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Examining Student Engagement In The Academic Environment

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EXAMINING STUDENT ENGAGEMENT IN THE ACADEMIC ENVIRONMENT

By

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EXAMINING STUDENT ENGAGEMENT IN THE ACADEMIC ENVIRONMENT

ABSTRACT

This mixed-methods study examined the traits and engagement of five students. The students were high school boys at an independent (non-public) school. The participants' Big Five personality traits and trait emotional intelligence were examined in depth. In addition, observation and interviews were employed to gain a deep understanding of the students' behavioral and affective academic engagement. Many themes and subtopics were explored. The themes (and subtopics) were traits (conscientiousness, impulse control, extraversion, stress management, happiness, optimism, and self-esteem), engagement (participation, attention, effort, and perseverance), course content (general academics, English, math, history, and science), and academic tasks (in-class: passive vs. active, out-of-class: homework, reading, academic writing, and creative writing). For many of the participants, the traits of conscientiousness and impulse control were related to low engagement. Participants with these traits preferred active and group tasks to solitary, passive tasks. Some evidence also surfaced relating competence and autonomy to engagement. Participants were more likely to exhibit behavioral engagement when the academic work was free of significant challenge. Similarly, the participants showed higher levels of engagement when choice was offered. Further study is needed to explore self-efficacy, student–teacher relationships, and motivation in relation to academic engagement.

University of New England

Doctor of Education
Educational Leadership

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by

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CHAPTER 1

INTRODUCTION

The purpose of this mixed-methods study was to examine affective and behavioral engagement of high school boys in a non-public school. Previous education reform has largely focused on teacher accountability, standardized testing, and technology integration. This study centered on the child, specifically, the child who is not predisposed to do well in the traditional education system. The students involved in this study exhibited inconsistent achievement. In addition to examining their engagement levels, I assessed their personality and Emotional Intelligence traits. Most of the students reported traits that could be viewed as roadblocks to academic achievement in the traditional learning environment. For example, the student with test anxiety found it extremely challenging to perform during formal assessment, and the student with active motives had to work very hard to sit through an extended lecture.

The overarching educational philosophy for this study mirrored Rawls' (2005) theory of justice. Rawls' theory allows inequity as long as the least well off (those not predisposed for success in the traditional academic setting) are intentionally provided for to create equitable conditions for all (Cahn, 2014; Sandel, 2010). Another influential concept was transformative education, which requires inclusion, equity, and social justice (Shields, 2010). Katt and Condly (2009) noted the individual differences of students with respect to academic motivation fall into two major categories: (a) disposition and (b) reactions to the learning process. In the current U.S. education system, the students most in jeopardy are (a) those with trait differences that present inherent challenges to the traditional academic tasks and experiences and (b) those who lack intrinsic academic motivation: i.e., those students who find it difficult to sit still, focus, and respond well to the tasks in and out of the traditional classroom (Froiland, Mayor, & Herlevi,

2015; Katt & Condly, 2009). In this study, I explored the thoughts, feelings, and perspectives of these students in order to expose the importance of recognizing the impact of student emotions on the academic process.

Statement of the Problem

Many educators have witnessed students in American school systems that do not achieve at a level commensurate to their cognitive ability; it is possible these students fail to succeed because of a gap between ability and achievement. Although research consistently has shown that cognitive ability is the best predictor of academic achievement, this indicator fails to explain the outcomes associated with the classic underachiever (Agnoli et al., 2012; Barchard, 2003). In conducting this study, I wondered whether educators were neglecting, overlooking, or forgetting these students because they did not fit the mold of traditional students who exhibit the traits of passive learners. Froiland, Mayor, and Herlevi (2015) described these passive learners as "students who are less motivated for physical activity can better tolerate or perhaps enjoy long study sessions, reading on the couch, and taking notes during extensive lectures, especially if they are intellectually curious" (p. 215). Students who find it difficult to complete sedentary work and who lack intellectual curiosity (academic motivation) tend to achieve at significantly lower levels (Froiland et al., 2015). From a social justice perspective, my belief is that these students need unique supports to succeed academically.

I have observed many educators pointing to laziness as the root cause of this phenomenon. Some educators seem to have essentially given up on some children for the simple reason that the children have not responded to the stimuli provided by the teacher. It takes time, attention, and relationship building to gain in-depth understanding of the inner workings of children in order to meet their needs (Tomlinson & McTighe, 2006). Dewey (1897) noted,

"Without insight into the psychological structure and activities of the individual, the educative process will, therefore, be haphazard and arbitrary" (as cited in Dworkin, 1959, p. 20). After over a century of education reform, some students continue to underperform. In this study, I gathered the perspectives from a sample of these students to understand their unique challenges in navigating the academic process.

Research has shown that certain dimensions of personality and emotional intelligence (EI) relate to academic achievement (Barchard, 2003; Brouzos, Misailidi, & Hadjimattheou, 2014; Downey, Lomas, Billings, Hansen, & Stough, 2014; Vidal Rodeiro, Emery, & Bell, 2012; Ferrando et al., 2011; Russo et al., 2012). For example, personality traits of conscientiousness, openness to experience, and agreeableness, and EI traits of self-motivation, adaptability, and emotion control have been positively linked to academic achievement (Barchard, 2003; Brouzos, Misailidi, & Hadjimattheou, 2014; Downey et al., 2014; Vidal Rodeiro, Emery, & Bell, 2012). The personality trait of neuroticism has been shown to have a negative correlation with academic achievement (Downey et al., 2014). Additionally, emotional competency has been correlated with personality (Ferrando et al., 2011; Russo et al., 2012). What should educators do for students who are academically unmotivated, not conscientious, or experience high levels of anxiety in the classroom? Little research has addressed the way educators can meet the individual needs of these students. The problem addressed by this study was that students are often left behind academically in part because of inherent traits that lead to significant academic challenges.

Purpose of the Study

The purpose of this mixed-methods study was to examine the affective engagement and behavioral engagement of high school boys who showed inconsistent academic achievement at

an independent (non-public) school. The students' trait characteristics comprised the basis of the discussion. Behavioral engagement dimensions included participation, effort, and attention; in addition, in this study, affective (emotional) engagement referred to the students' perceived feelings (e.g., enjoyment, enthusiasm) about learning and about the school they attended (Lam et al., 2014; Wang, Bergin, & Bergin, 2014; Tas, 2016).

For this study, I purposefully selected students earning a grade of C+ or below in at least one course and a grade of B or above in at least one course. Because traits of emotional intelligence and Big Five personality traits are factors that affect academic motivation (Hart, Stasson, Mahoney, & Story, 2007; Mavroveli, Petrides, Sangareau, & Furnham, 2009; Mega, Ronconi, & De Beni, 2014; Qualter et al., 2012; Vidal Rodeiro, Emery, & Bell, 2012), these traits were used to describe the disposition and innate individual differences of the participants and served as mediating or intervening factors. The impact of teacher behavior on academic engagement was investigated through student perceptions. Student engagement was described following the collection of data from observations and interviews. Using self-report instruments, participants were categorized based on trait emotional intelligence and Big Five personality traits. Further study of students' engagement in learning activities was conducted through classroom observation and interviews with the participants. Because students lacking intrinsic academic motivation require extrinsic motivators, the study focused on observed student–teacher interactions and the level of student engagement during academic tasks.

One goal of this study was to determine specific teacher behaviors to improve equitable access for those students who are least well off in the traditional U.S. education system. In addition, this study was intended to identify the social, emotional, and cognitive needs of the child. These essential elements depend on the child's disposition, environmental exposure, and

beliefs (Deakin Crick & Goldspink, 2014; Froiland, Mayor, & Herlevi, 2015). Offering insight into these deep and personal understandings may provide children and teachers with tools to navigate the academic system through increased socioemotional (SE) capacity. An increase in SE capacity for the children implies the recognition, understanding, and regulation of emotions that affect their navigation of the academic process.

Research Questions

These research questions were constructed to examine the students' perceptions regarding the education process, including academic content, academic tasks designed by the teacher, and interactions (direction, support, challenge, and feedback) with the teacher. It was intended that this study would lead to a deeper understanding of the individual needs of the students.

Students experience different emotions in response to the same academic task. For example, one student may find reading quietly for an hour relaxing, engaging, and satisfying for the activity itself. Another student may find that same task boring, stressful, or frustrating. Similar examples can be found for other traditional learning activities, such as listening to extended lectures, taking notes, presenting oral reports, and memorizing vocabulary. The research questions were designed to uncover student perceptions of the learning environment. Although some academic tasks may be suitable for modification, teachers need to build a foundation of content knowledge, understanding, and skill in order for students to engage in analysis, synthesis, and evaluation (Bloom & Krathwohl, 1956). For academic tasks that cannot be modified to fit with students' individual dispositions and interests, it may be possible for teachers to engage students by offering direction, challenge, feedback, or support in order to increase motivation. The following questions guided the study:

1. How do students with specific personality and EI traits perceive their emotional and behavioral engagement in school?

2. What specific content and academic tasks do the students find enjoyable or boring?

3. With what content and academic tasks do the students find engagement easy or difficult?

Conceptual Framework

The emerging theory underpinning the study indicates that the level of academic engagement of the child in part depends upon personality, emotional competency, and social competency and is influenced by the academic process and teacher behavior. In this study, I examined the relationship between academic task characteristics, students' traits, and students' perceived engagement, based on two theories: the trait emotional intelligence model (Petrides, 2009b) and the Big Five personality trait model (John & Srivastava, 1999).

Trait Emotional Intelligence

Emotions are not a usual focus of the American education system. However, educators know that emotions can trigger chemicals in the body that have the potential to induce extreme feelings and behaviors (Ingram & Cangemi, 2012). Therefore, it is important for students and teachers to understand emotional and social competency to meet students' needs in the classroom. Although emotional capacity and competency grow over time, trait emotional intelligence exists in the lower-level needs of personality (Petrides, 2009b). Research suggests that students' trait emotional intelligence—or emotional self-efficacy—plays a vital role in maximizing the potential of each learner by helping students manage the emotions of self and respond to the emotions of others. Specific facets of emotional intelligence have a stronger relationship with academic achievement in students with lower ability (Petrides, 2009b). Even

so, this study focused on the emotional self-efficacy of students with inconsistent achievement. Further, the teacher (leader or manager) in the classroom has the great responsibility of leading students to success based on students' individual abilities, interests, competencies, and dispositions (Fan, 2012; House, 1996; Komarraju, 2013). Emotional intelligence is a piece of the puzzle that cannot be ignored. With deeper insight into the construct of trait EI, educators may be better equipped to meet all students' individual needs.

Personality: Big Five Personality Traits

Several researchers have found relationships between academic achievement and personality traits. According to John and Srivastava (1999), the Big Five personality traits are conscientiousness, agreeableness, extraversion, openness to experience, and neuroticism. The traits of openness to experience (curious, interested, excitable, imaginative, and artistic) and conscientiousness (efficient, organized, dutiful, deliberate, achievement striving, and self-disciplined) have repeatedly been positively correlated to academic achievement; neuroticism (self-conscious, vulnerable, impulsive, irritable, and anxious) has been negatively related to academic achievement (Downey, Lomas, Billings, Hansen, & Stough, 2014; Ferrando et al., 2011; John & Srivastava, 1999; Russo et al., 2012). These results, along with my personal interest in ensuring social, academic, and "trait" justice (treating students equitably based on their inherent traits) in the classroom, motivated me to examine student perceptions of learning tasks and student–teacher relationship for students who are less conscientious, less intellectually curious, or who experience anxiety in the classroom.

Engagement

Previous researchers have examined the relationship between student engagement and teacher communication, learner dispositions, learning environment, classroom climate, and

motivation (Deakin Crick & Goldspink, 2014; Linvill, 2014; Mazer, 2013a; Muenks, Wigfield, Yang, & O'Neal, 2016; Tas, 2016). Linvill (2014) and Muenks et al. (2016) suggested that personality traits affect student engagement. Other researchers developed reliable instruments to measure student engagement (Lam et al., 2014; Mazer, 2012, 2013b; Wang et al., 2014). Several valid and reliable instruments emerged from these studies. In this study, I used a subset of these instruments in the form of interview questions. These scripted interview questions were used to initiate the discussions rather than representing an exhaustive set of questions.

Teacher Leadership Behavior

Teacher behavior is important because teachers are the managers of teaching environments. Whether presenting in the classroom, implementing instructional strategies, leading learning activities, or designing out-of-class work, the teacher is the conductor. The teacher's behavior in class can directly affect student motivation and is influenced by students' individual differences (Komarraju, 2013). In addition, the learning activities and climate of the classroom elicit emotions from the students (Firmender, Gavin, & McCoach, 2014). These positive and negative emotions affect students' abilities to think, process, and learn. The relationship between students and teacher and the emotional responses of students to the teacher's behaviors and learning activities partially depends on students' personalities.

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Assumptions, Limitations, and Scope

</div>

Several assumptions affected this study. First, I assumed that all children can be successful when given appropriate challenge, support, time, and guidance. Although some teachers may succeed in reaching a child, others fail to do so. Is it the relationship, the modified learning activity, transformational leadership, or transactional leadership that impacts the learning process? When intrinsic motivation is absent, from where will the motivation come if it

is not extrinsic? What types of extrinsic factors will be successful in engaging specific students? Finally, the worst-case scenario would be that the teacher further demotivates the reluctant learners. Each learner is assumed to be predisposed with a unique personality and capacity for emotional competency. Understating students' traits and emotional competency will enable educators to provide the tools necessary to remove the obstacles to learning that are either innate or learned.

A second assumption of the study addresses the hierarchy of needs of children. When discussing motivation, it is important to acknowledge the work of Abraham Maslow. Maslow (1943) presented a theory of motivation based on a hierarchy of needs ranging from physiological needs to self-actualization needs. For example, "a person who is lacking food, safety, love, and esteem would most probably hunger for food more strongly than anything else" (Maslow, 1943, p. 373). Therefore, one assumption of this study was that students' lower level (physiological and safety) needs have been met.

The final assumption of this study was that we can learn something valuable about the importance of emotions in education from the perceptions of a sample of students.

Three limitations affected the study. First, a clear limitation of any case study involves generalizability (Merriam, 2009). Second, the researcher must be aware of bias in the form of personal beliefs and personal interest so that data is collected and analyzed objectively and practice integrity and discipline in observation, evaluation, and storytelling to avoid distorting the data. As a researcher and an employee at the research site, a conflict of interest was present whether real or perceived. To preserve the integrity of the research process, the following practices were followed. Participants were given multiple opportunities to decide whether or not to participate in or exit the study. Participants were not required to answer any questions.

Participants and participants' families were informed of their rights to privacy and confidentiality. Participants and their families were informed that participation in the study would not impact their standing in the community in any way. These choices were more thoroughly explained during the informed consent process (See Appendix A and Appendix B). Also, there was no personal gain from the results of this study. The only motivating factor of personal interest was the promotion of transformative practices (Shields, 2010). The third limitation was time. The detail and depth of the analysis were limited by the amount of time available to dedicate to the research. The scope of this study was to examine emotional and behavioral engagement in relation to the measured traits of the participants. The data were collected to represent the stories of the participants. Conclusions based on those data are presented. This study was not intended to remedy any academic challenges for the participants.

Rationale and Significance

Educators know some students have the cognitive ability to achieve, yet lack the motivation to be successful. Certain teachers succeed in engaging the reluctant learners. At times, though, the teacher behaviors intended to motivate these students academically have yielded the opposite result, further demotivating the students. By examining students' dispositions, relationships with teachers, perceptions of traditional academic tasks, and perceptions of teacher behaviors, findings emerged about why some students succeed while others do not and why some teachers are successful applying extrinsic motivation while others are not. This evidence may lead to a new way of defining differentiated instruction and individualized education.

Definitions of Terms

Affective (emotional) engagement. Affective (emotional) engagement refers to students' perceived feelings (e.g., enjoyment, enthusiasm) about learning and the school they attend (Lam et al., 2014; Tas, 2016; Wang et al., 2014).

Behavioral engagement. Behavioral engagement dimensions include participation, effort, and attention (Lam et al., 2014; Tas, 2016; Wang et al., 2014).

Big Five personality traits. Big Five personality traits are defined as conscientiousness, neuroticism, introversion, agreeableness, and openness to experience (John & Srivastava, 1999).

Extrinsic motivation. Extrinsic motivation is defined as "the performance of an activity in order to attain some separable outcome" (Ryan & Deci, 2000, p. 71).

Intrinsic motivation. Intrinsic motivation is defined as "the inherent tendency to seek out novelty and challenges, to intend one's capacity to explore, and to learn" (Ryan & Deci, 2000, p. 70).

Motivation. Motivation is defined as sustained, goal-directed activity characterized by choice and effort (Katt & Condly, 2009).

Personality. Personality is defined as the individual differences in the way people think, feel, and behave (American Psychological Association, 2016). Although many models have been used to describe personality, for the purpose of this study, the focus will be on the Big Five personality traits (John & Srivastava, 1999).

Teacher leadership behavior. Teacher leadership behavior, defined specifically for this study, includes planning, preparation, and implementation of academic tasks; interaction with students during class activities; and interaction with students outside of class time.

Trait emotional intelligence. Trait emotional intelligence is defined as the individual differences in emotion-related self-perceptions (Petrides, 2009b). Trait EI has been defined

simply as the self-perception of the ability to recognize, understand, and regulate emotions (Petrides, Frederickson, & Furnham, 2004). Trait EI exists in the lower-level needs of personality and is independent of the cognitive domain (Petrides, 2009b).

Transformative education. Transformative education is defined as providing inclusive, equitable, and socially just learning opportunities for all students (Shields, 2010).

Underachiever. The term *underachiever* refers to a student whose academic performance is below what is expected, based the student's cognitive ability. For the purpose of this study, the underachiever was of average- to above-average cognitive ability with below-average academic achievement. This student is not successful academically.

Conclusion

Educators should challenge and support students appropriately to maximize the potential of all students. This means giving students what they need when they need it. Some students respond very well to traditional methods; other students do not (Froiland, Mayor, & Herlevi, 2015). Meeting all students' needs requires a paradigm shift in which educators endeavor to treat individual students fairly and not equally. Shields (2010) suggested that this paradigm shift could occur through transformative leadership, resulting in "a more inclusive, equitable, and deeply democratic conception of education" (p. 559). Should educators and communities support a transformative experience? If so, the requirement would then be to provide inclusive, equitable, and socially just learning opportunities for all students (Shields, 2010). One goal of this study was to promote the concept of transformative education.

One form of injustice being committed in American education is that students are not being treated fairly in relation to their divergent needs. This type of inequity is the result of an educational misunderstanding among educators that all opportunities and experiences must be

the same for all students. For some students, traditional academic tasks are excruciatingly painful to complete. Yet, completing the same tasks may be easy and rewarding for others. Students are different. *Different* does not imply less than or weak. It is merely different. It is the teachers' duty to value—not simply accept—those differences to give all students access to vibrant learning experiences.

In this study, I explored the academic and emotional perceptions of students to offer a deeper understanding of their values, emotions, and motives. This examination focused on the perceptions of students whose traits presented obstacles to success in the traditional education system. The observations published in this study may help inform students and families of the real academic challenges students face as educators attempt to meet the needs of nontraditional (students with limited passive motives and low conscientiousness for traditional academic work) learners. In doing so, we may move one step closer to a transformative educational experience for all students.

In Chapter 2, I review and summarize the relevant previous research regarding personality, emotional intelligence, student engagement, academic emotions, academic achievement, and teacher behavior. The theories relevant to this study are thoroughly described, reviewed, and presented. The conceptual framework presented in this chapter is expanded to propose a new theory. This framework provides a clear understanding of the interconnectedness of the constructs being studied.

CHAPTER 2

REVIEW OF THE LITERATURE

Historically, cognitive ability has been used as a predictor of academic achievement. Some studies supported the connection (Agnoli et al., 2012; Barchard, 2003). Next, behaviorists successfully linked personality traits to academic achievement, mainly in the 1980s (cite). More recently, researchers have begun to investigate trait emotional intelligence in an attempt to connect emotional intelligence to academic achievement (cite). These studies have generated mixed results (cite). In a recent definition, Petrides (2009b) positioned trait emotional intelligence as existing within the lower hierarchies (low-level needs) of personality. This definition was significant because the construct was defined as existing outside the domain of cognition (Petrides, 2009b).

Specific personality traits and facets of trait emotional intelligence are directly related to motivation. In this study, I assumed that cognitive ability remains the strongest predictor of academic achievement. Rather, the premise of the study was that there are many other important factors to consider in addition to cognitive ability when attempting to understand the learner profile to promote academic success.

As presented, the research on personality, trait EI, and academic achievement has consistently shown relationships between traits and academic achievement. Therefore, what does the relationship mean for education? How can educators use this information about these relationships to improve curriculum and instruction? Can teachers use the information to increase academic engagement of students?

Purpose

The purpose of this mixed-methods study was to examine the affective engagement and behavioral engagement of high school students who showed inconsistent academic achievement at an independent school. The basis of discussion was the students' trait characteristics. In this review, I examine the literature, both recent and historic, with regard to emotions, personality, motivation, engagement, and student achievement. The focus is on trait emotional intelligence, the Big Five personality traits, and academic engagement (affective and behavioral). Additional topics are explored to take into account significant factors that influence the emotions and motivation of students.

The purpose of this review is to identify any connections between emotional intelligence (EI), personality, and academic engagement and the goal of improving academic achievement. Additional factors reviewed are teacher behavior and motivation, specifically, how teacher behavior affects the feelings and attitudes of the students, which eventually may affect academic self-efficacy, motivation, and achievement. In this chapter, the following topics are reviewed: emotions and education, emotional intelligence, personality, motivation, engagement, and teacher behaviors. After the review, a conceptual framework is presented, followed by a proposal for further study in this area.

Process for Reviewing the Literature

The initial stages of the literature review involved searching the keywords *emotional intelligence, academic achievement, education, student,* and *teacher*. These searches yielded mixed results with respect to the relationship between emotional intelligence and academic achievement. However, the searches uncovered significant research with respect to emotions in education. It was apparent that understanding academic emotions was a prerequisite to

understanding emotional competency. At that point, the keyword focus became *emotions in education*, followed by a more thorough search of *emotional intelligence* as a construct.

The next significant construct uncovered was *personality*. One model of trait EI has positioned the construct within the domain of personality (Petrides, 2009b). This led to the search for personality models, potential relationships between personality and EI, and any observed relationships between personality and academic achievement.

The results from these searches led to an exploration of the topic of motivation. After a thorough review of motivation, I concluded that a study of motivation within the limited timeframe allotted was not practical. However, a construct that could be observed and measured was engagement. The review of this construct yielded promising information.

Through the searches of the four constructs, a potential framework began to emerge. Observing the connection between a student's lack of intrinsic academic motivation with the underachievement and the importance of extrinsic motivation highlighted the importance of the teacher's behavior and understanding the student's inherent challenges to traditional academic tasks. Finally, searching for research describing teacher behavior, academic emotions, academic motivation, engagement, and academic achievement led me to position this study in the arena of social justice, focusing on transformative leadership as the lens through which teachers provide for the students who are the least well predisposed for traditional passive, individual academic tasks.

A major gap in the literature was evident involving viewing the educational process through a transformative leadership lens to examine (a) deliberately planned instructional activities; (b) teacher direction, challenge, and support; and (c) student motives. One of the goals of this study was to expose the need for change in the academic process. This comprehensive

review provides additional insight into the challenge of meeting individual needs of the students in the classroom. The main focus is emotions in education. The subtopics are trait emotional intelligence, personality, engagement, and motivation in education. This review sets the groundwork for this study.

<div align="center">**Emotions and Education**</div>

Many constructs have been involved in researchers' attempts to create an accurate description of academic achievement. The first of those included the theories of emotions that influence student learning. Dozens of emotions affect cognitive, affective, motivational, and even physiological processes (Pekrun, 2006). However, which emotions are relevant to the cognitive, emotional, and behavioral processes of learning? Villavicencio and Bernardo (2013) explored the relationship between self-regulation, academic emotions, and academic achievement. Specifically, Villavicencio and Bernardo (2013) discussed the positive academic emotions of enjoyment, hope, and pride and the negative academic emotions of anger, anxiety, and boredom. They conducted a study with a sample of 1,345 university-level students in the Philippines using the Academic Emotions Questionnaire (AEG-M; Goetz & Frenzel, 2005), the self-regulation subscale of the Motivated Strategies for Learning Questionnaire (MSLQ; Pintrich, Smith, Garcia, & McKeachie, 1991), and the students' final grades in their trigonometry classes (Villavicencio & Bernardo, 2013). Villavicencio and Bernardo found that high levels of positive emotions were associated with gains in final grades as a function of self-regulation. Students who reported low levels of pride exhibited no relation to self-regulation and grades; however, a negative relationship between self-regulation and final grades for the students emerged for students who reported low levels of enjoyment (Villavicencio & Bernardo, 2013).

The results of the study showed that emotions affected not only motivation but also student achievement (Villavicencio & Bernardo, 2012).

Pekrun (2006) discussed a category of emotions that he called "achievement emotions" (p. 317). Achievement emotions are students' feelings associated with upcoming events, in-class activities, and event outcomes (Pekrun, 2006). Pekrun's (2006) control-value theory included both positive and negative emotions. For example, the feelings associated with anticipating an upcoming test or oral report were joy, hope, anxiety, and hopelessness (Pekrun, 2006). After an event (e.g., a test or oral report), a different set of emotions emerged: joy, pride, gratitude, sadness, shame, and anger (Pekrun, 2006). Finally, the emotions associated with in-class instructional activities and preparation for class (e.g., homework, reading, projects) were enjoyment, anger, frustration, and boredom (Pekrun, 2006). Students experienced these emotions from the educational process; however, the array of emotions elicited by the elements outside of school were excluded (Pekrun, 2006). Pekrun found the emotions occurring within the affective (emotional) domain of students affected their behavior. Once students' emotions emerged, the ability to recognize and regulate the emotions became important, leading to the need for emotional intelligence.

Emotional Intelligence

Emotional intelligence deals with students' ability to recognize, understand, and regulate their own emotions and understand the emotions of others. The construct of emotional intelligence (EI) has garnered extensive attention from the popular media (Goleman, 2005). Mayer and Salovey coined the term *emotional intelligence* in 1990; later, Bar-On (2006) used the abbreviation *EQ* as a parallel term to IQ. Two emotional intelligence models compete: (a) cognitive ability and (b) trait emotional intelligence, also known as *self-efficacy* (Mavroveli,

Petrides, Sangareau, & Furnham, 2009, Russo et al., 2012). Mayer, Salovey, Caruso, and

Grewal (2005) defined EI as the ability to recognize and regulate emotions and developed the

Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) as a cognitive ability test of EI.

However, proponents of trait emotional intelligence have argued that emotions cannot be

measured by such an instrument and instead defined EI as the self-perceptions of the ability to

recognize, understand and regulate emotions (Petrides et al., 2004). Hence, two of the more

widely accepted models, the Bar-On Emotional Quotient Inventory (EQ-I; Bar-On, 2006) and the

Trait Emotional Intelligence Questionnaire (TEIQue; Petrides, 2009a) have been used to assess

subjects' perceptions of their abilities. Two additional models, the Swinburne University

Emotional Intelligence Test (SUEIT; Luebbers, Downey, & Stough, 2007) and the Schutte Self-

Report Emotional Intelligence Test (SSEIT; Schutte, 1998) have also been used to gauge EI.

The SSEIT has been associated with the Mayer and Salovey model of EI (1990). In contrast, the

SUEIT is a trait emotional intelligence assessment (Downey et al., 2014; Russo et al., 2012).

Emotional intelligence models. Emotional intelligence is based on the premise that EI is

a cognitive ability (Salovey & Mayer, 1990). With this in mind, tests for this model have

encompassed questions with right and wrong answers (Salovey & Mayer, 1990). Proponents of

this type of EI have argued that this test format eliminates the ability to fake the results (Salovey

& Mayer, 1990). However, proponents of trait emotional intelligence have claimed that EI

cannot be assessed by a series of right and wrong answers from a test of cognition (Petrides et

al., 2004). Rather, they posited that EI is a branch more closely related to personality than

cognition and that self-perception is the only valid method of assessing ability (Petrides et al.,

2004). The three most widely used models of ability and trait are described next.

MSCEIT model. The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) is a cognitive ability model. Salovey and Mayer (1990) defined EI as "the subset of social intelligence that involves the ability to monitor one's own and others' feelings and emotions to discriminate among them and to use this information to guide one's thinking and actions" (p. 189). The MSCEIT model of EI has four branches: perceiving emotions, facilitating thought, understanding emotions, and managing emotions (Mayer et al., 2005).

Bar-On model. Bar-On (2006) defined emotional intelligence as "a cross-section of interrelated emotional and social competencies, skills, and facilitators that determine how effectively we understand and express ourselves, understand others and relate with them, and cope with daily demands" (p. 3). The Bar-On Emotional Quotient Inventory model (EQ-I) is a trait emotional intelligence model (Bar-On, 2006). The model contains five factors— intrapersonal, interpersonal, stress management, adaptability, and general mood (Bar-On 2006). These five factors are further divided into 15 facets: Intrapersonal consists of self-regard, emotional awareness, assertiveness, independence, and self-actualization; interpersonal comprises empathy, social responsibility, and interpersonal relationships; stress management consists of stress tolerance and impulse control; adaptability contains the facets of reality testing, flexibility, and problem solving; and general mood comprises optimism and happiness (Bar-On, 2006).

TEIQue model. Petrides (2009) posited that emotional intelligence is distinct from cognitive ability and exists in the "lower levels of personality hierarchy" (p. 12). Petrides developed the Trait Emotional Intelligence Questionnaire (TEIQue; Petrides, 2009a). Like the EQ-I instrument, the TEIQue consists of five factors and 15 facets (Petrides, 2009b). The four factors are well-being, self-control, emotionality, and sociability (Petrides, 2009b). Well-being

consists of happiness, optimism, and self-esteem; self-control consists of emotion regulation, impulse control, and stress management; emotionality comprises empathy, emotion perception, emotion expression, and relationships; sociability is composed of emotion management, assertiveness, and social awareness; and independent facets encompasses self-motivation and adaptability (Petrides, 2009b).

For this study, the focus was on trait emotional intelligence. Several models are reviewed to discern academic relationships with global emotional intelligence; however, my main interest was with the individual facets of the trait emotional intelligence model as measured by the TEIQue instrument (Petrides, 2009a).

Personality

The term *personality* refers to how people think, feel, and behave (American Psychological Association, 2016). For this study, an additional focus was on the Big Five personality traits (John & Srivastava, 1999). The purpose of including this construct in the study was to provide multiple dimensions for the basis of individual student differences. Researchers have related the Big Five personality traits to trait emotional intelligence and academic achievement (Petrides, 2009b; Downey et al., 2014; Ferrando et al., 2011; Russo et al., 2012). The Big Five traits include conscientiousness (versus lack of direction), agreeableness (versus antagonism), openness to experience (versus closed-mindedness), neuroticism (versus emotional stability), and extraversion (versus introversion; John & Srivastava, 1999). Three of the Big Five traits were of particular interest for this study: neuroticism, openness to experience, and conscientiousness. By definition, these traits relate to specific facets of trait emotional intelligence (Petrides, 2009b). Neuroticism relates to emotional control (Petrides, 2009b). This is important because increased anxiety has physiological effects, including reduced fine motor

control and the ability to retrieve information. Conscientiousness is related to motivation (Russo et al., 2012). Finally, openness to experience is related to adaptability and flexibility (Petrides, 2009b). The personality construct is an important factor in this discussion because "who students are" somewhat determines how they feel. This premise is supported by the literature in the following review.

Motivation

Motivation has long been an elusive construct for many researchers. Motivation has been defined as sustained, goal-directed activity characterized by choice and effort (Katt & Condly, 2009). Teachers have observed highly motivated students who worked hard and persevered through challenges; in contrast, they have witnessed students who lacked interest, enthusiasm, and effort (Katt & Condly, 2009). In this section, I review widely accepted models of human motivation for the purpose of developing a theoretical framework to use in examining the motives and behavior of students.

Motivation-hygiene theory. Herzberg (as cited in Katt & Condly, 2009, p. 214) presented a theory that accounts for motivating and de-motivating factors. Herzberg (as cited in Katt & Condly, 2009) referred to the factors that "allow one to avoid pain or unpleasantness" (p. 214) as hygiene factors. Herzberg (as cited in Katt & Condly, 2009) argued that motivators consisted of factors such as achievement, recognition, value of work itself, and responsibility; hygiene factors were represented by elements such as working conditions, policies, and supervision. Herzberg (as cited in Katt & Condly, 2009) held a "belief that emotions serve not just as outputs in the human motivation system, but as inputs" (p. 219). The fact that emotions serve as inputs to our motivation supports the argument for further research on emotions, emotion perception, and emotion management in conjunction with motivation theory.

Self-determination theory. Ryan and Deci (2000) presented self-determination theory (SDT) to explain more fully the intrinsic motives and external factors affecting behavior. The authors posited that motivation requires three basic needs be met: competence, autonomy, and relatedness (Ryan & Deci, 2000). One assumption for this theory was that humans possess an innate desire to be "curious, vital, and self-motivated" (Ryan & Deci, 2000, p. 68). Ryan and Deci (2000) observed that "the human spirit can be diminished or crushed and that individuals sometimes reject growth and responsibility" (p. 68). This theory applies to both the intrinsic tendency to maximize individual potential and to the external forces that may promote or hinder growth (Ryan & Deci, 2000).

Intrinsic motivation. Intrinsic motivation has been defined as the desire for engaging in activity for the pure satisfaction of the activity (Ryan & Deci, 2000). Proponents of SDT first begin by accepting that humans are born with a tendency toward intrinsic motivation (Ryan & Deci, 2000). Ryan and Deci (2000) did not dwell on the causes of intrinsic motivation. Rather, the authors focused on conditions:

> Yet, despite the fact the humans are liberally endowed with intrinsic motivational tendencies, the evidence is now clear that the maintenance and enhancement of this inherent propensity requires supportive conditions, as it can be fairly readily disrupted by various non-supportive conditions. (Ryan & Deci, 2000, p. 70)

For example, certain positive feedback, support, social rewards, challenges, and the absence of demeaning interactions support intrinsic motivation by promoting feelings of competence when accompanied by a sense of autonomy (Ryan & Deci, 2000). This is the basis for the behavior being self-determined. In addition, the authors noted external conditions such as environmental rewards, threats, directives, and pressured deadlines thwarted intrinsic motivation. In fact,

"teachers who are autonomy supportive (in contrast to controlling) catalyze in their students greater intrinsic motivation, curiosity, and desire for challenge" (Ryan & Deci, 2000, p. 71).

Extrinsic motivation. Extrinsic motivation has been defined as the desire to engage in an activity in order to attain a distinct outcome (Ryan & Deci, 2000). Most human behavior, especially after childhood, is not intrinsically motivated (Ryan & Deci, 2000). Extrinsically motivated behavior can also be self-determined; the level to which the perceived control is internal provides the greatest sense of well-being and satisfaction (Ryan & Deci, 2000).

Engagement

There is interest in the construct of engagement, which includes how students feel about academics and how they behave during school activities. Behavioral engagement dimensions include participation, effort, and attention; affective (emotional) engagement refers to the students' perceived feelings (e.g., enjoyment, enthusiasm) about learning and about the school they attend (Lam et al., 2014; Tas, 2016; Wang et al., 2014). Previous researchers have examined the relationship between student engagement and teacher communication, learner dispositions, learning environment, classroom climate, and motivation (Deakin Crick & Goldspink, 2014; Linvill, 2014; Mazer, 2013; Muenks et al., 2016; Tas, 2016). These researchers found relationships between the facets listed above. Linvill (2014) and Muenks et al. (2016) suggested that personality traits affect student engagement. Other researchers focused on developing reliable instruments to measure student engagement (Lam et al., 2014; Mazer, 2012, 2013; Wang et al., 2014).

Implications of Literature Themes for this Study

Some students are intrinsically motivated to engage in academic tasks. They possess intellectual curiosity, enjoy completing typical academic tasks such as reading, reviewing

material, writing, and solving problems. Educators might say that it is in their nature to strive to learn. For these students, engagement is not an issue. Yet, many students find these same activities less than enjoyable and maybe even excruciating (Froiland et al., 2015). For these students, it is my opinion that the focus must be on identifying activities that elicit desire or extrinsic motivation factors. The teacher designs the instruction and learning activities; however, the decisions and behavior of the teacher can affect the level of engagement of the student. In this study, I examined the impact of students' traits and the relationship between teacher and student on engagement.

Emotions, Emotional Intelligence, and Academic Achievement

Cognitive ability (IQ) has consistently been used as a predictor of academic achievement (Agnoli et al., 2012; Barchard, 2003). What other factors enhance educators' ability to predict academic achievement? The literature shows that personality and emotional intelligence can significantly add to the predictability of academic achievement. It was the review of these traits that led to the inclusion of these multiple dimensions in this study. Measuring these traits aided in the discussion of the cases presented.

Global emotional intelligence and academic achievement. Barchard (2003), Iannucci and Mirabella (2013), and Mavroveli et al. (2009) explored the relationships between global emotional intelligence, cognitive ability, emotion perception, and peer competence. However, the search for a relationship between global emotional intelligence (an aggregate score of the individual facets) and academic achievement has yielded mixed results.

Evidence disfavoring that a relationship exists. Barchard (2003) studied the predictive power of cognitive ability, personality, and emotional intelligence for academic achievement among 150 undergraduate students. Barchard found that EI could explain only a small

percentage in the variation of the regression model. In fact, as a predictor, EI was less strong, compared to cognitive ability or personality (Barchard, 2003). It is important to note that Barchard only analyzed a global emotional intelligence score.

Iannucci and Mirabella (2013) examined the potential relationship between trait emotional intelligence and academic success for 85 randomly selected college students from the southern United States. The measures for academic success were GPA, class attendance, participation in extracurricular activities, and progress toward degree completion (Iannucci & Mirabella, 2013). The TEIQue-SF was used to measure global trait emotional intelligence (Iannucci & Mirabella, 2013). The authors concluded that no significant relationship existed between any of the academic success factors and global trait emotional intelligence. Again, the studied focused on a global score, excluding the individual factors and facets of the construct.

Mavroveli et al. (2009) are known for developing the TEIQue (child version) as well as for extensively researching emotional intelligence. Insignificant correlations were found for emotional intelligence with both academic achievement and cognitive ability (Mavroveli et al., 2009). This finding was consistent with the findings of other studies. However, in the current study, the individual facets of EI and their potential correlation with academic achievement was most important. It is relevant to note Mavroveli et al. (2009) found no correlation between EI and IQ. In addition, the definition of trait emotional intelligence contains the personality domain and not the cognitive domain, similar to results found by other researchers (Petrides, 2009b). This evidence serves to strengthen the potential relationship between traits and academic motivation.

Evidence favoring that a relationship exists. Other researchers have observed different results. Ferrando et al. (2011), Nasir and Munaf (2011), and Vidal Rodeiro et al. (2012) found

positive relationships between global trait emotional intelligence and academic achievement.

Ferrando et al. (2011) sought to examine the effects of trait emotional intelligence on academic achievement while controlling for IQ, personality, and self-concept. Ferrando et al. studied 290 11- and 12-year-old students in southeast Spain, using the TEIQue-ASF (Petrides et al., 2006) to measure trait emotional intelligence, the Children's Personality Questionnaire (CPQ; Porter & Cattell, 1963) to assess personality, the Children's Adaption Questionnaire (CAI-I; Franco, 2002) to measure self-concept, and national exams to measure academic achievement. As expected, trait emotional intelligence was not related to IQ (Ferrando et al., 2011). In addition, as expected, trait emotional intelligence was partially related to personality (Ferrando et al., 2011). Ferrando et al. also observed a positive correlation between trait emotional intelligence and self-concept. Ferrando et al. concluded trait emotional intelligence did in fact add to the predictive ability of academic achievement with the other factors. One of the major limitations of this study was the use of the adolescent short form of the TEIQue, which assessed only global emotional intelligence (Ferrando et al., 2011).

Nasir and Munaf (2011) examined the relationship between trait emotional intelligence and academic achievement among 188 high school students from Karachi. Additionally, Nasir and Munaf explored potential gender differences, using the Bar-On Emotional Intelligence Test (Bar-On, 2006) to assess trait emotional intelligence. A strong positive relationship was found between global emotional intelligence and academic achievement for both males and females (Nasir & Munaf, 2011). Although a significant difference in academic performance was found between the genders, this was not the case with global emotional intelligence (Nasir & Munaf, 2011). This study had significant limitations—there were no controls for other factors affecting performance, such as IQ (Nasir & Munaf, 2011).

Mavroveli and Sanchez-Ruiz (2011) suggested correlations between emotional intelligence and academic achievement might be misleading because it was impossible to tell whether increased self-concept had a positive effect on achievement or if higher achievement increased self-concept. The limitations of the previous studies include employing the short forms of the questionnaires, which incorporate approximately one sixth of the items (Mavroveli & Sanchez-Ruiz, 2011). Additionally, the global score for emotional intelligence essentially presents an average of the individual facets (Mavroveli & Sanchez-Ruiz, 2011). Thus, greater detail is required to determine whether a true relationship exists.

Global EI and academic achievement for underachieving students. Another consistent finding was that EI showed a stronger relationship among students of lower ability and/or lower achievement. For example, Keefer et al. (2012) found that students with lower EI were more likely to drop out college. Vidal Rodeiro et al. (2012) concluded that EI was more relevant to students of lower ability. Petrides (2009) posited that EI had greater relation to academic achievement in low-ability students.

Keefer et al. (2012) examined the relationship between trait emotional intelligence and graduation outcomes after a six-year period. In the study, 1,105 students were assessed for trait emotional intelligence and assigned to five classes based on those scores (Keefer et al., 2012). The classes were labeled A, B, C, D, and E in decreasing order of EQ (Keefer et al., 2012). The authors used the Bar-On Emotional Intelligence test. University records provided data on graduation status and high school GPA (Keefer et al., 2012). The dropout rate of students in Class E was significantly predicted even after GPA and gender were taken into account (Keefer et al., 2012). In addition, the majority of Class E dropouts occurred during the first two years; in contrast, the majority of dropouts from Class D occurred in years 3 and 4 (Keefer et al., 2012).

Agnoli et al. (2012) examined the relationship between cognitive ability and EI with academic achievement. The sample for this study included 447 8- to 11-year-olds from Italy (Agnoli et al., 2012). The instrument used to measure trait emotional intelligence was the TEIQue-CF (Russo et al., 2012). The Coloured Progressive Matrices (CPM; Raven, Raven, & Court, 2000), which is related to Raven's Standard Progressive Matrices, was used to measure nonverbal reasoning . Grades in both language and math were used to measure academic achievement. The results showed that trait emotional intelligence predicted academic achievement. Students with lower cognitive ability but higher EI performed better in language than did students in the same cognitive ability group but with lower EI (Agnoli et al., 2012).

Global EI with respect to the age of students. The final evidence regarding Global EI concerns the age of the subjects. Brouzos et al. (2104) found lesser relationships between emotional intelligence and academic achievement for the 8- to 10-year-olds compared to the 11- to 13-year-olds. Although Mavroveli and Sanchez-Ruiz (2010) stated that no significant relationship existed between academic achievement and emotional intelligence on a sample with mean age 9.12 years old, they briefly mentioned a modest relationship for the 12-year-old students.

Facets of emotional intelligence and academic achievement. Some researchers who have drilled down into the individual facets of emotional intelligence have shown results that were more consistent in relation to academic achievement. Downey et al. (2004) found that the ability to manage both strong positive and strong negative emotions was positively related to academic achievement. Brouzos et al. (2014) found that the intrapersonal, stress management, adaptability, and general mood factors were positively correlated with academic achievement. Even Iannucci & Mirabella (2013), who found no relationship between academic achievement

and global emotional intelligence, stated that when analyzing the individual items from the instruments, they found that relationships did exist. Finally, Vidal Rodeiro et al. (2102) found that self-motivation and low impulsivity were most significantly related to academic achievement.

Facets of emotional intelligence related to academic achievement. Vidal Rodeiro et al. (2012) explored the relationship between emotional intelligence and academic achievement among 874 15- and 16-year-old students from British schools. The authors used the TEIQue to assess both global trait emotional intelligence and the 15 individual facets measured by the instrument. Based on their achievement scores, the students were split into the low 20%, the middle 60%, and the upper 20% (Vidal Rodeiro et al., 2012). All but one facet (emotion expression) and global emotional intelligence were highest for the group of students in the top 20% . The students in the middle 60% scored higher than did the students in the bottom 20%. The largest differences were observed for the facets of self-motivation, impulsivity, and emotion regulation (Vidal Rodeiro et al., 2012). The smallest differences were observed for the facets of emotion perception and relationship skills. Vidal Rodeiro et al. concluded that EI may be more relevant to students with low ability. This finding was consistent with a study by Petrides, Fredrickson, and Furnham (2004). Overall, self-motivation and low impulsivity were most significantly related to academic achievement (Vidal Rodeiro et al., 2012).

Downey et al. (2014) studied 243 female students in grade 9 at a high school in Australia. In addition to personality and IQ, Downey et al. investigated the incremental validity of EI in the prediction of academic achievement. The Adolescent Swinburne University Emotional Intelligence Test (SUEIT; Luebbers, Downey, & Stough, 2007) was used to measure emotional intelligence globally and in four subcategories: emotion recognition and expression (ERE),

identifying and understanding the emotions of others (UE), using emotions and emotional knowledge in decision making (EDC), and emotional management and control (EMC; Downey et al., 2014). Raven's Standard Progressive Matrices Test (Raven, 2000) was used to test fluid intelligence; GPA was used to measure academic achievement (Downey et al., 2014). Fluid intelligence was positively correlated to academic achievement, and of the EI factors, EMC was positively related to academic achievement (Downey et al., 2014).

Brouzos et al. (2014) tested correlations between emotional intelligence, socioemotional adjustment, and academic achievement within two age categories: 8- to 10-year-olds and 11- to 13-year-olds. The authors used the EQ-i:YV (Bar-On & Parker, 2000) for EI. The trait emotional intelligence model used contains measures for global emotional intelligence, intrapersonal emotional intelligence, interpersonal emotional intelligence, stress management, and adaptability (Bar-On & Parker, 2000). The academic achievements measured were in the subjects of math and Greek. For the 8- to 10-year-old group, achievements in both subjects were positively correlated to the adaptability measure (Brouzos et al., 2014). For the 11- to 13-year-old group, all emotional intelligence facets were positively correlated to both achievement measures except for interpersonal emotional intelligence, which showed insignificant correlations to both subjects (Brouzos et al., 2014). These results contradicted the results of other studies that showed positive correlations for the social competencies (Downey et al. 2014). The age of the subjects may have been a factor. This finding was not surprising: The affective domain develops gradually with age (Brouzos et al., 2014).

Finally, Mega, Ronconi, & De Beni (2014) examined the relationship between emotions, self-regulated learning, motivation, and academic achievement. The sample included 5,805 undergraduate students at the University of Padua in Italy. Mega et al. employed three surveys:

the Self-Regulated Learning Questionnaire (De Beni, Moè, & Cornoldi, 2003), the Emotions Questionnaire (Mega, Moè, Pazzaglia, Rizzato, & De Beni, 2007), and the Motivation Questionnaire (De Beni et al., 2003). GPA and productivity (number of exams passed each year) were used to measure academic achievement; Mega et al., 2014). Positive emotions (enjoyment, hope, pride) were related to self-regulated learning (organization of materials and study time; Mega et al., 2014). Positive emotions were also related to self-efficacy of academic achievement (Mega et al., 2014). Self-regulated learning predicted academic achievement; however, motivation had the greatest effect on academic achievement—nearly double that of self-regulated learning (Mega et al., 2014). Emotions had an effect on academic achievement only through self-regulated learning and motivation (Mega et al., 2014). This interconnectedness needs to be investigated further.

Summary. Based on the preceding discussion, further study of emotional intelligence and academic achievement should be completed with students in grades 7 through 12. The instrument used should be able to delineate the individual facets of emotional intelligence. In addition, the target group should be lower achieving and/or lower ability students. Therefore, one of the aims of this study was to determine EI scores for the students in the study. As part of the examination of motives, the effect of teacher behaviors in relation to students' EI scores was considered.

Emotional Intelligence, Personality, and Academic Achievement

The connection between personality and trait emotional intelligence is a natural one by definition (Petrides, 2009b). Several studies have shown positive relations between facets of emotional intelligence and traits of the Big Five (Downey et al., 2014; Ferrando et al., 2011; Russo et al., 2012). Additionally, the traits of openness to experience and conscientiousness

have repeatedly been positively correlated to academic achievement; neuroticism has been negatively related (Downey et al., 2014).

Joseph and Newman (2010) found that trait emotional intelligence was related to all Big Five traits. Qualter et al. (2012) examined the long-term effects of ability emotional intelligence, trait emotional intelligence, and personality on academic achievement. The sample consisted of 413 students between grades 7 and 11 in England (Qualter et al., 2012). The instruments used were the Bar-On EQ-i:YV (Bar-On & Parker, 2000) for trait emotional intelligence and the MSCEIT-YV (Mayer, Salovey, & Caruso, 2005) for cognitive ability emotional intelligence (Qualter et al., 2012). A personality test (Revised Junior Eysenck Personality Questionnaire; Corulla, 1990) was used to assess psychoticism, neuroticism, and extraversion (Qualter et al., 2012). The Cognitive Ability Test (CAT) provided three measures of cognition: verbal, quantitative, and nonverbal reasoning (Qualter et al., 2012). The results showed that cognitive ability was the best predictor of academic achievement (Qualter et al., 2012). Both boys and girls with high ability emotional intelligence performed better than did their peers in the high cognitive ability group (Qualter et al., 2012). However, although boys with high ability emotional intelligence and low cognitive ability outperformed their peers in the same cognitive group with lower ability emotional intelligence, the same was not true for girls (Qualter et al., 2012). With respect to trait emotional intelligence, emotional intelligence was a predictor of academic achievement for boys but not for girls (Qualter et al., 2012). This was a significant finding and related to the present study of adolescent boys. Additional results supported a relationship between trait emotional intelligence and personality (Qualter et al., 2012).

Ferrando (2011) found personality was partially related to trait emotional intelligence. Russo et al. (2012) investigated the validity of the Trait Emotional Intelligence Questionnaire –

Child Form (TEIQue-CF; Mavroveli et al., 2008) and its relationship to the Big Five personality traits and cognitive ability. The TEIQue-CF measures global emotional intelligence and nine facets: adaptability, affective disposition, emotion expression, emotion perception, emotion regulation, low impulsivity, peer relations, self-esteem, and self-motivation (Mavroveli et al., 2008). Russo et al. applied other instruments as well, including Raven's (1981) SPM for fluid intelligence and the Big Five Questionnaire – Children (BFQ-C; Barbaranelli, Caprara, Rabasca, & Pastorelli, 2002) for measuring neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. Results showed that global emotional intelligence was related to all five personality traits (Russo et al., 2012). Of particular interest were the findings that the individual facet of self-motivation was positively related to conscientiousness, and extraversion was positively related to adaptability (Russo et al., 2012).

Personality and academic achievement. Individual traits of the Big Five have been related to academic achievement. Downey et al. (2014) used the Mini International Personality Item Pool (Mini-PIP; Donnellan, Oswald, Baird, & Lucas, 2006) to assess five personality factors: extraversion, neuroticism, agreeableness, conscientiousness, and openness to experience. Conscientiousness was positively correlated to academic achievement, and extraversion was negatively correlated to academic achievement (Downey et al., 2014). Similarly, Barchard (2003) found that conscientiousness had a strong positive relationship with academic achievement. Hart et al. (2007) conducted a study focusing on the Big Five in relation to intrinsic and extrinsic motivation. Hart et al. found strong positive relationships between intrinsic motivation and conscientiousness and openness. A positive relationship was also observed between intrinsic motivation and extraversion (Hart et al., 2007). Further, the authors observed that extrinsic motivation was negatively related to agreeableness. Finally, strong

positive relationships were found between extrinsic motivation and extraversion and conscientiousness (Hart et al., 2007).

Summary. These results lend credence to the idea that some students may not be disposed toward traditional academic work. Further, certain teacher behaviors may present hygiene effects rather than motivators for students. For example, it is plausible that a student with low conscientiousness toward traditional academic tasks could also lack intrinsic motivation. In fact, the teacher could unwittingly demotivate the student even more, thereby furthering the negative impact on academic achievement.

Motivation and Academic Achievement

Froiland et al. (2015) explored the relationship between the innate motives of intellectual curiosity, physical activity, and family (desire to nurture). The authors found that students with high intellectual curiosity achieved higher academic scores. In addition, achievement was highest for those students who also had low physical activity motive (Froiland et al., 2015).

The implication of Froiland et al. (2015) for the current study lay in the connection between task and intrinsic motivation. This simple concept was illustrated above in terms of motivation. People have tasks they dread for one reason or another; however, other tasks are engaging for extended periods. These tasks differ for different people. In this study, I sought to understand this phenomenon for select academic tasks and the student participants.

Emotions, Emotional Intelligence, and Teachers

The final construct within this framework involves the behavior of teachers, the activities prescribed by teachers, and the teachers' influence on students' feelings. As described previously, specific emotions emerge in response to the behavior of teachers as well as to the activities (designed by teachers) with which students engage. Because teachers are the leaders of

the classroom, their behavior, decisions, and ability to create a socially and emotionally

competent environment affects students' engagement and learning.

When discussing teachers' emotional competency, it is important to mention that trait

emotional intelligence is a self-efficacy measure. Sheldon et al. studied 223 managers who were

enrolled in Masters of Business Administration programs. Because teachers are managers of

their classroom environments, Sheldon et al.'s results relate to the educational setting. Sheldon

et al. (2014) found that the lowest performing managers were most likely to overestimate their

own emotional competency and least likely to accept criticism.

Corcoran and Tormey (2012) studied 352 pre-service teachers to measure their emotional

competency. They found, on average, the group scored below expected competency level by 0.5

standard deviations (Corcoran & Tormey, 2012). Assuming teachers' emotional competency is

important, the next question is whether it can be taught. Hen and Sharabi-Nov (2014) studied

186 in-service teachers to measure the emotional intelligence of the sample before and after a 14-

week EI training program. The results of the posttest were significantly higher in terms of both

global emotional intelligence and individual facets (Hen & Sharabi-Nov, 2014).

In terms of emotional competency and behaviors in the classroom, group dynamics,

communication, and emotion elicitation all play roles. These factors affect productivity and

engagement and thus lead to academic achievement. Fan (2012) studied the interpersonal

relationships between teachers and students among 1,954 high school students in Nigeria. The

results showed a strong positive relationship between the student–teacher relation and academic

achievement (Fan, 2012). Firmender et al. (2014) studied the effect of communication on

academic achievement among 36 teachers and 601 students in elementary grades. Firmender et

al. found that increased verbal communication using mathematical language (professional

behavior) led to increased academic achievement. Troth, Jordan, and Lawrence (2012) studied the relationship between emotional intelligence and effective communication skills among 273 students enrolled in business classes at a university. Troth et al. found that emotion management was a significant predictor of both effective and appropriate communication (professional behavior). Similarly, Komarraju (2013) studied 261 undergraduate students from the United States to assess the effect of teachers' professionalism and caring behaviors on students' academic motivation. Both teacher professionalism and caring behaviors affected intrinsic and extrinsic student motivation (Komarraju, 2013). In fact, a lack of student motivation was negatively related to professionalism (Komarraju, 2013). Also important from this study was the fact that the level of teacher professionalism had a lesser impact on students with higher levels of conscientiousness (Komarraju, 2013). Finally, the results showed that lack of professionalism had the greatest negative impact on students with low academic self-efficacy (Komarraju, 2013). In sum, it is evident that teachers' social and emotional competency have great impact on academic engagement, especially for students with lower academic self-efficacy.

Engagement-Related Topics

Lam et al. (2014) studied 3,420 students (grades 7, 8, and 9) from 12 countries and found low, moderate, and high correlations between emotions, engagement, school conduct, and academic performance. The results showed low correlation between negative emotions and engagement, moderate correlation between positive emotions and engagement, and high correlation between engagement and academic performance (Lam et al., 2014).

Mazer (2013) studied the relationship between student interest, teacher communication, and engagement of 183 undergraduate students. Mazer found that certain teacher behaviors such as smiling and proximity to students increased both affective and behavioral engagement. In

addition, when the teacher provided a preview of the main concepts, made the content more clear through examples, and linked concepts together, student interest increased (Mazer, 2013). Linvill (2014) studied the relationship between student interest and engagement and examined connections with personality. Linvill found some moderate relationships between personality and engagement and relationships similar to those observed by Mazer (2013). Deakin Crick and Goldspink (2014) examined the relationship between learner dispositions and engagement. The most powerful and useful outcome was that "dispositions do matter and that pedagogy can be designed to increase engagement if teachers attend to students' learning dispositions" (Deakin Crick & Goldspink, 2014, p. 32). Wang et al. (2014) studied 3,025 U.S. students in grades 4 through 12 for the purpose of developing a classroom engagement inventory. Wang et al. made a significant distinction between compliance and effortful participation. Strong correlations were found between affective engagement and effortful participation and only moderate correlations between affective engagement and compliance (Wang et al., 2014).

Conceptual Framework

The conceptual framework for this study combined the theories and constructs discussed above with both transformative leadership (Shields, 2010) and a theory of justice (Rawls, 2005). In the emerging theory that is presented, the individual differences of students are valued with respect to the way students think, feel, and behave; in addition, their emotion-related perceptions of the world are incorporated. The emerging theory holds that the academic engagement of the child depends on personality, beliefs, and emotional competency and can be influenced by both task characteristics and teacher behavior. This theory was synthesized from the theories discussed in the following sections.

Trait Emotional Intelligence

Emotions are not a usual focus of the American education system. However, researchers have suggested that emotions can trigger chemicals in the body that have the potential to induce extreme feelings and behaviors (Ingram & Cangemi, 2012). Therefore, it is important for students and teachers to understand emotional and social competency in order to meet individual needs in the classroom. Although emotional capacity and competency grow over time, trait emotional intelligence exists in the lower-level needs of personality (Petrides, 2009b). The trait emotional intelligence, or emotional self-efficacy, of students plays a vital role in the management of the emotions of self and others in order to maximize the potential of each learner. The literature shows that specific facets of emotional intelligence have a stronger relationship with academic achievement for students with lower achievement (Petrides, 2009b). Additionally, the teacher (leader or manager) in the classroom has the responsibility of leading students to success based on students' individual abilities, competencies, and dispositions. Emotional intelligence is a facet of individualized instruction that should not be ignored. Rather, with a deep understanding of the construct, educators will be better equipped to meet students' individual needs.

Personality: Big Five Personality Traits

According to John and Srivastava (1999), the Big Five personality traits are conscientiousness, agreeableness, extraversion, openness to experience, and neuroticism. The authors defined the five traits as follows:

Extraversion implies an energetic approach toward the social and material world and includes traits such as sociability, activity, assertiveness, and positive emotionality. Agreeableness contrasts a prosocial and communal orientation towards others with

antagonism and includes traits such as altruism, tender-mindedness, trust, and modesty. Conscientiousness describes socially prescribed impulse control that facilitates task- and goal-directed behavior, such as thinking before acting, delaying gratification, following norms and rules, and planning, organizing, and prioritizing tasks. Neuroticism contrasts emotional stability and even-temperedness with negative emotionality, such as feeling anxious, nervous, sad, and tense. Finally, openness to experience (vs. closed-mindedness) describes the breadth, depth, originality, and complexity of an individual's mental and experiential life. (p. 121)

Several researchers have found relationships between academic achievement and personality traits (Downey et al., 2014; Hart et al., 2007). In addition, the traits of openness to experience and conscientiousness have repeatedly been positively correlated to academic achievement; neuroticism has been negatively related (Downey et al., 2014; Ferrando et al., 2011; Russo et al., 2012). These results, along with my personal interest to ensure social justice in classroom, motivated me to examine the student–teacher relationship for students who are less conscientious, less intellectually curious, and who experience anxiety in the classroom.

Teacher Leadership Behavior

Teacher behavior is important because the teacher is the manager of the teaching environment. The teacher conducts the classroom environment, provides instructional strategies, designs learning activities, and assigns out-of-class work. Previous researchers have related the teacher's behavior in class directly to student motivation (Firmender, Gavin, & McCoach, 2014). In addition, the learning activities and climate of the classroom elicit emotions from the students. These positive and negative emotions affect the students' ability to think, process, and learn (Pekrun, 2006).

The relationship between the students and teachers, as well as the emotional response of the students to the teacher behaviors and learning activities, are somewhat dependent on the personalities of the students. Understanding which personality traits are related to which behaviors and emotions is crucial to communicating the interconnectedness of emotions and navigating the academic process.

Student Engagement

As discussed previously, the engagement dimensions examined included both affective and behavioral. The term *behavioral engagement* includes dimensions such as participation, effort, and attention; affective (emotional) engagement refers to the students' perceived feelings (e.g., enjoyment, enthusiasm) about learning and about the school they attend (Lam et al., 2014; Tas, 2016; Wang et al., 2014). The traits of the student can be thought of as independent variables (although researchers have suggested EI can be strengthened); thus, teacher behavior, academic tasks, and school activities are mediating variables; and the dimensions of engagement are dependent (Lam et al., 2014; Tas, 2016; Wang et al., 2014). I defined these parameters as variables in this manner only to help organize the conceptual framework. Behavioral engagement and affective engagement ratings were considered essential for the following categories: school in general, athletics, community service, other community activities, course content (e.g., English, math, history), homework, passive academic tasks, active academic tasks, individual academic tasks, and group academic tasks.

Summary

The investigative lens for this study mirrored that of Rawls' (2005) theory of justice. According to Sandel (2010), the theory allows inequity as long as the least well off are intentionally provided for to create equitable conditions for all. In the current U.S. education

system, the least academically well off may be students who possess traits not conducive to passive tasks or who lack intrinsic academic motivation. That includes students who find it difficult to sit still, focus, and attend to the tasks in the traditional classroom. The purpose of this mixed-methods study was to examine the traits and engagement of underachieving students in an independent school in the context of task characteristics and teacher behaviors.

In addition, the dispositional characteristics of the students were considered. Trait emotional intelligence and Big Five personality traits influence motivation. Teacher behavior is the independent variable; student motivation is the dependent variable. Using self-report instruments, participants were categorized according to trait emotional intelligence and Big Five personality traits. Based on the data, participants were selected for further study through classroom observation and interviews. Because students lacking intrinsic academic motivation require extrinsic motivators, I also observed teacher behaviors. One goal of this study was to document students' perceptions of specific teacher behaviors, a finding that could influence notions of equity for those students who are least well off in the traditional U.S. education system.

Conclusion

Cognitive ability (IQ) is the strongest predictor of academic achievement (Agnoli et al., 2012; Barchard, 2003). Global emotional intelligence alone correlates significantly with academic achievement; however, it can moderate the effects of IQ as a predictor of academic achievement (Ferrando et al., 2011; Nasir & Munaf, 2011; Vidal Rodeiro et al., 2012). Certain trait EI facets seem to be related to specific personality traits (Downey et al., 2014; Ferrando et al., 2011; Russo et al., 2012). Both trait EI facets and personality traits have been significantly related to academic achievement (Brouzos et al., 2014; Downey et al., 2014; Vidal Rodeiro et al.,

2012). Motivation has been related to achievement, and motivation relates to emotion and personality (Froiland et al., 2015). In addition, both emotion and motivation can be influenced by teacher behavior (Firmender et al., 2014; Komarraju, 2013). In both adults and children, the relationship has been stronger between trait emotional intelligence and academic achievement when considering subjects of lower cognitive ability or achievement (Komarraju, 2013; Petrides, 2009b).

Therefore, previous research indicates that teacher behavior is essential in producing an environment conducive to learning and eliciting positive academic emotions from students in terms of both action and outcome. Further, a model for predicting academic achievement can be developed by combining the personality traits of openness to experience, conscientiousness, and neuroticism, the trait emotional intelligence facets of self-motivation, happiness, optimism, self-esteem, emotion regulation, impulse control, and stress management, and cognitive ability. Chapter 3 provides the methodology for the study including an overview of the setting, participants, data collection and analysis, participant rights, and limitations.

CHAPTER 3

METHODOLOGY

The purpose of this mixed-methods study was to examine the affective engagement and behavioral engagement of high school students who showed inconsistent academic achievement at an independent school. The basis of discussion was the students' trait characteristics. This mixed-methods study focused on the phenomenon of the cognitively able student who performs at a level below expectations. This study combined the qualitative data from observations and interviews with quantitative measures of personality and emotional intelligence instruments. Existing performance data comprising both achievement scores and behavior ratings were reviewed. The detailed and in-depth data collection facilitated the exploration of the phenomenon within the closed setting (Creswell, 2013). This instrumental case study was intended to provide insight into the phenomenon of the underachiever, leading to the formulation of a generalization (Stake, as cited in Merriam, 2009).

This chapter provides information for this study on the methods, setting, data collection, participants, analysis, and participants' rights. The information from these sections provides a clear understanding of the methodology for this study.

Setting

The setting for this study was an independent school in the northeastern United States. The demographics for the student population were approximately 78% Caucasian American, 8% multiracial, 7% African American, 6% Asian/Asian American, and 2% Hispanic American. The school is a college preparatory day school. All the graduating seniors were college bound.

The focus of the study was on high school-age students. Students at this level are required to complete a minimum of five academic courses per year including English, math,

science, history, and world language. Students may optionally complete up to two additional classes.

<div align="center">**Participants**</div>

The five participants in this mixed-methods study were selected from students who were evaluated as failing to reach their academic potential. In other words, the participants were underachieving in at least one course. There were approximately 250 total high school boys enrolled at the research site. Participants were identified through purposeful sampling specifically designed to identify participants who could yield "insight and understanding of the phenomenon under investigation" (Bloomberg & Volpe, 2012, p. 104). These potential participants were identified by reviewing existing achievement data and through administrators' knowledge of the students. Participants were required to be earning a grade of C+ or below in at least one course and a grade of B or above in at least one course. This ensured that the participants achieved above average in at least one class and below average in at least one class. A unique sample of participants was selected for this study from the pool of identified students (Merriam, 2009).

<div align="center">**Data Collection**</div>

After the participant sample was selected, personality and emotional intelligence trait information was collected through self-report instruments. Data of this type have been collected on students at this school in the past. In fact, all students in grade 9 complete the Big Five personality questionnaire (John, Donahue, & Kentle, 1991) and the short version of the Trait Emotional Intelligence Questionnaire (Petrides, 2009a). The results of the two assessments are discussed in small groups settings to help students understand themselves. For this study, these data provided a baseline of individual differences with regard to disposition. In order to answer

the research questions and provide an in-depth understanding of the cases being studied, additional forms of qualitative data were collected, including interviews and observations (Creswell, 2013).

Participants for this study completed two questionnaires: the Big Five Inventory (John, Donahue, & Kentle, 1991) and the Trait Emotional Intelligence Questionnaire (Petrides, 2009a) after parental and student consent were obtained. Completion of the questionnaires took place during the participants' free periods or study hall periods. Pseudonyms have been used in this study to ensure the participants' anonymity.

Big Five Personality Questionnaire

The Big Five Inventory for Adolescents (BFIA; John, Donahue, & Kentle, 1991; John, Naumann, & Soto, 2008) was used to collect self-report data on participant personality. The inventory contains 44 statements to which participants respond using a 5-item Likert scale: disagree strongly, disagree a little, neither agree nor disagree, agree a little, and strongly agree (John, Donahue, & Kentle, 1991). The participants' self-perceptions were categorized by the Big Five personality traits: extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience (John, Donahue, & Kentle, 1991).

Trait Emotional Intelligence Questionnaire

The emotional self-efficacy of student participants was measured with the Trait Emotional Intelligence Questionnaire Adolescent Form (TEIQue-AF; Petrides, 2009a). The results of the assessment provide insight into participants' emotional self-efficacy with respect to four main factors and two independent facets. The four factors are (a) well-being (consisting of happiness, optimism, and self-esteem); (b) self-control (consisting of emotion regulation, impulse control, and stress management); (c) emotionality (comprising empathy, emotion

perception, emotion expression, and relationships); and (d) sociability (consisting of emotion management, assertiveness, and social awareness; Petrides, 2009b). The two independent facets encompass self-motivation and adaptability (Petrides, 2009b).

Observations

Next, the student participants were observed in their normal academic setting. Specifics noted during the observations were apparent attention of the students, active participation in both activities and discussions, time on task, and overall effort. Teachers were asked to give informed consent. Other students were present in the classrooms during the observations, but no data of any kind were collected from those students for use in this study or for any other use. The only data collected were from the participants directly involved in the study.

Interviews

Finally, the student participants were interviewed. Interviews took place during the participants' free periods or study hall periods. I conducted the interviews in my office at the research setting. Interviewing for qualitative research should be somewhat open-ended to allow participants to share their unique perspectives (Merriam, 2009). This semi-structured approach allowed me to develop questions during the interviews to collect in-depth stories from the participants. The interviews provided detail to support the observational data, helping me fully qualify the self-perceptions of the participants and complete the examination of the phenomenon. The interviews were audiotaped with an Android recording app and transcribed by a third party service. The interview process included four rounds of interviews. During all subsequent interviews, participants reviewed the transcripts and narratives to ensure accuracy and comfort with the data.

The interview questions relating to engagement were drawn from Lam et al.'s (2014) study outcomes (See Appendix C). Additional questions arose during the interview process. The base set of interview questions were organized into two categories, affective engagement and behavioral engagement, as described in the following sections.

Affective engagement. I asked nine questions to collect data related to affective engagement:

1. Are you very interested in learning the subject matter in [course names]?

2. Which course or courses are most interesting and why? Which are not?

3. Would you say you like or enjoy [courses]?

4. Do you find [courses] boring?

5. Do you enjoy learning new things?

6. Do you like this school?

7. Are you proud to be at this school?

8. Do you look forward to going to school?

9. Are you happy to be at this school?

Behavioral engagement. I asked 10 questions for the behavioral engagement section:

1. Do you try hard to do well in school? In [courses]?

2. Do you work as hard as you can in [courses]?

3. Do you pay attention in class in [courses]?

4. When you are in [courses], do you just act like you are working sometimes?

5. In [courses], do you do just enough to get by?

6. When you are in [courses], does your mind wander?

7. If you have trouble understanding a problem, do you go over it again until you understand it?

8. When you run into a difficult homework problem, do you keep working at it until you think you have solved it?

9. Would you say that you are an active participant of school activities such as contributions, House Day, and Community Service Day?

10. How active is your role in clubs, sports, co-curricular activities, and House Projects?

Data Analysis

To examine the level of student academic engagement in relation to academic tasks and teacher behaviors, the data collected were deliberately organized and analyzed by category. The data collected during this study involved both quantitative and qualitative types, as described previously. The individual cases of this study were of secondary importance; the phenomenon under examination was the primary focus of the study. Therefore, the first level of organization was by the dispositional characteristics as measured by the personality and EI instruments. Observations were then associated with the participants and participant groups. The data collected from the interviews were used to explain the trait characteristics, emotion perceptions, and engagement of the student participants accurately in relation to the academic tasks.

Participant Rights

Because the participants were children under the age of 18, I obtained informed assent from all student participants and consent from the parents or guardians of participants. I read the assent/consent forms to the participants and parents or guardians of the minor children. For the minor children, after the parent/guardian gave consent, a follow-up meeting was scheduled with the minor participant to obtain assent. Participants were asked to give verbal assent during each

stage of the research—before and after filling out the questionnaire, before and after being observed in the classroom, and before and after being interviewed. Participants were allowed to exit the research study at any time prior to, during, or after data collection.

All research data (including, but not limited to questionnaires and observation data) were stored in a locked cabinet in my office or on a secure, password-protected server location. Only I had access to the data. The questionnaire and observation raw data were destroyed upon completion of the study. The research observations were conducted in common educational settings. The interviews involved only questions directly related to the study.

Participant names were not disclosed in the results of the study, nor were they used while analyzing the data. Instead, participants were assigned pseudonyms. All data for each participant were coded with one pseudonym for cross-referencing purposes. Only I knew the identities of the participants.

In terms of risk, completing the trait questionnaires could have triggered emotional discomfort for some participants. Participants were allowed to decline to answer any question, and they were allowed to exit the study at any time. There were no benefits to student participants in this study.

Potential Limitations

One clear limitation of any case study involves generalizability (Merriam, 2009). The intent of this instrumental case study was to examine the phenomenon with respect to several student participants in order to explain the observed and perceived relationships. This information could then be useful to help other students at the same or other settings.

The researcher practiced integrity and discipline in observation, evaluation, and storytelling. The discipline was needed specifically to limit the influence of any preconceived notions on the analysis or results of the investigation.

The final limitation was time. Deciding how much detail and the depth of the analysis was limited by the amount of time dedicated to the research.

Conclusion

As stated, the purpose of this mixed-methods study was to examine the affective engagement and behavioral engagement of high school students who showed inconsistent academic achievement at an independent school. The basis of discussion was the students' trait characteristics. Selected participants met the stipulated criteria of being academically successful in at least one class while underachieving in at least one class. The reason for the requirement of B or better in at least one class was to establish that the participant was at least capable of that level of achievement.

Data were collected to identify the participants' dispositional traits of personality and EI. Classroom behavior was observed to examine the relationships between the participants and the academic tasks. Interviews were conducted to understand the participants' traits, perceptions, and feelings in relation to the tasks and teacher influences.

The final analysis was intended to describe the levels of engagement observed and perceived by the student participants based on the mediating factors of teacher influence, task characteristics, and participants' traits.

The next chapter provides the results in detail. The methodology for the analysis shows how the data were collected, organized, analyzed, and synthesized. The final results are

presented thoroughly, logically, and precisely. In the final chapter, the results are summarized

and linked to the purpose statement, the research questions, and the problem statement.

CHAPTER 4

RESULTS

The purpose of this mixed-methods study was to examine the affective engagement and behavioral engagement of high school students who showed inconsistent academic achievement at an independent school. The basis of discussion was the students' trait characteristics. Through these narratives, the focus of the study was to answer three research questions:

1. How do students with specific personality and EI traits perceive their emotional and behavioral engagement in school?

2. What specific content and academic tasks do the students find enjoyable or boring?

3. With what content and academic tasks do the students find engagement easy or difficult?

In addition, through these narratives, this study uncovered Big Five personality and emotional intelligence traits that could support and challenge student academic engagement. Finally, similarities and differences of the participants' perceptions are examined and presented.

In this chapter, the 20 traits measured for each participant within the two categories of Big Five personality traits and trait emotional intelligence are presented. Existing behavioral and achievement data were used to describe the participants' current behavioral engagement and academic standing. The same data also aided in constructing the narratives. Data collected through both observations and interviews were combined with existing data to present a summary of their academic engagement (affective and behavioral). Table 1 summarizes the descriptions of the four factors and 15 facets of Petrides's (2009) model of trait emotional intelligence. Means and standard deviations for the TEIQue instrument used in this study came directly from the *TEIQue Technical Manual for Adolescents* (Petrides, 2009b).

Table 1

Descriptions of the TEIQue Model

Factor / Facet	Description
Well-being	This factor comprises the three facets of self-esteem, happiness, and optimism. High scorers feel happy and fulfilled. Low scorers feel disappointed with their lives.
Self-esteem	• High score: positive perception of self, confident, and generally satisfied with life • Low score: low self-respect and may reflect challenges in one or more aspects of life
Happiness	• High score: positives feelings in the present (rather than the past or future) • Low score: overly negative, feeling blue, disappointed with life
Optimism	• High score: expectation that positive things are going to happen • Low score: pessimistic, negative perspectives
Self-control	This factor comprises the three facets of emotion regulation, impulse control, and stress management. High scorers can manage stress, control impulses, and mostly appear "level-headed." Low scorers are impulsive and affected greatly by external stress.
Emotion Regulation	• High score: control over emotions, insight allows for change • Low score: prolonged anxiety and depression, moody, irritable
Impulse Control	• High score: make informed decisions • Low score: need for immediate gratification
Stress Management	• High score: can handle pressure • Low score: avoid hectic and pressure situations
Emotionality	This factor comprises the four facets of emotion expression, empathy, emotion perception, and relationships. High scorers are aware of their own and other people's emotions. Low scorers find it difficult to understand and express their emotions.
Emotion Expression	• High score: fluent in communicating emotions to others • Low score: difficulty letting others know how they feel

Table 1 (continued)

Empathy	• High score: skillful in negotiations and conversations, appreciation of others' points of view • Low score: opinionated and argumentative, self-centered
Emotion Perception	• High score: understand their own emotions and the emotions of others • Low score: confused about emotions
Relationships	• High score: positive relationships that lead to productivity • Low score: often hurt others and find it difficult to bond
Sociability	This factor comprises the three facets of social awareness, emotion management, and assertiveness. High scorers are better at social interactions and negotiating. Low scorers can appear shy and believe they cannot affect emotions of others.
Social Awareness	• High score: confident at parties and networking events, good at negotiating and brokering deals • Low score: anxious about unfamiliar settings, trouble expressing themselves, small circle of friends
Emotion Management	• High score: can calm down, motivate, and console others easily • Low score: become overwhelmed when dealing with emotional outbursts
Assertiveness	• High score: forthright and frank, prefer to be a leader • Low score: difficulty saying no, prefer to be part of team
Motivation	• High score: driven to produce high quality work, determined, persevering • Low score: require many incentives and encouragement, likely to give up when challenged
Adaptability	• High score: flexible and willing to adapt to new conditions, enjoy change and novelty • Low score: change-resistant, fixed ideas and views,

Note. Derived from the *Technical manual for the Trait Emotional Intelligence Questionnaire* (TEIQue), by K. V. Petrides, 2009b, p. 59 - 61. London, England: London Psychometric Laboratory.

Table 2 summarizes the descriptions of the Big Five personality traits (John & Srivastava, 1999). Means and standard deviations used in this study for the Big Five personality traits were derived from statistics presented in Srivastava, John, Gosling, and Potter (2003). The data were downloaded from Berkeley Personality Lab (2007).

Table 2

Descriptions of the Big Five Personality Traits

Dimension	Description
Extraversion	Talkative, energetic, assertive, gregarious vs. shy, quiet, reserved, inhibited
Agreeableness	Forgiving, cooperative, considerate, helpful, vs. rude, starts quarrels, find fault in others, cold
Conscientiousness	Careful, reliable, achievement striving, organized vs. lazy, disorganized, impulsive, careless
Neuroticism	Depressed, tense, moody, worrisome vs. calm, stable, handles stress, relaxed
Openness	Creative, original, curious, imaginative vs. likes routine

Note. Adapted from "The Big Five trait taxonomy: History, measurement, and theoretical perspectives," by O. P. John, and S. Srivastava, 1999. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (pp. 102–138). New York, NY: Guilford Press.

Considerations for engagement include both behavioral and affective categories. Behavioral engagement dimensions include participation, effort, and attention; affective (emotional) engagement refers to the students' perceived feelings (e.g., boredom, enjoyment, enthusiasm) about learning and about the school they attend (Lam et al., 2014; Tas, 2016; Wang et al., 2014).

Data Analysis Methods

Both quantitative and qualitative data were collected in this study. The quantitative data consisted of the scores on the two trait assessments and portions of existing achievement grade reports. The qualitative data were generated from the observations, interviews, and portions of the existing achievement grade reports. All the data for each participant were analyzed as a set, contributing to the overall narrative for each participant.

Individual results were collected and analyzed as follows. First, the participants completed the two questionnaires. Results were calculated and compared to sample means and standard deviations collected from available descriptive statistics (Srivastava et al., 2003). Next, the participants were observed in their normal academic settings. Notice was taken regarding active and passive participation, apparent attention, and effort. After trait results, existing grade report data, and observational data were organized and reviewed, I invited the participants individually to interviews.

During the interviews, the conversation was allowed to flow naturally. The interview was often refocused to address the research questions. During the first interviews with the participants, the goal was to uncover basic information regarding affective and behavioral engagement. To understand the participant's feelings more accurately regarding engagement and to understand the participant's perception of the trait more clearly, I redirected the discussion at times to examine specific trait results that emerged. For example, the extraversion trait score for one participant matched the mean. However, during the interview, the participant reported feeling extremely shy and guarded in unfamiliar settings. This trait is indicative of introversion. Thus, the interviews helped reveal information on engagement more effectively, compared to relying on survey data alone. In another example, the student participant was observed acting

passively and not engaging in discussion. An existing teacher report had confirmed the student rarely engaged in class. However, in the interview, the student reported being highly engaged in terms of attention and focus.

All the data in a spreadsheet. The categories for engagement included interest, enjoyment, ease of engagement, attention, and effort and were coded by category in terms of in-class tasks, out-of-class academic tasks, and out-of-class nonacademic tasks. The participants' affection for school in general was also documented. Once those responses were organized, complete narratives of the participants' personality traits, EI traits, and levels of engagement were constructed. Next, the participants' stories were written in narrative form. Specific noteworthy elements were presented in the final paragraphs of the participants' stories. The narratives were shared with the participants and collected comments regarding the accuracy of the information. This was to ensure an accurate report of the students' feelings, perceptions, and beliefs. The participants were asked additional questions to expose deeper understanding of the traits and engagement. This process of review occurred several times over a few days for each participant until the participants and I were satisfied with the narratives. Finally, for each participant, all the data were reviewed and summarized as a complete set. The goal of examining the data was to recognize similarities and differences.

Presentation of Results

The participants' narratives are presented as individual stories with a summary of the aggregate findings. The narratives include brief descriptions of participants' backgrounds and academic standing at the time of the study. These identity descriptions were the product of reviewing existing grade report data and discussions with the participants. Next, the trait results are explained. The trait descriptions were the result of both instrument scores and participants'

comments from the interviews. Finally, the engagement results are presented. The engagement summaries stemmed from multiple interviews with the participants. The participants reviewed the raw data and narratives throughout and at the end of the process to ensure accuracy. After the five participants' narratives, the data are summarized. The summary presents similarities and differences among the participants regarding traits and engagement.

The Story of Chavo

At the time of this study, Chavo was an 11th-grade student. His grades ranged from A+ in psychology to F in English. His teachers reported a wide range of perceived engagement in the categories of class participation, homework completion, and preparation for class. Chavo did not identify himself as belonging to any specific subculture within the school.

Chavo's personality results appear in Table 3. Chavo scored slightly above average in extraversion, which I attributed to his sociability with friends and close acquaintances. However, he reported feeling shy in certain class situations. Within the same trait, he did not demonstrate assertiveness or enthusiasm. Chavo scored slightly below average for agreeableness. Chavo reported that he was sometimes rude to others, found fault in others, and could be cold and distant. When it came to helping others in need, Chavo certainly would step up; he reported kindness and consideration for those less fortunate.

Of the five personality traits assessed, conscientiousness stood out as significantly low. Chavo reported being disorganized, careless with schoolwork, lazy, and easily distracted. Chavo scored slightly above average for neuroticism. He reported that he often was moody, nervous, and worried a lot. In general, though, he reported being stable, calm, and happy. Chavo's average score for openness reflected curiosity, imagination, and creativity. However, he preferred routine rather than change.

Table 3

Big Five Personality Scores for Chavo

Big Five Dimension	Mean	SD	Chavo
Extraversion	3.25	0.90	3.75
Agreeableness	3.64	0.72	3.11
Conscientiousness	3.45	0.73	1.89
Neuroticism	3.32	0.82	3.88
Openness	3.92	0.66	4.00

Note. Mean and standard deviation (SD) derived from "Development of personality in early and middle adulthood: Set like plaster or persistent change?" by S. Srivastava, O. P. John, S. D. Gosling, and J. Potter, 2003. *Journal of Personality and Social Psychology, 84*, 1041–1053.

Chavo's trait emotional intelligence results appear in Table 4. Chavo's significantly high scores for the well-being factor and facets of self-esteem, happiness, and optimism signify his contentment with both the present and future. He felt very good about himself and his life. Chavo's moderately low score for self-control was consistent with his reported impulsiveness, difficulty managing assessment-related anxiety, and moodiness. The slightly above-average score within this factor for stress management was also consistent with Chavo's ability to manage some stressful situations. Chavo's low scores for emotion expression and relationships reflected his difficulty letting others know his feelings and his occasional negative behavior toward others (especially people he knew well).

Table 4

TEIQue Scores for Chavo

Factors and Facets	Mean	*SD*	Chavo
Well-being	4.89	0.96	5.59
Self-esteem	4.49	1.05	4.64
Happiness	5.23	1.20	6.50
Optimism	4.94	1.03	5.63
Self-control	4.01	0.75	3.63
Emotion regulation	3.94	0.85	3.58
Impulse control	3.94	0.94	3.11
Stress management	4.17	0.96	4.20
Emotionality	4.71	0.67	4.54
Emotion expression	4.45	1.05	3.30
Empathy	4.63	0.85	5.11
Emotion perception	4.57	0.79	5.20
Relationships	5.17	0.84	4.56
Sociability	4.65	0.73	4.31
Social awareness	4.66	0.83	4.27
Emotion management	4.67	0.84	5.00
Assertiveness	4.62	0.93	3.67
Motivation	4.32	0.84	4.60
Adaptability	4.17	0.75	4.22

Note. Derived from the *Technical manual for the Trait Emotional Intelligence Questionnaire* (TEIQue), by K. V. Petrides, 2009, p. 81. London, England: London Psychometric Laboratory.

Also within the factor of emotionality, Chavo scored moderately above average for empathy and emotion perception. Although he did not express his emotions well, these scores indicate that he understood his emotions and the emotions of others and that he valued those emotions. Chavo's below-average score for social awareness was consistent with the fact that he had a small circle of friends. The score also indicates he did not express himself well outside the circle. His low assertiveness score was consistent with observed classroom behavior in which Chavo let group members take the lead. Chavo's average score for self-motivation was not consistent with his reported behavior. Chavo reported that he often gave up when challenged.

Chavo's affective engagement with school, courses, and tasks varied. First, Chavo was proud of being a student at this school. He stated that he loved wearing his uniform everywhere. This high level of engagement for his school did not translate to a similar level of engagement in all courses and programs. He was affectively engaged with the content in History. He found the content interesting and worth learning (of value). However, for math content, Chavo stated,

> I know that in the long run, when I am in college, and when I am an adult, I am not going to need to know what I am doing in math right now. So, I just feel like there is no point if it's not going to help me in the future.

When considering tasks, Chavo experienced anxiety and negative stress leading up to quizzes and tests because of the unknown content and outcome. Chavo did not experience the same negative feelings leading up to other forms of assessment such as presentations, oral reports, and projects. Chavo reported a variety of emotions associated with in-class activities. In history class, Chavo felt joy at times and frustration at others. In English class, Chavo reported only the negative emotions of frustration and anger. In his math and physics classes, he felt frustrated and bored. In contrast to English class, these feelings did not come as across as

negative. He mostly enjoyed group work and class discussions. He found reading and working silently very boring.

Chavo's behavioral engagement varied and was not consistent with his interest in content. This was especially the case with respect to out-of-class work. Chavo was engaged while in history class. He did not have a friend group to "fool around" with in this class; he was more comfortable actively participating in discussions. However, he did not regularly complete the assigned out-of-class reading. He also often arrived to class without being completely prepared. He found homework very difficult to complete. This was especially true for reading, analytic writing, and individual projects. Physics and math engagement scores were similar for both in-class and out-of-class work. Chavo completed most of his homework for both classes. In class, he worked consistently and paid attention.

Two important factors were uncovered through the interview process. Even though Chavo stated that the math content was not valuable for the future, he found the work easy to complete and the content understandable. He felt the teacher truly cared about his achievement and understanding. He also reported that the teacher regularly assessed the work and provided a grade (reward). The same perceived value and perception of teacher caring surfaced regarding his physics teacher. However, with respect to English class, Chavo was rarely fully engaged in class. He stated that his mind wandered and that his frustration led to anger at times. When working on out-of-class work, Chavo regularly gave up when challenged. He also reported that when he did the reading, he did not always understand or remember what he read. In terms of out-of-class assignments, Chavo found it easier to engage with group projects and creative writing.

Chavo's most notable engagement-related traits were conscientiousness and well-being. The significantly low conscientiousness score was consistent with his observed and reported behavior of giving up when feeling challenged, expressing disinterest in performing his best, and feeling lazy when asked to read. Chavo's extremely high well-being score was positive in the sense that he was generally satisfied with things in his life and showed that he believed good things would happen to him in the future. The downside of this trait was that Chavo may have had an unrealistic perception of the present and future. Chavo did not take some warning signs seriously enough. According to Chavo, he also was perceived by others as somewhat arrogant. He did care, but he had difficulty expressing those emotions, which led others to believe that he did not care.

Because Chavo was not self-motivated for many academic tasks that did not come easy to him, he relied on extrinsic factors to become behaviorally engaged. The most notable factor leading to higher levels of engagement for Chavo was a positive relationship with the teacher. This occurred when Chavo perceived that the teacher was caring and genuinely concerned with his achievement. Other extrinsic factors that contributed to Chavo's behavioral engagement included competence with his schoolwork and rewards in the form of achievement grades.

Summary. Certain traits and engagement levels stood out for Chavo. The significant traits included high scores for well-being, happiness, self-esteem, and optimism, an extremely low score for conscientiousness, and a low score for impulse control. Chavo also presented low scores for many social traits, including agreeableness, relationships, social awareness, and sociability. Summarizing Chavo's engagement, affective engagement was high for history class content, creative writing, athletics, and group work. Affective engagement was low for English and math coursework, and passive and solitary academic tasks, such as reading and academic

writing. Behaviorally, Chavo found it difficult to engage in reading and analytic writing. The work for which Chavo reported the highest levels of behavioral engagement seemed to correlate with personal competence.

The Story of Ewing

At the onset of the study, Ewing was a high school junior. His grades ranged from a D in English and D– in chemistry to a B+ in history. His teachers reported that Ewing was generally engaged while in class. However, he showed a range of perceived out-of-class engagement. Ewing self-identified as being athletic and having many friends.

Ewing's personality results are presented in Table 5. Ewing was an extremely outgoing and friendly young man. He had a large circle of friends, as evidenced by his high extraversion and agreeableness scores. His talkative nature and assertiveness aided him in social situations, but these same traits worked against him in class. His extremely low neuroticism score was evidenced by the following descriptors: Ewing was extremely calm even when life was hectic. He rarely felt stressed, worried, or moody. With respect to openness, he viewed himself as both creative and imaginative. However, he preferred a routine. He needed some time to adjust to new situations. His extremely low conscientiousness score was attributable to his self-described laziness, carelessness in completing work, disorganization, and distractedness.

Ewing's EI trait results appear in Table 6. His high scores for the well-being factor and the facets of happiness, optimism, and self-esteem are indicative of his satisfaction with his current life position, the expectation that good things will happen for him in the future, and his high level of self-confidence. Ewing's high level of self-control was noteworthy. Within that factor, Ewing scored extremely high for emotion regulation and stress management. Ewing was very calm, level-headed, and not easily shaken. He could successfully manage stressful

situations. However, he scored extremely low for impulse control. This implies that he did not carefully consider consequences for his decisions. Rather, decisions were made based on how he felt in the moment.

Table 5

Big Five Personality Scores for Ewing

Big Five Dimension	Mean	*SD*	Ewing
Extraversion	3.25	0.90	4.13
Agreeableness	3.64	0.72	4.22
Conscientiousness	3.45	0.73	2.11
Neuroticism	3.32	0.82	1.13
Openness	3.92	0.66	3.00

Note. Mean and standard deviation (SD) derived from "Development of personality in early and middle adulthood: Set like plaster or persistent change?" by S. Srivastava, O. P. John, S. D. Gosling, and J. Potter, 2003. *Journal of Personality and Social Psychology, 84*, 1041–1053.

Ewing's high scores for the factor of emotionality and the four facets within this factor signify that he understood his emotions and the emotions of others. Ewing openly showed that he valued the opinions of others even when they differed from his own. He was skillful at showing his emotions and accurately reading the emotions of others. His deep understanding of emotions created productive and positive relationships among a large circle of peers, faculty, and staff.

Table 6

TEIQue Scores for Ewing

	Mean	*SD*	Ewing
Well-being	4.89	0.96	6.03
Self-esteem	4.49	1.05	5.73
Happiness	5.23	1.20	6.00
Optimism	4.94	1.03	6.38
Self-control	4.01	0.75	4.76
Emotion regulation	3.94	0.85	5.25
Impulse control	3.94	0.94	3.22
Stress management	4.17	0.96	5.80
Emotionality	4.71	0.67	5.63
Emotion expression	4.45	1.05	5.80
Empathy	4.63	0.85	5.00
Emotion perception	4.57	0.79	6.40
Relationships	5.17	0.84	5.33
Sociability	4.65	0.73	5.73
Social awareness	4.66	0.83	6.09
Emotion management	4.67	0.84	6.22
Assertiveness	4.62	0.93	4.89
Motivation	4.32	0.84	3.30
Adaptability	4.17	0.75	4.89

Note. Mean and standard deviation (SD) derived from the *Technical manual for the Trait Emotional Intelligence Questionnaire* (TEIQue), by K. V. Petrides, 2009, p. 81. London, England: London Psychometric Laboratory.

Ewing was very outgoing. He was able to influence the feelings and motives of others, as evidenced by his high sociability, social awareness, and emotion management scores. His slightly above-average score for assertiveness implies that his feelings about leading or following in given scenarios could vary. His high score for adaptability was not consistent with his preference for routine. This could be explained by the fact that he was willing to adapt to new situations even though he preferred a routine. His extremely low self-motivation score was consistent with his reports of giving up when challenged. Ewing reported that extrinsic motivation was usually required for him to complete his academic work.

Ewing's affective engagement varied regarding school in general, academic content, academic tasks, and classroom climate. Ewing presented with an average emotional engagement level with school in general. He reported a rather neutral feeling. Ewing presented much stronger feelings, both positive and negative, with respect to academics. He reported being interested in engineering. He also reported having no interest in the current content in both English and math. When discussing his feelings about being in class, Ewing stated that he felt enthusiastic about both chemistry and engineering. He also reported feeling mostly bored in English and frustrated in math. Regarding in-class academic tasks, Ewing enjoyed class discussions and group work. The only task that Ewing disliked more than reading was writing. This was true whether the work was completed in class or outside of class. This feeling led to one of the reasons he liked history. He reported little to no out-of-class work in this subject. His emotions regarding his classes were also consistent with his perceptions of the emotional connections with his teachers. He reported that the chemistry, engineering, and history teachers cared deeply about his academic success and well-being in general. He reported that the math and English teachers cared much less about him.

Ewing's behavioral engagement was very strong when he was in class but very weak when outside of class. He completed homework for the classes he with which he felt emotionally connected: history, chemistry, and engineering. It is important to note that the homework in history class was limited to completing in-class assignments that were not finished in class, and engineering required very little out-of-class work. He did not like to read. Ewing reported that he rarely read what was required of him. He generally did not do the work because he did not feel he would be successful. He completed essay assignments for English class. However, this was a very painful experience for him. This was mainly the case when the writing was analytic writing regarding the required novels or texts. Ewing reported that he greatly enjoyed creative writing when the subject was his dog. He reported working very hard on this. When faced with challenging problems in math, Ewing would give up rather than work hard to find a solution. Regarding nonacademic school activities, Ewing reported working hard at sports and House competitions. He did not engage as heavily in community service, clubs, and contributions.

The most notable traits that explain Ewing's behavior are the extremely low self-motivation, neuroticism, and conscientiousness scores, high well-being score, and high scores regarding all aspects of being socially high functioning. Ewing did not perform well at sedentary and solitary tasks such as reading quietly and out-of-class individual work. It is not surprising that this type of work was hard for Ewing. Combined with his lack of conscientiousness, his scores show why he did not persevere in this situation. There was high behavioral engagement when Ewing was in class, playing sports, and in social situations. This is where he was most comfortable and most competent. Ewing fed off the energy of others. Without these external forces, Ewing found it very difficult to find the energy to complete academic tasks.

Additionally, Ewing found great value in the perceived relationships with his teachers. This was consistent with the affective and behavioral engagement in his classes. Given the tremendous amount of positive feedback he received through the many strong relationships, it is not surprising that low grades alone were not enough to increase his behavioral engagement with out-of-class work. This was consistent with his low score for neuroticism. His extremely high well-being score did not appear to have been greatly affected by this one dimension of negative reinforcement.

Summary. Ewing posted high scores for well-being, self-esteem, happiness, optimism, extraversion, and low scores for impulse control and conscientiousness. In fact, Ewing's scores for self-esteem and optimism were the highest of all five participants. Other significant categories for trait results included all the social traits, within which Ewing posted extremely high scores. Academic engagement results for Ewing included extremely high affect for athletics, group activities, and creative writing. With regard to academic content, low to average affective engagement was observed for all areas except history. Ewing reported experiencing the highest levels of behavioral engagement when in-class activities included active and socially engaging activities. He also reported higher levels of behavioral engagement when in class, compared to doing homework. Ewing struggled significantly to engage with reading, analytic writing, and any work that presented cognitive challenges.

The Story of Todd

At the onset of the study, Todd was a high school junior. His grades ranged from a D in English to A– in physics. His teachers reported that he was usually engaged while in class. However, there was a range of perceived out-of-class engagement. Some teachers reported that Todd completed his out-of-class work with few exceptions; others reported that he only

completed the work on occasion. Todd identified as a basketball player. He split his social life between his private school friends and former public school friends.

Todd's personality results appear in Table 7. Todd's slightly above-average extraversion score signifies that he could present with qualities of both extraverts and introverts depending on the situation. He was talkative and sociable with his circle of friends and in other situations in which he felt comfortable. However, he reported that at times he felt shy, inhibited, and reserved. Todd's slightly below-average agreeableness score could have been attributable to a mix of perceptions. Although Todd was very trusting and forgiving, he also frequently started quarrels and could be rude. The combination of these traits presented Todd as slightly antagonistic.

Table 7

Big Five Personality Scores for Todd

Big Five Dimension	Mean	*SD*	Todd
Extraversion	3.25	0.90	3.63
Agreeableness	3.64	0.72	3.11
Conscientiousness	3.45	0.73	1.78
Neuroticism	3.32	0.82	2.88
Openness	3.92	0.66	4.10

Note. Mean and standard deviation (SD) derived from "Development of personality in early and middle adulthood: Set like plaster or persistent change?" by S. Srivastava, O. P. John, S. D. Gosling, and J. Potter, 2003. *Journal of Personality and Social Psychology, 84*, 1041–1053.

The significantly low conscientiousness score reflected Todd's tendencies to be easily distracted, lazy, careless with schoolwork, and often give up when challenged. Todd's slightly below-average neuroticism score indicated his abilities to stay calm and handle stress. He could be moody at times. His slightly above-average score for openness reflected his imagination, curiosity, and originality. Todd enjoyed a regular change in scenery.

Todd's EI trait results appear in Table 8. His high scores for the well-being factor and the facets of happiness and optimism indicate his satisfaction with his current life position and the expectation that good things would happen for him in the future. Of the trait scores within the well-being factor, the highest was self-esteem. Todd was extremely confident and had a positive perception of self. Todd scored below average on self-control. The facet scores within this factor were consistent with his Big Five scores. Todd could manage stress very well. He also could manage his emotions. However, he had extremely low impulse control, which indicated a need for immediate gratification.

Todd scored significantly below average for the factor of emotionality. His low score for empathy signifies that he was self-centered and could be argumentative. Although Todd was competent at conveying his own feelings (emotion expression), he had difficulty in decoding the cues from others about their emotions (emotion perception). Todd often struggled with building positive relationships.

Table 8

TEIQue Scores for Todd

	Mean	*SD*	Todd
Well-being	4.89	0.96	5.41
Self-esteem	4.49	1.05	5.36
Happiness	5.23	1.20	5.63
Optimism	4.94	1.03	5.25
Self-control	4.01	0.75	3.45
Emotion regulation	3.94	0.85	4.08
Impulse control	3.94	0.94	1.67
Stress management	4.17	0.96	4.60
Emotionality	4.71	0.67	4.01
Emotion expression	4.45	1.05	4.60
Empathy	4.63	0.85	3.44
Emotion perception	4.57	0.79	3.90
Relationships	5.17	0.84	4.11
Sociability	4.65	0.73	4.51
Social awareness	4.66	0.83	4.18
Emotion management	4.67	0.84	4.11
Assertiveness	4.62	0.93	5.22
Motivation	4.32	0.84	3.70
Adaptability	4.17	0.75	4.67

Note. Mean and standard deviation (SD) derived from the *Technical manual for the Trait Emotional Intelligence Questionnaire* (TEIQue), by K. V. Petrides, 2009, p. 81. London, England: London Psychometric Laboratory.

Todd scored slightly below average for sociability. However, he scored above average for assertiveness, indicating he was direct and preferred a leadership role. His low scores for social awareness and emotion management were consistent with the fact that he had a small circle of close friends and trouble dealing with emotional outbursts of others. Todd's above-average score for adaptability was consistent with his openness. He enjoyed change and novelty. His low score for self-motivation indicated that he required many incentives and encouragement and that he was likely to give up when challenged.

Todd's affective engagement was significantly low toward school in general and varied with regard to content and courses. Todd did not generally like school. He presented as ambivalent about whether there was value in it beyond being the means to attending college. He did, however, enjoy basketball at school. He very much disliked English. The book they were reading was not engaging for him. In English class, he usually felt either frustrated or bored. In physics class, Todd reported often feeling relaxed, although he reported that the work was often tedious. Todd found the content in both history and microeconomics interesting. He liked the real-world applicability of the microeconomics content.

With respect to history, Todd found only the content interesting. With respect to in-class tasks, Todd greatly favored and actually enjoyed inquiry, research, and exploring topics. He disliked individual classwork such as working on math problems, reading, and writing. Regarding out-of-class work, Todd enjoyed group projects, movie making, and creative writing/story telling. He most disliked responding to literature and reading.

Todd's behavioral engagement was mostly low. Along with the negative feelings Todd associated with English class, he reported difficulty staying focused. He reported that his mind often wandered. He was better able to pay attention when the class engaged in discussion.

When students were required to read or study vocabulary, Todd's mind generally ended up somewhere other than in class. When Todd was challenged with homework in English (currently the class was reading *The Scarlet Letter*), he moved to *Spark Notes* as an alternative. Regarding history, Todd reported not much work was assigned outside of class. The assigned work involved writing. As with the writing in English class, Todd found this work difficult. He struggled to get his words and ideas down on paper. This frustration generally led to him give up. This lack of work completion was reflected in his grades: history and English were his lowest scores (even though he stated that history was most interesting). He reported that he completed his work in math, micro, and physics. Todd reported that the work in physics and math was not interesting, but that he understood it. That was the reason he completed it. He did not run into comprehension challenges. When completing work, Todd did the work with the goal of getting it done rather than delivering the best work possible.

It is notable that Todd's well-being score was high. Within the factor, his positive sense of self was very high. This score implies that not only might he be likely to ignore warning signs of problems, but he might also tend to blame others for his shortcomings. Todd's low levels of conscientiousness and self-motivation for academic work forced him to rely on extrinsic factors. He did not respond well to negative reinforcement. Rather, positive reinforcement and short-term goals seemed to be the most effective tactics to engage Todd. For example, a low grade would not necessarily induce Todd to change his behavior. The prospects for college opportunities based on better grades provided some fuel to Todd's academic work competition.

Summary. Todd's results showed the lowest levels for impulse control and conscientiousness of the group. He also posted extremely high scores for all the well-being facets. With respect to the social traits, Todd's scores were the lowest of the group. Todd's

affective engagement was high for history content and the activities involving athletics, group work, inquiry, research, and creative writing. Behaviorally, Todd struggled to pay attention in classes during lecture, but was engaged during active learning. He completed work outside of class that came easily to him regardless of the subject. With the exception of creative writing, Todd struggled to put his thoughts on paper and often gave up. He also gave up when challenged with other types of homework.

The Story of Tom

At the onset of the study, Tom was a high school junior. His grades ranged from an F in English to a B in physics. His teachers reported he was usually engaged while in class. His out-of-class behaviors varied significantly. He tended to complete his physics work and most of his work for Chinese and math, but not much more. English and history work were not completed or completed minimally at best. Tom did not view himself as s strong student. He identified more with being an athlete, although this was a recent development.

Tom's personality results appear in Table 9. Tom's high score for extraversion indicated his outgoing personality. Tom was easy to talk to and readily discussed topics that were of interest to him or that were positive in nature. Tom's average score for agreeableness was consistent with the fact that he got along with most people, yet maintained a small circle of friends. He was considerate and forgiving. However, he could at times find fault in others and be rude. His below average score for conscientiousness was slightly bolstered by his commitment and dedication to physical fitness. With regard to his academic quests, he was most often lazy, careless, and disorganized. Tom was generally calm and relaxed, as evidenced by his extremely low score for neuroticism. He was rarely worried. Although he handled stress well,

he could be moody at times. Tom's below average score for openness reflected the fact that he was creative and imaginative. However, he greatly preferred routine rather than change.

Table 9

Big Five Personality Scores for Tom

Big Five Dimension	Mean	*SD*	Tom
Extraversion	3.25	0.90	4.50
Agreeableness	3.64	0.72	3.78
Conscientiousness	3.45	0.73	2.89
Neuroticism	3.32	0.82	2.00
Openness	3.92	0.66	3.30

Note. Mean and standard deviation (SD) derived from "Development of personality in early and middle adulthood: Set like plaster or persistent change?" by S. Srivastava, O. P. John, S. D. Gosling, and J. Potter, 2003. *Journal of Personality and Social Psychology, 84*, 1041–1053.

Tom's EI trait results appear in Table 10. Tom had an extremely high sense of well-being. The highest of the facet score within this factor was self-esteem. Tom had an extremely positive sense of self and of his opinions. His happiness score was above average, and his score for optimism was only slightly above average. He was more satisfied and content with his current life status than he was with the outlook for his future, although he believed things would work out for him. His scores within the self-control factor varied. Consistent with his personality traits, he handled stress very well. However, he could be quite impulsive. He preferred immediate gratification or short-term results over persistence to accomplish long-term academic goals.

Table 10

TEIQue Scores for Tom

	Mean	SD	Tom
Well-being	4.89	0.96	5.67
Self-esteem	4.49	1.05	6.00
Happiness	5.23	1.20	5.88
Optimism	4.94	1.03	5.13
Self-control	4.01	0.75	4.07
Emotion regulation	3.94	0.85	4.33
Impulse control	3.94	0.94	2.78
Stress management	4.17	0.96	5.10
Emotionality	4.71	0.67	4.63
Emotion expression	4.45	1.05	4.90
Empathy	4.63	0.85	3.67
Emotion perception	4.57	0.79	4.40
Relationships	5.17	0.84	5.56
Sociability	4.65	0.73	5.09
Social awareness	4.66	0.83	4.73
Emotion management	4.67	0.84	4.78
Assertiveness	4.62	0.93	5.78
Motivation	4.32	0.84	4.30
Adaptability	4.17	0.75	4.00

Note. Mean and standard deviation (SD) derived from the *Technical manual for the Trait Emotional Intelligence Questionnaire* (TEIQue), by K. V. Petrides, 2009, p. 81. London, England: London Psychometric Laboratory.

Tom had a slightly below average score for emotionality. Tom viewed his close relationships as positive ones. However, he was very opinionated and could be argumentative. His small circle of friends were like-minded. Tom's scores within the sociability factor were slightly above average with the exception of assertiveness (which was very high). He preferred being a leader over being a follower. He would say what was on his mind without hesitation. Tom's score for self-motivation was average. This could be split between active and passive motives. Tom was highly motivated for activity and lacked motivation for passive work. Finally, Tom was generally fixed in his thinking. This was reflected in his below-average score for adaptability.

Tom's affective engagement with respect to school activities lay mainly with football and training with his friends. He saw value in school and with academic achievement because they were the path to a college education and athletic career. Nevertheless, the only course content Tom found remotely interesting was history. He said studying the Civil War and World Wars was emotionally engaging. He did not enjoy any other content. In class, he very much enjoyed both history and Chinese.

In physics class, Tom reported feeling mostly bored. Similarly, with math and English, Tom's feelings were negative; he reported frustration. Tom's frustration in those courses could lead to anger. Of the in-class tasks, Tom favored active learning, such as group discussions, lab experiments, and research. His enjoyment for these activities was classified slightly above average. Tom found most other classwork very boring. This was especially the case for in-class reading and writing. Although Tom did not enjoy homework, of all the task assignments, he favored group projects. Similar to his feelings regarding the in-class tasks, Tom dreaded both

reading and math homework. Tom seemed to have inconsistent relationships with the English and math teachers.

Tom's behavioral engagement in class was in line with his affective engagement. During English and math, his mind often wandered. He did not regularly pay attention. He admitted he sought to give the impression he was engaged even when he was not. In history class, Tom was behaviorally engaged. He paid attention during the short discussions and videos, and he reviewed and responded to the primary documents presented. In physics class, he was generally engaged because the teacher was entertaining and kept the students busy. Tom reported that he was mostly on-task when engaged in class discussions and active learning. Regarding out-of-class work, the story was similar. Tom completed his physics homework, but not to the best of his ability. This was because the teacher only checked to see if the work was complete, not correct. Most of the "homework" for history was completed in class. In addition, Tom did not generally complete the reading for English or math assignments. When reading, Tom often could not recall what he had read. When writing, he could not effectively get his words on the paper. However, there was an exception. Tom shared a recent instance of a writing assignment that involved a story about himself. Tom's words poured out, resulting in a 5-page paper. He reported enjoying the task and was quite proud to share this experience.

It is notable that many of Tom's close friends were in his history, Chinese, and physics classes. Having friends in class may have aided both his affective and behavioral engagement. In addition, in those classes, the type of work was more active and generally involved working with small groups. Given Tom's outgoing personality and strong connection with his circle of friends, it was not surprising that his feelings toward those classes were more positive and his perceived and observed levels of engagement were higher.

Summary. Tom posted extremely high scores for well-being, happiness, optimism, and all the social traits. His scores for self-esteem, extraversion, and assertiveness were the highest of the group. His scores for conscientiousness and impulse control were extremely low, and his score for adaptability was among the lowest of the group. Tom reported extremely high affective engagement for athletics, group activities, creative writing, and history content. He strongly disliked all homework, reading, academic writing, and sedentary work. Tom struggled to pay attention in classes when the tasks were passive and solitary. He reported trying to give the impression that he paid attention, but he was most often daydreaming. He was able to engage behaviorally when the activity involved active work such as labs in physics. He also engaged when the activities involved active engagement with his peer group. Tom completed most homework that came easily to him but not to the best of his ability.

The Story of Dion

At the onset of the study, Dion was a high school sophomore. He had a C in math and A's in all other courses. In class, some teachers reported he was quiet; others reported he actively engaged in discussions. With regard to out-of-class work, teachers reported he completed all work and prepared for class with few if any exceptions. Dion was a soft-spoken young man. He identified as both a scholar and an athlete.

Dion's personality results appear in Table 11. Dion's average extraversion score could be explained by his own reports that he could be too talkative when with close friends, but he was regularly shy in unfamiliar settings or with unfamiliar people. His high score for agreeableness signifies his considerate and kind nature. He was both trusting and forgiving. He rarely if ever started quarrels with others.

His slightly above average score for conscientious reflected the fact that he strove for high achievement, worked until a job was done, and was very reliable. However, he sometimes felt lazy and could be moderately disorganized. His below average score for neuroticism indicated the fact that he could generally remain calm and avoid being easily irritated. However, he worried quite a bit and did not effectively handle stress. His extremely low score for openness reflected the fact that he needed some time to adjust to new situations. He was more comfortable with routines.

Table 11

Big Five Personality Scores for Dion

Big Five Dimension	Mean	*SD*	Dion
Extraversion	3.25	0.90	3.25
Agreeableness	3.64	0.72	4.56
Conscientiousness	3.45	0.73	3.56
Neuroticism	3.32	0.82	3.00
Openness	3.92	0.66	2.30

Note. Mean and standard deviation (SD) derived from "Development of personality in early and middle adulthood: Set like plaster or persistent change?" by S. Srivastava, O. P. John, S. D. Gosling, and J. Potter, 2003. *Journal of Personality and Social Psychology, 84*, 1041–1053.

Dion's EI trait results appear in Table 12. Dion's well-being score was slightly above average. He was generally satisfied with his life and believed good things would happen for him in the future. However, his self-esteem was slightly below average. This may have reflected challenges in at least one aspect of his life. Dion had strong sense of self-control. He had control over his emotions, made decisions that were not impulsive, and could handle pressure situations better than the average person could. Dion had an extremely low score for emotionality. Although he maintained positive and productive relationships, the low scores for emotion expression, empathy, and emotion perception signified that he found it difficult to understand and express his emotions.

Dion's above average scores for sociability and its facets reflected his abilities to negotiate with calm and console and lead others. Dion had an above average score for self-motivation. He was driven to produce high-quality work and successfully navigated obstacles. Finally, his below average score for adaptability reflected the fact that he needed time to adapt to new conditions.

Dion's affective engagement was high for school in general and for most of his courses. He reported enjoying English the most and history least. He attributed the levels of enjoyment to the level of structure, climate, and content. He had always enjoyed math the most (which was currently his lowest grade) and was interested in the content. He enjoyed English class because of the teacher, the climate, and structure. He did not enjoy history class and was not interested in the content. With regard to in-class academic tasks, Dion greatly enjoyed small group discussions, group work, and class discussions. He found in-class reading, writing, and individual work boring.

Table 12

TEIQue Scores for Dion

	Mean	*SD*	Dion
Well-being	4.89	0.96	5.25
Self-esteem	4.49	1.05	4.36
Happiness	5.23	1.20	5.88
Optimism	4.94	1.03	5.50
Self-control	4.01	0.75	4.52
Emotion regulation	3.94	0.85	4.42
Impulse control	3.94	0.94	4.56
Stress management	4.17	0.96	4.60
Emotionality	4.71	0.67	3.69
Emotion expression	4.45	1.05	2.30
Empathy	4.63	0.85	4.22
Emotion perception	4.57	0.79	2.80
Relationships	5.17	0.84	5.44
Sociability	4.65	0.73	5.07
Social awareness	4.66	0.83	5.09
Emotion management	4.67	0.84	4.78
Assertiveness	4.62	0.93	5.33
Motivation	4.32	0.84	4.60
Adaptability	4.17	0.75	3.78

Note. Mean and standard deviation (SD) derived from the *Technical manual for the Trait Emotional Intelligence Questionnaire* (TEIQue), by K. V. Petrides, 2009, p. 81. London, England: London Psychometric Laboratory.

With respect to outside-of-class academic tasks, Dion mostly enjoyed group projects, academic discussions with his peers, and creative writing. In general, he felt that homework was boring. The most dreaded of all types of homework was reading. He was very proud to be at this school. He enjoyed playing soccer and engaging in other athletic activities. He also enjoyed the leadership components of the school, clubs, and community service. He saw value in all aspects of school.

Dion's behavioral engagement with activities and courses were consistent with his affective engagement. Dion paid attention and focused even if he did not actively participate. He actively participated more in the classes he enjoyed. Outside of class, he had been trying his hardest in every class except math. He attributed the low behavioral engagement in math to the fact that he had scored a 98 on the first test and then began to take it easy. He spent more time on his other work. This led to his lower grade in math. He reported that he was turning things around. Dion found it easy to pay attention and complete work in class for most activities. However, he lost focus during certain types of in-class activities, such as individual work or reading silently. Although he did not enjoy all types of homework assignments, he completed all work.

Dion presented significantly as an introvert even though his trait score was average for extraversion. His score for conscientiousness, though above average, may have been understated. He had a definite will to achieve at a high level. Given all the activities he undertook, his challenge to maintain high grades in all courses may have been attributable to the limited amount of time in the day. In addition to trying to complete all of his academic work to the best of his ability, he was heavily engaged in soccer and training both in school and outside of school. Dion's grade in math did increase during the study.

Summary. Dion's well-being score was high, yet the lowest of the group. His self-esteem score was slightly below average, although he posted high scores for both happiness and optimism. His scores for both conscientiousness and impulse control were very high. This was a contrast to the scores among the other participants. Dion posted the lowest score of the group for extraversion; in fact, he was observed to be an introvert. He also posted the lowest scores of the group for most of the emotionality facets and adaptability. Dion reported the highest levels of affective engagement with athletics, group activities, and creative writing. With regard to course content, he most enjoyed English, math, and science. He presented as having high affect for all subjects. He found all homework boring, and he most dreaded reading, but he completed all of his homework to best of his ability.

Summary

The trait similarities of four of the five (subgroup: the name given to the four participants that were most similar with respect to traits and engagement) participants were significant. The differences between the outlier and the rest of group further reinforce consistency between traits and engagement. Dion was the outlier in this study. The significant trait differences were observed within the well-being factor for EI and for the Big Five traits of conscientiousness and extraversion, as shown in Table 13.

Tom, Chavo, Ewing, and Todd showed above average scores for all the presented traits except conscientiousness. Their conscientiousness scores were significantly below average. Dion presented as being significantly more conscientious, compared to the other participants. Dion's well-being score was lowest of the group. He also had a lower score for self-esteem. The four within the subgroup also scored very low on impulse control, whereas Dion scored significantly above average.

Table 13

Comparison of Participants' Traits

Trait	Tom	Chavo	Ewing	Todd	Dion
Well-being	5.67	5.59	6.03	5.41	5.25
Self Esteem	6.00	4.64	5.73	5.36	4.36
Happiness	5.88	6.50	6.00	5.63	5.88
Optimism	5.13	5.63	6.38	5.25	5.50
Conscientiousness	2.89	1.89	2.11	1.78	3.56
Extraversion	4.50	3.75	4.13	3.63	3.25
Impulse control	2.78	3.11	3.22	1.67	4.56

Noteworthy trait differences included many of the social facets. Tom, Ewing, and Dion scored very high for agreeableness, relationships, social awareness, and sociability. Todd and Chavo scored very low for the same traits.

There were more similarities than differences among the participants with respect to affective engagement. Aggregating the data collected, descriptors for levels of affective and behavioral engagement were applied to categories for each participant and labeled as *low*, *average*, or *high*. A summary of the affective engagement similarities for all participants appears in Table 14.

Table 14

Common Affective Engagement Categories for All Participants

Affective Engagement Category	Tom	Chavo	Ewing	Todd	Dion
Athletics	High	High	High	High	High
Group work	High	High	High	High	High
Passive classwork	Low	Low	Low	Low	Low
Homework	Low	Low	Low	Low	Low
Reading	Low	Low	Low	Low	Low
Academic writing	Low	Low	Low	Low	Low
Creative writing	High	High	High	High	High

Among all school activities, all five participants reported they had interest in and enjoyment for athletics. All five participants enjoyed in-class academic tasks that involved engaging with peers over individual work. They also ranked reading and writing lowest in terms of preferred tasks. They all stated they found homework boring. The least interesting and enjoyable homework tasks were reading and academic writing. When writing was required, they all preferred creative writing and storytelling. They most preferred tasks involved group projects.

Table 15 shows the affective engagement similarities for the subgroup; Dion was the outlier. Similarities within interest and enjoyment for content stood out for the subgroup. All four reported having little to no interest in English or math. The subgroup also reported high

interest for United States history. Dion reported that English was currently his favorite subject,

math had always come easy to him, and that history was his least favorite class.

Table 15

Common Affective Engagement Categories for Subgroup

Affective Engagement Category	Tom	Chavo	Ewing	Todd	Dion
Academics	Low	Low	Low	Low	Average
English	Low	Low	Low	Low	High
History	High	High	High	High	Average
Math	Low	Low	Low	Low	High
Science	Average	Average	Average	Average	High

Behavioral engagement showed some similarities for the subgroup composed of Tom,

Chavo, Ewing, and Todd. The participants in the subgroup did not complete their reading

assignments, whether for English or for history. They struggled to put words on paper when the

writing was analytical. However, they found it easy to write creatively, especially when telling

stories. The subgroup also tended to complete work that came easily. When faced with

challenges, they all tended to give up. All five participants found they had better attention,

focus, and put forth more effort in class for the classes they liked; however, only Dion completed

all his homework.

Recall the problem statement that many students in American school systems do not

achieve at a level commensurate with their cognitive ability; these students have been described

as not being successful because of the gap between ability and achievement. The goal of this

study was to help inform students, parents, and educators about practices that could be employed to meet the needs of the nontraditional learners.

The close examination of the data for the participants' traits and engagement uncovered some strong connections between the facets studied. The in-depth interviews also revealed the important fact that all five individuals were very different. For example, Tom reported having no interest in school just two years ago. He shared a story of transformational experience when living with his grandmother over a summer that gave him a new outlook on life and school. He now identified as an athlete and saw college in his future. Todd had always viewed himself as college bound. For him, school was a compulsory activity, and because that was the case, the school he was attending was as good as any. Chavo was soul searching. He was only beginning to develop an identity focused on service. Recently, he reported feeling good about helping an elementary school student and volunteering at Ronald McDonald House. Ewing was a very social being. He was often observed with groups of students around him with a big smile on his face. He was very skilled socially. Dion was achievement-oriented. He was driven, academically and athletically. He aspired to attend Duke, a goal within his reach.

In the next chapter, the findings are discussed and interpreted, the research questions are explained, recommended actions are presented, and steps to further research are recommended.

CHAPTER 5

CONCLUSION

In this chapter, I connect the problem statement, the purpose, and the research questions with the findings of this study. Five participants were studied. Four of the participants—Tom, Ewing, Todd, and Chavo—were referred to as the *subgroup* because of their similarities in traits and engagement. Dion was the outlier of the sample. Also, provided in this chapter are the implications of the findings, recommendations for action, recommendations for further study, and a closing statement for the study.

The problem addressed by this study was that students are often left behind academically in part because of inherent traits that lead to significant academic challenges. The purpose of this mixed-methods study was to examine the affective engagement and behavioral engagement of high school students who showed inconsistent academic achievement at an independent school. The premise of the study was the relationship of students' trait characteristics to their academic achievement. Specifically, previous researchers have suggested that students being left behind are not predisposed for the passive and solitary path of traditional education. The research presented in Chapters 1 and 2 implied that students with passive motives and low levels of academic conscientiousness are extraordinarily challenged to complete many of the academic tasks presented to them (Downey et al., 2014; Froiland et al., 2015). The key findings of this study support that assertion.

Interpretation of Findings

Although all five participants met the academic achievement criteria to qualify for the study, one participant (Dion), described as an outlier in Chapter 4, academically self-corrected almost immediately. As he reported during the first interview, he did not put forth sufficient

effort in math at the onset of the term. He was already improving by increasing his behavioral engagement at the time he entered the study. Dion entered the study with one C in math and a GPA of 3.3. At the next and subsequent marking periods, Dion's math grade rose to a B− and then settled at a B, and his GPA reached 3.7 in both terms. The four members of the subgroup had either multiple D's or F's upon entering the study, with GPAs ranging from 1.9 to 2.5. By the conclusion of the study, grades for all participants improved. This improvement in course level success was neither anticipated nor intended. One possible explanation is that the increased attention regarding the participants' academic pursuits and the perception they could improve led to an increase in engagement. Even with the increased achievement grades, the four participants within the subgroup still presented inconsistent achievement or underachievement that qualified them for inclusion in the study, with GPAs ranging from 2.3 to 2.8. Thus, these students qualified for inclusion into the category of not being predisposed for consistent success with traditional academic tasks.

In this study, I assessed student traits and examined student engagement for a group of five students in one school. The purpose of the study was to uncover the answers for the following research questions:

1. How do students with specific personality and EI traits perceive their emotional and behavioral engagement in school?

2. What specific content and academic tasks do the students find enjoyable or boring?

3. With what content and academic tasks do the students find engagement easy or difficult?

In addition, the participants' perceptions of extrinsic factors that led to increased or decreased engagement are presented. Discussion of those categories includes value, expectations, and climate (which included teacher behavior).

RQ1: How do students with specific personality and EI traits perceive their emotional and behavioral engagement in school?

The participants of the subgroup did not exhibit conscientiousness, impulse control, and self-motivation for high engagement with most traditional academic work. They found it difficult to engage, focus, and complete work. Teachers, parents, and students themselves should not be surprised when they do not complete their traditional academic work to the best of their ability simply because of their innate challenges. All the participants wanted to have good grades, were interested in learning, and understood that improving achievement would help them now and in the future. However, they encountered psychological and emotional obstacles they did not know how to navigate.

Among other things, low impulse control may indicate the need for immediate gratification (Petrides, 2009). It is difficult or even unreasonable to expect these students to maintain a focus on the long-term goals of college and beyond. They were more interested in tasks that came easily to them, hence providing a feeling of satisfaction. In general, this behavior was true of the four participants for the subgroup. When competing priorities were presented, the participants most often chose the path of least resistance, which may have been doing nothing at all. Considering the innate needs of the participants and their ability to manage stress led to a deeper understanding of their apparent lack of behavioral engagement. The participants were practically immune to receiving low grades, parental negative reinforcement,

and teacher negative reinforcement. For students with these challenges, the stress from certain types of feedback may be short-lived or nonexistent.

Among the subgroup, high well-being scores were observed. The good news was that the participants were happy in the present, had positive outlooks for their futures, and had positive self-regard. The drawback was that the students remained unmotivated to change their behavior when things did not go well academically. They tended to ignore warning signs of more trouble to come, and they exhibited no pressing need to achieve academically.

RQ2: What specific content and academic tasks do the students find enjoyable or boring?

The participants unanimously preferred active and socially engaging tasks over passive and individual tasks. Participants exhibited the highest levels of affective engagement with regard to sports. The participants presented greater affection for activities involving active motives; this outcome was consistent with previous research (Froiland et al., 2015). All five participants reported they did not enjoy reading, most types of writing, and homework in general. Dion, as the outlier, completed all his work even though he did not enjoy it. Dion presented significantly higher levels of conscientiousness, impulse control, and self-motivation, compared to the subgroup.

RQ3: With what content and academic tasks do the students find engagement easy or difficult?

All participants within the subgroup noted that the content in history class was the most interesting and most worthy of study. However, this attitude did not translate to behavioral engagement in that subject. The teachers reported (through grade reports) that these students only occasionally completed work outside of class. This was consistent with participant self-reporting. When questioned about behaviors specific to completing work outside of class, the

value proposition shifted. The members of the subgroup completed more homework when they were not presented with cognitive challenges. For example, they all reported they were not emotionally engaged with math. However, most of them completed the homework in math because they understood the material. With other topics, they most often reported giving up when challenged.

Each of the participants described their teachers and the climate of the classes as having levels of professionalism, caring, and organization. Dion perceived all his teachers in a positive light. However, he reported that one class (history) was disorganized and "run" by the students. This was the class he liked the least. For the subgroup, perceptions of teacher behavior varied, but the consistent descriptions involved perceived professionalism and authentic caring. However, three of the four participants in the subgroup presented stories of negative interactions with a teacher in which they believed the teacher was wrong. Following each of the incidents were periods of extremely low behavioral engagement in class and out of class. For example, Todd said he had completed an assignment, but he did not receive credit because the teacher lost it. Ewing shared a story involving a teacher who intentionally threw his essay on the floor when handing it back. Tom reported that a teacher picked on him in class without cause. These are examples of teacher behaviors perceived by the students as de-motivators.

Summary of Interpretations

The participants in the subgroup exhibited trait similarities that could be negatively affecting their academic engagement. The trait similarities included low conscientiousness and low impulse control with strong abilities to manage stress. They also presented a high sense of self-worth, happiness, and optimism. All members of the subgroup reported significant difficulties reading, completing passive and solitary work, and engaging in analytic writing. In

addition, the members of the subgroup reported and exhibited high engagement for creative writing. Examples included Ewing's essay about his dog and Tom's effortlessly written 5-page paper about his own academic challenges. Ryan and Deci (2000) noted,

> Yet, despite the fact the humans are liberally endowed with intrinsic motivational tendencies, the evidence is now clear that the maintenance and enhancement of this inherent propensity requires supportive conditions, as it can be fairly readily disrupted by various non-supportive conditions. (p. 70)

Consider a task that a person does not intrinsically want to complete, yet knows he or she should. How easy is it to come up with an excuse *not* to complete it? Could it be students face obstacles so difficult to overcome that motivation is not the issue, but rather the conditions are unmanageable for some students simply because of their traits? These questions could possibly be addressed through transformative education.

Discrepancies in Findings

The most glaring discrepancies among the participants occurred between traits and behaviors. The average to above-average self-motivation (driven to complete high quality work) scores for Tom and Chavo were not consistent with their reported and observed behaviors. Tom posted an average score for motivation. Through the interview data, it was uncovered that Tom was extremely motivated toward fitness training and sports. However, he had little to no motivation toward academic pursuits. This could explain the score. Chavo scored above average for motivation, yet there was little evidence that he possessed that level of determination or perseverance.

Because of the mixed results found for many of the participants' traits, no conclusions could be reached from the data. These inconclusive traits included emotion regulation, emotion

expression, empathy, emotion perception, and relationships. The most significant results leading to conclusions and the need for further research involved conscientiousness, impulse control, self-motivation, and the well-being factors of self-esteem, happiness, and optimism. The primary remaining questions involve the phenomenon of high well-being scores.

In the above interpretations, I assumed that academic engagement and achievement were valued above well-being. Could well-being be the most important factor of all competencies? In all their pursuits, could educators be focusing on the wrong outcomes? There is a possibility that both well-being and achievement are equally important; perhaps through the transformative education practices of inclusion, equity, and social justice, both could be accomplished.

Limitations of the Data

The first limitation was that the participant group consisted of only five students. Although some of the observations were consistent among participants, it would be questionable to generalize the results. In addition, the study group consisted of only male students.

Researcher bias was present. That is, I held a preconceived notion that a category of students was being neglected within the traditional education process. However, this problem has been mentioned prior to this study. The traits and engagement levels that surfaced in this study represented legitimate observations that supported that premise. It is clear I supported a philosophy of transformative education that requires inclusion, equity, and social justice. Those who do not support this philosophy would likely challenge this position.

An extensive list of factors not considered in this study could contribute to student engagement. These could include peer pressure, competing family obligations, individual needs, and other nonacademic demands.

The research questions were addressed. Those questions provided insight into the "what" questions of engagement. Courses, content, and tasks that the participants found emotionally engaging and behaviorally engaging were noted. However, many questions need further examination. These questions are addressed in the recommendations for further study.

Implications

One aim of the study was to uncover the perceptions of students struggling with engagement in certain types of academic work. The engagement categories involved behavioral engagement, including participation, effort, and attention and affective (emotional) engagement, including students' perceived feelings (e.g., boredom, enjoyment, enthusiasm) about learning and about the school they attended (Lam et al., 2014; Tas, 2016; Wang et al., 2014). The initial findings of this study support the existing research that has shown that low levels of conscientiousness and self-motivation are related to lower academic achievement (Barchard, 2003; Brouzos et al., 2014; Downey et al., 2014; Vidal Rodeiro et al., 2012). However, in the present study, I examined more than a simple linear relationship between parameters. The feelings and perceptions of the participants with respect to specific tasks were uncovered. Although a relationship between traits, feelings, and engagement was exposed, I also showed that the students were successful in other courses and sometimes with similar tasks. The current remedies have proven unsuccessful in consistently increasing engagement for the subgroup. This area needs to be addressed. In relation to equity and justice (Shields, 2010), these students should not be treated the same as are students who possess traits that are in alignment with certain academic tasks.

All five participants in the study disliked reading. This finding does not imply that the students had a common reading level or similar ability to engage. Dion was able to complete his

reading assignments at a high level. Even though he disliked reading, he did not find the task arduous. The members of the subgroup viewed the task much differently. Tom and Ewing said even when they tried to read, they could not recollect what they had read upon completion. Todd reported that he read when he must, but the interest was not there. All four in the subgroup reported a discomfort with reading and analytic writing. They reported negative feelings when even considering these tasks. Tom, Chavo, and Ewing reported low levels of academic self-efficacy. These examples of reactive inhibition need to be examined further.

By definition, students' individual traits determine how they behave, think, and feel (American Psychological Association, 2016). One of the most commonly recognizable and observed trait challenges involves students with severe public-speaking anxiety. When forced into a public-speaking situation, typically observed symptoms include sweating, shaking, stuttering, and an inability to retrieve information. Without delving into the neuroscience and physiology of the limbic system, students' emotional and physical responses are real. More often than not, though, students' reactive feelings and responses to the academic processes are not as easily observable or relatable. It is important for educators, families, and the students themselves to learn more about emotional and social competency to reach the new paradigm of transformative education.

For the English teacher whose craft is reading, writing, and speaking, emotional challenges associated with reading and writing are a foreign concept. It must be impressed upon teachers that students' feelings are real. An incredible amount of energy is needed for these students to complete passive tasks. Students need to overcome the negative emotions associated with the task. Reading and analytic writing are academic skills that cannot be compromised. The solution must be to find a way to do things differently. In the case of reading, for the

members of this subgroup, support was required. What form that support should take is still to be determined. When students anticipate a task is going to be hopeless or painful, whether it is required or not, it is not hard for them to find an excuse to avoid it. Simply working harder may yield some benefits. However, that solution will not be successful long-term without removing the obstacles. To remove the obstacles, students need to better recognize, understand, and regulate their emotions. Teachers and parents must support the children's needs.

<div style="text-align:center">Recommendation for Action</div>

This examination was completed objectively and without bias; thus, the conclusions may offer some valid actions toward helping those students "left behind." What should educators do for students who are academically unmotivated, lack conscientiousness, or have trouble committing to long-term goals? If the most commonly repeated interventions fail to change student behavior, then what will? One goal of this study was to find ways, in terms of specific teacher behaviors, to promote equity for those students who are least academically successful in the traditional U.S. education system. Another favorable outcome would be to help students understand how they can better help themselves. The lessons learned from the stories of the participants of this study contain sound advice that other students could apply (Creswell, 2013). The following recommendations are intended for students, parents, faculty, and staff.

Education for students begins with understanding who they are, valuing their individuality, and learning strategies to overcome inherent obstacles to maximize achievement. Some traits are unlikely to change. The goal for students perceiving obstacles to completing essential academic tasks is to recognize, understand, and regulate their emotions to minimize the negative effects. This could be accomplished through coaching. Coaching would be analogous to coaching students through the anxiety of an oral report or preparing for a big game.

Education for school employees begins with learning differences between traits, behavior, and habits. I recommend that faculty and staff traits be assessed. Before trying to understand others, school employees should understand themselves. Next, the school faculty should learn about their students' personality and emotional intelligence traits. This information could improve practices of differentiation. For example, teachers should first learn their students' readiness, interests, and learning profiles (Tomlinson & McTighe, 2006). When educators think of traditional academic work, they often think of reading, writing, lecture, and math problems. When educators think of education reform, tasks such as group activities, inquiry learning, and active creative tasks come to mind. It would benefit all constituents to encourage educators to understand students' personality and emotional intelligence traits. In addition, parents and families should commit to recognizing and addressing the emotional challenges of their children as they cope with academic and cocurricular challenges.

Recommendations for Further Study

The focus of this study was to examine traits and engagement of students exhibiting inconsistent achievement. Those research questions were answered. Implications for stakeholders were presented. Insight was gained. Recommendations to improve the engagement are given. However, many more questions and constructs should be examined.

The first recommendation for further study is to conduct a complete quantitative analysis of traits and engagement at the same site. Gathering trait data on all students in the school would lead to the creation of norms within the site. Based on the data, participants could then be selected for further quantitative and qualitative analysis. This action would provide data for a more complete examination of student traits with perceived and observed engagement.

The next recommendation for further study is to examine teacher leadership behavior and teacher perceptions in conjunction with the student perceptions. In this study, some information was uncovered regarding student perceptions of teacher behavior. However, that was not the focus of the study. A study of this type would provide insight into the effectiveness of the student–teacher relationship and help gauge the impact of the interpersonal relationship on engagement. For example, in this study, Dion noted a strong positive relationship with his English teacher. With the same class, Dion reported high affection for the content and class climate. This was contrary to his previous English classes. Affection for teacher behavior did not translate to behavioral engagement for the members of the subgroup. However, significant negative encounters between the subgroup members and teacher resulted in lower engagement. These observations need further examination.

From the evidence presented in this study, it is clear that student differences must be recognized in accordance with their innate needs. Several of the participants reported low levels of academic self-efficacy. All members of the subgroup reported reactive inhibitions to certain academic tasks. More information is needed to suggest exactly what methods would be most effective to improve the unsupportive conditions so that learning can be transformational for all students. In addition, exploring what factors, if any, would help increase self-efficacy could be beneficial.

The final recommendation is to examine the motives of the least academically well-off students. Further examination of the motives and de-motivators for the students could prove valuable. Ryan and Deci (2000) posited that competence, autonomy, and relatedness are key factors to understanding human motivation. There was evidence, albeit limited, to indicate that competence, autonomy, and relatedness played a role in the engagement of the study group. The

goal of further examination would be to explore these motivation factors further, uncover the extrinsic factors that most effectively increase the students' academic engagement, and investigate which hygiene factors inhibit engagement. The results of the study could provide useful tools for students, parents, teachers, and staff.

Conclusion

As has been stated, emotions are not the usual focus of many educators in the U.S. education system. Given what educators know about the strong influence of emotions on behavior (Froiland et al. 2015; Pekrun, 2006), emotions should be a focus. If U.S. educators truly want to practice transformative leadership in education, it is important for all stakeholders to understand personality and emotional and social competency. The conclusions presented here were not meant to evoke sympathy for the participants. Instead, the intent was to promote empathy and the valuing of the students' individual trait differences.

The importance of this understanding for the participants is two-fold. First, students need to know there is nothing wrong with them, that their feelings and challenges are real, and that the obstacles can be overcome. Next, students need to develop strategies to overcome their innate challenges as they navigate the traditional academic path. Teachers, staff, and parents must understand that students are not simply lazy. The students must be challenged, but they also require support. Simply telling students to work harder is not support. Degrading and humiliating students is not challenge. Negative reinforcement will only serve to further demotivate the students. The shift in challenge should be toward building resilience, achievement orientation, and academic self-efficacy. The shift in support should be toward improving the unsupportive conditions, removing the innate academic obstacles, and coaching students to overcome those challenges. The goal of transformative education can be achieved.

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APPENDIX A

ASSENT FOR PARTICIPATION IN RESEARCH

(For participants under the age of 18)

Project Title: *Examining Student Engagement in the Academic Environment*
Principal Investigator(s):
M. Scott Milliken, Graduate Student, University of New England
Email: mmilliken@une.edu
phone: (518) 858-6059

Faculty Advisor: Michelle Collay, Ph.D.
email: mcollay@une.edu
phone: (207) 602 - 2010

Introduction:

- Please read this form one section at a time; we will discuss each section along the way. The purpose of this form is to provide you with information about this research study, and if you choose to participate, document your decision.
- You are encouraged to ask any questions that you may have about this study, now, during or after the project is complete. You can take as much time as you need to decide whether or not you want to participate. Your participation is voluntary.
- This study involves research.

Why is this study being done?

- The purpose of this case study will be to examine engagement of high school students in the academic environment of an independent school. The trait characteristics of the students will also be assessed and discussed in relation to their academic engagement.

Who will be in this study?

- Participants will be students that have demonstrated achievement grades ranging from below C+ to above B.
- There will be 6 – 10 participants in this study.

Family Educational Rights and Privacy Act (FERPA)

- The Principal Investigator will access exiting grade reporting data for use in this research study.
- Even though the Principal Investigator has access to this data for educational purposes, the data is considered protected under FERPA for any other use including research. This data can only be accessed and used for research purposes with written permission.
- By signing this assent form, you will be granting access to existing grade reporting data to be used in this research study by the Principal Investigator.

What will I be asked to do?

- You will complete two questionnaires: a personality questionnaire (the Big Five Personality Trait Questionnaire) and a trait Emotional Intelligence questionnaire (the TEIQue). These questionnaires will be printed on paper for you to complete using a pencil.
- You will be observed in your normal academic setting. Notice will be taken regarding your level of engagement during regular academic tasks. You will be asked several follow up questions regarding your engagement in school.
- The questionnaires will take approximately 20 minutes each to complete. You will complete these questionnaires during your free periods or study hall periods.
- The interview session will last approximately 40 minutes. You will be interviewed during your free periods or study hall periods.

What are the possible risks of taking part in this study?

- There is a potential risk of emotional discomfort that could be triggered while completing the trait questionnaires. You will not be required to answer any question that you choose not to, and you may elect to exit the study at any time.

What are the possible benefits of taking part in this study?

- There are no direct benefits to you for participating in this study. There may be a benefit to others, the organization, etc. …

What will it cost me?

- There are no costs associated with this research.

Mandated Reporting

- New York State and the New York State Child Protection System recognize the Principal Investigator as a mandated reporter of child abuse and neglect. If evidence of either child

abuse or neglect were to surface as a result of this research, then by law, the Principal Investigator would report the evidence the New York State Child Protective Service.

How will my privacy be protected?

- Interactions with the researcher will not be outside any normal academic support interactions occurring on a regular basis including classroom observations and individual meetings.
- Results of this research will be published to the dissertations section of the University of New England's DUNE (Digital UNE). Your name will be changed in the research findings.

How will my data be kept confidential?

- Research records will be kept in a locked file in the locked office of the Principal Investigator. Electronic data will be kept in a password-protected web location.
- Data will only be connected to you using a pseudonym.
- Data will be destroyed after the study is complete.
- No individually identifiable information will be collected.
- Please note that regulatory agencies and the Institutional Review Board may review the research records.
- A copy of your signed consent form will be maintained by the principal investigator for at least 3 years after the project is complete before it is destroyed. The consent forms will be stored in a secure location that only members of the research team will have access to and will not be affiliated with any data obtained during the project.
- Interviews will be documented with audio recordings. The recordings will be deleted after transcription.
- There is no intent to use any of the data collected for this research in any future research.
- Research findings will be provided to the participants. Only you and the researcher will know your pseudonym.

What are my rights as a research participant?

- Your participation is voluntary. Your decision to participate will have no impact on your current or future relations with the University of New England or The Albany Academies. Your decision to participate will not impact your standing as a student.
- You may skip or refuse to answer any question for any reason.
- If you choose not to participate there is no penalty to you and you will not lose any benefits that you are otherwise entitled to receive. You are free to withdraw from this research study at any time, for any reason. If you choose to withdraw from the research there will be no penalty to you and you will not lose any benefits that you are otherwise entitled to receive.

What other options do I have?

- You may choose not to participate.

Whom may I contact with questions?

- The researcher conducting this study is M. Scott Milliken**.** For questions or more information concerning this research you may contact him at mmilliken@une.edu.
- If you choose to participate in this research study and believe you may have suffered a research related injury, please contact Michelle Collay, Ph.D. at *(207) 602 – 2010 or* mcollay@une.edu.
- If you have any questions or concerns about your rights as a research subject, you may call Olgun Guvench, M.D. Ph.D., Chair of the UNE Institutional Review Board at (207) 221-4171 or irb@une.edu.

Will I receive a copy of this assent form?

- You will be given a copy of this assent form.

Participant's Statement

I understand the above description of this research and the risks and benefits associated with my participation as a research subject. I agree to take part in the research and do so voluntarily.

Participant's signature   Date

Printed name

Researcher's Statement

The participant named above had sufficient time to consider the information, had an

opportunity to ask questions, and voluntarily agreed to be in this study.

_____   _____

Researcher's signature   Date

_____

Printed name

APPENDIX B

PARENT CONSENT FOR PARTICIPATION IN RESEARCH

(For parents of participants under the age of 18)

Project Title: *Examining Student Engagement in the Academic Environment*
Principal Investigator(s):
M. Scott Milliken, Graduate Student, University of New England
Email: mmilliken@une.edu
phone: (518) 858-6059

Faculty Advisor: Michelle Collay, Ph.D.
email: mcollay@une.edu
phone: (207) 602 - 2010

Introduction:

- Please read this form one section at a time; we will discuss each section along the way. The purpose of this form is to provide you with information about this research study, and if you choose to have your son participate, document your decision.
- You are encouraged to ask any questions that you may have about this study, now, during or after the project is complete. You can take as much time as you need to decide whether or not you want your son to participate. Your consent to participation is voluntary.
- This study involves research.

Why is this study being done?

- The purpose of this case study will be to examine engagement of high school students in the academic environment of an independent school. The trait characteristics of the students will also be assessed and discussed in relation to their academic engagement.

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- Even though the Principal Investigator has access to this data for educational purposes, the data is considered protected under FERPA for any other use including research. This data can only be accessed and used for research purposes with written permission.
- By signing this consent form, you will be granting access to your son's existing grade reporting data to be used in this research study by the Principal Investigator.

What will the participants be asked to do?

- Participants will complete two questionnaires: a personality questionnaire (the Big Five Personality Trait Questionnaire) and a trait Emotional Intelligence questionnaire (the TEIQue). These questionnaires will be printed on paper to complete using a pencil.
- Participants will be observed in their normal academic setting. Notice will be taken regarding their level of engagement during regular academic tasks. They will be asked several follow up questions regarding their engagement in school.
- The questionnaires will take approximately 20 minutes each to complete. Participants will complete these questionnaires during their free periods or study hall periods.
- The interview session will last approximately 40 minutes. Participants will be interviewed during their free periods or study hall periods.

What are the possible risks of taking part in this study?

- There is a potential risk of emotional discomfort that could be triggered while completing the trait questionnaires. Participants will not be required to answer any question that they choose not to, and they may elect to exit the study at any time.

What are the possible benefits of taking part in this study?

- There are no direct benefits to you for participating in this study. There may be a benefit to others, the organization, etc. …

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Mandated Reporting

- New York State and the New York State Child Protection System recognize the Principal Investigator as a mandated reporter of child abuse and neglect. If evidence of either child

abuse or neglect were to surface as a result of this research, then by law, the Principal Investigator would report the evidence the New York State Child Protective Service.

How will the participants' privacy be protected?

- Interactions with the researcher will not be outside any normal academic support interactions occurring on a regular basis including classroom observations and individual meetings.
- Results of this research will be published to the dissertations section of the University of New England's DUNE (Digital UNE). Participants' names will be changed in the research findings.

How will data be kept confidential?

- Research records will be kept in a locked file in the locked office of the Principal Investigator. Electronic data will be kept in a password-protected web location.
- Data will only be connected to participants using pseudonyms.
- Data will be destroyed after the study is complete.
- No individually identifiable information will be collected.
- Please note that regulatory agencies and the Institutional Review Board may review the research records.
- A copy of your signed consent form will be maintained by the principal investigator for at least 3 years after the project is complete before it is destroyed. The consent forms will be stored in a secure location that only members of the research team will have access to and will not be affiliated with any data obtained during the project.
- Interviews will be documented with audio recordings. The recordings will be deleted after transcription.
- There is no intent to use any of the data collected for this research in any future research.
- Research findings will be provided to the participants. Only you and the researcher will know your pseudonym.

What are my rights and my son's rights as a research participant?

- Participation is voluntary. Your decision to allow your son to participate will have no impact on his current or future relations with the University of New England or The Albany Academies. Your decision will not impact your son's standing as a student.
- You son may skip or refuse to answer any question for any reason.
- If you choose not to have your son participate there is no penalty to you or your son and you and your son will not lose any benefits that you are otherwise entitled to receive. You and your son are free to withdraw from this research study at any time, for any reason. If you choose to withdraw your son from the research there will be no penalty to you or your son and you and your son will not lose any benefits that you are otherwise entitled to receive.

What other options do I have?

- You may choose not to have your son participate.

Whom may I contact with questions?

- The researcher conducting this study is M. Scott Milliken. For questions or more information concerning this research you may contact him at mmilliken@une.edu.
- If you choose to participate in this research study and believe you may have suffered a research related injury, please contact Michelle Collay, Ph.D. at *(207) 602 – 2010 or* mcollay@une.edu.

- If you have any questions or concerns about your rights as a research subject, you may call Olgun Guvench, M.D. Ph.D., Chair of the UNE Institutional Review Board at (207) 221-4171 or irb@une.edu.

Will I receive a copy of this consent form?

- You will be given a copy of this consent form.

PARENT of Participant's Statement

I understand the above description of this research and the risks and benefits associated with my son's participation as a research subject. I agree to allow my son take part in the research and do so voluntarily.

_____   _____

Signature of Participant's   Date

Legally authorized representative

_____

Printed name

Researcher's Statement

The parent of participant named above had sufficient time to consider the information, had an opportunity to ask questions, and voluntarily agreed to allow his/her son to be in this study.

_____   _____

Researcher's signature   Date

_____

Printed name

APPENDIX C

Interview Protocol

Interviews will be conducted with the participants by the Principal Investigator. The interviews will take place during the participant's free periods or study hall periods. The interviews will take place in the Principal Investigator's office.

Introduction: After observing you in [course(s)], I have questions to ask you specifically about your perceived level of engagement. I will ask you several questions with potential follow-up questions. These questions will cover two categories of engagement: affective engagement
and behavioral engagement. Behavioral engagement refers to participation, effort, and attention; affective (emotional) engagement refers to your feelings (e.g. enjoyment, enthusiasm) about learning and the school.

Affective engagement.
Are you very interested in learning the subject matter in [course names]?
Which course or courses are most interesting and why?
Which are you not?
Would you say you like or enjoy [courses]?
Do you find [courses] boring?
Do you enjoy learning new things?
Do you like this school?
Are you proud to be at this school?
Do you look forward to going to school?
Are you happy to be at this school?

Behavioral engagement.
Do you try hard to do well in school? In [courses]?
Do you work as hard as you can in [courses]?
Do you pay attention in class in [courses]?
When you are in [courses], do you just act like you are working sometimes?
In [courses], do you just do enough to get by?
When you are in [courses], does your mind wander?
If you have trouble understanding a problem, do you go over it again until you understand it?
When you run into a difficult homework problem, do you keep working at it until you think you have solved it?
Would you say that you are an active participant of school activities such as contributions, House Day, and Community Service Day?
How active is your role in clubs, sports, co-curricular activities, and House Projects?