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Teacher Personality and Student Engagement: A Case Study

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Doctor of Education in Organizational Leadership

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by

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Dedication

This dissertation is dedicated to my supportive, loving, and beautiful wife, Cayla. Thank you for loving me and motivating me to be the best version of myself. I love you more than you will ever know. Also, thanks to my parents for your constant prayer and advice. I will never be able to thank you enough for all you have done for me.

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Abstract

The problem that drove this study was the large number of students experiencing low levels of academic engagement. This level of engagement decreases as students progress from elementary to high school. The purpose of the qualitative study was to gain a deeper understanding of specific teacher personality traits and how teachers and students in the local setting perceived those traits impacting student engagement. This qualitative holistic case study was conducted through observations of high school teachers and semistructured interviews with high school teachers and students. The sample population included high school students and teachers in a local high school in the Pike's Peak region of Colorado. The findings indicated that both teachers and students perceived the traits of extraversion and agreeableness as the most important to creating student engagement. The observations of high school teachers seemed to indicate that while extroversion and agreeableness were important to creating engagement, engagement was usually not lasting; rather, conscientiousness was the trait that proved to be the most significant in creating lasting student engagement. The findings suggested that the teachers who utilize the traits of extraversion and agreeableness engage students in a more effective way when compared to those who use other traits. However, teachers who are organized and efficient are able to create more lasting student engagement in the classroom.

Keywords: academic achievement, personality, student engagement, extraversion, agreeableness, conscientiousness, teacher-student relationships

Table of Contents

List of Tables

Chapter 1: Introduction

Classroom engagement is crucial to the academic success and overall well-being of students (Bakkar, Vergel, & Kuntze, 2015). One of the factors that has the most significant impact on student engagement is the student-teacher relationship (Jensen, 2013). Student-teacher relationships may either positively or negatively affect student engagement. When students perceive that their teachers provide emotional, social, or instructional support, often students will achieve higher rates of success in reference to engagement (Suldo et al., 2009). Also, Tennant et al. (2015) argued that establishing quality student-teacher relationships is vital for students to achieve desirable outcomes. Given the importance of student-teacher relationships and the impact it has on student engagement, it is necessary to have a firm understanding of this relationship and what affects it. One of the factors that may affect student-teacher relationships and as a result, student engagement, is teacher personality. However, there has been little research done about specific personality traits and their association with student engagement.

This chapter provides an overview of the effects that teacher personality has on student engagement. The chapter begins by providing background about the specific problem that students are experiencing decreasing levels of academic engagement at the high school level and about how teachers and their personality traits may be affecting this phenomenon. This chapter also addresses the problem that initiated this study as well as the purpose of the study.

Background

Many factors contribute to students' academic success, including the concept of student engagement. Montenegro (2017) referred to student engagement as "the specific conditions in which a set of motivational variables such as persistence and focused actions interact among

themselves and is defined as relatively public, objective, and observable classroom events" (p. 118). Other researchers have acknowledged that student engagement serves an important function in the academic achievement of students (Fuller, Wilson, & Tobin, 2011; Groves, Sellars, Smith, & Barber, 2014).

Despite the known importance of promoting students' academic engagement, data provided by the National Research Council Institute of Medicine (2004) indicated that upwards of 40% of high school students surveyed were chronically disengaged in the classroom and 70% of students who dropped out of high school identified a lack of motivation to participate as a factor in their decision to discontinue their education. Groves et al. (2014) and Fuller et al. (2011) also found that many secondary students were not highly engaged in the classroom, and in some instances student engagement decreases as students advance through K–12 education. Investigating why student engagement decreases could help in gaining an understanding of how this problem may be mitigated.

Previous findings have indicated that a variety of factors may contribute to students' low level of engagement. Groves et al. (2014) identified specific factors that impact student engagement. These factors include motivation; transactional engagement, which refers to students' relationship with their educator; institutional support; active citizenship; and noninstitutional support. There is an attitude of disengagement that exists on the part of many students and has resulted in a lack of increased academic success, which has become a paramount concern for educational leaders today (Groves et al., 2014). Previous research has indicated that the student-teacher relationship may play a significant role in students' engagement in the curriculum, thus markedly influencing their level of academic success. In a study conducted by Rimm-Kaufman et al. (2014), the authors found that students who were

emotionally supported by the teacher showed higher levels of student engagement. The students involved in the research displayed that the positive relationships with their teachers aided in the development of engagement (Rimm-Kaufman et al., 2014).

One of the primary factors that may contribute to high levels of disengagement is a disconnect between students and teachers. Two studies that focused on the various relationships between teachers and students that act as a predictor for future student engagement are Strati, Schmidt, and Maier (2017) and Klem and Connell (2004). Strati et al. (2017) oriented their study on the association between student success and teacher supports and obstruction, which was designed to provide an understanding of students' experiences of challenges in light of a teacher's actions. Whereas Klem and Connell (2004) focused on the specific conditions that contribute to academic success for students, both studies asserted that students who dropped out of high school cited a lack of positive relationships with adults in school as one of the primary motivations for discontinuing their education. The results of both studies also indicated that a positive student-teacher relationship is a vital component in promoting students' classroom engagement and academic achievement. Klem and Connell asserted that it is necessary that students know that the adults involved in their education care about them personally and academically. The findings by Strati et al. (2017) supported the assertion of a disconnect between students and teachers by displaying that when teachers are emotionally obstructive, which includes unintentional sarcasm or teasing, student engagement decreases.

Students and teachers have various interactions throughout a typical school day, and a teacher's personality plays a part in the academic process (Eryilmaz, 2014). In Patrick's (2011) research regarding the Big Five personality traits and how these impact a student's evaluation of effective teachers, she found that students favored traits such as extroversion, openness,

agreeableness, and conscientiousness. However, she also found that characteristics such as neuroticism hindered students in the classroom. Eryilmaz (2014) found that being an effective educator requires specific personality traits, but he also concluded that few studies have focused on the relationship between specific personality traits of teachers to the academic success of students. Tahir and Shah (2012) argued that a teacher's personality is one of the most important factors affecting student achievement. Saab (2014) stated that a teacher's effectiveness comes from knowledge, skill, and personal characteristics, and an aspect of the teacher's characteristics is his or her personality. Lungu (2016) came to a similar conclusion based on her research and agreed that a teacher's personality traits are crucial to the level in which the student is engaged in the classroom.

Statement of the Problem

The problem driving this study was the large number of students who are experiencing low levels of academic engagement, and this level of engagement decreases as a student progresses from elementary to high school (Cornell, Shukla, & Konold, 2016; Wilcox, McQuay, Blackstaffe, Perry, & Hawe, 2016). A student's level of engagement is a predictor of student learning and academic achievement, so it is reasonable to assume that students' level of academic achievement also declines as they advance from elementary to high school (Chase, Hilliard, Geldhoff, Warren, & Lerner, 2014; Klem & Connell, 2004; Shernoff et al., 2016; Skinner, Furrer, Marchand, & Kindermann, 2008).

Studies have indicated that teachers play a role in students' level of engagement (Montenegro, 2017; Strati et al., 2017). An increase in low engagement as students advance to high school is a significant problem because with low engagement comes decreasing academic

success, which is one of the risk factors for academic failure and even dropout (Cornell et al., 2016).

Recent studies have demonstrated that student engagement is a crucial construct in a student's academic success (Chase et al., 2014; Skinner et al., 2008). High school students are becoming less engaged in the educational process (Klem & Cornell, 2004), which is directly tied to a student's academic achievement (Fuller et al., 2011; Groves et al., 2014), and certain teacher personality traits may be contributing to low levels of engagement for high school students. Also, Guvenc (2015) found that teachers play a crucial role in students' level of engagement and that students who perceive that a teacher is providing motivational support become more engaged in the classroom.

Students who hold a positive rapport with their teachers display a higher level of engagement (Culver, 2015). Eryilmaz (2014) asserted that it is still not clear how much of a role that teachers play concerning promoting student engagement. However, Murray-Harvey (2010) noted that teacher-student relationships significantly impact educational and emotional outcomes for students. The specific problem under investigation for this study was how a teacher's personality traits impact classroom engagement of high school students. The educational community would be greatly served by understanding the level to which teacher personality affects student engagement.

Purpose of the Study

The purpose of the qualitative study was to gain a deeper understanding of specific teacher personality traits and how teachers and students in the local setting perceived those traits impacting student engagement. This research was designed to advance insight into how a teacher's perceived personality effects student engagement, which in turn may influence

students' academic success. By gaining this more profound understanding of how teacher personality impacts student engagement, the educational community will possess greater insight into facilitating academic achievement on the part of the student by understanding how specific personality traits of teachers impact student behavior.

The research was centered on a holistic case study from a local high school in the Pikes Peak region of Colorado, and data collection came from two specific populations. The first population was high school teachers, who completed a personality assessment and were observed in their classrooms. Additionally, teachers participated in an open-ended interview process, which was designed to gain insight into the specific personality traits that they believed to be pertinent to increasing or decreasing a student's engagement level. The second population for this study was high school students. These students ranged in from 10th to 12th grade and came from a variety of backgrounds and academic levels. To gain an understanding of their perspectives of teacher personality and how they felt it impacted their level of classroom engagement, the students participated in interviews.

Research Questions

This study was specifically designed to answer three questions about student engagement:

Q1. How do teachers describe the relationship between specific personality traits and student engagement?

Q2. How do students describe the relationship between specific personality traits and student engagement?

Q3. What observable personality traits are displayed by the high school teachers in the Pikes Peak region of Colorado that promote student engagement in the context of a constructionist framework?

Qualitative methodology was the foundation of this study, which Yates and Leggett (2016) argued is centered around the *why* of the problem. As the central phenomenon, this plays a significant role in addressing the questions that arise from the research study. This approach provided answers to many of the issues that arise about the relational aspects of education such as the relationship between the teacher and student, as well as students and their perceptions of teacher personality and what leads to their lack of engagement.

The data collected through this study consisted of observations and personal interviews. The observational collection of data was designed to allow me to establish what personality traits were being exhibited by teachers when it came to ensuring that students are engaged. Gill, Stewart, Treasure, and Chadwick (2008) asserted, "The purpose of the research interview is to explore the views, experiences, beliefs, and motivations of individuals on specific matters" (p. 292). By conducting interviews, I gained more insight into the perspective of both students and teachers, which helped reveal whether there was a disconnect that existed between the two groups that manifested in a lack of student engagement. Analyzing the interview data provided a deeper level of understanding of the "human element" of social interaction, which would not otherwise yield itself in quantitative methods (Gill et al., 2008). The method of data collection provided insight into the perceptions held by a student regarding teachers' personality traits that may lead to a lack of student engagement in the classroom.

Definition of Key Terms

Academic achievement. Academic achievement refers to a student receiving passing grades in high school and average or above-average test scores on standardized tests, and being scheduled to graduate on time (Finn & Rock, 1997).

Constructionist framework. Constructionist framework refers to the idea that students in a classroom construct knowledge and meaning for themselves based upon their prior experiences and conclusions (Hein, 1996).

Personality. Personality refers to the characteristics of individual thinking and behavior. There are two main concepts of personality: Thinking focuses on the differences between particular personality characteristics, and behavior focuses on how the differences come together holistically (American Psychological Association, 2017).

Student engagement. "Student engagement is the process of paying attention in class, completing assigned work, participating in learning opportunities, not displaying disruptive behaviors, exerting effort in one's academic endeavors, and displaying an overall interest in the activities of the classroom" (Rimm-Kaufman, Baroody, Larsen, Curby, & Abry, 2015, p. 171).

Summary

Academic achievement of the student is the ultimate goal of educational institutions, and this chapter has established that student engagement plays a significant role in that academic success (Fuller et al., 2011; Groves et al., 2014). There have been studies conducted on the topic of student engagement, but there has been little research regarding the personality traits that teachers possess and how they play a role in the classroom engagement of the student. This study was designed to address this gap in previous research by conducting relevant research between two significant populations: teachers and students. The data collection provided insight

into the perceptions of both populations to address the previously stated research questions. By addressing the research questions and gaining insight into the problem of decreasing student engagement, this research provided a foundation for future research.

While this chapter provided insight into previous research conducted on the topic of student engagement, there is additional research to be discussed. Chapter 2 continues to address the previous research conducted on this topic as well as to build a foundation for this specific study. This discussion includes a literature review regarding student engagement as it pertains to factors affecting engagement, how student engagement affects autonomous motivations, and factors relating to student achievement. In addition, Chapter 2 provides insight into the concept of teacher personality and its effect on student engagement and academic success. Chapter 2 contains a review of previous research, which builds the foundation and motivation for this particular study.

Chapter 2: Literature Review

The purpose of this qualitative study was to gain a deeper understanding of specific teacher personality traits and how teachers and students in the local setting perceived these traits were impacting student engagement. Gaining a stronger understanding of how student engagement relates to a teacher's personality and what specific teacher traits promote stronger student engagement could lead to a thorough understanding of how to increase student academic achievement.

This literature review is focused on key concepts that are important to understand when it comes to the topic of teacher personality and how it impacts student engagement. These concepts include student engagement, factors affecting student engagement and its impact on autonomous motivation, student engagement and its impact on academic achievement, teacher personality, teacher personality and student engagement, and teacher personality and student achievement. By reviewing the existing literature that centers upon these six concepts, I created a strong foundation for this specific study to build upon.

In order to locate previous research that provided essential insight into the topic of this study, an extensive research process was completed. I reviewed several articles from a variety of resources for this study. One of the primary resources was the online database of Brown Library at Abilene Christian University (ACU), which allowed me to narrow the search by both peer-reviewed articles as well as the year of publication. Utilizing the ACU online database helped ensure that the research selected for this review was relevant to the topic and was up-to-date on current trends and concepts associated with the topic of teacher personality and student engagement. Many of the articles chosen as a foundation for this study were found in the online

databases JSTOR, ResearchGate, and Google Scholar. The use of Google Scholar helped ensure that this review included the most recently published and relevant articles.

Specific keywords and phrases used to identify relevant research included *student engagement*, *student academic achievement*, *student motivation*, and *teacher personality*. These keywords or phrases were explicitly selected to locate research that would expound on the broad topic of student engagement while at the same time providing insight into the minute details of teacher personality and student engagement.

Conceptual Framework

In order to better understand the concepts presented in the literature review, it is essential to acknowledge the research conducted by Tahir and Shah (2012). They studied the relationship between students' perception of a teacher's personality and how it relates to their academic success. The researchers asserted that teacher personality is the most critical factor that impacts student engagement and that teacher personality style plays an essential role in the success of the students (Tahir & Shah, 2012). Tahir and Shah found that students who perceived their teachers as possessing positive personality traits experienced positive academic results, whereas teachers who were perceived to possess negative traits had a negative impact on student success.

Tahir and Shah were not the first to propose the importance of this framework. Hanushek (1971) studied the characteristics of teachers that improved student achievement and made the case that the specific characteristics that teachers possess may have a direct impact on student achievement. Hanushek warned against generalizing these findings, due to the results stemming from one specific school system, but more recent research has displayed that the findings of Hanushek are relevant to most educational environments. Garcia, Kupczynski, and Holland (2011) built upon the existing foundation of teacher personality when they studied how various

teacher personalities affect 10th and 11th graders and their Texas Assessment of Knowledge and Skills (TAKS) scores. Garcia et al. (2011) found that students whose teachers possessed high levels of conscientiousness scored higher in on the TAKS test.

In addition to past research about teacher personality and academic success, the framework provided by Tahir and Shah (2012) is closely related to the purpose of this study. The fundamental understanding that a teacher's personality has a direct impact on the performance of students is the basis of this framework. This framework was utilized to address a closely related topic to academic achievement: student engagement. The research provided by Tahir and Shah aided in addressing the proposed research questions by providing a strong fundamental understanding of the impact that a teacher's personality has on a student. Although the vast majority of previous research on teacher personality has focused on student achievement, it is the reasonable assumption of this study that teacher personality also plays an important role in the level to which a student is engaged in the learning process.

In addition to the framework of Tahir and Shah (2012), it was crucial to identify a theory that impacts how a student learns: constructionist theory. Constructionist theory is the idea that students construct knowledge and ideas for themselves based upon previous experiences (Hein, 1996). Constructionist theory calls for researchers not to merely view the world as they believe it is for students or how they believe it should be but to analyze and ask why students learn the way that they learn based upon their experiences (Burr, 2003). Burr continued to discuss how social situations are not always as black and white as they may seem and that there may be an additional context that is important.

In reference to student engagement, a constructionist theory assumes that learning is active and that it is a social process. Students do not learn from a passive position; instead, it

requires the student to engage the world. Additionally, learning is a social process to which our relationships with teachers, peers, and parents are directly linked (Hein, 1996). It may be this active social aspect of constructionist theory that is impacting student engagement.

The Big Five Inventory

There has been a vast amount of research in the realm of social science, specifically in the area of personality. Researchers have utilized a variety of tools to measure personality, but there have not been any tools as widely accepted as the Big Five Inventory (BFI) personality test (Gosling, Rentfrow, & Swan, 2003). The BFI suggests that all human differences in reference to personality may be classified into one of five broad categories (Gosling et al. 2003). These five categories include openness to experience, conscientiousness, extroversion, agreeableness, and neuroticism.

The BFI has been utilized by a variety of researchers to understand social situations. In trying to understand if there are specific personality traits that predict job performance, Barrick and Mount (1991) utilized the BFI model. The researchers looked at three specific criteria when it comes to job performance—proficiency, training, and personal data—and found that the BFI provides numerous benefits when it comes to communicating findings. Also, the researchers indicated that the BFI has important implications for psychological research.

The BFI has been utilized more than any other tool to measure the personality of an individual in social research (Patrick, 2011). Patrick (2011) stated that the BFI has been shown to be associated with job-related variables; however, there is still a question of whether the BFI is accurate in measuring the effectiveness of teachers. This concern about the ability of the BFI to measure the effectiveness of teachers was addressed in a study conducted by Clayson and Sheffet (2006). The researchers found that teacher effectiveness could be measured by the BFI.

Clayson and Sheffet measured students' evaluation of teachers to the domains in the BFI and found that there was a positive correlation between teacher effectiveness and personality traits, thus showing that the BFI could indeed measure teacher effectiveness.

In addition, Patrick (2011) researched 174 general education students at a small university. Patrick asked the students to complete two BFI tests: one for themselves and one based on their instructor. The researcher found that when students ascribed all personality characteristics, with the exception of neuroticism, those teachers received higher reviews from their students. Previous research has demonstrated that the BFI can be a useful tool in evaluating the effectiveness of teachers.

There has been a wide range of tools used to measure individual personality within the social and behavioral sciences (Barrick & Mount, 1991). One of these tools is the BFI. Although the BFI has not been accepted universally within social and psychological circles, it is the most widely used measure of individual personality (Gosling et al., 2003). Clayson and Sheffet (2006) and Patrick (2011) displayed the reliability of the BFI in social research, specifically when it comes to measuring the personality of teachers. The BFI is not a perfect instrument, but its wide use in social research displays that it is beneficial and reliable to gauge the personality of individuals in specific settings.

Student Engagement

Authors have completed an extensive amount of research related to student engagement and have identified four categories, or types, of student engagement: behavioral engagement, emotional engagement, cognitive engagement, and agentic engagement (Engels et al., 2016; Greene, 2015; Montenegro, 2017; Ulmannen, Soini, Pietarinen, & Pyhalto, 2016). Various traits distinguish each type of engagement. In their study on creating a holistic approach to student

engagement, Kuh (2009) defined student engagement as "the time and effort that students devote to activities that are directly linked to desirable student outcomes" (p. 683).

The first type of engagement, behavioral engagement, is defined as the effort displayed by students in reference to attention and persistence in learning activities (Engels et al., 2016). Engels et al. (2016) conducted a study of 1,115 secondary students, focusing on how interactions with teachers influenced the students' behavioral engagement. Engels et al. acknowledged factors including high absentee levels and behavioral issues in the classroom as indications that a student may be suffering from low levels of behavioral engagement. The researchers found that as students advanced into secondary grades, they began to display characteristics associated with declining behavioral engagement, especially in male students compared to female students.

Engels et al. (2016) identified two relationships that explain the decline in behavioral engagement: student-teacher relationships and peer relationships. They asserted that when students experienced positive relationships with teachers, they showed increased levels of behavioral engagement. The obverse was also found to be true: Students who experienced negative relationships with teachers displayed decreased levels of behavioral engagement. The authors also found that peer relationships were just as impactful on a student's level of behavioral engagement. Students who were well-liked or popular in the eyes of other students displayed lower levels of student behavioral engagement. Engels et al. (2016) asserted that this is primarily because popular students often conform to the social norms of the classroom population, which often result in less effort, concentration, and attention over time.

Research conducted by Ulmannen et al. (2016) regarding adolescent emotional engagement in schoolwork defined emotional engagement as a student's attitude toward schoolwork and studying. Ulmannen et al. indicated that for students to have a positive sense of

emotional engagement, they must have a sense of belonging in the classroom. The researchers argued that students who are emotionally engaged consider themselves a part of the school community, often receive higher grades, and more frequently complete school successfully. Ulmannen et al. concluded students' level of engagement is tied to their need to be heard and noticed, which results in increased emotional engagement.

Greene (2015) characterized cognitive engagement as a student's investment in the learning process, including mastery of learning. He defined cognitive engagement as the level of engagement that students put into their learning outcomes. Greene asserted that cognitive engagement and motivation are linked. Greene conducted a 20-year reflective study of previous research related to students' levels of cognitive engagement and concluded that cognitive engagement and motivation are correlated, as well as individual performance goals and learning goals. He stated that the performance goals cause students to show their competence or to hide their incompetence, whereas learning goals focus on mastery. Greene's research indicated that there was a positive correlation between long-term cognitive engagement and learning goals when compared to the relationship between cognitive engagement and performance goals.

The fourth category of student engagement is agentic engagement, which researchers have identified as students' contribution to the flow of instruction that they receive in a classroom. Montenegro (2017) claimed, "It is through agentic engagement that learners discover ways of enhancing and personalizing their education by providing teachers with opportunities to determine how autonomy-supportive their instruction may be" (p. 118). Montenegro claimed that agentic engagement is the process of controlling proactive behaviors that may change the flow of teaching in the classroom.

In researching agentic motivation about how students create learning environments for themselves, Reeve (2013) collected data from 302 students to gain a deeper understanding of how agentic engagement impacts students' learning. The researcher argued that the key difference between the three previously mentioned types of engagement and agentic engagement is that agentic engagement is proactive, meaning the students are engaged before the learning activity begins. In his research, Reeve found that students who held high levels of agentic engagement viewed their teachers as autonomously supportive from the start of the semester, whereas students who held lower levels of agentic engagement perceived that their teachers became more autonomously supportive toward the end of the semester. The researcher argued that the data showed that agentic motivation created an outlet for more motivationally positive learning. Additionally, Reeve asserted that students who began to view their teachers as more autonomously supportive toward the end of the semester did so in part because the teachers were autonomously supportive at the beginning of the semester.

Findings by Gallup (2016) and cited by Brenneman (2016) indicated that many students are experiencing high levels of disengagement in their high school years. Gallup researchers surveyed 900,000 students in Grades 5 through 12 and found that 75% of fifth-grade students were engaged in the learning process; however, by the time the students had advanced to their junior year of high school, this percentage had dropped to 32%. In light of the high levels of disengagement students appear to be experiencing, researchers have investigated the importance of the relationship between student engagement and students' success in the classroom. Cornell et al. (2016) surveyed 48,027 high school students and 39,364 middle school students to gain a greater understanding of how school climate influences student engagement. The researchers found that a higher percentage of students achieved higher levels of engagement and educational

aspirations in an authoritative school climate, which in turn led to higher test scores for the students.

Wilcox et al. (2016) examined issues of demographics, anxiety, social support, and student engagement, and concluded that student engagement is an underlying factor of academic success. The authors defined academic engagement as proactive and useful participation on the part of the student in the learning process within an educational environment. In addition, Wilcox et al. (2016) claimed that student engagement has a direct impact on a student's academic success and is a clear indicator of whether or not a student is at academic risk. Strati et al. (2017) also explored the connection between student engagement and achievement, focusing on the correlation between students' perceived challenges, teacher support, teacher obstruction, and student engagement. The authors stated that student engagement was vital in developing resilience to academic and personal challenges that may hinder their academic achievement.

Researchers investigated the importance of student engagement and student achievement and motivation. Starati et al. (2017) studied predictors of student engagement in reference to teacher support and obstruction and indicated that increasing student engagement leads to a positive educational experience for the students, which will then lead to human development and increased academic success. Wilcox et al. (2016) supported this assertion and studied socioeconomic factors that influence student engagement. They found that social support increased student engagement and academic success. Gedera, Williams, and Wright (2015) argued that motivation is the foundation of engagement and is tied to academic success.

Factors affecting student engagement. Several researchers have focused on the various factors that affect student engagement. Some of these factors have included parental involvement, socioeconomic background, and student-teacher relationships; however, these three

factors included in this literature review are not an exhaustive list. Researchers have identified many factors that may lead to students displaying characteristics that may place the student at risk of experiencing low levels of engagement. The research has shown, however, that the three factors identified in this chapter play a significant role in the level of engagement that a student achieves.

Researchers have identified parental involvement in education as a primary factor that is affecting student engagement. Willms (2003) analyzed data for the Program for International Student Assessment (PISA), which sampled 15-year-old students from 43 countries around the world, and found that students who came from single-parent families were more likely to experience lower levels of student engagement in the classroom. Willms also found that students who came from disadvantaged backgrounds were at higher risk of possessing lower levels of academic achievement and engagement than other students.

Wang and Eccles (2012) collected data from 3,481 students and found that parents and family were perhaps the most critical factors affecting student engagement. Parental involvement in the educational process is central to the concept of noninstitutional support, which Groves et al. (2014) defined as the major challenges that students face outside of the classroom. Emerson, Fear, Fox, and Sanders (2012) studied the benefits of positive parental engagement in a student's education and found that parents play a key role in student learning at home, which then connects to what students learned at school. Emerson et al. identified several positive impacts of parental involvement on student engagement such as higher grades, increased success in postsecondary education, better social skills, and increased student engagement.

In her research on student engagement and how it impacts middle school students, DeVito (2016) found that when families were actively involved in the educational process,

student engagement was directly affected by the increased partnership between parents and schools. Pinantoan (2013) indicated that students who had parents involved in their academic progress were 52% more likely to enjoy school and achieve at a higher level than students whose parents were not actively involved in the educational process.

Researchers have studied students' experiences in family and educational background. Andersson (2002) found that by age 15 almost half of all students had lived in a single-parent home at some point, whereas Barajas (2011) claimed that the percentage of single-parent families has tripled in the last five decades. Researchers have concluded that students who come from single-parent homes are at greater risk for behaviors that negatively affect student engagement such as lower academic performance, not graduating and attending college, and even using drugs and alcohol (Barajas, 2011; Sylvestre & Paez, 2015).

The level of engagement and its correlation to students' socioeconomic status (SES) background has been an area of interest for researchers. Bempechat, Shernoff, Li, Holloway, and Arendtsz (2010) conducted research related to students from lower SES backgrounds and their level of engagement and motivation. The researchers conducted in-depth interviews of 92 students who came from various backgrounds but who all shared lower SES backgrounds, and investigated the students' attitude toward academics. The researchers found that most of the students involved in the study displayed that they were disengaged in their tasks and that they lacked motivation.

Similarly, researchers have found that students' effort and SES background are positively correlated. Gibson and Barr (2017) found that living in poverty may lead to students from low SES backgrounds to exhibit a lack of effort, which they described as learned helplessness. This may lead to negative outcomes for students such as unwillingness to even try. Gibson and Barr

described learned helplessness as accepting a specific situation based on previous experiences, which could lead to anger, anxiety, apathy and even hopelessness. Carbonaro (2005) reviewed data collected from students in Grades 8 through 10 in an effort to discover associations between student effort and achievement. The researcher claimed that there is a direct association between a student's level of effort, academic achievement, and classroom engagement

Finally, researchers have conducted extensive research about student-teacher relationships and how they impact student engagement. In their research on teacher relationships and child adjustment, Pianta, Steinberg, and Rollins (1995) observed 436 students regarding to the relationships that they exhibited with their teachers. The researchers found that when students had a warm and more positive relationship with their teachers, they were better adjusted to succeed in the classroom compared to students who did not have positive relationships with their teachers. Hamre and Pianta (2001) followed a sample of 179 students and found that when students experienced negative relationships with teachers in kindergarten, they displayed more negative behavioral and educational outcomes. The researchers found that when students and teachers experienced positive relationships, the students often experienced high levels of motivation and engagement in academic and social undertakings. In their review of previous research, Pianta, Hamre, and Allen (2012) argued that students who experience positive relationships with teachers often experience more success in their academic achievements and also display higher levels of academic engagement.

Student engagement and motivation. Researchers have examined the relationship between students' level of motivation and engagement in the classroom. Saeed and Zyngier (2012) defined motivation as one of the most important concepts that influences classroom engagement and asserted that motivation is a prerequisite for engagement. Motivation refers to

the degree of effort that students put into their academic responsibilities to gain some academic achievement, or simply being moved to do something (Ryan & Deci, 2000; Saeed & Zyngier, 2012).

Mega, Ronconi, and De Beni (2014) argued that motivation should be considered a multifaceted construct that should be perceived through various theories in order to understand how it impacts student engagement. Mega et al. studied the link between emotion, self-regulated learning, and motivation in a study that involved 5,805 students who completed a self-regulated learning, emotions, and motivation questionnaire. The researchers identified three concepts that are theoretically linked to student motivation. The first concept is the implicit theories of intelligence. Mega et al. claimed that all students hold a perception of intelligence. According to the authors, some students possess an incremental theory of intelligence, which Mega et al. argued is a belief that intelligence can be shaped and molded. The researchers found that other students seem to possess an entity theory of intelligence, which the authors described as a belief that rather than being able to be changed, intelligence is fixed.

When it comes to these two types of implicit theories of intelligence, Blackwell, Trzeniewski, and Dweck (2007) argued that both perceptions of intelligence have a significant impact on how students approach their academic challenges. A second concept identified by Mega et al. (2014) as a motivational factor as impacting student engagement is self-efficacy. The authors claimed that motivation is directly tied to self-efficacy in that past experiences dictate how a student will respond to future situations.

Pintrich (2003) suggested that students who believe that they are capable are more likely to be motivated than students who perceive that they will not achieve academic success. The third and final motivational concept that Mega et al. (2014) found to be linked to student

engagement is academic goals. Wolters (2004) explained that the concept of achievement goal theory is a way of understanding how achievement behaviors motivate a student to gain academic success. The author collected a self-report survey of 525 students to understand how students' goal theory and orientation relates to their academic achievement and motivation. Wolters found that when students viewed their classrooms as placing emphasis on improving ability and mastery goals, their level of motivation increased, whereas their level of procrastination decreased. The researcher also argued that if the students did not experience mastery goals achievement, then their level of motivation did not increase.

Student engagement and academic achievement. Researchers have investigated the link between student engagement and academic achievement. Gunuc (2014) conducted correlation research and surveyed 304 college students from the same university to understand links between student engagement and academic achievement. Gunuc found that in order for students to have an effective learning experience, it was important for them to have a high level of engagement. Students who displayed lower levels of academic achievement also displayed lower levels of behavioral and cognitive engagement.

To gain insight into the relationship between intrinsic motivation, engagement, and academic achievement, Froiland and Worrell (2016) measured the grade point average of 1,575 high school students from a racially and ethnically diverse high school in conjunction with a survey designed to measure class engagement among the students. The researchers found that the level of student engagement was related to the students' level of academic success. Froiland and Worrell also described variables that impacted student engagement and in return impacted academic achievement; these factors included gender, parent education level, and previous educational achievement.

Bakkar et al. (2015) analyzed the impact of personal study resources and how they relate to student engagement. The authors claimed that regardless of one's definition of achievement, it is clear that student engagement is related to student performance. Engaged students are more likely to attend class, complete their work, and ask questions, which are all behaviors that lead to increased student achievement (Bakkar et al., 2015).

Dotterer and Lowe (2011) studied institutional context regarding student engagement and academic achievement and found that student engagement is a strong predictor of student achievement. Although previous research indicates that there is a correlation between student engagement and academic achievement (Bakkar et al., 2015; Hayam-Jones, 2016), Chase et al. (2014) collected data from 710 students and found that the GPA of the participants was tied directly to the level of student engagement that the students displayed. However, the researchers asserted that other factors also influence students' level of achievement. Hayam-Jones (2016) identified a series of factors that impact student engagement and consequently academic achievement. These factors include school environment, teacher support, and peer support. Hayam-Jones (2016) asserted that the more students felt accepted and supported by these factors the greater the chance they were engaged and thus experiencing increased academic achievement.

Teacher Personality

Researchers have investigated the concept of individuals' personality and how personality traits are related to personal decisions. Wessels, Zimmerman, and Leising (2016) reviewed previous literature in addition to utilizing the stimuli (S), organism (O), problematic responses (R), association between variables (K), and consequences (C) model of psychology, or SORKC model, which is used to access contingencies in individuals as a framework to

understand how personality affects one's life and behavior. The researchers argued that personality affects every aspect of one's life and experiences. Kernberg (2016) defined personality as the integration of an individual's experiences and behavior patterns. He argued that an individual's predetermined disposition determines personality, and it is one's genetics that shapes these dispositions. Kernberg identified five specific components to the development of one's personality: temperament, object relations, character identity, ethical value systems, and cognitive capability or intelligence. Temperament refers to the biological aspect of personality that accounts for the inherent differences between individuals (Rawlings, Tapola, & Niemivirta, 2017). Kernberg argued that temperament is the central component in the development of one's personality. In addition to temperament, Kernberg identified object relations as playing a significant role in individual personalities. Kernberg described object relations as a process that individuals must go through as they have different experiences in life. According to the author, the individual will either associate various experiences with being ideal or feared and it is this correlation that influences future behavior.

The third component of personality development as described by Kernberg (2016) is character identity. The author described character identity as the process that individuals go through that results in their development of awareness, concern, and empathy for others. Kernberg argued that the process of identity development is fluid through one's life because as individuals encounter new experiences, people may change their sense of identity. Bosma and Kunnen (2001) and Carlsson, Wangvist, and Frisen (2015) supported this assertion by stating that because identity theory is fluid, one's identity might change and adapt depending on personal experiences.

Kernberg (2016) described the fourth aspect of personality as a system of values. Every individual has a system of values; these values may vary from person to person, but it is this system of values that is a component of one's personality. Regarding personality, Kernberg asserted that a system of values refers to how individuals interact with others within society. This concept is closely related to relational development systems (RDS) described by Wang, Batanova, Ferris, and Lerner (2016). They described RDS as the bidirectional exchange between individuals that leads to the development of character and behavioral developments. RDS demonstrates that there is a correlation between those individuals that people interact with and their personal character development (Wang et al., 2016). The final component discussed by Kernberg is cognitive capability or intelligence. Intelligence has become more accepted as a significant factor in personality development because the higher level of intelligence that individuals possess is linked to their perception of their surroundings (Kernberg, 2016). In addition to creating realistic perceptions, intelligence mitigates the derogatory effects of past traumatic events and environments (Kernberg, 2016).

The importance of personality has influenced researchers' attempts to gain deeper understanding of how personality impacts teaching. While investigating personality traits and teaching style, Kothari and Pingle (2015) promoted the idea that teaching is a human interaction and the personality of the individual who is teaching influences this interaction. The authors argued that teachers' personality greatly impacts their teaching style, which has a direct effect on student learning. Kothari and Pingle proposed that knowledge sharing is one of the key factors in which teaching style, student learning style, and personality are linked. The authors stated that teacher personality plays a role in the sharing of knowledge with students and it is important to

understand that just as students have various learning styles, teachers have various teaching styles and these styles are not random; they are the product of a teacher's personality.

In their study on burnout and knowledge sharing among teachers, Zhang, Zhou, and Zhang (2016) surveyed 796 teachers from various institutions. The researchers asserted that personality describes one's behavior in various situations and personality influences a vast amount of an individual's behavior, specifically in the area of knowledge sharing, which the authors asserted is crucial to engagement and achievement. The researchers also stated that teachers' personality is a factor in their ability to effectively share knowledge. Olzen (2017) analyzed data from 207 surveys of businesses and described knowledge sharing as information that is passed from one individual to another, which the authors argued contributes the effectiveness of organizations and should be encouraged in the field of teaching.

Teacher personality and student engagement. Extensive research was conducted on the relationship between teachers and students and how it relates to student engagement and student achievement. Cinches, Russell, Chavez, and Ortiz (2017) stated that a study on student engagement is not complete unless the teacher's influence is considered. Kiefer and Pennington (2017) supported this concept in studying the effect of teacher autonomy on student engagement. The researchers attempted to determine if a link exists between teachers who are perceived by students to promote autonomous support and the level of engagement displayed by students. Kiefer and Pennington found that the behavior of the teacher directly shapes student engagement and is key to understanding the perspectives of students in school. In a study on teacher support and student well-being, Suldo et al. (2009) sought to understand how teacher support is associated with student success and found that supportive teacher-student relationships were a clear predictor of student academic engagement.

In addition to investigating the importance of teacher-student relationships, researchers have studied the factors that impact teacher-student relationships. Split, Hughes, Wu, and Kwok (2012) surveyed 657 students to gain insight into the factors that affect teacher-student relationships. Split et al. (2012) stated that when poor relationships exist between teachers and students, the students experienced feelings of anxiety and insecurity, which in turn limited a student's educational and social development. Zepke, Leach, and Butler (2010) surveyed more than 1,200 students in an attempt to understand the factors that increase their level of engagement in the classroom. The researchers found that four of the top 10 factors that led to increased student engagement were related to teacher-student relationships.

Researchers have found that teacher support is essential to cultivating positive teacher-student relationships. Teachers often manifest their support in one of two ways, either emotional support or instrumental support (Federici & Skaalvik, 2014; Tennant et al., 2015). In their study on student perceptions of teacher support, Federici and Skaalvik described emotional support as including the level of trust, warmth, respect, and love that is demonstrated by teachers toward their students. The authors also identified instrumental support as the teacher's specific strategy that aids students in achieving their academic goals.

Federici and Skaalvik (2014) found that both emotional and instrumental support were important to developing teacher-student relationships and student success. The authors argued that while both types of support are important, instrumental support seemed to be more impactful that emotional support. The authors found that students who experienced high levels of instrumental support experienced lower levels of anxiety in the classroom.

In contrast, Tennant et al. (2015) reviewed standardized test scores of more than 700 students to identify the impacts of different types of teacher support. The researchers identified

emotional support on the part of the teacher to be one of the most important factors that impacted the student's success. Tennant et al. (2015) found that students who believed that they received high levels of emotional support from their teachers achieved higher standardized test scores than their cohorts.

Researchers have also found that just as teachers can promote the well-being of their students, they can also hinder the growth of students or obstruct their students. While studying various factors that relate to teacher support and obstruction, Strati et al. (2017) analyzed data from 223 high school students and argued that while emotional and instrumental support is key to promoting the well-being of the student, emotional obstruction and instrumental obstruction may adversely affect a student's well-being. The researchers stated, "Emotional obstruction refers to teachers' disrespect, sarcasm, and negative affects toward a specific student, while instrumental obstruction was teacher behavior that undermines a student's efforts, or as a response that fails to render academic aid when it was needed" (p. 133).

Strati et al. (2017) argued that when students experienced either instrumental or emotional obstruction, the students experienced decreased levels of classroom engagement. Negative teacher behavior is particularly impactful, as Suldo et al. (2009) observed that students more easily recalled negative emotional obstruction rather than emotional support. Meyer and Turner (2002) studied the use of scaffolding in creating supportive classrooms by examining classroom interactions. The researchers claimed that students' motivation and engagement decrease when they do not perceive that there is support in an academic setting. Researchers have asserted that a teacher's behavior may impact students' behavior and even their academic and emotional success (Meyer & Turner, 2002; Strati et al., 2017).

Teacher personality and academic achievement. Researchers have explored teacher personality and the role it plays in a student's academic achievement. In studying how students' perceptions of teacher personality impact their level of academic achievement, Tahir and Shah (2012) found that teachers whose students perceived them as having high levels of agreeableness and openness facilitated higher student achievement in their classrooms. Researchers have studied the links between the student-teacher relationship and students' motivation and engagement levels in the classroom. Authors have found that teacher personality is a significant factor in the education of a student. To understand how personality and job performance are linked, Ajayi, Shiyanbade, Ajayi, Olodude, and Olowoporoku (2017) surveyed 400 participants from the educational community. They described personality as "the dynamic organization of traits and characteristics of behavior that are unique to the specific individual" (p. 203) and asserted that this organization of traits that may have some impact on job performance.

Some researchers have found that certain personality traits may be learned. Hopwood et al. (2011) conducted research about genetic and environmental factors that affect students' personality. The researchers surveyed twins between the ages of 18 and 29 by having the participants complete a multidimensional personality questionnaire and found that an individual's personality adapts as a person ages, and this change can be the result of both genetics and environment. In a more aged study, Goleman (1986) found that heredity shaped more than half of the traits of an individual's personality. However, more recent research by Krause (2013) about genetics and one's personality indicated that personality traits are not that simple and that a variety of factors influence personality, including both genes and environment.

As noted by McLeod and Livley (2003), social structure plays an important role in the development of personality. It would appear from previous research that personality is both

inherent and learned. This finding relates to the proposed research, in which I explored the relationship between teacher personality traits and students' level of engagement.

Summary

The reviewed literature in this chapter focused on the concepts of student engagement and teacher personality. Hellmundt and Baker (2017) defined student engagement as the time and effort that students devote to activities that produce desirable student outcomes. Multiple researchers identified four types of student engagement: behavioral engagement, cognitive engagement, emotional engagement, and agentic engagement (Engels et al., 2016; Greene, 2015; Montenegro, 2017; Ulmannen et al., 2016). Study results indicated that several factors influence each student's level of engagement. The factors included family background, parental involvement, and socioeconomic background (Emerson et al., 2012; Jensen, 2013; Willms, 2003).

Researchers also investigated the role that teacher involvement plays in a student's level of engagement. Keifer and Pennington (2017) concluded that teachers directly shape the level of engagement that students experience. Froiland and Worrell (2016) found that student engagement is a direct predictor of student achievement. Results of several studies indicated that teachers play a significant role in the academic achievement and engagement level of students (Cinches et al., 2017; Erylimaz, 2014; Kiefer & Pennington, 2017; Kothari & Pingle, 2015).

The idea that teachers play a direct role in the achievement of students is not a new concept among the educational community. Researchers have focused on how teachers' personalities relate to student achievement but have not examined the level of student engagement (Split et al., 2012; Suldo et al., 2009). The purpose of this qualitative study was to enable researchers to gain a deeper understanding of specific teacher personality traits and how

teachers and students in the local setting perceive those traits impacting student engagement. This study helps strengthen the foundation of student achievement and how teachers can facilitate student success.

To address the research questions, Chapter 3 outlines the methodology and data collection techniques used in this study. By collecting data derived from the interviewing and observation process, I gained a deeper understanding of the perspective of students in the local school setting; this led to an increased understanding of the problem and relevant research on the topic.

Chapter 3: Research Method

The purpose of this qualitative holistic case study was to gain a deeper understanding of the association between teacher personality traits and the engagement level of high school students. This purpose was designed to address the problem driving this study, which is that a large number of students are experiencing low levels of academic engagement and this level of engagement decreases as a student progresses from elementary to high school (Cornell et al., 2016; Wilcox et al., 2016). The study provides the educational community with greater insight into how teacher personality traits and a student's academic success are related, which will allow teachers to possess a more robust understanding of how to facilitate student learning. The research in this study was designed to answer three questions on the issue of teacher personality and high school student classroom engagement:

Q1. How do teachers describe the relationship between specific personality traits and student engagement?

Q2. How do students describe the relationship between specific personality traits and student engagement?

Q3. What observable personality traits are displayed by the high school teachers in the Pikes Peak region of Colorado that promote student engagement in the context of a constructionist framework?

The purpose of this chapter is to outline the research design and methodology for the study. This chapter includes background on this holistic case study, including the populations studied in this research. In this chapter, I discuss the various data collection materials and instruments used to gather information and data pertinent to answering the three research

questions identified in this study. Finally, this chapter establishes the trustworthiness, credibility, and ethical standards needed to ensure that this study remains valid for future researchers.

Research Design and Method

Deciding which research design to employ for a specific study is dependent on what questions are being asked (Noor, 2008; Yin, 2013). The research design represents the specific framework the collected data will be used to analyze (Gog, 2015). The qualitative strategy that best addresses the research questions is a holistic case study. Yin (2013) stated that case studies are appropriate to use when answering *how* and *why* questions, especially when the phenomenon being studied is a real-life situation. Specifically, in a holistic case study, the researcher gathers information from different constituents. A real-life situation was at the center of this study such that I did not have direct control over the subjects, meaning that the data collection process did not contain a controlled variable. A case study is an empirical study that is used to examine real-life problems within a real-life context (Yin, 2013).

The research questions being addressed in this study met the criteria for implementing a case study as outlined by previous researchers (Gog, 2015; Noor, 2008; Yin, 2013). This qualitative study was designed to answer the questions of how a teacher's personality traits affect high school students' engagement in the classroom. The best way to address these questions was to perform a holistic case study. Yin (2013) explained that one of the most critical aspects of a case study is its ability to explain the causal links within real-life situations that are too complex for some other methodologies. The problem in this study could be investigated using a variety of different methodologies, but none of these methodologies proved to be as appropriate as a case study.

Given that this study centered on the design of a holistic case study, it is essential to outline the methods adopted in this study regarding data collection. This specific study centered on two primary methods of data collection. Classroom observations were the first method of data collection in this study. Observational research is the recording of behaviors that people, objects, and events exhibit inside of their natural surroundings (Sharp & Tustin, 2003). Observational research is used to observe the behavior of the participants rather than viewing reports or data, which distinguishes it from other forms of data collection techniques (Sharp & Tustin, 2003). By implementing observational data collection for this study, I was able to gain information about what the participants do in a specific setting rather than what they say they do.

The second form of data collection that took place in this study was interviews. Englander (2012) observed that interviewing is the primary means of collecting data in qualitative research. As this proposed study involved exploring teachers' and students' descriptions of personality traits, interviews provided appropriate data to address the study's research questions. Turner (2010) asserted that the interview process could be utilized in a qualitative design to obtain an abundant amount of data. Three specific types of interviews are primarily utilized to collect data: "informal conversation interview, general interview guide approach, and standard open-ended interviews" (Turner, 2010, p. 755). Of these interview types, the standard open-ended interview best served this study. Standard open-ended interviews allowed the participants to provide detail in their responses, allowing for a complete explanation of their perspectives while at the same time providing an opportunity for me to ask much-needed follow-up questions (Turner, 2010).

Hoffman (2007) outlined two primary models of interviewing. The first model is the basic model, which states that it is the responsibility of the interviewer to extract as much

information as possible from the interviewee while not contaminating the data with subjectivity. The second model of interviewing is the active model, which separates itself from the aforementioned basic model in that the ultimate goal of the active model is not complete subjectivity and the interviewer is more active in the process. In this model it is assumed that there is no single truth; rather there are various perspectives and truths. This second model, the active model, was adopted for this study. The reason for this decision was that this study was predicated on the perspectives of the participants. These differences in perspective were more evident in an active model rather than a basic model. The interview process allowed researchers to no longer look to experts for answers; rather researchers can go directly to those who experience the phenomenon itself (Hoffman, 2007).

Population and Setting

When determining an appropriate population for a study Ritchie, Lewis, and Elam (2003) outlined three questions:

1. Which group or subgroup is of interest to the study?
2. Are there subjects to the central population that should be excluded?
3. Are there additional groups or subgroups that should be included? (p. 87)

These three questions serve as a guide when determining what population should be involved in the data collection process. There were two population groups represented in the data collection. The two population groups included in this study were high school teachers and high school students.

The first population consisted of the 30 high school teachers at a local high school in the Pikes Peak region of Colorado. This population provided data to address Research Questions 1 and 3. The teachers who volunteered for this study were observed as they taught their courses to examine what characteristics they displayed that could be affecting student engagement.

Following the observations, participating teachers took part in a standard open-ended interview, which provided additional data to address Research Question 1. The proposed data collection adequately addressed the research questions in this study by providing insight into the perceptions of teachers in regard to their personality and the behaviors that they display, which may or may not be affecting student engagement.

The second population was high school students. Students who chose to participate in the study took part in a standard open-ended interview designed to address Research Question 2. This research question was designed to address the perspectives that were held by the students regarding how teachers' personality affects their classroom engagement. Due to the students' age, parental consent was required. A formal letter of consent was sent to the parents of the students detailing the role the students would be asked to perform in this study. The students who were given written parental consent to participate in this study were individually asked to participate. Parents and students were informed that the students could withdraw from the study at any point and for any reason with no penalty to their academic performance and standing within the institution.

Sample

The sample population for the study participated in observations and interviews. The sample population for the observations consisted of teachers in the classroom setting. I observed 10 high school teachers in their classrooms. The purpose of these observations was solely to gain an understanding of the personality traits of the teachers and how those displayed traits impact student engagement. Due to the observations centering upon the teacher's behavior, the IRB of ACU did not require parental consent on the part of the students for classroom observations.

In order to determine the correct number of participants for the interview process, several studies were consulted. Marshall, Cardon, Poddar, and Fontenot (2013) claimed, "Other than selecting a research topic and appropriate research design, no other research task is more fundamental to creating credible research than creating an adequate sample" (p. 11). Obtaining sufficient and relevant data is crucial to having credible analysis and reporting (Marshall et al., 2013). In order to determine if a study has enough data, the researcher often relies on the concept of saturation (Mason, 2010). Some researchers believe that saturation is achieved regarding data collection once repetitive responses begin to be presented (Charmaz, 2008). There is no simple answer as to when saturation occurs when one is attempting to gather an adequate sample size, and there is much debate over what an appropriate sample size is (Mason, 2010). Mason found that the average qualitative study utilized between 28 and 31 interviews to reach saturation. In addition, he found that out of 1,401 case studies analyzed, the average amount of interviews needed to reach saturation was 36.

The guidelines outlined by Mason (2010) and Charmaz (2008) were used to determine an appropriate sample size to answer the stated research questions raised by this study. Although Yin (2013) discussed the number of subjects/participants necessary to validate a specific study, he did not expound on the number of specific interviews needed for a case study. This specific research required access to two populations: high school teachers and high school students at the specific high school in which the study took place. Guest, Bunce, and Johnson (2006) argued that a qualitative study reaches saturation after 12 participants. Given this information, the interview process was suitably addressed by a population of 10 teachers and 15 students.

Materials/Instruments

The data collection for this study was accomplished using two methods: observations and interviews. The observations contributed to a greater understanding of how teacher personalities are utilized to increase student engagement. The interview process began once the observations were completed. The interviews contributed a greater understanding of the perceptions of both teachers and students in regard to how a teacher's personality traits affect student engagement.

Sharp and Tustin (2003) stated that when contemplating observations, there are two main approaches to observational research: structured and unstructured observations. Structured observations occur when the researcher has little involvement with the participants and focuses on a set number of points or a predetermined number of participants to observe due to the problem being well-defined (Bentley, Boot, Gittelsohn, & Stallings, 1994; Robson, 1993). Structured observations are especially useful when the research is centered on observing social or health behaviors (Bentley et al., 1994). Conversely, unstructured observations are more appropriate when the researcher does not have a specific or clearly defined problem to observe (Sharp & Tustin, 2003). Determining which form of observation best served this study was a crucial component to the success of the research. A structured observational format was most appropriate given the problem of this study. The results were recorded uniformly for each of the structured observations

It was essential to establish an observational protocol while conducting observations. The observational protocol that best served this study was based on known indicators of student engagement and the behavior the teacher exhibits that achieves these indicators (see Appendix B). The exhibited teacher behavior was then compared to the Big Five Inventory Personality

Test (BFI; see Appendix C) to determine which personality traits may be promoting student engagement in the classroom (Srivastava, 2018).

In preparation for the teacher interviews, participants were asked to complete the BFI. Participants completed the written form of the BFI and returned it to me to be manually scored. Each participant's results were shared with him or her during the interview process. The BFI test was designed to measure an individual's personality in five specific categories. These categories include extroversion, agreeableness, conscientiousness, neuroticism, and openness to experience.

The first aspect of the BFI is extroversion, which is the personality trait of seeking fulfillment from sources outside of themselves. Those who score high in this area tend to be social, whereas those who score low prefer to work individually. Those who score high in the area of extroversion tend to be gregarious, assertive, energetic, adventurous, enthusiastic, and outgoing. The second area of the BFI is agreeableness, which is the ability of individuals to suit their behavior to fit those around themselves. Those who score high are usually polite, and those who score low may be upfront and brash. Those who exhibit high levels of agreeableness are trusting, straightforward, warm, compliant, modest, and sympathetic. The third facet of the BFI is conscientiousness. Conscientiousness refers to the level to which an individual is honest and hardworking. Those who score high in this area are organized and rule followers, whereas those who score low often take advantage of others and situations. Those who are conscientious are often efficient, organized, self-disciplined, and deliberate. The fourth area of note regarding the BFI is neuroticism, which refers to the extent to which an individual is emotional. Those who score high in this area are often anxious, hostile, depressed, self-conscious, impulsive, and vulnerable. Openness is the final aspect of the BFI. Openness is the trait of seeking new experiences. Those who score highly are seen as daydreamers, whereas those who score low are

often viewed as being down-to-earth. Those who exhibit this trait are curious, imaginative, artistic, excitable, and unconventional.

Developing interview questions that are effective in accomplishing the goal of the study is crucial (Turner, 2010). The questions that will make up the interview must allow the researcher to delve deeper into the responses of the participants. To this end, it is vital that the questions do not assume but instead are open-ended and allow for comprehensive responses from the participants. While conducting the interviews, it was important to follow the recommendations of McNamera (1999), who advised the following:

1. Verify the tape recorder is working.
2. Ask one question at a time.
3. Remain neutral to the responses.
4. Encourage responses by providing affirmations in response to interviewee statements.
5. Be careful when note-taking.
6. Provide between major topics.
7. Maintain control of the interview. (p. 1)

These guidelines outlined by McNamera provided a clear protocol for the interviews in this study.

The interview guide that utilized in this study was designed to address Research Question 1, which explores how teachers perceive the relationship between their personality and student engagement, and Research Question 2, which addresses the student's perception of personality and student engagement. The interview guide contains two specific sections: teacher interviews and student interviews (see Appendix D). The section designated for teacher interviews consisted of seven questions designed to allow the participants to provide open and beneficial feedback that may be used to draw themes from the data. The student section of the interview guide consisted of eight questions and, like the teacher section, was designed in such a way that

the students could conversationally provide feedback rather than simply provide answers to questions.

Data Collection and Analysis Procedures

This study required data collection through semistructured interviews and observations from inside the classrooms. The participants for this study were teachers and students from a local high school in the Pikes Peak region of Colorado who were from diverse backgrounds and experiences. A formal letter (see Appendix E) requesting permission to utilize the specific institution addressed to the superintendent was written. Letters were sent to high school teachers, inviting them to participate in the interview process once approval was granted. Formal letters were also sent to the parents of the high school students, asking for their permission to interview their students.

In the observation portion of the data collection process, I spent time in the classroom to observe in a nonparticipatory role. The teachers conducted their courses in a manner consistent with their normal behavior. The behavior of the teachers was the subject of these observations to gain insight into what behaviors they were exhibiting that increased student engagement. To meet the requirements of the observational protocol, in some cases it was necessary to hold multiple observations. The first observation was a visitation that allowed the students to get used to my presence in the classroom, while the subsequent observations were designed to collect data.

The data collected from observations were analyzed using grounded theory. Charmaz (1996) asserted that grounded theory begins with individual experiences and uses them to begin to develop more detailed, more conceptual categories. This theory was appropriate in this specific situation given that grounded theory is useful in understanding social phenomena and

interpersonal relationships (Charmaz, 1996). So that concepts might develop, grounded theory provided a foundation for the observational data.

After observations were complete, teachers and high school students participated in the interview process. The data gathered from these participants provided insight into the specific perceptions, beliefs, and attitudes that teachers and students held in reference to how a teacher's personality affects a student's level of engagement. These interviews were recorded and then transcribed, which allowed the various interviews to be coded so that trends in the responses of the participants could be recognized and evaluated. All data collected were stored in a confidential location, and all audio recordings were held for 6 months and then destroyed.

The interview process is one of the primary methods researchers use to collect data for a qualitative study (Chenail, 2011). The interview process was the primary source of data collection for this research. In preparing for the interview process, it was vital that I followed the eight guidelines described by McNamera (1999). These guidelines included the following:

1. Choose a setting with little distractions.
2. Explain the purpose of the interview.
3. Address terms of confidentiality.
4. Explain the format of the interview.
5. Indicate how long the interview usually takes.
6. Tell them how to get in touch with you later.
7. Ask them if they have any questions.
8. Don't count on your memory to recall their responses. (p. 1)

These eight principles served as a protocol to ensure that the respondents felt comfortable and provided the most comprehensive responses possible. Also, these principles helped in maintaining the validity of the research.

In order to properly analyze the data collected from the interviews, it was important to develop a system for coding the data. The system of coding data is merely a way of categorizing data for future analysis and for future readers to understanding the data. This study relied on an

inductive approach to data coding and analysis. Thomas (2006) described inductive analysis as allowing the raw data to provide concepts and themes, as opposed to deductive analysis, which develops preconceived themes that are compared to the data in an effort to test a concept of hypothesis. Inductive analysis allowed the raw data to bring out specific themes in the responses of the participants and provided the most comprehensive coding format for this research study due to the lack of developed hypothesis that exists for the study. The raw data were relied upon to gain a deeper understanding of the perceptions of the respondents, rather than provide a developed hypothesis true or false.

Methods for establishing trustworthiness. Four concepts are crucial in developing the trustworthiness of qualitative research: "credibility, transferability, dependability, and confirmability" (Shenton, 2004, p. 64). Credibility is one of the most important concepts in determining the trustworthiness of qualitative research and is designed to determine if what the study measured is accurate (Shenton, 2004). Credibility for this study was established through the process of member checking, which entails sharing the findings of the research with the participants and allowing them to correct errors or fill in any missing information. This process is often referred to as informant feedback (Harper & Cole, 2012). The process occurred after the interview had taken place and the data were analyzed. The information was read back to the participants to ensure accuracy and to allow the respondents to correct any errors (Harper & Cole, 2012).

Additionally, data triangulation established credibility. Denzen (1970) described data triangulation as pertaining to time, space, and person. Data sources vary and having data come from various times, environments, and people contributes to the overall credibility of the data (Thurmond, 2001). In this study, I utilized data triangulation to achieve a higher level of

credibility by collecting data from three specific sources: teacher observations and interviews, student interviews, and the BFI assessment completed by teachers.

The interview questions went through the process of field-testing to ensure the credibility of the research. Chenail (2011) described field-testing as interviewing the investigator. This process allowed the investigator to answer the specific questions that were asked of the research participants. A colleague, who has familiarity with the interview process, was asked to interview me so that the colleague and I could provide feedback, which led to necessary revisions of the interview questions. Individuals who have expertise in the content area of this study as well as conducting qualitative interviews reviewed the interview questions. The goal of these field-tests was to gain feedback from experts who aided in establishing the credibility of the interview questions. The approval and feedback of the experts added credibility and trustworthiness to the data collection.

Shenton (2004) described transferability as the idea of how one study's findings may be able to be applied to another study. The results of this study were written in such detail that not only could it be replicated, but that the findings may prompt future studies and deepen the understanding of teacher personality and how it affects student engagement. The third criteria of trustworthiness refer to the ability of other researchers to replicate the study and yield the same findings; this is dependability (Shenton, 2004). Dependability is often a criticism of case study research because what may be true for one organization may not be true of another (Gog, 2015). This criticism has led some to suggest that for a case study to be dependable a study needs to include multiple case studies. Yin (2013) disputed this suggestion when he argued that case studies are not designed to generalize universally but are generalized for theoretical propositions. This study was not designed to find a personality trait that is universal to all high school teachers

that affect student engagement. Instead, this study was designed to gain information on a theoretical problem that has become increasingly relevant in our educational society.

An additional strategy for establishing the trustworthiness of the research is confirmability; which is the process of establishing objectivity on the part of the researcher (Shenton, 2004). Koch (2006) argued that readers would be more likely to believe the findings are more accurate if they can follow the steps in data collection that were utilized. These steps were the basis for a research audit trail. The audit trail is the process of a researcher documenting all research decisions and actions throughout the study (Carcary, 2009). This trail manifested itself in this specific study by journaling all research activities throughout the study, which will allow the reader to understand why research decisions were made. This is designed to limit the perception of research bias on the data, thus increasing the studies confirmability.

Peer debriefing is the final strategy that was employed to establish trustworthiness. Peer debriefing is the process of submitting data and findings to a peer who is not directly associated with the study. The peer reviews the findings and methodology to establish credibility and trustworthiness. Lincoln and Guba (1985) described four purposes of debriefing: peer debriefing easily allows for the discovery of researcher bias, the researcher can become more aware of his or her findings, the researcher can become more aware of his or her attitude toward the data, the researcher may begin to defend the hypotheses, and peer debriefing provides an opportunity for the researcher to experience emotional relief. A colleague who has experience in qualitative research studies aided in the peer debriefing process for this study. By subjecting the findings of this study to peer debriefing, the findings grew in trustworthiness and allowed for increased credibility.

Researcher's role. I am employed at a high school study in the region where the study

took place. I did not have any supervisory role over any of the participants in this study, nor did

I teach any students who voluntarily participated. This allowed the participants to feel free to

provide honest and open feedback without feeling required to do so. This research design did

not yield a specific hypothesis that is attempting to be proven. Rather, the goal of the design was

to examine a real-life phenomenon in a setting in which behavior cannot be manipulated (Yin,

2013). Being unfamiliar with the participants allowed me to collect and analyze data without

manipulating or influencing the respondents in any way in order to maintain the objectivity of

the research design.

Ethical Considerations

The Institutional Review Board (IRB) of ACU approved this research, and given the

nature of the research, some ethical considerations needed to be made. The most significant

ethical consideration facing this study was that many of the participants were under the age of

18. This factor required parental consent before the students could participate in the study. The

second ethical concern that was important to consider was the anonymity of the participants.

Anonymity refers to the idea that the identity of the participants will not be known to anyone

outside of the research team, and this study accomplished anonymity by not requiring a vast

amount of information from the student (Lewis, 2003). Once an individual volunteered for the

research, the audio recordings and transcripts had no specific identifiers associated with them.

The research questions were dependent on identifying characteristics; thus, no identifiers were

needed for this study.

A formal letter was sent to the school superintendent for the school in which the research

took place to gain consent for the qualitative case study. Formal written letters were sent to high

school teachers and students explaining the background and the importance of the research study once approval was granted from the institution. Also, the letter outlined the steps that were taken to ensure privacy and anonymity throughout the research process. The letter also made clear that the participants may withdraw from the study at any time and for any reason. No data was collected until the IRB of ACU had fully approved this study.

Assumptions

I made a few assumptions regarding the two populations. One of these assumptions was that the participants had different levels of familiarity with the subject matter of the research, which is student engagement. I assumed that many of the high school teachers hold some familiarity with the concept of student engagement and how it is affected. On the other hand, I assumed that the high school students that comprise the population held little to no foundational understanding of engagement and how it is affected. By detailing the purpose of the research to all participants, the assumption was addressed to ensure that all participants had some basic understanding of the critical topics that were involved in the interviews.

The second assumption made was that the respondents were enthusiastic about participating in the research study. This enthusiasm was assumed based upon their willingness to volunteer for the study. I addressed this assumption by ensuring that the participants were comfortable with the line of questioning that comprised the interview process and by not encouraging or discouraging any individuals to participate in the research study.

Limitations

This qualitative case study lent itself to limitations due to the nature of case studies. As mentioned previously, case studies, unlike many other research designs, are not designed to address a universal group or population; rather, this design is centered on the idea of addressing a

theoretical problem or phenomenon (Yin, 2013). The data collection process for this study took place in a private school. It is reasonable to assume that when compared to a public school setting, there may be differences in results. The small scale of participants in this study could lead to limitations in that the findings of this research may not be able to be generalized for future studies. However, this study was designed to create a deeper understanding of how a teacher's personality affects student engagement in a manner that the future may be able to build.

Delimitations

This study was designed to gain a deeper understanding of personality traits that may be possessed by a high school teacher and how those traits may affect the level of student engagement in the classroom. This study was not designed to address factors that affect student engagement outside of personality. There have been vast amounts of previous research that have outlined various factors affecting student engagement, and this study was not designed as much to build upon those studies but rather shed light on additional, less researched factors that affect student engagement.

Summary

This chapter has provided insight into the purpose, design, and method of this qualitative case study. The purpose of the study was to gain a deeper understanding of specific personality traits that teachers may possess that affect the level of classroom engagement of high school students. Student engagement is affected by a variety of factors (Crosnoe, Smith, & Leventhal, 2015; Willms, 2003), including the teachers, but to what level a teacher's personality affects student engagement is still widely unknown (Eryilmaz, 2014).

In order to address this unknown level to which teacher personality affects student engagement and the research questions developed by this study, a case study design provided the

most effective research process. This decision was primarily made due to the type of questions that were asked in the study. Case study research is ideal for addressing *how* and *why* questions in a real-life situation in which the researcher cannot manipulate the behaviors of the population (Noor, 2008; Yin, 2013). This qualitative case study allowed data to be collected through two specific methods: structured observations and standard open-ended interviews. These two methods of data collection provided data that allowed the participants' perceptions to be apparent in answering the stated research questions. Specifically, the observations provided insight concerning the personality traits exhibited by the teachers concerning student engagement, while the interviews allowed for a deeper understanding of both teacher and student perceptions of the relationship between teacher personality and the students' level of engagement. This research study was designed to address a problem in the educational system, which is low student engagement. Student engagement is a factor that affects student academic achievement (Shernoff et al., 2016), and this research study provided additional insight into one aspect of this problem.

Chapter 4: Results

The purpose of this research was to identify and gain a deeper understanding of specific teacher personality traits and how teachers and students in the local setting perceived those traits as impacting student engagement. There were four main ways that data were collected to address the research questions posed in this study: (a) How do teachers describe the relationship between specific personality traits and student engagement? (b) how do students describe the relationship between specific personality traits and student engagement? and (c) what observable personality traits are displayed by the high school teachers in the Pikes Peak region of Colorado that promote student engagement in the context of a constructionist framework?

The purpose of this chapter is to report the results of the data analysis gathered from 10 semistructured teacher interviews, 15 semistructured student interviews, and 10 classroom observations of teachers. The following chapter is organized as follows: introduction, review of research focus and processes, analysis of the data, interview questions, themes that arose from the interviews and observations, and a summary. In this chapter, I report on data collected through interviews and observations and discuss how these data address the research questions.

Review of Research Focus and Processes

This study utilized a qualitative approach to data collection. Semistructured interviews were used to identify perceptions that teachers and students held when it came to the relationship between a teacher's personality and how it impacted a student's level of engagement. While classroom observations were utilized to determine what personality traits high school teachers displayed in the local setting that promotes student engagement.

Ten teachers in the local school setting volunteered to participate in this study. I sent the Big Five Inventory (BFI) personality test, which has been utilized by numerous researchers and

has been widely accepted within social sciences (Gosling et al., 2003) to each of the 10 teachers. The teachers were instructed to complete the BFI test and return the results to me so that I could score the test. Once the test was completed and scored, I returned the test to the teachers so that they could review the results in preparation for the semistructured interview. After the personality tests, I began to observe the teachers in the classroom setting. These observations were directly designed to address the third research question. Teachers' behaviors were observed to determine what personality traits were being displayed in the classroom that promoted student engagement. These observations took place over 2 weeks with some teachers being observed multiple times.

After the teacher observations, the semistructured interviews were scheduled. These were designed to answer Research Question 1. The interviews were designed to address the perception that the teacher holds about the relationship between teacher personality and how it impacts student engagement. The 10 teachers were interviewed, with all interviews being recorded and then transcribed. Once the interviews were transcribed, the data were coded, and themes began to emerge in light of inductive analysis. Inductive analysis allows the raw data to provide concepts and themes rather than the application of preconceived themes to the data to test a hypothesis (Thomas, 2006). Finally, high school teachers who volunteered for this study participated in semistructured interviews. The student interviews addressed the second research question, and similar to the teacher interviews, data were analyzed using an inductive approach.

Field-testing was conducted to ensure that the interview questions, for both the teachers and the students, were appropriate and adequately addressed the stated research questions of this study. The interview questions were sent to two individuals who are considered experts in the content area of this study. Feedback was provided regarding the interview protocol that was

used in this study. Field-testing ensured that all interview questions were appropriate to be included in the data collection portion of the study.

Presentation of the Findings

This study utilized a qualitative case study approach to data collection. A qualitative case study approach was designed to answer the question of how a teacher's personality traits affect high school students' engagement in the classroom. The data were collected utilizing 10 high school teachers and 15 high school students who volunteered to participate in this study. The data collected from the participants were analyzed. In an effort to protect the anonymity of the participants, each teacher or student was assigned a pseudonym. All teachers' pseudonyms begin with the letter T, whereas the students' begin with S.

BFI results. In preparation for the observational data collection to occur, all teachers were asked to complete the BFI personality test. The purpose of the administration of this test was to lay a foundation for the observations and interviews. The tests were returned to me and scored. The teachers were given the results so they could review them in preparation for the interview. This process was instrumental in completing the observational protocol. The observable behavior of the teachers was compared to their BFI results to determine how their personality affects their behavior in the classroom. Table 1 displays the mean, median, mode, and standard deviation results for each personality trait of the BFI for the 10 teachers who volunteered for this study.

Reviewing the mean BFI scores of the teacher volunteers indicated that agreeableness, which is the trait of adjusting one's behavior to suit others, was the most common trait possessed by the teachers. The results indicated that the average teacher in the local setting is typically polite, likes people, and takes a genuine interest in others. Not far behind agreeableness was the

Table 1

Mean, Median, Mode, and Standard Deviation Scored for Each Personality Within the BFI for

Teachers

BFI personality trait	Mean	Median	Mode	Standard deviation
Extroversion	21.7	29	28	10.98
Agreeableness	30.6	34	34	7.50
Contentiousness	29.9	33	33	7.46
Neuroticism	27.9	27.5	28	5.38
Openness to experience	28.5	29	25	5.32

Note. 40 is the highest score possible per trait.

trait of conscientiousness. Conscientiousness is the trait of being honest and hardworking. The

teachers in the local setting displayed a tendency to follow the rules and prefer order and

efficiency. The third most common trait among the teachers was openness to experience.

Openness to experience is the trait of seeking new experiences and intellectual pursuits. For the

most part, the teachers desired to try new things and were open to a variety of new experiences.

There were some, however, who were more cautious and unsure of new experiences.

Neuroticism is the trait of being emotional and was the fourth most common trait possessed by

the teachers. Many of the teachers respond to situations emotionally, whereas some are more

analytical in their approach. Finally, extroversion was the least common of the five personality

traits. Not only was it the least common, but it was also the most varied of all the traits.

Extroversion possessed a standard deviation of 10.98, whereas no other trait possessed a standard

deviation higher than 7.59. Extroversion is the trait of seeking fulfillment from sources outside

of the self or in a community. Many of the teachers scored high, which indicated that they are

social and enjoy being the life of the party, whereas other teachers scored low and enjoy

recharging by themselves, preferring to work as individuals and in the background if possible.

   Observational data. Classroom observations were used to address Research Question 3:

What observable personality traits are displayed by the high school teachers in the Pikes Peak

region of Colorado that promote student engagement in the context of a constructionist

framework? The observations took place over 2 weeks and involved 10 high school teachers.

An observational protocol (see Appendix B) was developed to determine what personality traits

the teachers were demonstrating in the local classroom setting that might promote the level of

engagement on the part of the students. The teachers' behavior was compared to their individual

BFI results to understand better how their personality might influence their behavior in the

classroom.

   Observing teachers in their typical environment within the classroom allowed for

numerous themes to evolve that would address Research Question 3. Again, the data analysis

was grounded in an inductive approach, meaning that there was no hypothesis and themes were

organically developed rather than attempting to prove or disprove a theory. When it comes to

the observational data collection, the themes that evolved from these observations were quite

intriguing. The trends are discussed by the most prevalent personality trait and how it may be

impacting student engagement.

   For the purpose of these observations, levels of student engagement were measured

utilizing the known indicators of student engagement. These indicators included students being

alert and attentive, volunteering to answer questions, being involved in class discussions, being

able to explain what they are learning, staying on task, responding to social cues, interacting

appropriately with other students, referring to text and instruction, working quietly, and not

displaying distracting behavior. By observing or not overserving these behaviors in the classroom, I was able to distinguish which BFI traits seemed to affect student engagement.

The observational data were analyzed using an inductive approach. The observational protocol was utilized as a guide throughout the observations to ensure that Research Question 3 would be adequately addressed. Once the observations were completed, the protocols were reviewed multiple times and coded. The observational notes were color-coded depending upon which BFI trait was identified within the observations. The codes were then placed in a data matrix (see Appendix F) so that occurrences and themes might become evident. The data matrix was guided by Research Question 3, and the themes that emerged to address that question are discussed further.

Agreeableness. The first trend that became evident was related to the trait of agreeableness. Agreeableness was the most common personality trait among the teachers, and this was evident in the behavior of the teachers. Seven of the observed teachers displayed high levels of agreeableness, and each one displayed a genuine interest in the students on a personal level. There was a conscious effort to ensure that the students felt valued, respected, and safe. Examples of this behavior included interacting with the students on a personal basis and often utilizing personal experience to make a point in their teaching. This was seen in Tom, who made an effort to get to know something personal about each student. He then used that information to relate the lesson to something the students could relate to. This seemed to generate genuine relationships between the teacher and the students. This behavior seemed to create a reciprocation on the part of the students about the student-teacher relationship. Often, the teachers who possessed high levels of agreeableness seemed to be adept at cultivating relationships with their students.

The observational data about agreeableness seemed to demonstrate that when the teachers took the time to cultivate a relationship with the students, the students seemed to be more in tune to the teacher's lesson. However, another trend that seemed to become evident with teachers who possessed high levels of agreeableness (per BFI results) was in the behavior of the students. Teachers who scored high levels of agreeableness seemed to have more talkative students. The number of talkative students could be for a variety of reasons. However, when compared to the teacher who possessed lower levels of agreeableness, there seemed to be a stark difference. Teachers who maintained more moderate levels of agreeableness seemed to have less inappropriate student interaction.

Analysis of the data suggested that students responded in a positive way to teachers who possessed a high level of agreeableness. This became evident during the observations through the teacher-student interactions. Teachers who possessed high levels of agreeableness displayed a genuine interest in the lives of the students. This interest went beyond simply saying good morning or welcoming the students to class. The teachers who possessed high levels of agreeableness often asked about specific events going on in the students' lives. These instances included sporting events, the upcoming school play, and even family members. This interest in the students seemed to create a mutual connection between the teachers and the students, however, given that teachers who maintained low levels of agreeableness seemed to have less student interaction in their classroom. It seems to suggest that there may not be as great of a connection between high levels of agreeableness and student engagement. The behavior of the teachers in the amount of agreeableness they portrayed played a role in the students' level of engagement. There seemed to be value in both high levels of agreeableness and low levels of

agreeableness. Higher levels seemed to connect with students on a more personal level, but lower level agreeableness seemed to minimize inappropriate student interaction.

     Extroversion. In addition to the trait of agreeableness, the level of extroversion that was displayed by the teacher seemed to play a role in the engagement of the students. It is important to note that extroversion had the lowest mean score of all personality traits that the teachers possessed. Additionally, extroversion possessed the highest level of deviation.

     Although there were wide discrepancies among the teachers and their level of extroversion from the BFI, the observational data analysis seemed to suggest that teachers who possessed a high level of extroversion also resulted in higher levels of student engagement in their classroom. The extroverted teachers often displayed a passion for their material and interpersonal interaction. This was observed in 5 of the observed teachers who possessed high levels of extroversion. This was contrasted by the 2 teachers who possessed extremely low levels of extraversion and displayed a more subtle passion for their material; they were not observed placing as high of a priority on interpersonal interaction. This could be evidenced by Tammy, who possessed low levels of extroversion and stated that if students were looking to her for hugs and to be entertained all the time, they were not going to get it.

     The 5 teachers who possessed high levels of extroversion were able to engage the students in a way that those who scored low in extroversion did not. A clear example of this could be seen in many of the extroverted teachers' classrooms. Often the extroverted teachers seemed to be performing for the students in their classroom. These performances led to the students seeming to be more alert and attentive in the class. Additionally, the extroverted teachers could easily draw the students into what was being taught. This idea was manifested in

the student responses to the social situation, such as laughing at jokes, answering questions, and even following directions, which indicated student engagement.

Two teachers who scored lower in extroversion were noticeably more subdued in the classroom and could even be mistaken for passive in some instances. This is not to say that the teachers were not effective in creating engagement. However, the traits that they utilized to create engagement on the part of the students were different. One teacher who scored low in extroversion was aware of a deficiency in this trait and noticeably adapted and used other traits to keep the students engaged. This teacher even commented that since she was not going to entertain the students, she must be able to utilize different strengths like her level of efficiency and organization to keep the class moving to engage the students.

Indeed, extroversion seems to be effective in engaging students in the classroom. Teachers who displayed high levels of engagement were able to draw the students in by, at times, sheer entertainment. However, some students could view this as distracting. As the observations took place, there were a few students who were noticeably disengaged by high levels of extroversion of the teacher. Specifically, students who seemed to be more reserved in their personality often refrained from asking questions or getting involved in discussion.

Extroversion seems to be a useful tool in engaging students. However, if it is the only trait that a teacher is relying on, then it can cause chaos and confusion. This became especially true when high extroversion was coupled with lower levels of conscientiousness.

Conscientiousness. Those that scored high in this trait tended to be organized, efficient, and self-disciplined, whereas those who possessed low levels of this were disorganized and might have even been unorganized. Seven of the observed teachers possessed high levels of conscientiousness. Each was organized in the content delivery as well as classroom

management. Teachers who possessed high levels of conscientiousness often made expectations clear and ran highly efficient classrooms. Tina seemed to maintain some of the highest levels of student engagement. There was no doubt that when students entered her classroom, they knew what was expected; the students knew the teacher controlled the classroom. This teacher maintained engagement through consistency.

Teachers who possessed lower levels of conscientiousness often seemed scattered in their content delivery, and there was an increase in inappropriate student interaction. The combination between extroversion and conscientiousness is essential to note. Throughout the observations, some teachers possessed high levels of extroversion and low levels of conscientiousness, and there was a noticeable impact on student engagement. These teachers were highly energetic, exciting, and even passionate, but there was a lack of organization that seemed to move into chaos quickly. It did not take much for the teachers to lose control of the classroom and the students to begin to talk and lose interest in what was begin taught.

High levels of extroversion coupled with lower levels of conscientiousness seemed to harm a student's level of engagement. This was observed in 2 of the observed teachers. These 2 teachers had the commonality of maintaining high levels of extroversion and lower levels of conscientiousness. The high extroversion allowed the students to initially engage and interact with the teacher, but due to the teachers' lack of efficiency and organization, the students quickly became disengaged. However, when a teacher possessed the combination of high extroversion and high conscientiousness, the students seemed to flourish. This was observed in 4 of the teachers. These teachers possessed the ability to draw the students in with their passion and excitement, yet they were able to maintain control of the students with their efficiency and

organization in the classroom. This combination seemed highly valuable in developing student engagement.

But what about conscientiousness itself? How did this trait independently impact students in the classroom? Seven teachers who were observed displayed high levels of conscientiousness in the classroom and showed the ability to control the class, keep students on task, and following directions. The level of conscientiousness on the part of the teachers was not as easily noticeable in their behavior as extroversion or agreeableness. However, conscientiousness played a vital role in cultivating student engagement.

Teachers who possessed high levels of conscientiousness seemed to maintain more efficient classrooms. Also, the observed teachers who scored high in conscientiousness seemed to impact student engagement. An example of this was seen in one particular teacher who possessed high levels of conscientiousness. Throughout the classroom observations, this teacher maintained some of the highest levels of student engagement, and she accomplished this mainly due to her high level of conscientiousness. Her efficiency and organization kept the class moving at a pace that provided time for the student to understand the material, but at the same time did not allow the students to have significant downtime. Additionally, I observed that the students responded well to the efficiency of the teacher and were able to focus on the task and follow directions quickly.

Openness to experience. The fourth trend that became evident throughout the classroom observations was related to the personality trait of openness to experience. Among the teachers who participated in this study, openness to experience had a mean score of 28.5, which was the third highest of all the traits. Also, it possessed the lowest levels of the standard deviation of the five personality traits at 5.32. Five of the teachers observed possessed high levels of openness to

experience. Those individuals who scored high in the area of openness to experience seemed to be more open to other perspectives and experiences and were more likely to conduct open class discussions, whereas those who possessed lower levels of openness to experience were more down-to-earth and less open to new experiences.

What became evident during the classroom observations was that the teachers' level of openness to experience had an observable impact on the students' level of engagement. One of these impacts can be seen in Trey, who possessed high levels of openness to experience. This teacher displayed an interest in the thoughts and ideas of the students regarding the material. This seemed to create openness on the part of the students, which led to increased teacher-student interaction. Teachers who possessed high levels of openness to experience seemed to engage the student more in discussion than teachers who maintained lower levels of openness to experience. In light of the description of openness to experience, which is that those who score high are more open to other perspectives, this is an expected distinction between teacher behavior. There seemed to be more of an inquisitive nature on the part of teachers who possessed high levels of openness to experience, which seemed to lead to them having a genuine desire to know the thoughts and opinions of the students in their classrooms.

Teachers who possessed high levels of openness to experience engaged the students in a different way than their cohorts who possessed lower levels of the trait. High-openness teachers cultivated what seemed to be a more collaborative learning environment. Evidence suggested that the trait seemed to create a mutual openness on the part of the students and the teacher. Students seemed more willing to share and express their thoughts and opinions in the classroom. However, the opposite also seemed to be true. Teachers who possessed lower levels of openness were less likely to engage their students in open discussion in the classroom. This lack of

discussion seemed to result in a lack of willingness on the part of the students to share their thoughts and be open in the classroom.

Openness to experience had a positive impact on the student level of engagement, especially in the willingness of students to open up and share their thoughts and ideas with the class. This became increasingly more prevalent when teachers possessed high levels of openness to experience and high levels of agreeableness. This combination seemed to provide the students with the combination of teacher traits that fostered collaboration in the classroom. When the students feel safe and accepted, coupled with a teacher's desire to understand the students' insight and thoughts, a willingness is created on the part of the students to express themselves more frequently in the classroom.

Neuroticism. Finally, 4 of the teachers observed possessed higher levels of neuroticism. These 4 who scored high in neuroticism seemed to possess higher levels of emotion in their teaching; the 6 who possessed lower levels did not seem to conduct their teaching with as much emotion. Neuroticism among the teachers held a mean score of 27.9 and a standard deviation of 5.38. This showed that the teachers who participated in this study did not maintain extremely high levels of emotion. This trait was also the closest to the average.

While I observed the teachers in their natural classroom setting, there was no noticeable correlation between neuroticism and student engagement. The greatest show of neuroticism came from the passion that the teachers held for their subject matter. Some teachers possessed an outward display of emotion for their subject, such as becoming passionate about a poem or even about the importance of a concept to the future of the students. Teachers who did not possess high levels of neuroticism did not display such an obvious passion for their subject content. There was no clear observable distinction between the engagement levels of the

students in their classes, which means that students who were under the teaching of outwardly passionate teachers did not display higher levels of engagement.

This lack of distinction could be in part due to the fact that this was the least diverse of all of the teacher traits. Thus, there was not a clear distinction between teachers with extremely high emotion and those with extremely low emotion. This is an idea that will be addressed in the data analysis of the interviews later in the chapter.

Observation data results. The results of the observation indicated that the teachers in the local setting displayed a variety of behaviors that promoted student engagement. Except for neuroticism, there were observable effects that each of the traits had on student engagement. The results suggested that some of the most effective traits on their own were extroversion, agreeableness, and conscientiousness. However, when the two traits of extroversion and agreeableness were highly present on their own in an individual teacher, there could be a risk for increased disengagement in the form of unnecessary student interaction, such as talking, laughing, or working on other work. The results also revealed that conscientiousness also played an important role in the engagement of the students. Conscientiousness seemed to be the one trait that maintained student engagement. Teachers who possessed extroversion or agreeableness individually ran the risk of decreased student engagement. However, when those traits were coupled with conscientiousness, engagement seemed to be maintained for a longer period.

The data suggested that the teachers possess a variety of traits that impact student engagement; however, the trait that seemed to play the most significant role in increasing student engagement was conscientiousness, followed by extroversion and agreeableness. This is not to say that the other traits are not necessary, but the analysis of the observational data seemed to

suggest that these traits are at the heart of student engagement, whereas the other traits seem to be more secondary in creating student engagement.

Interviews. Data collected through observations could only be used to adequately address Research Question 3: What observable personality traits are displayed by the high school teachers in the Pikes Peak region of Colorado that promote student engagement in the context of a constructionist framework? Interviews were needed to address Research Questions 1 and 2: (a) How do teachers describe the relationship between specific personality traits and student engagement? and (b) how do students describe the relationship between specific personality traits and student engagement?

Interviews of both teachers and students were necessary for completing this study. The study was first presented to the teachers in the local setting. The teachers were eager to participate in this study, and I quickly gained the needed number of participants for this study. Once the individuals contacted me with their willingness to participate, I met with each participant to address any questions or concerns. I explained in more detail the purpose of the study and what they would be asked to do as a participant in this study. Soon after, interviews were scheduled based upon the teaching schedule of the participants to ensure that there was adequate time to complete the interview. All interviews were conducted in person over 2 weeks.

Shortly after the study was presented to the teachers, it was presented to the students. The study required that 15 students participate in interviews to answer Research Question 2: How do students describe the relationship between specific personality traits and student engagement? There was an enthusiastic response from the students in the local setting to volunteer for this study. Soon after all the participants were identified, they were given the consent forms that were required to be signed by both the parents and the students. Once the

consent forms were returned, the student interviews were scheduled. Similar to the teacher

interviews, the student interviews were arranged according to the students' schedule. This was

to ensure that the students had ample time to complete the interview and not feel rushed.

Once the interviews were completed, the following protocol was conducted:

1. I listened to the interviews multiple times and then transcribed them. The

   transcriptions were then read over numerous times while listening to the audio

   recording of the interview. This was done to ensure the accuracy of the transcripts.

2. Following the transcription of the audio recordings, the data were coded. Data were

   coded utilizing an inductive approach to coding. Thomas (2006) argued that

   inductive coding is useful when no hypothesis is being tested. This method of coding

   allows the themes and theories to emerge out of raw data. This process began with

   me reading over the transcripts several times and asking myself what concepts or

   terms reoccur from participant to participant. I then started to color code the different

   ideas and traits that began to repeat themselves.

3. An analytical framework was developed after the five transcripts, which involved

   grouping the various data into different categories. These categories were associated

   with the five traits of the BFI. Each additional code that emerged after the first five

   transcripts were added to the existing framework.

4. Data were then interpreted in light of the analytical framework, and themes began to

   emerge from the transcripts.

Teacher interviews. Ten teacher interviews were needed to adequately address Research

Question 1: How do teachers describe the relationship between specific personality traits and

student engagement? All participants were informed that I would need to audio record the

interview so that transcripts could be generated. The participants were asked a series of questions that dealt with their perception of the relationship between specific personality traits and a student's level of engagement. (The interview protocol can be found in Appendix D.) The interview was semistructured, which allowed me to probe deeper into the teachers' responses. This process took approximately 30 minutes depending upon the responses of the participants.

The first interview question that was asked was, "Do you believe that your personality impacts the student's level of engagement?" This question was designed to gauge the perception that teachers held when it came to whether their personality impacted their student's level of engagement. All 10 teachers who participated in the interview agreed that their personality did affect a student's level of engagement in the classroom. Not only did they all agree, but there was also strong agreement among most of the teachers who were interviewed.

Although all 10 teachers agreed that their personality did affect the students' level of engagement in the classroom, they were not all uniform in their responses. Tiffany stated, "If you are a gregarious person you have the ability to draw people in . . . and students do really good with that." Tiffany made the point that if teachers are highly extroverted, it allows the students to be more engaged in the classroom. However, Tom made the point that a teacher's personality is "directly tied to how well they can relate to students." These two examples displayed that although the teachers agreed that there is a connection between their personality and how students engage in the classroom, the perspectives on that connection may differ.

The teachers were asked if they had a chance to review their results from the BFI test. All participants but 1 stated that they had reviewed them but did not fully understand them all. I took this opportunity during the interview to discuss the results with each participant and ask him or her if he or she agreed or disagreed with the results. After this process, all 10 participants

agreed that the results were accurate to what they perceived about themselves. I then followed up that question by asking the participants if they believed that there was anything that could have skewed the results. Most of the 10 participants stated that they could not think of anything that would have invalidated the test. However, 2 participants reported that the answers could be dependent upon their mood on a given day, but both reassured me that they answered the questions honestly and tried to uphold that validity of the test.

In responding to the third interview question, the teachers were asked about something specifically that I observed in their classroom and how their personality may have affected it. The responses by the teachers varied considerably depending upon the teacher's personality and what I observed in the classroom. Some of the observations and responses were positive, whereas some were negative. For example, Trey displayed an ability to draw the students into the lesson, and the teacher showed a genuine interest in the thoughts and ideas of the students. I observed this in his classroom and how it engaged the students. Trey attributed this to his openness to experience. This particular teacher scored a total of 40 in the trait of openness to experience, and he believed that it was this trait that led him to be able to engage the students by having a genuine interest in the perceptions of the students. I observed that the students seemed to display a higher level of openness in response to the openness of this teacher.

Additionally, in the process of observing Tina, I saw probably the highest level of engagement on the part of the students. There was little to no inappropriate student interaction, and the students were quick to answer questions and express their thoughts on the lesson. I asked Tina about what I observed in her classroom and how her personality might be impacting the student's level of engagement. She responded with a simple, "I don't care if they like me." This was interesting to me, and I asked her to elaborate. She continued to explain that she is

there to ensure that the students learn and that they meet specific objectives. The teacher mentioned that she had a desire to connect with as many students as possible, but that was not her primary concern. This is consistent with the results of her BFI test in which the teacher displayed lower levels of agreeableness and high levels of conscientiousness. As mentioned previously, it was my observation that Tina's classroom displayed some of the highest levels of engagement.

Just as Trey displayed how having a high level of openness to experience could engage the students, there were some teacher behaviors that could be hindering student engagement. This could be seen in Tori. This teacher seemed to have an abundance of unnecessary student interaction in the classroom. I asked the teacher about this observation, and she confirmed that this had been a consistent problem for her. I asked her if she thought there was anything about her personality that might cause this. Tori confirmed that she felt that because she was high in agreeableness and extroversion that the students saw her as more of a friend and that she lacked the authoritarian ability to keep her students under control at times.

Question 4 shifted the focus away from the perceptions of the teachers and more to that of the students. I asked the teachers how they thought students viewed the relationship between a teacher's personality and the students' level of engagement and which BFI results they thought the students perceived as important. Their answers did not vary as much as one would think. Every teacher agreed that students believe that teachers' personality affects their level of engagement in the classroom.

The second part of this question centered around specific personality traits and which ones the students believed had the biggest impact on their engagement. The most frequent response from the teacher was agreeableness. During the interviews, agreeableness was

mentioned eight times as being the most important trait for students. Traci stated, "This is due to both sides needing to be willing to work together." Travis said, "Generation Z is all about relationships. Students do not say, 'That guy has knowledge. Let me listen to him.' You have to be able to engage in that relationship." Tiffany argued, "Students want to walk into a room and feel safe and where they are loved and cared about, where they are not going to be belittled and they are going to be affirmed." These participants and the others who mentioned agreeableness all looked at the relational aspect of teachers as what the students perceived as valuable.

The second most common BFI trait that was mentioned by teachers as being important to the students was extroversion and openness to experience. Both were mentioned twice. When it comes to the trait of being extroverted, Tina claimed that students want extroversion: "Because they want entertainment . . . . They cannot be without entertainment. They have it in their ears all the time and at their fingertips all the time." Tori made the point that when teachers are more extroverted, then the students feel like they are more likely to participate in class.

Openness to experience was also mentioned twice as being the most important trait for students in terms of creating engagement. Taylor saw value in openness to experience through their teaching. The teacher explained that in her career, when she listened to the students' likes and what they were interested in and then centered the class lesson around those things, then the students seemed to be more engaged and enjoy the material more. She described that her ability to be open to the ideas of the students and their experiences allowed her to create lessons that she would have never had created on her own. Travis also believed that openness to experience was essential to the student too. He stated, "I think the ability to listen to what they (students) have to say and then put it into context. An interest in dialoguing and how it applies is super important."

Finally, neuroticism, which is the trait of being emotional, and conscientiousness, which is the trait of being hardworking and honest, were the least identified traits. Those who score high in conscientiousness tend to be organized, efficient, and self-disciplined, whereas those who score lower tend to be more unorganized and less disciplined. These two traits were each mentioned once as being important to students. Teaching Trey argued, "If you are just standing up there and they never see emotion, I think that they see that, and it is something that they look for. Show emotion, and I think it connects with them."

Trey is the only teacher who mentioned that conscientiousness might be important to students. He remarked that the students want a teacher who is honest and whom they can trust. However, Tiffany disagreed with this and said, "I think the lowest is conscientiousness. I don't think they give a whit if I am organized or not."

Finally, I asked the students if there was anything that the teacher would like to add when it comes to how a teacher's personality affects a student's level of engagement in the classroom. These respondents were far more diverse in their responses given the open nature of the question. Some of the answers included the importance of organization. Teacher Tom stated,

> You have to be organized. They really thrive in the consistency. They naturally do it all the time. I'll leave them open seating, and they'll create themselves a seating chart. They'll sit in the same seat every day for the entire year.

Other responses included the importance of loving your subject matter. Traci said, "I know that when I was a student, the teachers that I loved were the ones who loved their subject and you could tell." Multiple teachers took this opportunity to mention the importance of relationships. Taylor stated, "I really think that the best teachers have to be people who love other people and who are willing to get interested in other people's lives."

Themes from teacher interviews. More than half of this study relied upon the data collected from teachers either through observations or through interviews. It was through this data collection process that a few themes have emerged as important to this specific study. In this section, I discuss the various themes that emerged from the teacher interviews and how they supported the observational data analysis.

These themes were determined through a process of reading the interview transcripts and listening to the audio recordings of the interviews. After reading over the transcripts multiple times, I began to identify responses that began to repeat themselves. I then began to code those responses by color depending on which of the BFI traits were being identified by the participants. I then input the coded data into a data matrix (see Appendix G) that was guided by Research Question 1 and 2. This allowed me to begin to identify concepts that arose out of the interviews, which allowed me to begin to discover themes that became evident through the interviews.

Theme 1: The traits teachers identified as important in creating student engagement were the traits they possessed high levels of. During the interviews, the teaching participants were asked how a teacher's personality affects student engagement in the classroom. An interesting theme that began to emerge through the data analysis was that traits that many of the teachers identified as being important were traits that they possessed in high levels. For example, Tina maintained high levels of extroversion and stated that traits such as being entertaining and extroverted were important in creating engagement. This was also seen in Traci, who possessed high levels of agreeableness. This teacher stated that one of the most important traits is being able to connect with the students. This theme was seen throughout the

responses of the teachers. Nine of the teachers who participated in the interviews identified a trait that they possessed high levels of as being important.

The only participant who identified a trait that was not their highest trait was Tom. Tom had the highest levels of conscientiousness but identified agreeableness as a critical trait in enhancing student engagement. He stated, "I think it [engagement] is directly tied with how well they [teachers] relate to their students." Conscientiousness was discussed later in the interview by Tom and its role in creating student engagement.

This was an interesting theme that emerged through the interview process. It makes one consider how we as educators teach our students. Do we teach in a way that would engage us or engage them? This question is not an easy question to answer, and additional research would be needed to address it. However, the analysis of data may be suggesting that teachers in the local setting are teaching from their perspective rather than in a manner to engage all students. By this, I mean that teachers are teaching how they like to be engaged and not giving proper thought to how their students like to be engaged.

Theme 2: Teachers believe that students view agreeableness and extroversion as the two most important traits in creating engagement. The teaching participants were asked what traits they believed the students would identify as important when it comes to creating engagement in the classroom. Overwhelmingly, the teachers identified agreeableness and extroversion as the two most important traits. Agreeableness was mentioned seven times by the teachers and extroversion was mentioned three times. No other trait was mentioned more than once.

Teachers overwhelmingly agreed that agreeableness, the trait of adjusting your behavior to those around you, was the most important trait to students. Agreeableness was mentioned

more than twice as often as the next highest trait, which was extroversion. When asked why they believed agreeableness would be important to students, the teachers' responses varied. Participant 101 stated, "Maybe that is just because I am high on agreeableness, but I feel that if both sides are willing to work with each other and find that happy medium." Tom added, "I would say that agreeableness is the number one thing . . . . I think that agreeableness is so important for them to sense." A final example of the perceptions that teachers held when it came to what the students would find important came from Travis. Travis argued, "I think that the agreeableness of the teacher is important also. I think the ability to listen to what they have to say and then put it into context, an interest in dialogue and how it applies, is super important."

Teachers were quick to identify agreeableness as being important to the students. This seemed to be due to the relational aspect of the students and that the students like to feel they are safe and valued, which was mentioned by Tiffany. Agreeableness seemed to be at the forefront of the teachers' thoughts when it came to the concept of engagement. Agreeableness was the highest median trait possessed by teachers, and many of them also viewed it as the most important trait to students.

The second-most mentioned trait that teachers believed students would find important was extroversion, which is the trait of seeking fulfillment outside of oneself. Extroversion was mentioned three times throughout the interviews by 3 teachers. Tina identified extroversion as being important because students want to be entertained. Travis briefly mentioned its importance before moving on to the significance of agreeableness. Tori believed that extroversion is necessary because the students are more willing to participate in class. Tori stated, "I think that if a student feels safe with the teacher and a teacher is happy and extroverted, I think they'll feel like they can participate even more, even if it's more talking all the time. "

The perception of agreeableness and extroversion was not surprising given what I observed in the classroom. These two traits, extraversion and agreeableness, were the two traits that were easiest to identify during the observations. What was surprising and not consistent with what was observed in the classrooms was the perceived minimal importance of conscientiousness. There were some mentions of its importance by some teachers, such as Tom and Tammy. Both were on opposite ends of the spectrum when it came to their scores on extroversion and agreeableness, but both scored high in conscientiousness and both stressed its importance—Tom through the interview and Tammy through her conduct in the classroom.

No other trait was identified as important more than three times during the interviews. Interestingly, not one teacher participant mentioned openness to experience as being perceived by students as being important. One teacher, Tammy, did not identify a single trait as being important; instead, the teacher believed that it depended upon the student and that no single trait would be important. Regardless of the minimal mentions of some traits, the analysis of the interview data overwhelmingly identified that teachers believed that agreeableness and extroversion were the two most important traits as perceived by students.

Student interviews. Fifteen students were needed to adequately address Research Question 2: How do students describe the relationship between specific personality traits and student engagement? The same process utilized for the teacher interviews was also practiced during the student interviews. All of the participants gained parental consent before taking part in the interview process. The consent form outlined the study and all risk that might come as a result of participation in this study. The interviews were semistructured, which like the teacher interviews allowed me to delve deeper into the responses of the participants. The interviews lasted approximately 30 minutes.

The student interviews began by me thanking the participant and explaining the purpose of the study. Once the student fully understood the purpose of the study, I then asked the first question. The first question was, "Could you tell me what you know about student engagement in the classroom?" Sam identified student engagement by saying, "I think of participation and being able to work without being disruptive." Sally added, "How much they are involved in class and how good their relationship is with their teacher." This provided an opportunity for the students to provide me with their insight into their basic knowledge of student engagement. Once the participants provided their insight into student engagement, I was able to outline in more detail what student engagement is and why it is important. Although the responses of the participants varied, most of the participants had some general understanding of student engagement and its importance.

As a follow up to Question 1, the students were asked if they believed that teachers' personality affects their level of engagement in the classroom. The responses were overwhelming. All 15 student participants believed that a teacher's personality does affect their level of engagement in the classroom. Although all participants agreed that a teacher's personality does affect their level of engagement, they varied in their reasons why. Some of the differing responses were rooted in the differences in the opinions of the students. An example of this is in the responses of Sue and Saul. Sue strongly agreed that a teacher's personality did affect his or her level of engagement in the classroom. This idea was grounded in the belief that their engagement is mostly influenced by the engagement of the teachers. Sue stated, "If the teacher is engaged and into their work, like how they give out their information to the students, if they are passionate about it, then it makes the students feel passionate about it." Like Sue, Saul believed that a teacher's personality affected his or her level of engagement in the classroom.

The participant commented that it is not always easy to see some teachers' personality, but when it comes out, his level of engagement rises dramatically.

Once the students explained their understanding of student engagement and whether they believed that a teacher's personality affects their level of engagement, the students were given the list of BFI personality traits. I first asked the students if they had ever heard of the BFI, and only 1 student, Steve, said that he had heard of it. I then began to describe each of the five traits and their characteristics in detail. After the BFI was explained to the students, they were asked the next question, "Do you think that there are any specific personality types in the BFI that could cause you to be more engaged or less engaged in a class?"

The responses to Question 4 differed from participant to participant. Saul cited that extroversion was one of the most important traits to him personally. The participant made the case that when teachers are extroverted, then they are more likely to take a genuine interest in the students. Sue echoed this idea when she stated, "An extroverted teacher will want to get to know their students." However, Steve believed that agreeableness was the most important trait when it came to engaging him in the classroom. He explained that he feels much more comfortable when he is in a classroom where the teacher does not create a collaborative environment and does not try to build relationships with the students. Finally, Sawyer also cited agreeableness as the most important trait in creating student engagement. He said, "Being polite and kind to the people you are teaching" is important to him. Sawyer also continued and mentioned openness to experience as being extremely valuable to creating engagement. Sawyer stated, "I think it is important to listen to what your students are saying." He stated that it is not always effective for teachers to take a "my way is the best way approach and they need to listen to other opinions."

Although there were varying responses to Question 4 concerning what traits promote student engagement, agreeableness and extroversion were the two mentioned most frequently.

Conversely, there was one trait that was mentioned on multiple occasions that either the participants did not feel was a factor in creating engagement or they felt harmed their level of engagement. This was the trait of neuroticism. Neuroticism is the trait of being emotional, and those who score high in neuroticism are usually more emotional than those who score lower. This can be seen in the response of Steve, who believed, "Neuroticism is primarily a negative trait." He explained that if teachers lose their "cool" often, then it hurts his level of engagement. Additionally, Sue argued that neuroticism does not matter when it comes to student engagement. She explained that students are taught to control their emotions and not to react to the emotions of others, including teachers. Some students identified neuroticism as being important in creating student engagement, but some believed that it could also be a dangerous trait. This is a theme that is discussed later in this chapter.

The participants were then asked to think of a lesson that they had experienced that engaged them. The responses ranged from Simon feeling engaged in a group discussion centered around poems and marriage to Summer feeling engaged in chemistry labs. Regardless of the specific lessons that engaged the students, there were specific terms that the participants used to describe the behavior of their teachers. The responses included certain behaviors such as kindness, understanding, and being genuine, respectful, open, and outgoing.

The students were then asked a follow-up question: "Could they put those behaviors into one of the five personality traits found in the BFI?" This seemed to prove to be more difficult for some students than others, which was primarily due to a lack of a firm understanding of the BFI. However, it became clear that the most common responses were agreeableness and

extroversion. Summer stated, "They know how to laugh with us. If we say something, she doesn't take it seriously, like most teachers." The participant seemed to have a level of comfort with the teacher that was created in part by the teacher's agreeableness and extroversion.

Similarly, Simon alluded to the fact that his teacher created a sense of agreeableness in the classroom by sharing personal experience and expressing genuine interest in students' needs. Similarly, Sawyer described a lesson that he once had in Bible class and how passionate the teacher was about the material. The participant attributed this to the teacher's level of extroversion. The student said,

> I think it is also a passion for what they are teaching. They choose to be there, and they have really good hearts in the way that they would rather know the student is learning at their own pace instead of forcing them to hit every deadline on point.

Openness to experience was also mentioned as necessary by some students as being a trait displayed by teachers in lessons in which the students felt engaged. This was evident in the response of Steve, who described a lesson in one of his history classes. He noted that the teacher displayed openness to experience in the way that he conducted group discussions. The participant said that he is interested in other opinions and what the students have to say. Steve said about the teacher, "He is much more than a teacher; he is collaborative."

The final question that was asked of the student participants was, "Is there anything that you believe is important to add regarding a teacher's personality and how it impacts your level of engagement?" Again, as expected, some of the responses from the participants varied. Some participants, such as Summer and Solomon, said they did not have anything to add when it came to teacher personality and how it impacts student engagement. However, some participants did have insightful feedback concerning the questions. Steve stated that teachers should stay away from controversial issues. He said, "I tend to be different in my viewpoints. So, when students

do not agree with the teacher, it is a big turnoff." Sue cited the importance of the teacher

understanding that the students have other responsibilities outside of that teacher's class:

"understanding that we are high school students and we are not the only ones in their class, and

they were once where we are." The participant felt that often teachers did not relate to the

students and did not always seem to understand that students had responsibilities and work for

other courses. Simon also had an interesting response to this question. He argued,

> I just put it simply, I guess: When a teacher is in a good mood and is happy and
> enjoys the students, when a teacher is in a mood like that, engagement flows like
> a river. If a teacher doesn't feel well and they do not give the students a heads up
> of what is going on, dry. There is nothing there.

What was interesting about all of the responses to the final question, "Is there anything that you

believe is important to add regarding a teacher's personality and how it impacts your level of

engagement," was that all of the responses were different, yet in one aspect they were all the

same. Obviously, on the surface, the participants provided different feedback in response to the

question, but the answers had the commonality of being relational. A vast majority of the

participants cited some relational factor as being important in creating engagement. Whether it

was the teacher being in a good mood or trying to avoid controversial topics, the students seemed

to place a high value on the relationship with the teacher.

Themes from student interviews. This study relied on three research questions. The

interviews of the students directly addressed one of those questions. Just as in the case of the

teacher interviews, it was through data collection and analysis that themes began to emerge from

the student interviews. In this section, I discuss the themes that began to emerge as a result of

the data analysis of student interviews.

Theme 1: Students identified agreeableness and extroversion as the most important

traits possessed by teachers in creating engagement. Like the teachers who participated in this

study, the students were asked which traits were important in creating engagement in the classroom. Overwhelmingly, the student participants identified agreeableness and extroversion as the two most import traits that a teacher can possess when it comes to creating student engagement. Nearly all the participants mentioned the importance of these two traits at least once during the interviews. Only two traits were identified by nearly all participants in some way.

Agreeableness is the trait of adjusting one's behavior to others. It was clear that the student participants believed that this was an important trait for a teacher to possess to engage students. When the students were asked why they believed that extroversion was important for teachers to possess, the responses were different yet similar. For example, the individual responses varied from participant to participant. Solomon stated that teachers need to be polite. Whereas Simon argued that agreeableness is important because the teachers are willing to listen to the students on a personal level, Steve claimed that he feels more comfortable in classrooms where the teacher possesses high levels of agreeableness. These responses demonstrate that while the responses may be different, there is a commonality between them. At the heart of the responses by the students is the idea of a relationship. The student participants demonstrated, without necessarily outright saying it, a need for a relationship with their teachers. The teacher-student relationship is a theme that will be expounded upon later in the chapter.

Extroversion, the trait of seeking fulfillment outside of oneself, was also identified by every participant as being important to creating student engagement. Like agreeableness, extroversion is the only trait that was identified in some way by all but 1 of the student participants as being important for teachers to possess. Sue stated, "If a teacher is introverted, then it will affect the way that they teach. They may not want to reach out to their students

where an extroverted teacher will want to get to know their students." Saul stated that when teachers are extroverted, they like to be with others, and he has noticed that his extroverted teachers like for the students to learn in a collaborative setting, such as class discussions and group assignments, which for Saul makes him more engaged in the learning process. Sonny made the case that he is more engaged when teachers are more engaged and interactive with their students.

It became clear through the student interviews that the participants placed a high value on teachers possessing high levels of agreeableness and extroversion when it came to the idea of creating student engagement. As previously stated, these were by far the most frequently identified traits that the students believed created high levels of engagement in the classroom. Although these traits are individualized traits, the participants used the traits to describe the importance of the teacher-student relationship.

Theme 2: Emotion can be beneficial, but it can also be dangerous. The analysis of the student interviews suggested that some students like their teachers be emotional. However, the students made it clear that this can be dangerous and that there needs to be a balance between the emotions that the teachers display. During the student interviews, neuroticism was the third-most identified trait as being important for a teacher to possess when it comes to creating student engagement.

Neuroticism is defined as the trait of being emotional. This trait was identified more than any of the other BFI traits with the exceptions of agreeableness and extroversion. Steve identified the importance and dangers of neuroticism when it comes to creating student engagement. He stated,

> I do think that neuroticism is a largely negative trait in a teacher. They are
> emotional, and they use that in a positive way. But if a teacher is prone to lose

their cool easily, that is definitely not a good trait. If a teacher, for example, an English teacher, is emotionally moved by a piece of literature, that can be helpful to convey the sense of feeling. But overall it is a bit touchy. It depends on what type of emotion they are prone to and how much of it they show.

Sawyer also identified neuroticism as important to creating student engagement in the classroom. He claimed having emotion about what one is teaching is important because it conveys emotion to the students. Like Sawyer, Summer identified neuroticism as crucial to engagement. She stated that if a teacher is not emotional, then it can be difficult to have respect for that person. However, she continued to explain that there must be a balance. A teacher needs to be emotional but also under control and not to overreact about things. This was similar to the response of Simon. He identified neuroticism as being important but also being dangerous because teachers can be emotional and that can cause the students to become emotional.

The student interviews seemed to indicate that neuroticism can have positive impacts on student engagement. Sam believed that teachers are not as effective as they could be if they are like robots. But it can also have negative impacts. However, there seemed also to be an aspect of neuroticism that may lead to some students being less engaged in the classroom. The analysis seems to suggest that students believed that emotion could be beneficial in creating engagement. However, it can also be a difficult hurdle for engagement if the teacher does not adequately control it.

Theme 3: Students are more engaged with teachers who take the time to build relationships. Throughout the student interviews, there was a constant theme that continued to emerge. It did not matter the demographics of the students or their background; the theme was still made evident. This was the theme that students felt more engaged with teachers who take the time to build relationships. This theme seemed to be at the heart of the responses of the

students. All but two respondents brought up the importance of teacher-student relationships as being important to them either directly or indirectly.

This theme began to emerge through comments that were made by the student participants in the student interviews. Many of the responses included phrases or terms such as wanting to feel valued, cared for, and seen as an individual. Sawyer stated,

> The general thing for me is focusing on the student as an individual. You know, it sounds simple, but just being kind. Also, being a genuinely caring person. Especially since you are dealing with hundreds of students. Being a caring person and caring for what you are doing. When the teacher cares what I have to say, I feel like I should care what they have to say.

When asked if a teacher's personality impacts his level of engagement in the classroom, Solomon was direct. He said that he feels that when teachers are mean, then it is a huge turnoff because you make the students mad and they will not want to participate as much as they would for a teacher who is kind to them. When identifying important traits that teacher possess in creating student engagement, Sam stated,

> Being emotional is just caring about your students rather than seeking for them to get a good grade, instead of being like, "Hey, this kid may be going through something." Just like really being aware and having the emotional connection is essential.

While explaining the importance of teachers possessing high levels of agreeableness, Simon stated that when teachers maintain high levels of agreeableness, he feels "happiness, kind of like a peace." Simon continued to explain that he feels like if he makes a mistake, it is a learning experience rather than merely disciplinary experience. Finally, Sunny stated,

> Well, one thing that I admire are teachers who try to get to know their student on a personal level. Also, if I have a problem with something, I will not go up to a teacher that I don't talk to that often. I will try and solve it myself. But if they get to know me and we have something in common, then I will go up to them and talk to them about it.

These responses indicated that although different students identified different traits as important, a common theme that was found in the data analysis was the emphasis on the teacher-student relationship. The student participants made it clear that they placed a high priority on being valued by the teacher as both an individual and a student. Participant after participant argued that they are more engaged with teachers that they have a relationship with as opposed to those that they do not. The analysis seemed to suggest that building relationships is highly important in engaging the student participants.

Summary

This chapter began with a review of the purpose of the study and the research questions that were being investigated. Then came a review of the research purpose and the process that was utilized to ensure the validity of the analysis process. Major themes that arose out of the analysis were identified and discussed. The following chapter contains a discussion of the summary of the findings, implications, recommendations for future research, and conclusion.

Chapter 5: Discussion, Conclusion, and Recommendations

Student engagement is crucial to the success of a student's academic achievement and overall well-being (Bakkar et al., 2015). Many different factors may be contributing to a student's level of engagement in the classroom. One of the elements is the teacher-student relationship, which can affect a student both positively and negatively (Jensen, 2013). The purpose of the qualitative study was to gain a deeper understanding of specific teacher personality traits and how teachers and students in the local setting perceived those traits impacting student engagement.

This study was designed to identify specific personality traits that may be affecting student engagement in the classroom. These personality traits were found in the Big Five Inventory personality test and included the traits of extroversion, agreeableness, contentiousness, neuroticism, and openness to experience. Three research questions guided this study: (a) How do teachers describe the relationship between specific personality traits and student engagement? (b) how do students describe the relationship between teacher personality and student engagement? and (c) what observable personality traits are displayed by high school teachers in the Pike's Peak region of Colorado that promote student engagement in the context of a Constructionist framework? This qualitative case study included an analysis of data gathered from semistructured interviews and observations.

This chapter focuses on the interpretation of the findings and recommendations for future research. The importance of themes and how they answer the research questions are discussed, and recommendations for action by teachers in the local setting are identified. This chapter ends with reflections and conclusions.

Interpretation of the Findings

      Research Question 1: How do teachers describe the relationship between specific personality traits and student engagement? This question was answered by semistructured interviews of voluntary high school teacher participants. All 10 teachers that participated in this study agreed that their personality affected students' level of engagement in the classroom. There were various beliefs about how their personalities affected students' level of engagement, but they all believed that it did influence students in some way.

      Teachers in the local setting identified two main personality traits as being important to students. Data collection from the teachers yielded three themes. Theme two (Teachers believe that students view agreeableness and extroversion as the two most important traits in creating engagement) is one of the themes that best answers Research Question 1. Of these two personality traits, the teacher perceived agreeableness as being the most important when it comes to creating engagement in the classroom. The value that the teachers placed on agreeableness came from the perceived need of students for relationships. The link between agreeableness and student relationships was identified by Tiffany. This participant argued that agreeableness makes the student feel valued and safe. Teachers identified agreeableness as being important to the students due to the ability of these teachers to foster relationships with their students.

      The second trait that teachers identified as being perceived as important was extroversion. There was a thought on the part of the teachers that the students value extroversion because they crave entertainment or that they feel more comfortable in a class where the teacher is outgoing. There was no apparent reason as to why teachers identified extroversion as important to the engagement of students. However, Tori linked the trait of extroversion back to the importance of the students' feeling safe and valued. The participant claimed that when a

teacher is happy and extroverted, the students will feel safe and more likely to participate in the class.

Additionally, Theme 1 (Traits teachers identified as important in creating student engagement were traits that they possessed in high levels) addressed Research Question 1. Teachers identified traits that they maintained high levels of as being important in creating student engagement. Every teacher interviewed identified traits that they possessed in high levels, with only one expectation. Tina was an excellent example of this. This participant maintained high levels of extroversion and believed that extroversion was the most important trait in creating student engagement. This idea led to an important question that needs to be researched further: Do the teachers in the local setting teach in a way that best engages themselves or best engages their students? This consequence may not be intentional on the part of the teachers, but there is a link between the traits possessed by the teachers in the local setting and their perception of the traits that influence student engagement.

Whatever the rationale for teachers identifying agreeableness and extroversion as important in the perception of the students, the responses centered on the importance of making the students feel safe and valued. The importance of the teacher-student relationship is closely tied to the importance of student engagement. Unbeknownst to the teachers, this is a concept that would prove important to the students in the local setting.

Research Question 2: How do students describe the relationship between specific personality traits and student engagement? Semistructured interviews with voluntary student participants answered this question. Like teachers, every student who participated in this study strongly agreed that a teacher's personality affected their level of engagement in the classroom. How the students perceived it impacting their level of engagement varied from student to

student, but it was evident that the students held a belief that the behavior of teachers in the classroom directly affected their level of engagement in the classroom.

Theme 1 of the student interviews (Students identified agreeableness and extroversion as the most important traits possessed by teachers in creating engagement) addressed Research Question 2. The student interviews revealed what traits the students believed to be important in creating engagement in the classroom. Overwhelmingly, the students in the local setting thought that they were far more engaged in classes where the teachers possessed high levels of agreeableness and extroversion. Students argued that they enjoyed teachers who are easy to get along with, are kind to their students, and are more outgoing. Within the local setting, the students perceived that teachers who possessed high levels of agreeableness and extroversion were more adept at creating engagement in the classroom.

Student participants believed that agreeableness and extroversion were the two most important traits for teachers to possess. These two traits were important in the local setting in creating relationships with the students. Students in the local setting were more engaged with teachers who are relational and strive to foster relationships with their students. The students who participated in this study had a desire to be valued and cared for. The students wanted to know that when they walked into the classroom, their physical, emotional, and academic well-being was important to the teacher.

The student-teacher relationship is an aspect of education in the local setting that the students perceived as important to their level of engagement. This perception was consistent with the findings of Tennent et al. (2015), who argued that establishing relationships is key to obtaining desirable student outcomes. Students repeatedly explained that they had more respect for, were more likely to perform academically at a higher level for, and would try to address

problems with teachers with whom they had relationships. Theme 3 from the student interviews (Students are more engaged with teachers who take the time to build relationships) addressed the second research question posed by this study.

The student interviews allowed me to answer Research Question 2 (How do students describe the relationship between specific personality traits and student engagement?). The students in the local setting viewed agreeableness and extroversion as the two most important traits for a teacher to possess when it came to creating student engagement. However, while these traits are important individually to students in the local setting, they are important to the students' overall need for relationships. Research Question 2 was answered in the fact that students were more engaged in classes in which the teacher fostered positive relationships with the students. Specific traits, such as agreeableness and extroversion, are important to the engagement level of the students. However, within the local setting, these traits are seen as a part of creating relationships, which significantly influences student engagement.

Research Question 3: What observable personality traits are displayed by the high school teachers in the Pikes Peak region of Colorado that promote student engagement in the context of a constructionist framework? This question was answered by observation of teachers in their classrooms to understand what traits they displayed in the classroom that could affect students' level of engagement. These observations were looked at under the lens of a constructionist framework. Hein (1996) described the idea that students in a classroom construct knowledge and meaning for themselves based upon their prior experiences and conclusions. This concept is essential in understanding how the students perceive their situation based upon previous experiences. The observations were not designed to address what personality types I

believed were important but rather what traits are important based upon the teachers' and the students' experiences.

Teachers in the local setting displayed the importance of conscientiousness in the classroom. Other traits such as agreeableness, extraversion, and openness to experience were seen to affect student engagement in the classroom. The other traits were seen to create initial engagement, but this initial engagement was usually not lasting. Teachers who possessed high levels of agreeableness were able to engage students by drawing on the teacher-student relationship, and extroverted teachers were able to keep the students entertained. When there was a lack of conscientiousness, students eventually began to disengage as the class continued.

As mentioned previously, agreeableness and extroversion were initial creators of engagement, but conscientiousness was what held the students' engagement. Both teachers and students perceived agreeableness and extroversion as being important in creating engagement, and they are. However, this engagement is often fleeting. But when agreeableness and extroversion are coupled with conscientiousness, students in the local setting are more engaged in the classroom.

The observational data supported the idea that conscientiousness is the driving trait behind lasting engagement on the part of the students. Teachers who participated in this study possessed differing levels of all five traits of the BFI. All of the teachers were able to utilize their traits to engage the students, but those with high levels of conscientiousness were able to maintain high levels of engagement throughout the entire class period.

Implications in the Local Setting

The findings of this study have the following implications for the high school in the local setting and the educational community as a whole. First, the teachers in the local setting need to

demonstrate an understanding that the trait of conscientiousness is the primary trait that encourages lasting student engagement. Teachers need to utilize the natural traits that are inherent to their personalities to engage the students, whether those traits be extraversion, agreeableness, neuroticism, or openness to experience, but they need to couple those traits with high levels of conscientiousness—that is efficiency and organization. This may come easy for those who possess high levels of conscientiousness but may be more challenging for others. However, it is necessary to ensure the academic success of the students.

Secondly, teachers need to place a high emphasis on cultivating relationships with their students. Students in the local setting crave value and safety, and teachers need to attempt to satisfy that craving. This is not to say that teachers should abandon their instructional responsibilities to become friends with the students. However, the teachers going out of their way to get to know their students on a personal level not only benefits the students in their ability to engage in the classroom, but it also helps the teachers as they try to engage the students.

The cultivating of relationships may come easily for teachers who possess high levels of extroversion or agreeableness. There may be some teachers who have to work more diligently to make those connections if they possess lower levels of extroversion or agreeableness. Again, this may require that some teachers move outside of their comfort zone to meet the needs of the students to engage them effectively.

Third, teachers need to be mindful in how they engage students. It can be easy for teachers to attempt to engage students in a fashion that is not effective because they are trying to engage them in how they as the teacher would like to be engaged. The teachers identified traits that they possessed high levels of as being important in creating engagement. It can be easy at times to engage the student in a way that is comfortable for the teacher. However, it is essential

for the teacher to remember that they may have to step out of their comfort zones to effectively engage students. Teachers cannot assume that the students in today's classes are engaged in the same manner as previous generations.

Recommendations for Future Research

Based on the findings of this study, there are a couple of recommendations for future researcher to investigate. The first recommendation for future researchers is to examine the role of a teacher's personality and its effect on student engagement in a public school setting. This study took place in a private school in the Pike's Peak region of Colorado and was not meant to be generalized for all high school students. While I believe that the findings may be used to guide teachers, whether in public or private institutions, in how to better engage their students, there may be differences in the responses of both teacher and student participants within a public school setting.

Second, researchers may want to delve deeper into specific BFI traits and how they affect student engagement. For example, this study has shown that conscientiousness is a driving trait in creating sustainable engagement; this may be an area for future researchers to investigate. It could be valuable to understand in a more detailed way how conscientiousness affects students in the classroom without looking at the other four BFI traits. This can also be true for the other traits within the BFI, such as agreeableness and extroversion.

The third recommendation for future research will be to determine if there is any correlation between specific personality traits and student outcomes. Do specific traits affect a student's standardized test scores and their overall academic achievement? Additionally, it would be interesting to determine if there is a correlation between particular personality traits and the amount of time an individual has been teaching. For instance, this study has determined

that conscientiousness is the essential trait in creating lasting engagement. Do new teachers inherently possess this trait, or is it learned over time?

This study has laid a foundation for how specific personality traits impact student engagement. However, this study is merely a foundation, and there are additional opportunities for future research so that members within the educational community may gain a deeper understanding of how to engage students. Students who are engaged at a high level are in a greater position to achieve their academic goals and to continue their education (Cornell et al., 2016; Froiland & Worrell, 2016).

Reflections

Throughout my professional life, I have come into contact with many students. These students come from different academic backgrounds, socioeconomic situations, races, and ethnicities. I would love to be able to say that every student that I have come into contact with has been highly engaged in my classroom, but this would not be the truth. I love students and education, and I have a desire to see every student succeed both academically and personally. In my desire to see students succeed and my basic understanding of how important engagement is in the classroom, I had a need to gain a deeper understanding of how teachers may be affecting students' classroom engagement.

I spent hours interviewing students and teachers, as well as completing classroom observations of teachers to gain a clearer understanding of how teachers' personalities affect student engagement. Many of the students I interviewed were thoughtful in their responses and showed a maturity that would please any educator or parent/guardian. I could not have appreciated the level of maturity and openness that I experienced in my interactions with the students.

Likewise, my interactions with the teachers who participated in this study were professional and honest, even when they did not portray themselves in the most favorable light. The knowledge that I have gained from their wisdom and experience has been invaluable to me as a researcher and a professional. The teachers' participation in this study was greatly appreciated, and I will forever be grateful for their time, honesty, and openness.

I hope that this study may be used by teachers, administrators, future researchers, and myself to understand how we as educators impact the engagement of every student that sits in our classes. I know that this is a vast topic, and this study has merely scratched the surface of what there is to know on the issue of student engagement. But if it allows for just one teacher to grow in his or her ability to engage students, then the hours, months, and years that have culminated to this point would all be worth it. This study was the most significant academic challenge of my life, but the knowledge and understanding that I have gained along with personal and professional growth have led to it being one of the joys of my life.

Conclusion

The goal of this study was to provide additional content on the importance of student engagement and the effect that teachers' personalities may have on it. Utilizing a holistic case study provided me with the opportunity to look into the relationship between teacher personality and student engagement within a local setting. Data were collected from two main populations: high school teachers and high school students.

The observations and interviews of high school teachers, as well as the high school students, indicated that conscientiousness was the most valuable trait in creating lasting engagement on the part of the students. Additionally, both the teachers and the students were similar in their perception that agreeableness and extroversion were the most critical traits in

creating engagement. Although, these perceptions are correct in that agreeableness and

extroversion are essential in creating engagement, the findings demonstrate that

conscientiousness is the most valuable trait in creating engagement.

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Appendix A: IRB Approval

ABILENE CHRISTIAN UNIVERSITY
Educating Students for Christian Service and Leadership Throughout the World

Office of Research and Sponsored Programs
320 Hardin Administration Building, ACU Box 29103, Abilene, Texas 79699-9103

Dear Cole,

On behalf of the Institutional Review Board, I am pleased to inform you that your project titled

was approved by expedited review (Category 7   ) on 12/4/2018   (IRB # 18-090   ). Upon completion of this study, please submit the Inactivation Request Form within 30 days of study completion.

If you wish to make any changes to this study, including but not limited to changes in study personnel, number of participants recruited, changes to the consent form or process, and/or changes in overall methodology, please complete the Study Amendment Request Form.

If any problems develop with the study, including any unanticipated events that may change the risk profile of your study or if there were any unapproved changes in your protocol, please inform the Office of Research and Sponsored Programs and the IRB promptly using the Unanticipated Events/Noncompliance Form.

I wish you well with your work.

Sincerely,

Megan Roth

Megan Roth, Ph.D.
Director of Research and Sponsored Programs

Our Promise: ACU is a vibrant, innovative, Christ-centered community that engages students in authentic spiritual and intellectual growth, equipping them to make a real difference in the world.

Appendix B: Observational Protocol

Appendix B was designed utilizing known indicators of student engagement. The goal of this protocol is to assess how the teacher who is being observed reacts to students who demonstrate the stated risk factors. The behavior/strategy that is utilized by the teacher was assessed using one of the Big Five Indicators (BFI) of personality. This allowed me to determine if specific personality traits influenced the chosen behavior of the teacher.

Research Question: What observable personality traits are displayed in the local setting that promote student engagement in the context of a constructionist framework?

Personality traits are exhibited by teachers that promote student engagement		
Student engagement behavior	**Teacher behavior/strategies that promote engagement**	**Which BFI indicator does the teacher behavior identify?**
1. Students are alert and attentive.		
2. Different students volunteer to answer questions when asked.		
3. Class discussion is fruitful and needs little guidance.		

4. Students can explain what they find interesting about the content.		
5. Students can work independently or as a group and stay on task.		
6. Students respond to cues (laughing at jokes, following directions).		
7. Interacting with other students when appropriate.		
8. Referring to text and instructions when working.		
9. Working quietly when appropriate.		

10. Not talking or laughing with or being distracting to other students.		

The Big Five Inventory Personality Test

Introduction: This is a personality test that is designed to help you understand why you act the way that you do and how your personality is structured. Please follow the instructions below. The test is designed to measure your personality in five different areas:

- **Extroversion** (E) is the personality trait of seeking fulfillment from sources outside the self or in community. High scorers tend to be very social while low scorers prefer to work on their projects alone.

- **Agreeableness** (A) reflects much individuals adjust their behavior to suit others. High scorers are typically polite and like people. Low scorers tend to "tell it like it is."

- **Conscientiousness** (C) is the personality trait of being honest and hardworking. High scorers tend to follow rules and prefer clean homes. Low scorers may be messy and cheat others.

- **Neuroticism** (N) is the personality trait of being emotional.

- **Openness to Experience** (O) is the personality trait of seeking new experience and intellectual pursuits. High scores may day dream a lot. Low scorers may be very down to earth

Please be honest in your responses, only the researcher will have access to the results. Once you have completed the test return your test to the researcher so that it may be scored.

Instructions: Below you will see 50 statements, mark how much you agree with those statements in light of your behavior and personality on a scale from 1 to 5, where 1 = disagree, 2 = slightly disagree, 3 = neutral, 4 = agree, and 5 = strongly agree, in box to the right of the statement.

Test:

Rating	I….	Rating	I…
	1. Am the life of the party		26. I have little to say
	2. Feel little concern for others.		27. Have a soft heart
	3. Am always prepared		28. Often forget to put things back in their place
	4. Get Stressed out easily		29. Get upset easily
	5. Have a rich vocabulary		30. Do not have a good imagination
	6. Don't talk a lot		31. Talk to a lot of different people.
	7. Am interested in people		32 Am not really interested in others
	8. Leave my belongings around		33. Like order
	9. Am relaxed most of the time		34. Change my mood a lot
	10. Have difficulty understanding abstract ideas		35. Am quick to understand
	11. Feel comfortable around people		36. Don't like to draw attention to myself
	12. Insult people		37. Take time out for others
	13. Pay attention to details		38. Shirk my duties
	14. Worry about things		39. Have frequent mood swings
	15. Have a vivid imagination		40. Use difficult words
	16. Keep in the background		41. Don't mind being the center of attention
	17. Sympathize with others' feelings		42. Feel others' emotions
	18. Make a mess of things.		43. Follow a schedule
	19. Seldom feel blue		44. Get irritated easily
	20. Am not interested in abstract ideas		45. Spend time reflecting on things
	21. Start conversations		46. Am quiet around strangers
	22. Am not interested in other people's problems		47. Make people feel at ease

	23. Get chores done right		48. Am exciting in my work
	24. Am easily disturbed		49. Often feel blue
	25. Have excellent ideas		50. Am full of ideas

Appendix D: Interview Guides

Interview Guide: Teachers

Research question: How do teachers describe the relationship between specific personality traits and student engagement?

- Begin by thanking the participant for participating in the study.
- In your experience, do you believe that a teacher's personality may impact student engagement?
- (Go over the results of the BFI with the participant.) Given the results of the BFI, how do you think the results impact student engagement?
  - Do you feel the results of the BFI are accurate and do you feel that there could have been something that could have skewed the results?
- When I was in your classroom I noticed that your personality may have affected _____, would you care to elaborate on that?
- How do you believe that the students view the relationship between a teacher's personality and their level of engagement? Which BFI results do you believe the students would find to be more helpful in creating engagement? Why/Examples?
- Is there anything else that you would like to add regarding a teacher's personality and how it affects student engagement that you believe that would be important to add?

Interview Guide: Students

Research question: How do students describe the relationship between specific personality traits and student engagement?

- Begin by thanking the participants.

- Explain the purpose of the study.

- Could you tell me what you know about student engagement in the classroom? (Clarify the meaning of student engagement.)

- Do you think that your teacher's personality has an effect in your level of engagement in the classroom?

- Explain the details of the five basic personality types of the BFI and their characteristics.

  - Do you think that there are any specific personality types in the BFI that are in the test that could cause you to be more engaged or less engaged in a class?

- Think about a class lessons that you have enjoyed. Explain it to me. Was there anything about the teacher's personality that caused you to become engaged in the lesson?

  - Thinking about the personality traits that we talked about. During this lesson what personality traits did you teacher display?

- Is there anything that you believe is important to add regarding a teacher's personality and how it impacts your level of engagement?

*Semistructured questions and open-ended questions.

Appendix E: Letter Requesting Permission to Conduct Research

October 8, 2018

██████████████
████████████
████████████

████████,

As you know I am completing my dissertation in conclusion of my Ed. D in Organizational Leadership from Abilene Christian University and I wanted to seek your permission to conduct research at ████████████████████. The title of my dissertation is Case Study: Examining the High School Teachers' Personality Traits and Their Relationship to High School Student Engagement. The purpose of the data collection process is to address three specific questions:

1. How do teachers describe the relationship between specific personality traits and student engagement?
2. How do students describe the relationship between specific personality traits and student engagement?
3. What observable personality traits are displaying in the local setting that promote student engagement in the context of a constructionist framework.

The data collection process will need to involve two different populations. The first population will consist of 10 high school teachers. The teachers will first be asked to complete a personality test that is designed to identify and categorize their personality traits into five different areas. The teachers will then be observed and participate in interviews regarding how they believe personality affects a student's level of engagement. The second population that will be involved in the study are 15 high school students. The students will participate in interviews that will be conducted on campus and will be designed to gain a deeper understanding of how they perceive the relationship that exists between a teacher's personality and their level of engagement.

Confidentiality is a crucial aspect of this study, especially for students. Understanding that the students are a protected population, a letter of consent will be sent to parents outlining

the details of the study and any risk and benefits that might exist. Additionally, confidentiality will be maintained throughout the study in that no descriptive characteristics will be recorded in regard to the student, outside of the grade in which they are enrolled. Teacher and student interviews will be audio-recorded and then transcribed, but all audio recordings will be destroyed within six weeks of the conclusion of the study. Additionally, it will be made clear to all participants that they may withdraw from the study at any time and for any reason with no repercussions in regard to their standing within the institution, whether it be academically or professionally.

Sincerely,

Cole Sandlin

Doctoral Candidate, Abilene Christian University

Appendix F: Observational Coding Matrix

Research Question 2: What observable personality traits are displayed by the high school teachers in the Pikes Peak region of Colorado that promote student engagement in the context of a constructionist framework?

Trait	Description	Occurrences in observations	Evidence in observations
Extroversion	The personality trait of seeking fulfillment from sources outside the self or in community. High scorers tend to be very social, whereas low scorers prefer to work on their projects alone.	7 total occurrences in observed. 5 occurrences seemed positive.	Extroversion seemed to draw students into the lesson, teachers seemed to entertain the students, increased interaction and student interaction, maintained attention through jokes and stories, related material to real life, <u>seemed like disengagement increased as class went on.</u>
Agreeableness	Reflects how much individuals adjust their behavior to suit others. High scorers are typically polite and like people. Low scorers tend to "tell it like it is."	13 total occurrences observed. 10 of the observations seemed to yield positive results. 3 seemed to yield negative results.	High agreeableness seemed to create genuine interest in the students, create a mutual respect, teachers were highly compassionate, students seemed safe to ask and answer questions. <u>High agreeableness in three teachers seemed to lead to disengagement. Student talking and lack of attention. Seen in Participants 107 and 109.</u>

Conscientiousness	The personality trait of being honest and hardworking. High scorers tend to follow rules and prefer organization and efficiency. Low scorers may be messy and unorganized	10 total occurrences observed. No negative consequences were observed when it comes to conscientiousness.	Students seemed to stay on task, lessons were organized and maintained a good pace, well-formulated discussions, students knew the expectations, students seemed to follow instructions effectively, teachers controlled the room. <u>Low conscientiousness seemed to increase student interaction</u>. Seemed to create sustained engagement.
Neuroticism	This is the trait of being emotional.	3 occurrences observed.	Seemed to be passionate about content. Passion did not clearly result in engagement.
Openness to experience	The personality trait of seeking new experiences and intellectual pursuits. High scorers enjoyed new activities and perspectives. Low scores may be more down-to-earth and prefer routine.	5 occurrences observed. All seemed positive	High openness led to students demonstrating what they know, seemed to foster a genuine interest in the students' thoughts, encouraged difficult questions, students seemed open with teachers who had high levels of agreeableness.

Appendix G: Interview Coding Matrix

Research Question 1: How do teachers describe the relationship between specific personality traits and student engagement?

Themes	Categories	Descriptions	Evidence and Subcategories
#1. Traits teachers identified as important in creating student engagement were traits that they possessed in high levels.	Extroversion	The personality trait of seeking fulfillment from sources outside the self or in community. High scorers tend to be very social while low scorers prefer to work on their projects alone.	Extroversion was one of the two highest traits of all teachers who identified this trait as important. They maintained an average extraversion score of 30.5.
	Agreeableness	Reflects how much individuals adjust their behavior to suit others. High scorers are typically polite and like people. Low scorers tend to "tell it like it is."	Of all teachers who identified agreeableness as important, it was primarily either their highest trait or second highest. The average agreeableness score for these teachers was 28.2.
	Conscientiousness	The personality trait of being honest and hardworking. High scorers tend to follow rules and prefer organization and efficiency. Low scorers may be messy and unorganized	For all the teachers who identified conscientiousness as important, it was their highest trait. They possessed an average score of 36
	Neuroticism	This is the trait of being emotional.	The only teacher who identified neuroticism as important possessed a score of 24.
	Openness to experience	The personality trait of seeking new experiences and intellectual pursuits.	No teacher identified openness to experience as being

		High scorers enjoy new activities and perspectives. Low scorers may be more down-to-earth and prefer routine.	important in creating engagement.
#2. Teachers believe that students view agreeableness and extroversion as the two most important traits in creating engagement.	Extroversion	The personality trait of seeking fulfillment from sources outside the self or in community. High scorers tend to be very social, whereas low scorers prefer to work on their projects alone.	Identified 4 times as being important: "I would say they want entertainment . . . because they want entertainment. The short attention span and the entrainment issue. They cannot be without entertainment. They have it in their ears all the time and at their fingertips all the time."
	Agreeableness	Reflects how much individuals adjust their behavior to suit others. High scorers are typically polite and like people. Low scorers tend to "tell it like it is."	Identified 10 times as being important: "Probably agreeableness. I guess what stands out to me is friendly and compassionate to the kids that they can trust you. I think that's really important and being helpful. I think the most effective for the kids who are struggling, it has to be at one-on-one."
	Conscientiousness	The personality trait of being honest and hardworking. High scorers tend to follow rules and prefer organization and efficiency. Low scorers may be messy and unorganized.	Identified 3 times as being important: "You have to be organized. They really thrive in the consistency. They naturally do it all the time . . . . I don't know but there is

		something about comfort in knowing consistency and knowing this is what is going to happen."
Neuroticism	This is the trait of being emotional.	Identified 1 time as being important: "Call me crazy, but I think the trait of being emotional. If you are standing up there and they never see emotion, I think that they see that, and it is something that they look for."
Openness to experience	The personality trait of seeking new experiences and intellectual pursuits. High scorers enjoy new activities and perspectives. Low scorers may be more down-to-earth and prefer routine.	Was not identified as being important: There was not one teacher who identified this trait as being important in creating student engagement.

Research Question 2: How do students describe the relationship between specific personality traits and student engagement?

Theme	Category	Definition	Evidence and Subcategory
#1. Students identified agreeableness and extroversion as the most important traits possessed by teachers in creating engagement.	Extroversion	The personality trait of seeking fulfillment from sources outside the self or in community. High scorers tend to be very social while low scorers prefer to work on their projects alone.	Extroversion was identified by 12 students: "Absolutely extraversion. Because they were willing to come to us and ask us questions and really tried to pull us in." "If the teacher is more outgoing, then it is easier to be engaged than if they are like, 'Do your work' and then they go and sit."
	Agreeableness	Reflects how much individuals adjust their behavior to suit others. High scorers are typically polite and like people. Low scorers tend to "tell it like it is."	Agreeableness was identified by 14 students as being important: "Making an effort to be polite and kind to the people you are teaching, I feel is really important." "I would say that the most important aspect for me would be agreeableness"
	Conscientiousness	The personality trait of being honest and hardworking. High scorers tend to follow rules and prefer organization and efficiency. Low scorers may be messy and unorganized	Conscientiousness was identified by 6 students as being important: "If the teacher is organized, it makes sense. The class will move a lot smoother and you can have more discussions." "I like teachers who can keep their class under control."
	Neuroticism	This is the trait of being emotional.	Neuroticism was identified four times

			by students as being important: "It shows that they are human too. You are not just learning from a computer." "If they are passionate about it (the lesson), then it makes the students feel passionate about it."
	Openness to experience	The personality trait of seeking new experiences and intellectual pursuits. High scorers enjoy new activities and perspectives. Low scorers may be more down-to-earth and prefer routine.	Openness to experience was identified by three students as being important: "I think it is important to listen to what your students are saying." "I like when teachers are willing to discuss even if they do not fully understand what I am talking about."
#2. Emotion can be beneficial, but it can also be dangerous.	Neuroticism	This is the trait of being emotional.	Neuroticism was mentioned by 5 students as being beneficial and also dangerous: "Just because they are getting emotional, not in the way of crying about it, but they are passionate about what they are teaching . . . I think it is a desire to share their passion." "Neuroticism is largely a negative trait in a teacher . . . . If an English teacher is emotionally moved by a piece of literature, that can be helpful to convey the sense of feeling."

#3. Students are more engaged with teachers who take the time to build relationships.	Extroversion	The personality trait of seeking fulfillment from sources outside the self or in community. High scorers tend to be very social while low scorers prefer to work on their projects alone.	Four students alluded to the importance of teacher-student relationships: "Teachers want to hang out with us, not like outside of school, but in general . . . . Extroversion wants us to learn together." "Where an extroverted teacher will want to get to know their students."
	Agreeableness	Reflects how much individuals adjust their behavior to suit others. High scorers are typically polite and like people. Low scorers tend to "tell it like it is."	Eight students alluded to the importance of teacher-student relationships through agreeableness: "One thing that I admire are teachers who try to get to know their students on a personal level." "The relationships are very important to me."