Robert, I, 6, read and answer questions Flow and Outliers
Jake, I, 6, reading Flow and Outliers; 1, 13; 1, 14
Charles, I, 6
• **Interviewing & Surveying**
  Paris (I started taking tallies…, (I, 3)),
  Robert, 1,1, interviewing. So I asked him what his pay is…
  Axel, 1, 3, I also surveyed kids on what they thought; 1, 3, I remember being really mad, I had to interview a lot of people…
  Axel, 2, 4, I needed her for background information
• **Analyzing & Organizing Data** (All-did boards)
  Paris (wrote note cards and studied them, (I, 4))
  Brianna, I, 8, researching and getting my information together
  Robert, I, 9
  Jake, I, 12, organized data for website
  Axel, 2,2
  Jay, 1, 3, web log
  Also drawing, painting (Alpha), developing a website, (Robert)

4. Using Advanced Research Skills & Reference Materials
• **Preparing for Research & Investigative Projects** (All-subtopics)
  Paris,
  Brianna, I, 5
  Robert 1,4
  Jake, I, 7; I, 9; lookup online, or on data bases
  Axel, 1,3
• **Library & Electronic Reference**
  Brianna, I, 6
  Robert, I, 3, computer programs
• **Finding & Using Community Resources**
  All kids, local mentors

5. Written, Oral, and Visual Communication Skills
*Axel, 1, 4, I presented to my study hall class, because you have to present for Seminar…; I am just going to present and do the same presentation I did for Seminar class…
*Jay, 1, 3, Before we presented our projects in Seminar class
• **Written Communication Skills** (All did boards; all wrote paragraphs; all presented)
  Paris (brochure, PPT),
  Brianna (analogy for children’s book, I, 4)
  Jay, 1, 4, My web log was a way for me to express myself to other people
• **Oral Communication Skills (same as interpersonal)**
  All except Jake presented at the exhibit
  Robert, II, 6, show off hard work?
Axel, 1,3, Talk to people on the phone (academic eligibility)
Axel, 1, 4, Talk to Mr. Sills about changing academic policy; 1,4, Because I did my research and I feel I can really prove my point.
Jay, 1, 7, In Seminar, you get to actually talk about things and actually like we’d give our own opinions on it.

*Visual Communication Skills* (all students present)
Paris, PPT
Brianna, drag pictures from website, I, 5
Alpha, painting
Robert, I, 8, poster and computer web site
Jake, I, 11, photographs, websites
Jay, 1, 4, PPT, 1, 7, web site