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The Role of Teacher Emotional Intelligence in Determining Relationship Quality With Students

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THE ROLE OF TEACHER EMOTIONAL INTELLIGENCE IN DETERMINING RELATIONSHIP QUALITY WITH STUDENTS

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Emotional intelligence is one's ability to reason with emotion and understand the emotions of others. Emotional intelligence can be assessed through ability-based tests that measure the ability of individuals to understand their own emotions and the emotions of those around them. As emotion has emerged as a significant component of both teaching and learning, the potential for emotional intelligence to assess and influence the capacity of teachers to influence student performance is significant. The current study explored the relationship between teacher emotional intelligence, teacher-student relationship quality, and student engagement and achievement. Although a statistically significant relationship between teacher emotional intelligence and teacher-student relationship quality was not found, significant relationships between teacher emotional intelligence and student engagement and achievement were revealed as well as greater understanding concerning the perspective of teachers on teacher-student relationship quality. Implications of this research as well as recommendations for professional development and future research are provided.

ACKNOWLEDGEMENTS

This research and degree were not only the result of my own effort, but also of those who supported me throughout the process. Without the assistance of many wonderful people, this accomplishment would not have been possible. The most important lesson I take with me from completing this work is that education, like life, is much more about the people who you go through the experiences with rather than the experiences themselves.

Dr. Corbett was an integral figure in the completion of this work. He taught me a great deal about how great teachers inspire learning. His lessons have often been subtle but always important. I will strive to emulate his teaching and to, hopefully, one day do for others what he has done for me.

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My parents were also instrumental in the accomplishment of this goal. Without them, there would have been no goal. Throughout my life, they became the people I most wanted to make proud. This, like most things, was simply me trying my best to ensure the love and effort that they put into raising me was not wasted. My mom taught me from a very early age that thinking and learning were important. She did everything she could to ensure that I would grow up to be an intelligent young man, even when I may have had other goals. She had subtle, high expectations for me while simultaneously teaching me to be an independent, creative thinker who should choose his own path. My dad was always the steady, unwavering force in my life who taught me what a good man was. He taught me how to treat people and how one's life can

have a significant impact on others. I can not write everything that they have meant to my life here, but I hope they both realized long ago how much I love them and how much they have meant to me.

This would not have been possible without the love and support of my wife, Casey. I would have never started or finished this program if it were not for her. From the moment I met her she has inspired me to be and to do more. She has always been able to see the best in me. Casey sacrificed a great deal during the time it took to complete the program. In the beginning, it was much easier as she only had to sacrifice time with me. Eventually that sacrifice became caring for two children as I focused on my work. I know that because of her effort, Macon and Quinn did not miss much while their dad sat in front of a computer. I also know that it is because of Casey that Macon and Quinn can now be proud of their dad for completing his goal. Casey's contribution is simple. Without her, this would have never been possible and I am eternally grateful.

Several people assisted me with my thinking and writing and are also owed thanks. My mother-in-law, Kim, read many of the words that I wrote even when she had more interesting things to do. She has been an unwavering supporter, and I am lucky to have her in my life. My Aunt Phyll also helped to make my writing better at a time when I needed it most. She was able to take time from her busy life and important work to help me improve. Finally, my brother, Colin, was able to help me with my thinking and understanding by sharing his excellent knowledge. I am thankful to be able to have the friendship of a brother who has always been with me and offers help without blinking.

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Finally, I would like to dedicate this dissertation to my mother, who passed away while I worked on completing it. I have only one regret about this experience, and that is that my mom will not be able to watch me walk across the stage. I do hope that she is watching me and also that I have made her smile with pride.

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CHAPTER I

INTRODUCTION

Over the past 30 years, the educational landscape has been dominated by an emphasis on reform efforts focused on standards-based curriculum and standardized achievement measurement (Mehta, 2015). This movement represents a seismic shift from education being conceptualized as a social process for learners to a curriculum-driven, assessment-focused process. The shift to a curriculum and assessment driven process is antithetical to the philosophical position of progressive education reformers of the early 20th century such as John Dewey. Dewey (1916) recommended that educators remain focused on learning as a social experience. The paradigm shift to standardized assessment measures has little regard for the human, emotional aspects of the learning process as identified by Dewey.

Despite the focus on curriculum reform and standardized measurements of achievement, overall student progress in reading and mathematics growth has remained virtually stagnant between 1971 and 2015 (Nation's Report Card, 2017). Politicians and school leaders have chosen to reform the public education system through a focus on the observable measures of student progress; researchers have simultaneously been focusing on the attitudes and social interactions of the students, exploring the ways that emotion and cognition are linked (Martínez-Sierra & García-González, 2015). This theoretical dichotomy has resulted in a public education system that has chosen to bring about educational reform using quantitative measures rather than qualitative indicators. While a sound educational experience is composed of focused curriculum and achievement measures, there is also an emotional component to student learning that has been overlooked in public education's quest for reform; student attitudes, teacher instructional

strategies, and the social climate in the classroom are vital components that cannot be overlooked.

To view education with regard only to what is taught and how learning is measured is to reduce the experience to simple, quantifiable components. However, teaching and learning involve complex components that cannot be measured on standardized tests. The emotional and social aspects of learning are vital to student success.

Good teaching has been defined as pedagogy and knowledge of content area with little regard for emotional capacity (Mortiboys, 2012). By discounting the importance of the emotional, interpersonal experiences between teachers and students, standardized testing measures fall short of representing the entire educational experience for students. The foundational aspect of the teaching/learning process must involve teacher and student attitudes and the motivation to teach and to learn.

Learning is most certainly a social process (Vygotsky & Cole, 1978). Vygotsky and Cole (1978) purported that all learning takes place in social settings. Therefore, Vygotsky and Cole (1978) would conclude that ignoring the positive effects of working and learning with others in a classroom setting misrepresents the overall complexities of the teaching/learning process. Standardized assessments do not measure student attitude, motivation, or the effects of socialization on them. Since the learning environment is a dynamic interaction between students and teachers, the emotional and social aspects of the learning process must be included as components of student progress. Investigating the emotional aspects of the learning process and their related components must extend beyond primary quantitative measures; instead, a qualitative investigation will provide a deeper understanding of the role of the human experience in teaching and learning.

An emerging body of research extends beyond the essential components of traditional educational reform and points to the interconnectedness of emotion and cognition in the learning process, representing a significant opportunity to enhance student achievement if fully understood (Dolcos & Denkova, 2014). Researchers are just beginning to realize how emotion impacts the educational process. A student's ability to comply with rules, put forth effort, and learn has been shown to be directly related to his or her emotional state (Arguedas, Daradoumis, & Xhafa, 2016). Teachers can impact the emotional state of students in ways that can lead to increases in emotional, behavioral, and cognitive engagement (Fredricks, Filsecker, & Lawson, 2016). Central to the total education of students, teachers can positively influence students to engage in their own learning, thus improving student behavior and improving students' critical thinking skills (Fredricks et al., 2016). Teaching and learning are synergetic processes. Engels et al. (2016) posited that, since students and teachers establish interpersonal relationships within the classroom, their emotional state is significant to the educational process. However, while teachers have been shown to have the ability to influence the emotional state of students through positive interpersonal relationships, a great deal remains unknown about how these effective relationships are established and how they influence student engagement.

Statement of the Problem

The problem of this study is the extent to which teachers' emotional intelligence (EI) and interpersonal relationship quality impact student achievement and engagement; this aspect of the learning/teaching process is largely unknown. Educational theory is rich with beliefs that emotion and interpersonal relationships between teachers and students are significant to student engagement and achievement in school (Bernstein-Yamashiro & Noam, 2013). However, despite the theoretical base supporting connections between emotions, relationships, and student

engagement and achievement, empirical evidence is lacking. This study seeks to explore the role of teacher EI and its impact on the teaching/learning process in high school settings. As identified by Murray, Kosty, and Hauser-McLean (2016), there is little existing research on the EI of high school teachers and its impact on student learning (Murray et al., 2016). While progress has been made in exploring the emotional capacity of teachers to form quality relationships with students and the resulting influence that such relationships have on students' learning, questions remain as to how teachers best build these bonds and what their impact on student success is (Bernstein-Yamashiro & Noam, 2013). This study will examine how the EI of high school teachers impacts student achievement, engagement, and the quality of the teacher-student interpersonal relationship.

Purpose of the Study

As researchers and educators become aware of the significance of the social and emotional aspects of the teaching/learning process, more attention is being paid to the positive interpersonal relationships that teachers maintain with students and their impact on student achievement. One theory that has been used to explain the ability of individuals to regulate and interpret their own emotions and those of others is emotional intelligence (EI) (Salovey & Mayer, 1990). EI is defined as "the ability to reason validly with emotions and with emotion-related information and to use emotions to enhance thought" (Mayer, Caruso, & Salovey, 2016, p. 295). E*motional intelligence,* a relatively new term, stands as a sound theory for interpreting the ability of teachers to form positive interpersonal relationships with students and impact school engagement and achievement. Recent research notes that the EI of teachers is a significant factor in determining the quality of interpersonal relationships they have with students (Naqvi, Iqbal, & Akhtar, 2016). While the theoretical conception of EI seems to correspond to

the social competencies needed in successful teachers, research on teacher EI is limited (Corcoran & Tormey, 2012). Likewise, the impact of teacher EI on the relationship quality between teachers and students, on student engagement, and on achievement has yet to be examined. By exploring these possible connections, research into the role of teacher EI in predicting student engagement and success may provide insight.

The primary purpose of this mixed-methods research study is to investigate the role of the relationship between teachers' emotional intelligence, interpersonal relationship quality, and student engagement and achievement. Through the use of quantitative data gathered from the Situational Test of Emotional Understanding (MacCann & Roberts, 2008) and the Student-Teacher Relationship Scale (Koomen, Verschueren, Van Schooten, Jak, & Pianta, 2012; Pianta, 2001), the correlation between teacher EI and relationship quality between teachers and students will be explored. Through the use of structured teacher interviews, this study will also seek to explore the ways that teacher emotional intelligence impacts students' emotions, engagement, and achievement. These qualitative interviews will be used to provide a more in-depth understanding of how teachers use emotional intelligence in the classroom and its relationship to student engagement and achievement (Fredricks et al., 2016). Ultimately, this study will allow for additional exploration into the ways that teachers' EI impacts the overall educational experiences for students.

Research Questions

During this study, the following questions will be used to guide the investigation:

1. To what extent is emotional intelligence related to student achievement?
2. To what extent does emotional intelligence impact student engagement?

3. To what extent do teachers use emotional intelligence to establish interpersonal relationships with students?

Significance of the Study

By adhering to state and national curriculum standards and emphasizing students' achievement on standardized tests, current educational reform efforts have pivoted from the "soft" skills of education to a focus on the measurable outcomes of learning. The difficulty in quantifying the emotional aspects of the learning process has remained largely ignored. How teachers relate to and build positive interpersonal relationships with students is not easily quantifiable; thus reformers have been led to focus on other methods for school improvement that can be measured and replicated.

However, recent research and educational reform have started to investigate the ways that emotion and its role in learning are understood and could be measured. The advancement of emotional intelligence (EI) theory has essentially allowed for the measurement of one's emotional capacity (Mayer et al., 2016). Initially, the term EI was applied to business research in examining the abilities of leaders to relate to employees. EI has since expanded to other fields, including education, where it has most often been used to explore the competencies of school leaders. As the development of EI tests has expanded, the data have allowed for the quantification of one's ability to understand and to interpret emotion. Thus, the exploration of teacher EI and its impact on student engagement and achievement is both timely and significant.

EI has served to create a construct for how to quantify emotion and understand its role in interpersonal relationships (Ackley, 2016). Applying this theory to education allows its role in the classroom environment to be investigated. The development of EI measurements has made the discussion of emotion within teaching and learning relevant. The fact that teacher EI can

now be measured allows for educational research to be conducted on its role in the teaching/learning process. The EI of teachers provides another measure to add to our knowledge base of school improvement, creating a more holistic understanding of the best ways to educate students. While the development of EI instruments has allowed for emotion and the emotional abilities of individuals to be empirically explored, few studies have chosen to apply the theory to classroom settings and the actions and abilities of high school teachers (Corcoran & Tormey, 2012).

While the application of EI in education has most often been used to explore the leadership abilities of school administrators, recent work has increasingly explored teacher EI. A rapidly expanding number of studies have investigated the role of teacher EI in an array of areas, including job satisfaction and performance (Baracsi, 2016; Choi Sang, Yaacob, & Tan Wee, 2016). However, the role of teacher EI in the formation of quality interpersonal relationships between teachers and students remains largely unexplored. The construct of EI relates well to the teacher skills and abilities needed to form positive interpersonal relationships with students. Also, research has shown that such positive interpersonal relationships between teachers and students create increased emotional, behavioral, and cognitive engagement in students, ultimately leading to the potential for increased academic achievement (De Laet et al, 2016; Quin, 2017). Despite these potential connections, no known research has explored the impact of teachers' EI on their ability to form quality relationships with students at the secondary level and how those relationships affect student engagement and achievement.

The significance of this study is thus founded on the need to investigate the role of EI in the secondary educational setting. This study has the potential to impact preservice teaching education programs at teacher preparation institutions. If it is found that EI is significant in

determining teacher-student relationship quality as well as student engagement and achievement, teacher preparation programs may include coursework in ways to develop the emotional side of learning to better prepare future educators for success.

Teacher education programs that are enhanced by increased awareness of EI can better prepare future teachers to adequately educate students who enter school with a wide array of personal and emotional problems. These problems require a high EI to adequately plan, deliver, and execute effective lessons to meet students' emotional needs (Mortiboys, 2012). If emotional intelligence is shown to be a key component in positive classroom activities, instruction and programs can be tailored to specifically improve the EI of current classroom teachers and preservice teacher candidates, highlighting the importance of emotion in the teaching/learning process. Specifically, teacher education programs could focus on teaching pre-service candidates to relate and listen to students, understand and respond to the feelings of students, and improve non-verbal communication skills (Mortiboys, 2012).

Theoretical Base of the Study

The theoretical base for this study is informed by an understanding of emotional intelligence (EI) and the student engagement model. EI theory was first presented by Peter Salovey and John Mayer (1990) with the stated belief that some people might be more intelligent about emotions than others (Mayer et al., 2016). The theory of EI was brought to the mainstream consciousness by Daniel Goleman (1995) who presented EI as being more important than IQ for the success of many people. Since the origin of the theory 29 years ago, EI has grown into a concept that is both well respected by researchers and understood by the general public (Ackley, 2016). As the empirical base for EI has grown significantly over the past 29 years, the evolution of the theory has created ambiguity in its definition and application. Ackley (2016) defined EI

succinctly by stating it is “the intelligent use of emotions” (p. 271). Beyond this basic conception, the field of EI research has currently split into two theoretical models. Researchers currently choose to view EI as either a trait that one is born with and changes little over time or as an ability that can be learned and developed.

The theoretical basis for this research will be built upon the ability model of EI (Mayer et al., 2016). The ability model of EI states that the regulation of one’s own emotions and the interpretation of emotions in others is a mental ability. Within this model are four distinct abilities: (1) perception, (2) facilitation, (3) understanding, and (4) management (Mestre, MacCann, Guil, & Roberts, 2016). Thus, the ability model states that emotionally intelligent people can perceive others’ emotions accurately, facilitate thought through emotion, understand the meaning of emotions, and manage emotions in themselves and others (Mayer et al., 2016).

The student engagement model will work in conjunction with EI theory to form the theoretical base for this study. Student engagement theory serves to delve deeper into understanding the student experience, moving beyond the measurement of achievement. Student engagement encompasses three interrelated dimensions: behavioral, emotional, and cognitive engagement (Fredricks et al., 2016). Behavioral engagement can be described as the level of student effort, emotional engagement as the degree to which students have positive or negative feelings about school, and cognitive engagement as their degree of exertion for comprehension (Fredricks et al., 2016). The engagement model presents a sophisticated view of the student experience with each type of engagement being interrelated. Simply stated, a student who is emotionally engaged has positive feelings about his or her teacher and the classroom environment, increasing the likelihood of behavioral engagement in the form of effort. This effort, in turn, influences cognitive engagement in the form of learning and achievement.

Engagement theory melds well with EI, as both are focused on emotional components of education that extend beyond the underlying mechanisms of instruction and measurement. Thus, the framework for this study will push past traditional conceptions of teaching and learning to explore the soft, emotional aspects of education. As researchers and educators search for ways to improve the overall student experience and best prepare young people for the future, a conceptual framework built on teacher EI and student engagement will help to explain areas of teaching and learning that are currently not well understood.

Definitions

Emotional Intelligence – Emotional intelligence is a term that has been defined in many different ways. These various definitions are rooted in the conceptual framework of the authors who present them. The definition proposed by Mayer and Salovey (1997) will be used for the purpose of this study:

> Emotional intelligence involves the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth. (p. 10)

Relationship Quality – The terms *relationship quality* and *quality relationships* are not interchangeable. Relationship quality encompasses two components from the perspective of the student: (1) level of support from the teacher and (2) level of conflict with the teacher (Hughes, 2012). Therefore, teacher-student relationships characterized by high levels of support and low levels of conflict would be said to be of a high quality and those with low levels of support and high levels of conflict would be said to be of low quality (Hughes, 2012).

Student Engagement – The student engagement model encompasses three interrelated dimensions: behavioral, emotional, and cognitive engagement (Fredricks et al., 2016). Student engagement is the degree to which a student shows attention to, passion for, or interest in any of these three areas.

Limitations

The primary limitation of this study will be the exploration of teacher and student emotion, relationships, achievement, and engagement solely from the teachers' perspectives. Due to the inherent difficulty in using a vulnerable student population, the study will attempt to explore teacher-student interpersonal relationships as well as student achievement and engagement without assessing the students' perspectives. The few explorations into teacher-student relationship quality that have used student perspectives have demonstrated that teacher and student perceptions of the same relationship are often incongruent. This incongruence may lead teachers to report levels of relationship quality with their students that are not reciprocated by students. Also, relying on teacher observations of student engagement and achievement may provide an incomplete perspective of how students feel, behave, and learn. Ideally, the study would include data generated from both teachers and students. However, this investigation will be confined to the perspective of teachers only, and this is a known limitation of the investigation.

Summary

Teaching, at its most basic level, is interpersonal interaction between educators and students, a fact that has often been disregarded in various efforts to reform the educational system and improve student achievement. The qualities needed to be an effective teacher have been reduced to strong content and pedagogical knowledge (Mortiboys, 2012). Efforts to reform

the educational system over the past 30 years have adopted this position and have focused primarily on improving the abilities of teachers and schools to deliver relevant content in the most effective ways.

Emotional intelligence, defined as "the ability to reason validly with emotions and with emotion-related information and to use emotions to enhance thought" (Mayer et al., 2016, p.295), stands as a theory that may help to interpret and support the role of teacher emotional capacity in increasing student achievement.

A relatively limited body of research on emotional intelligence in education has explicitly focused on the emotional experiences of teachers (Raz & Zysberg, 2014). If the emotional components of teaching and learning are significant to student achievement, then further exploration into the emotional intelligence of teachers is warranted. Investigating how teacher EI affects students is essential for advancing the ability of schools to improve students' school achievement in preparation for life. Unfortunately, few studies have examined the role of teachers' emotional intelligence in determining relationship quality with students as well as their engagement and achievement.

The remainder of this document will serve to fully explore teacher emotional intelligence and its role in determining relationship quality between teachers and students as well as student engagement and achievement. Chapter 2 will investigate the current literature on teacher emotional intelligence, teacher-student relationship quality, and the relationship of each to student engagement and achievement.

CHAPTER II

REVIEW OF RELATED LITERATURE

Overview

The interpersonal, emotional components of teaching are central to the ability of educators to form relationships with students and potentially impact student engagement and achievement. Despite the importance of the emotional aspects of teaching, the essential elements of the craft have often been reduced to content knowledge and pedagogy. Thus, those educators who are well-versed in their curriculum and proficient in research-based techniques are deemed able to educate students successfully. However, despite the identification of these essential elements, some would suggest that emotional intelligence (EI) is a third and equally-important component of successful teaching (Mortiboys, 2012). It is EI, the ability to respond to the emotions of oneself and others, which potentially bridges the gap between the experiences of the teacher and student.

The principal component of this study is an investigation of the role that teacher emotions and emotional intelligence play in the teaching-learning experience. This study will employ the student engagement model (Poorthuis et al., 2015) to explore the role of teacher emotional intelligence in the educational process and ultimately its relationship to student achievement. According to Poorthuis et al. (2015), students can be engaged emotionally, behaviorally, and cognitively. Teachers have the ability to influence each type of student engagement, in part, through the interpersonal relationships established with them. This research will thus explore the influence of teacher emotional intelligence on teacher-student relationship quality, student engagement, and academic achievement.

The purpose of this study is to explore how the EI of teachers relates to interpersonal relationship quality among teachers and students, as well as student engagement and achievement. This chapter will examine the role of teacher EI in the student educational experience. EI and how it relates to teachers, their ability to form quality interpersonal relationships with students, and its impact on student engagement and achievement is first discussed. Following this discussion, the student engagement model is presented as a method for understanding the actions of students in school. Finally, information relevant to interpersonal relationships among teachers and students in relation to teacher EI is provided.

Emotional Intelligence

Emotional intelligence (EI) is a burgeoning theory that continues to hold promise for understanding the emotional capacity of individuals and improving one's ability to interact with others more effectively. While the term EI, its study, and its application are all relatively new, their theoretical underpinnings have been present for thousands of years. Indeed, Socrates was concerned with the role of emotion in the human experience and contemplated its role in cognition (Brickhouse & Smith, 2013). First to bring the foundational knowledge of EI to light in the modern era was Gardner (1983) with his groundbreaking book, *Frames of Mind*. Gardner identified personal, emotional intelligence as a distinct form of intelligence (Gardner, 1983). Gardner (1983) separated personal intelligence into intrapersonal intelligence, access to one's feelings, and interpersonal intelligence, the ability to notice and make distinctions about the moods, motivations, intentions, and temperaments of others. The departure from traditional understandings of intelligence in labeling intra- and inter-personal experiences as forms of intelligence was highlighted by Gardner (1983). While they seemed to be integral to most societies in the world, they were ignored by almost all studies of cognition (Gardner, 1983).

Salovey and Mayer (1990) built upon the concept of emotions and human thought from those who came before them, such as Socrates and Gardner, and formulated the theory of emotional intelligence. Mayer and Salovey (1997) stated:

> Emotional intelligence involves the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth. (p. 10)

However, while Salovey and Mayer (1990) created the theory of EI, it entered the consciousness of the general public through the popular work of Goleman (1995), *Emotional Intelligence: Why It Can Matter More than IQ*. Goleman (1995), working largely from the theory of EI established by Salovey and Mayer (1990), illustrated how it could be applied to the lives of everyday people. Ackley (2016) stated that Goleman's contribution to the field was the way he translated the language of EI into terms readily understandable by the general public. This interpretation of EI by Goleman has been understood and misunderstood in many ways and applied to fields of study across the academic and pop culture spectrums.

The importance of Goleman's (1995) work for the field of EI can be explicitly seen in the ways that it brought the concept to the mainstream consciousness which increased its popularity and allowed for further research to be conducted (Ackley, 2016). However, in the dual role of EI as both a respected theory among academics and a mainstream concept, its actual meaning and intended application has often been confused. Indeed, Goleman has been criticized (Ackley, 2016) for expanding his writing on EI to include concepts that were outside the scope intended by Salvoy & Mayer (1990). However, while at times controversial, Goleman's work has helped to highlight the importance and potential of EI. Today, EI, in its various forms, stands as a

promising theory for advancing the understanding of emotions, and its research base continues to expand.

Models of Emotional Intelligence

Isolating a single definition of EI is not possible, as the concept has evolved and means different things to different researchers (Ackley, 2016). Thus, the conceptualization of EI is contingent upon an understanding that current research is dominated by two distinct models of the concept. A model presented by Bar-On (2010) views EI as a set of noncognitive abilities and is a distinct departure from the research of Mayer et al. (2016). A second model, presented by Mayer et al. (2016), views EI as an ability that is acquired and malleable.

The way that emotional intelligence is measured is largely dependent upon the model from which the instrument originates. EI tests based on the trait model of EI mostly use self-assessment measures. These tests have been criticized for their reliance on the opinion of the individual taking the assessment, making it a self-assessment of characteristics rather than a measure of ability (Mestre et al., 2016). The most popular and widely-used ability assessment is the Bar-On Emotional Intelligence Inventory. Alternatively, EI can be measured from the ability model which assesses a set of skills using ability-based problem-solving measures (Di Fabio & Kenny, 2016). The most popular and widely used ability-based test is the Mayer-Salovey-Caruso Intelligence Scale (Ackley, 2016).

Trait model. The trait model of EI is described by Bar-On (2010) as an "array of interrelated emotional and social competencies and skills that determine how effectively individuals understand and express themselves, understand others and relate to them, and cope with daily demands, challenges and pressures" (p. 57). Within this model, Bar-On (2010) presented general competencies that are intrapersonal: emotional self-awareness, self-regard,

assertiveness, independence, empathy, social responsibility, and interpersonal relations. Bar-On (2010) continued to define and to categorize stress management, stress tolerance, and impulse control as components of EI and its traits. Bar-On (2010) also included adaptability, reality testing, flexibility, problem solving, and general moods of happiness and optimism.

The trait model of EI uses these competencies to present a comprehensive scope of the abilities and knowledge necessary to successfully navigate life situations (Hakkak, Nazarpoori, Mousavi, & Ghodsi, 2015) and sees EI as a set of skills that are innate. These skills, according to the trait model, are different from intelligence and can be used to account for the success of an individual (Ackley, 2016).

Ability model. In contrast to the trait model, which views EI as a set of skills, the ability model views EI the regulation and understanding of emotions (Extremera & Rey, 2016; Yeung, 2009). Where the trait model views EI as the characteristics that allow one to interact with the surrounding world, the ability model views EI as one's quotient for understanding and applying these skills (Ackley, 2016). The ability model of EI has been described as the most relevant of the EI constructs (Gutiérrez-Cobo, Cabello, & Fernández-Berrocal, 2017).

The current work of the originators of the theory, Mayer et al. (2016), stated that EI is a mental ability, one that can be categorized as a "hot" intelligence, having to do with people and emotions (p.295). There exist four distinct abilities within the model of EI: perception, facilitation, understanding, and management (Mestre et al., 2016). The discussion of EI in terms of the ability model presented by Mayer et al. (2016) is thus centered on these four distinct abilities.

The first branch of the EI ability model, perceiving emotions, "involves recognizing and inputting verbal and nonverbal information from the emotion system" (Salovey, Mayer, Caruso,

& Yoo, 2009, p. 188). The perception of emotional messages can come in the form of facial expressions, the tone of voice, or cultural artifacts (Salovey et al., 2009). Individuals who are able to perceive these emotional messages in their various forms and decipher their meanings are likely to know much more about the emotions and thoughts of others than someone who cannot interpret them.

The second branch, facilitation of cognitive activities, "refers to using emotions as part of cognitive processes such as creativity and problem solving" (Salovey et al., 2009, p. 188). This branch focuses on the way that emotion can either enhance or harm the cognitive process. Emotion can be harnessed to increase problem solving, reasoning, decision making, and creativity. However, emotions such as anxiety and fear can also be disruptive to cognition (Salovey et al., 2009). The variety of experienced emotions allows for a variety of vantage points and deep, creative thinking in the teaching/learning process.

The third branch, understanding emotions, is described by Salovey et al. (2009) as "cognitive processing of emotion, that is, insight and knowledge brought to bear upon one's feelings or the feelings of others" (p. 188). Individuals who can understand emotions are able to discern their definition, differences, and relation to one another. Those people who are able to understand the ways emotions relate to other emotions and how they progress have a capacity for understanding important aspects of human nature and interpersonal relationships (Salovey et al., 2009).

The fourth branch, managing emotions, "concerns the regulation of emotions in oneself and in other people" (Salovey et al., 2009, p. 188). The management of emotions has often been confused with the suppression of emotion. Instead, the management of emotions in oneself and others has much more to do with the harnessing of emotion (Salovey et al., 2009). Those

individuals who are best able to manage emotions are able to reflect on emotions and then find positive ways to manage negative emotions through such techniques as physical activity (Salovey et al., 2009).

Both the ability and trait models attempt to explain EI and continue to be employed vigorously by scholars. However, despite these dual attempts to explain the same construct, any correlation between them is weak (Mestre et al., 2016). The two constructs do measure different aspects of an individual's ability to think and act emotionally. Although a correlation between the two most prominent models is weak, it is not necessary to identify one model over the other as being correct or the only valid definition of EI. Instead, the models should work in concert to present a complete perspective of the concept with each filling voids created by shortcomings of the others (Ackley, 2016). It is only necessary to choose a single model when adopting a tool to measure EI; the distinct measurement tools are each based on an individual model. For the purposes of this research, the ability model of EI will be used as a theoretical base and a measurement tool.

Teacher Emotional Intelligence

Prior evidence provided in this chapter has demonstrated that teaching and learning are emotional endeavors. The ability of teachers to influence the engagement of students through quality, interpersonal relationships is significant. As educational researchers continue to point to the significance of emotion in learning and, specifically, to the interpersonal relationships that exist between teachers and students, it seems that the construct of emotional intelligence is relevant to the work that teachers do. As Raz and Zysberg (2014) noted, teaching is a profession with high levels of emotional labor. However, despite the emotional labor of teaching, few studies have focused on the emotional experiences of teachers (Corcoran & Tormey, 2012). As

teachers maintain a central role in developing and maintaining quality interpersonal relationships with students, their own EI is a significant factor in the relationships that they have with students. Although few studies have focused on the emotional experiences of teachers, EI research continues to expand from its origins in the study of business leadership and has been used sparingly to help interpret the experiences of educators.

Job performance. In the private sector, EI has been linked to overall employee performance (Jung & Yoon, 2016; Wu, 2011), work engagement (Zhu, Liu, Guo, Zhao, & Lou, 2015), creativity (Tsai & Lee, 2014), and life satisfaction (Extremera & Rey, 2016). As EI research has transitioned into the field of education, and specifically to the performance and ability of teachers, results similar to those found in business research have been found in the educational realm.

In general, teachers with higher levels of EI perform better at their jobs than those with lower levels. Teacher performance includes planning, instructing, assessing student work, and student achievement (Dewi, Bundu, & Tahmir, 2016). When examining the overall job performance of teachers, a significant relationship between teacher EI and performance has been found (Naqvi et al., 2016). Dewi, Bundu, and Tahmir (2016) revealed that EI had a significant effect on teaching performance. They attributed this relationship to teachers with high levels of EI being able to conduct the process of teaching more effectively.

Related to overall job performance and job efficiency is teacher "burnout." A significant body of evidence exists to support the fact that teachers who consistently have negative interactions with students have less job satisfaction and higher levels of burnout (Ackley, 2016). In a study of 100 teachers, Al-Bawaliz, Arbeyat, and Hamadneh (2015) found that teachers with high EI experience a low rate of burnout. The study suggests that teacher EI allows for positive

interpersonal relationships and high levels of teacher satisfaction, which allow teachers to continue effectively in the profession for their entire careers.

The classroom environment established by teachers is also a significant aspect of their overall performance. Galler and Cherniss (2015) conducted an investigation examining the relationship between teacher EI and classroom climate with eight teacher participants and 350 high school students. The study showed that teachers who were labeled as being "outstanding" by their administrators were able to use abilities associated with EI to create positive classroom environments better than teachers who were labeled as being average by their administrators. Morton et al. (2014) moved beyond the examination of the positive classroom environment and investigated the role of teacher EI in overall school climate. Findings indicated a significant relationship between teacher EI and overall school climate as perceived by teachers.

In a study that contradicted other findings related to teacher EI and job performance, Hall (2009) examined the relationship between the EI of preservice teachers and student teaching performance. The ability model of EI was used to investigate the EI of preservice teachers and investigate its role in performance when compared to other more traditional predictors of success such as grade point average and scores on state-mandated certification tests. Hall's work found no statistical correlation between the EI of preservice teachers and their student teaching performance.

Interpersonal relationships with students. The theoretical link between teacher EI and ability to form high quality interpersonal relationships with students is apparent (Corcoran & Tormey, 2012). The traits of an emotionally intelligent individual, being able to manage one's own emotions and interpret the emotions of others, align well with the qualities and behaviors needed to form positive relationships with students. However, while EI illustrates the

interpersonal skills needed for teachers to form quality relationships with students effectively, few empirical studies have sought to investigate this relationship. There is simply a dearth of research concerning the EI of teachers and the role that EI plays in classroom settings (Murray et al., 2016). Many of the studies that have been conducted on the relationship between EI and teacher-student interpersonal relationships indicate positive correlations and provide optimism for further exploration in the field.

Friedman and Gregory (2014) investigated the relationship between teacher EI and classroom interactions between teachers and students. In an investigation that encompassed 74 middle-school teachers in diverse environments, results indicated that teachers with higher levels of EI have more positive classroom interactions with students than those teachers with lower levels of EI.

Another recent study of the relationship between teacher EI and teacher-student relationships was conducted by Poulou (2017) revealing a significant, positive relationship between the two. The study focused on elementary school teachers and their students. Results showed that teacher perception of EI was significantly related to teacher-student relationships. Teachers who self-reported higher levels of EI had more positive relationships with their students (Poulou, 2017).

Student engagement and achievement. Empirical research focusing on the relationship between teacher EI and student engagement and achievement is also limited. However, the theoretical link between teacher EI and student engagement and achievement does exist. Teachers who possess high levels of EI should be able to influence the emotional and behavioral engagement of students. This influence should then also lead to cognitive engagement and ultimately to increases in student academic achievement. However, the lack of empirical

research focused on this area leaves these relationships in question. Recent research findings on the significance of the connection between teacher EI and student engagement and achievement have produced conflicting results (Curci, Lanciano, & Soleti, 2016; Poulou, 2017).

Several recent studies have revealed the presence of a significant relationship between teacher EI and student engagement and achievement. Nizielski (2012) examined the relationship between teacher EI and student behavioral engagement in the form of misconduct. In a sample of over 300 teachers, teacher EI was found to reduce student misconduct significantly. Those teachers with high levels of EI were found to limit student misconduct by being attentive to student needs.

In addition to the relationship between teacher EI and student engagement, research has also been conducted that focuses on student achievement. In a recent study of 16 elementary school teachers utilizing the ability model of EI, Moreau Neves, Qian, DeFigueiredo, and Matthews-Denatale (2016) found that teacher EI was weakly correlated to student academic progress, which was measured in the form of basic literacy skills. While the relationship between teacher EI and student academic progress was not found to be statistically significant, the researchers did discover that as students progressed through grade levels, the relationship between teacher EI and achievement weakened (Moreau Neves et al., 2016).

In an investigation of teacher EI beyond the elementary school level of education, Curci, Lanciano, and Soleti (2014) found the presence of a significant relationship between teacher EI and student academic achievement. It was found that teachers' EI promoted student achievement in the sample of 12 teachers and 338 middle school students. Teachers with high levels of EI were able to enhance student perceptions of ability and self-esteem which lead to increased levels of academic performance (Curci, Lanciano, & Soleti (2014).

The ability of teacher EI to predict student performance was also found to be significant by Fernandez and Raffanti (2011). Using the trait model of EI, the EI of 42 teachers was examined in relation to the reading achievement of 942 student participants in grades 2-8. Findings indicated a significant correlation between self-report teacher EI and student academic achievement in the form of growth in reading scores.

While several studies have revealed correlations between teacher EI and student academic achievement, additional research has failed to produce the same findings. In a study conducted by Rust et al. (2014) examining the relationship between teacher trait EI and the math ability of 717 elementary school students, no statistical correlation between teacher EI and student achievement was found. Similarly, Dickey and Boatwright (2012) examined the role that EI played in the achievement of students in 25 third-grade teachers' classes. Student reading and math scores were used in conjunction with teacher trait EI scores to reveal no correlation between teacher EI and student achievement.

The recent work of Poulou (2017) also casts doubt on the progression from teacher EI to high-quality teacher-student relationships and student engagement and achievement. While Poulou (2017) found a significant relationship between teacher EI and teacher-student relationships, EI was not found to be related to the emotional and behavioral engagement of students. Instead of a relationship between teacher EI and student engagement, a significant relationship between teacher-student relationship quality and student engagement was revealed. If the findings of Poulou (2017) are to be replicated in future research, the ability of teacher EI to predict both relationship quality and student engagement and achievement may be in question.

It is possible that an absence of support for a positive relationship between teacher EI and student achievement is due to the omission of student engagement from most studies conducted.

Information presented on student engagement and teacher-student interpersonal relationships has demonstrated that there is a convoluted picture of how teacher emotion and behavior influence both student engagement and achievement. Many studies have omitted the complexity of the student experience that is further illuminated by exploring engagement. Studies that fail to acknowledge the engagement of students may overlook the subtler influence of teacher EI on students and their learning outcomes.

Student Engagement

Student engagement is currently viewed as a meta-construct consisting of behavioral, emotional, and cognitive engagement (Fredricks, Blumenfeld, & Paris, 2004). Fredricks et al. (2004) were the first to propose this meta-construct, recognizing that engagement within the literature often used separate and unique descriptions of the concept. A criticism of this meta-construct is that in creating such a broad definition, it may describe the entire student experience, and, in being so encompassing, describe nothing at all (Fredricks et al., 2016).

Student engagement is one of the strongest predictors of academic success (Burch, Heller, Burch, Freed, & Steed, 2015; Poorthuis et al., 2015). The relationship of engagement to academic success makes it a point of interest for both researchers and educators. Teachers have been found to have a significant influence on all three forms of student engagement (Chiu, Pong, Mori, & Chow, 2012). The potential influence of teachers on student engagement is significant due to its malleability (Harris, 2011). This influence has the potential to be either positive or negative. This effect makes it a useful vehicle to both understand the student experience and explore how teachers can best support student achievement.

The engagement of students is not static, having been shown to be fluid over time with great variance within individual students over the course of an educational career (Park,

Holloway, Arendtsz, Bempechat, & Li, 2012). Generally, the engagement of all students decreases as they progress through the educational system (Wang, Chow, Hofkens, & Salmela-Aro, 2015). This decrease in engagement can be chronicled in academic research (Wang et al., 2015). Student engagement has consistently shown decreases in emotional, behavioral, and cognitive engagement as they progress from elementary to secondary levels. Marked differences in engagement levels exist between elementary, middle, and high school students with elementary school students constantly being found to be the most engaged (Wang et al., 2015).

The relationship between each type of student engagement is significant to the understanding of the engagement model and the student experience. It could be assumed that the student who is emotionally engaged, showing positive feelings toward teachers and school, is more likely to be behaviorally engaged by participating in the learning and social activities of the school. It could also be assumed that the behaviorally engaged student is then more likely to be cognitively engaged, putting forth effort toward understanding and learning presented material. However, Li and Lerner (2013) discussed how before their work, the relationship between each of the forms of student engagement was mostly unknown. In their investigation, they discovered that emotional and behavioral engagements are related bi-directionally. Student emotional engagement was shown to influence behavioral engagement, and behavioral engagement has the same influence on emotional engagement. Additionally, they found that behavioral engagement positively predicted cognitive engagement (Li & Lerner, 2013). The specific relationship between each form of engagement continues to be explored and further investigated into the specifics of each type of engagement to help clarify understanding.

The work of Conner and Pope (2013) provides an interesting perspective on the engagement model and the relationship between each of the three types of engagement. In a

study of over 6,000 students among 15 high-achieving schools, Conner and Pope (2013) found that two-thirds of students were not fully engaged. The fully-engaged student would show signs of being highly-engaged, emotionally, behaviorally, and cognitively. The majority of students reported working hard, which displayed behavioral engagement, but not enjoying the schoolwork or finding it valuable, which would be related to emotional and cognitive engagement. Those students who lacked emotional and cognitive engagement were found to have higher rates of school stress, cheating, and symptoms of cheating. The study found that full-student engagement was related to positive teacher-student relationships, highlighting the importance of the engagement model to look beyond academic achievement in understanding the student experience.

Emotional Engagement

Student emotional engagement is defined as student affective response to learning activities and the people associated with those activities (Park et al., 2012). The affective reactions in the classroom associated with emotional engagement include interest, boredom, happiness, sadness, and anxiety (Fredricks et al., 2004; Lam et al., 2014). The feelings associated with emotional engagement can be influenced by social dimensions, including peers and teachers (Ulmanen, Soini, Pietarinen, & Pyhalto, 2016). Students who are made to feel competent and supported by both teachers and peers have been found to be more emotionally engaged. The overall effect of emotional engagement in school is the creation of a willingness to participate in school-related activities. As students experience positive emotions related to the classroom environment, they are more likely to put forth educational effort (Fredricks et al., 2004).

Teacher behaviors have been shown to either support or decrease student emotional engagement. In a study focused on the influence of teacher behaviors on student engagement, Strati, Schmidt, and Maier (2017) found that obstructing teacher behaviors were negatively associated with student emotional engagement. These obstructing behaviors included disregard, disrespect, and the use of sarcasm toward students.

In addition to the influence of teacher-obstructing behaviors on student emotional engagement, the learning activities and environment provided by teachers are also significant. Wang et al. (2015) identified the decrease in emotional engagement as students progressed from middle to high school. During this transition, teachers began to focus more on curriculum and discipline while providing less of an opportunity for autonomous learning. Noting the importance of academic activities on emotional engagement, Park et al. (2012) found that as students are made to feel competent, are supported by teachers and peers, and are provided with autonomous opportunities for learning, their emotional engagement increases.

Social support from classroom peers is equally as important as teacher support in predicting student emotional engagement. The perceived and actual support and companionship from students' social networks are significant to their level of emotional engagement (Fernández-Zabala, Goñi, Camino, & Zulaika, 2016). Students who feel supported by their peers feel more comfortable at school and have shown higher levels of emotional engagement.

While emotional engagement is vital to the student experience, a high level of emotional engagement does not ensure academic success. In a study of over 1,000 students in grades 7 to 11, Wang and Eccles (2011) found that a sense of school "belonging" and emotionally identifying with school did not contribute to academic performance. These results suggest that

while being emotionally engaged in school is essential, additional factors such as behavioral and cognitive engagement are significant to achievement.

Behavioral Engagement

Student behavioral engagement is defined as participation and involvement in academic and social activities (Fredricks et al., 2004). The majority of research on student engagement focuses exclusively on behavioral engagement (Harris, 2011). Researchers choosing to examine behavioral engagement have used various definitions throughout the literature. Behavioral engagement is further defined as positive conduct, involvement in learning through effort and concentration, and participation in school-related activities (Fredricks et al., 2004). Put simply, students who are behaviorally engaged are active participants in the learning and social activities of a school. It would stand to reason that those students who are more involved, both socially and academically, achieve more than those who are not. The dependent nature of the engagement model points to the fact that behavioral engagement is influenced by emotional engagement as well as social forces, including classroom peers and teachers.

Students' behavioral engagement is closely related to their emotional engagement. Li and Lerner (2013) found that behavioral and emotional engagement relate to one another bi-directionally; students who have positive feelings toward the school, the curriculum, and their teachers are more behaviorally engaged. Additionally, a behaviorally engaged student is more likely to experience increased positive associations toward school and teachers resulting in increased emotional engagement. However, it is important to note that experiencing positive emotions toward school does not guarantee meaningful effort will be exerted, as various other social factors continually influence students (Li & Lerner, 2013).

The establishment of positive relationships between teachers and students, leading to increased behavioral engagement, is a result of specific teacher behaviors. Teachers who display positive emotions in the classroom have been shown to have students with increased levels of behavioral engagement (Zhang & Zhang, 2013). In addition to displaying positive emotions, teachers' interpersonal interactions with students are significant in increasing engagement. Van Uden, Ritzen, and Pieters (2014) found that student perception of teacher interpersonal behavior was a strong predictor of student behavioral engagement.

Student behavioral engagement has been found to be the single greatest predictor of student Grade Point Average (GPA) among the three forms of engagement (Chase, Hilliard, Geldhof, Warren, & Lerner, 2014). The link between student behavioral engagement and academic achievement is evident; students who participate in the social and academic activities of school achieve greater academic success than those who do not. In a study of nearly 600 students, Martin, Evans, Liem, Chong, and Chong (2017) found that behavioral engagement was a significant mediating factor between motivation and achievement. Demonstrating the connection between emotional and behavioral engagement and its influence on achievement, Martin et al. (2017) found that students who had positive feelings toward school and held high academic expectations became more behaviorally engaged and thus experienced higher levels of academic achievement than their less motivated and engaged peers. Further supporting the influence of behavioral engagement and achievement, recent studies have demonstrated how being behaviorally engaged increased both math and reading scores (Darensbourg & Blake, 2013; Guo et al., 2015)

Cognitive Engagement

Student cognitive engagement has been defined by Fredricks et al. (2004) as an investment in learning on the part of the student. Cognitive engagement was further clarified by Watt, Carmichael, and Callingham (2017) who stated that it is an epistemic curiosity that serves as motivation. The cognitively engaged student displays a thoughtful approach toward learning and a willingness to put forth the necessary effort to comprehend complex ideas. The effort put forth by the cognitively engaged student goes beyond the effort necessary to be behaviorally engaged. Behavioral engagement is an effort that is expected of the student. To be cognitively engaged, the student must go beyond the expected in a genuine effort focused on learning and mastery (Fredricks et al., 2004).

Of the three forms of student engagement, cognitive engagement is the most underrepresented in the literature. This dearth of research may be due to the inherent difficulty in measuring the abstract concept (Harris, 2011). Cognitive engagement is not synonymous with academic achievement, and its presence does not ensure learning and mastery but, instead, is a precursor to them. The two terms are often used interchangeably, but that is not the intention of the concept described in the model presented by Fredricks et al. (2004).

Just as with emotional and behavioral engagement, cognitive engagement can be influenced by social factors from classroom peers and teachers. Students who perceive their teachers' positive emotions have been found to be more cognitively engaged and have higher levels of critical thinking (Zhang & Zhang, 2013). In similar findings, Chiu et al. (2012) found that teacher behavior was directly linked to student cognitive engagement.

Teacher attitudes toward students can also influence the cognitive engagement of students. These attitudes have a direct impact on student cognitive engagement and

achievement. Teachers who believe in their students' ability to succeed increase their students' cognitive engagement. In a study of 1,364 secondary school students from 33 disadvantaged communities, Archambault, Janosz, and Chouinard (2012) found that teachers' beliefs about students directly influenced students' academic achievement and cognitive engagement. However, this influence was found to have less impact on low-achieving students than high-achieving ones. This discrepancy points to the need for teachers to display positive attitudes and emotions towards all students. Additionally, the research shows that teacher attitudes directly relate to student cognitive engagement with teachers having the ability to either increase or decrease engagement and achievement (Archambault et al., 2012).

As teacher behaviors are an essential factor in promoting student cognitive engagement, teacher understanding of cognitive engagement is also important. Teachers who are to support cognitive engagement in their students entirely should have a basic understanding of how do so effectively. Additionally, in a study of 20 teachers, inaccuracies in teacher thinking about cognitive engagement were revealed (Harris, 2011). While some teachers had an advanced understanding of cognitive engagement and its promotion, others identified cognitive engagement with what is considered behavioral engagement (Harris, 2011). The lack of understanding of cognitive engagement on the part of some teachers leads them to focus on participation and positive student experiences while neglecting the active process of working toward learning and mastery of academic concepts.

Teacher-Student Interpersonal Relationships

Interpersonal relationships between teachers and their students have been shown to have a profound impact on the school experience of students. High-quality interpersonal relationships between teachers and students are characterized by high levels of closeness and low levels of

conflict (O'Connor, 2010). The emotional, behavioral, and cognitive engagement of students can all be influenced and strengthened by student-teacher relationships. Additionally, teacher-student interpersonal relationships have been found to affect student academic achievement (Mason, Jajovsky, McCune, & Turek, 2017).

Nature of Interpersonal Relationships

In the literature, the complexity of the teacher-student relationship has most recently been understood through dynamic systems theory (Karimi-Aghdam, 2016; Sabol & Pianta, 2012). Viewed through this lens, students are part of complex systems that include proximal and distal influences. The relationship between teacher and student is described as a proximal relationship in which both parties and their experiences influence one another.

Teachers have the ability to influence the quality of their interpersonal relationships directly and, in turn, mediate emotional engagement levels of their students. This ability to directly influence student emotional engagement through interpersonal relationship quality gives the teacher the ability to then influence students' behavioral and cognitive engagement as well as their academic achievement (Li & Lerner, 2013).

However, the positive student outcomes that can result from quality interpersonal relationships are not easily achieved. As classrooms become more diverse, heterogeneous environments are created, making the formation of quality relationships complicated (Scarlett, 2014). Additionally, just as teachers can enhance the educational experience of students through quality interpersonal relationships, they can also decrease engagement and achievement through negative relationships. Teacher-student interpersonal relationships are a powerful vehicle with the potential to dramatically enhance or damage the student experience.

The interpersonal relationships that exist between teachers and students can be characterized by *closeness* and *conflict* (Gallagher, Kainz, Vernon-Feagans, & White, 2013). High-quality, close teacher-student interpersonal relationships are those in which the students feel that teachers care and provide a connection to classroom activities (Scarlett, 2014). Such relationships are built upon sensitive and responsive interactions (Engels et al., 2016). When closeness is present in the relationship, the student is comfortable coming to the teacher for help when stress arises (Gallagher et al., 2013). Conversely, teachers and students can also experience negative relationships characterized by high levels of conflict. These relationships often leave students feeling as though they have no sense of security around the teacher (Engels et al., 2016). When high levels of conflict are present, teachers and students struggle with being around one another while expressing anger and frustration during interpersonal contact (Gallagher et al., 2013). The complexity of the teacher-student relationship represents the dichotomy of the positive and negative influence that can be imposed upon students.

A review of recent literature reveals that certain students are more likely to experience conflict relationships with teachers than with other students. Particular groups of students including students of color (Spilt & Hughes, 2015), boys (Gallagher et al., 2013), those from low socioeconomic backgrounds, those who struggle academically, and those who have relationships with high levels of conflict outside of school, all are more likely to have high levels of conflict with teachers (Scarlett, 2014). The variance in support and conflict among teachers and various student groups reveals that teachers treat particular students differently than others. It is also apparent that some students are more challenging to establish high quality relationships with than others. The difficulty in establishing positive relationships with such students then leads to increases in conflict and decreases in emotional, behavioral, and cognitive engagement. A

deficiency in engagement with certain types of students then ultimately translates to decreased academic achievement.

Conflict relationships between teachers and students result in a cycle that is not easily broken. Students who exhibit high levels of conflict and low levels of closeness also experience higher levels of external and internal behavior problems. These behavior problems lead to teacher belief that these students are unengaged problem students, a view that creates even more conflict. Students who experience higher levels of conflict with teachers in elementary school have been shown to experience more behavior problems in middle school (Collins, 2017). The conflict relationship, containing both problem behaviors and negative interactions with teachers, is self-perpetuating and seems to continue until a teacher breaks the cycle.

Establishing Interpersonal Relationships

Teachers are the key component in establishing either high- or low-quality relationships with students. All students bring to the classroom experiences, strengths, and weaknesses that make them unique individuals. However, in the midst of a diverse classroom of unique students is a single teacher with the responsibility to educate. As has been previously noted, a key component of this education is the establishment of high quality, positive interpersonal relationships with students. However, it has also been shown that not all relationships are characterized by support and some result in high levels of conflict. It has also been shown that certain groups of students have traditionally experienced more conflict and less support with teachers over their years in education. Indeed, some students are more challenging to establish high quality relationships with than are others (Scarlett, 2014). This difficulty often stems from socioemotional circumstances that are not related to the academic learning environment. It ultimately becomes the responsibility of the teacher to elicit specific behaviors that work to build

positive relationships with all students while considering each student's unique situation. Several key characteristics of teacher emotions and behaviors displayed in the classroom have been shown to establish and to maintain positive relationships with students. These teacher behaviors are not an ironclad guide, but instead are some general behavioral characteristics that can allow for high quality relationships to be fostered with most students.

The student. While the responsibility of high-quality relationships between teachers and students ultimately lies with the teacher, it is crucial for teachers to have an understanding of the students and their emotional, social, and academic backgrounds. This awareness is an important aspect in the development of teacher-student relationships.

Warm, sensitive, thoughtful interactions that result in students feeling comfortable in turning to teachers for help are ultimately built upon trust. Some students are naturally more reluctant than others to place trust in teachers due to prior life experiences. Attachment theory has been applied to the study of teacher-student relationships for decades as a means to explain the issue of student mistrust (Sabol & Pianta, 2012). If students have had negative interpersonal relationships in the past with those who are supposed to be in a position of care, they are much less likely to place trust in others in the learning environment. Once students mistrust others, that mistrust can be directed to teachers (Sabol & Pianta, 2012). However, teachers can overcome this mistrust (as the result of negative prior relationships) and even become secondary attachment figures (Van Ryzin, 2010).

The absence of trust displayed by students to teachers often is the catalyst behind relationships with high levels of conflict. Teachers have been shown to trust those students whom they feel to be teachable (Van Maele & Van Houtte, 2010). Teachers should believe that all students have the capacity to learn through engagement in academic activities. The belief that

students are teachable is directly related to emotional and behavioral engagement. Teachers who believe their students are emotionally and behaviorally engaged are more likely to display positive behaviors toward students. However, students often externalize emotional problems through actions that are considered to be emotionally and behaviorally disengaged by teachers. Students who experience emotional problems may appear to be disinterested in the activities of a classroom. Additionally, students may misbehave in ways that appear to be disrespectful or disruptive as the result of internal conflicts (Fowler, Banks, Anhalt, Der, & Kalis, 2008). These emotional and behavioral problems all have the potential to negatively impact relationship quality between teachers and students if their root causes are not understood by teachers.

The teacher. The actions of the teacher directly impact the quality of the interpersonal relationship between teacher and student. Some students are simply more difficult to establish high-quality relationships with than others. Additionally, certain groups of students, such as African Americans, have been shown to experience less relational closeness with teachers (Spilt & Hughes, 2015). The teacher then must be willing to establish positive relationships with all students, as it is known that these relationships are central to student engagement and success (Li & Lerner, 2013). The actions of the teacher cannot be dependent upon the actions of the student but, instead, should be present for each student unconditionally. Ultimately, the quality of the relationship that is established between teacher and student is dependent upon the teacher's characteristics and interpersonal skills (Sabol & Pianta, 2012). What is of most significance to researchers and educators are the characteristics and skills that can be identified, modified, and changed.

Reeve (2006) identified four ways that teachers relate to students that are likely to promote positive relationships and foster student engagement and achievement.

Attunement. Attuned teachers can understand their students' state of being and adjust their instruction accordingly. Attuned teachers can understand the students' state of mind because they pay close attention to them and know what they are thinking and feeling.

Relatedness. Relatedness is feeling close to another. When teachers are able to provide a sense of support, students come to believe that they are special and important to the teacher.

Supportiveness. Teachers who are supportive understand their students' need for autonomous learning, and they support that need by providing opportunities for self-guided learning while being supportive of their endeavors. When students feel supported as they learn and experience new concepts, they are more creative and engaged.

Gentle discipline. Teachers who assert gentle discipline do not exert power over students but rather guide and explain. In this way, the teacher attempts to show how one way of thinking and acting is appropriate, and another way is inappropriate.

Teachers who establish high-quality relationships with their students are able to understand that changes in student engagement are part of the teaching/learning experience. Displays of problem behaviors are often manifestations of the student's own emotional problems. Teachers may interpret reductions in engagement as disrespect or disinterest. Teachers may see those students who are less behaviorally engaged as being problem students and establish positive relationships with only those students who appear to be most interested.

Teachers who view negative emotional and behavioral student responses in isolation may come to believe that the student is the problem, and thus the cycle of conflict in their relationship begins. Teachers must, instead, be willing to look past apparent behavioral problems and work to establish positive connections with all students consistently. Teachers who are able to understand unique emotional and behavioral responses as manifestations of internal emotional

problems that are not school-related are then able to work past situations that have the potential for conflict.

Engagement and Achievement

Close, caring relationships in the educational setting have been shown to result in positive effects in the lives of students. A review of recent studies reveals that students who are most engaged, both emotionally and behaviorally, are also most likely to experience high quality relationships with teachers. According to the student engagement model, positive relationships between teachers and students should result in increases in emotional, behavioral, and cognitive engagement. The student who is fully-engaged should then also experience increases in academic achievement.

Engagement. The most apparent influence of close interpersonal relationships between teachers and students on the educational experience of students comes in the form of student engagement. A recent study of over 1,000 students in grades 7-9 produced findings consistent with the view that positive teacher-student relationships result in more engaged students (De Laet et al., 2016). It was discovered that those students who experienced a stronger affiliation with teachers were more engaged in school (De Laet et al., 2016).

In a recent review of 46 studies, Quin (2017) focused on the relationship between teacher-student relationships and student engagement, revealing findings consistent with the theory that high-quality relationships lead to increases in student engagement. Quin (2017) also found that positive relationships resulted in higher levels of emotional engagement for students.

Peer interactions can also influence the emotional engagement of students. Research points to the ability of high-quality teacher-student interactions to mediate against peer harassment and thus influence student emotional engagement. In a 2015 study of 1,864 children,

it was found that those students who reported high levels of teacher support experienced reduced peer victimization (Lucas-Molina, Williamson, Pulido, & Pérez-Albéniz, 2015).

An increase in student behavioral engagement is also an effect of high-quality interpersonal relationships between teachers and students. A significant influence on the behavioral engagement of students is the nature of the relationships they have with teachers. Positive interpersonal relationships between teachers and students are associated with increased levels of behavioral engagement in students. De Laet et al. (2016) found that students who have strong, positive relationships with teachers are more behaviorally engaged, and those who are dissatisfied with teachers are less engaged and break the rules more often. In an additional study of over 1,100 students, Engels et al. (2016) produced similar findings to that of De Laet et al. (2016). It was found that positive student-teacher relationships were associated with increased behavioral engagement over time, and negative student-teacher relationships resulted in less engagement over time (Engels et al., 2016).

A recent study by Archambault, Vandenbossche-Makombo, and Fraser (2017) highlighted the significance of the teacher-student relationship in promoting student behavioral engagement. Findings indicated that students who had a high quality relationship with a teacher had higher levels of behavioral engagement. It was also found that high quality relationships with teachers not only produced higher levels of behavioral engagement but mediated the effects of student oppositional behavior (Archambault, Vandenbossche-Makombo, & Fraser, 2017).

In producing results consistent with prior findings, Engels et al. (2016) found that the behavioral engagement of adolescent students declined over the course of their secondary school experience. However, Engels et al. (2016) found that those students who experienced positive

teacher-student relationships while in high school also experienced higher levels of behavioral engagement.

Achievement. The student who experiences high quality relationships with teachers has higher levels of engagement and, in turn, increased academic performance. A review of the recent literature focused on the effects of positive relationships between teachers and students revealed that students who experience positive relationships consistently exhibit higher levels of academic achievement. Mason et al., (2017) conducted a longitudinal investigation on the relationship between teacher-student relationships and the academic skills of elementary school students. Results of the study reveal that both math and reading scores were positively related to teacher-student relationship quality. However, these findings also indicated that while relational closeness between teachers and students was a predictor of academic achievement, such relationships did not influence achievement in subsequent years.

In a study that produced results consistent with other recent work on academic achievement and teacher-student relationships, Ahnert, Milatz, Kappler, Schneiderwind, & Fischer (2013) found that cognitive processing was positively impacted by close teacher-student relationships. The experimental study examined 120 students in a laboratory environment that presented challenging tasks. Students who were shown pictures of teachers with whom they had close relationships performed much better than those who were shown pictures of teachers with whom they had a neutral relationship Ahnert et al., 2013).

Teacher-student relationships characterized by high levels of conflict have most often been shown to result in low levels of engagement and academic achievement. Just as positive interpersonal relationships between teachers and students result in increases in student engagement and higher levels of academic achievement, teacher-student relationships

characterized by high levels of conflict have been shown to result in decreased levels of student engagement and academic achievement. What is most significant about conflict relationships between teachers and students is that they have a stronger effect on student engagement and achievement than do positive relationships (Lei, Cui, & Chiu, 2016). In a recent meta-analysis of 57 studies focused on teacher-student relationships and student behavior, it was found that conflict relationships were more strongly linked to student behavioral engagement than were high quality relationships (Lei et al., 2016).

Summary

The emotional aspects of teaching and learning are both significant and complex. Emotion has gained momentum in recent years as a way to further understand the educational process and as a method for improving student achievement (Fredricks et al., 2016). However, the progression from understanding the emotion of teaching and learning to realizing increases in student achievement has not proven to be linear. Brain-based research has revealed a definite connection between emotion and cognition. The emotional state of the learner is significant to his or her ability to put forth effort and learn. The emotional state of students is then of substantial interest to those wishing to enhance the ability of students to think and achieve academically. A proven influence on the emotional state of students and, thus, one with the potential to also influence engagement and achievement are teachers.

Dynamic systems theory (Karimi-Aghdam, 2016) illustrates the complexity of the lives of students. Students do not exist in school without their social spheres and the influence they bring. Each student possesses a unique set of circumstances that is affected by relationships and actions far beyond the reach of what is controllable by the school. However, schools do have direct control of teachers' ability to alter students' emotional state through interpersonal

relationships. The power of interpersonal relationships between teachers and students in influencing student engagement and achievement is still largely unknown. Educational theorists and researchers continue to explore the role of emotion and teacher-student relationships in determining student engagement and achievement. As these relationships continue to be explored, the role of teacher emotional intelligence in determining teacher-student relationship quality may be a way to improve teachers' ability to influence the emotion, engagement, and achievement of students.

Chapter 2 explored three topics related to the role of emotion in the learning/teaching process. First, student engagement was explored as a means of moving beyond more traditional methods of thinking about the student experience to explore how student and teacher emotion affect the complex student experience. Then, the nature of student-teacher relationships was presented. Teacher-student relationship quality as well as the way that interpersonal relationships between teachers and students influence students was discussed. Finally, teacher emotional intelligence and its relationship to both teacher-student relationships and student engagement and achievement was presented. The potential for EI theory to understand and to explain the role of teacher emotion in molding the student experience was provided, as well as an exploration of the limited research base associated with teacher EI. Chapter 3 will provide a detailed explanation of the study methodology.

CHAPTER III

METHODOLOGY

The purpose of this mixed-methods research study is to investigate the role of the relationship between teachers' emotional intelligence (EI), interpersonal relationship quality, and student engagement and achievement. The impact of emotion on the educational process is often marginalized in favor of that which is measurable. However, recent developments in the field of EI have allowed for one's ability to think emotionally to be quantified (Mayer et al., 2016). Although the ability to quantify emotion now exists, it has rarely been used to examine the ways that teacher EI impacts student engagement and achievement at the high school level. This study seeks to explore the role of emotion in the act of teaching to understand how the EI of teachers may influence interpersonal relationship quality between teachers and students, as well as student engagement and achievement.

Data for this study were gathered by using qualitative and quantitative research methods with high school teachers. Qualitative data were collected through semi-structured interviews with all participating teachers. Quantitative data collection included having participants complete a student-teacher relationship quality survey and an EI test. During this study, the following questions were used to guide the investigation:

1. To what extent is emotional intelligence related to student achievement?
2. To what extent does emotional intelligence impact student engagement?
3. To what extent do teachers use emotional intelligence to establish interpersonal relationships with students?

Chapter 3 will describe the study design including the setting, sample, data collection, and data analysis. The study methodology, as well as the rationale for using the methods, are also provided.

Research Design

This research builds on the concept that emotion is central to learning (Martínez-Sierra, & Garcia-González, 2015). The role of teachers in supporting positive student emotion has emerged as an essential aspect of the student educational experience as the importance of emotion in the learning process continues to be revealed (Engels et al., 2016). The specific role that teachers play in supporting the emotional experience of students and how such support influences student engagement and achievement is the focus of this research. Although data support the notion that teachers can influence the emotional state of students through interpersonal relationships (Li & Lerner, 2013), a need exists to understand teachers' capacity to form these relationships and the specific ways that they affect students.

This study employed mixed methods and both qualitative and quantitative data. Ayiro (2012) described mixed-methods research as a design with philosophical assumptions that uses qualitative and quantitative methods. The design of this mixed-methods study asserts that the combined use of quantitative and qualitative approaches produces a better understanding of the research questions than the use of either approach by itself (Ayiro, 2012). A convergent mixed-methods design was employed for this study in which quantitative and qualitative data were collected simultaneously to provide a comprehensive dataset (Ayiro, 2012; Fetters, Curry, & Creswell, 2013).

Three data sources were used to address the research questions of this study, and two quantitative measures were administered to teachers and used to gather data. The first

quantitative measure, the Situational Test of Emotional Understanding (STEU), is an ability-based emotional intelligence (EI) test that provided emotional intelligence scores for each participating teacher (Appendix A). The second quantitative measure, the Student-Teacher Relationship Survey (STRS), is a survey instrument used to measure relationship quality between teachers and students (Appendix B). The STRS was used to provide a numerical score representing the degree of closeness and conflict found in interpersonal relationships between teachers and their students. Both of these quantitative measures were completed in an online format using the Qualtrics platform. The use of this administration method allowed participating teachers to complete the measures at times that were convenient for them.

In addition to the quantitative data that were collected, qualitative data were also collected to more deeply explore the ways that teachers establish and maintain interpersonal relationships with students and the effects of those relationships on students. Semi-structured interviews were conducted with each participating teacher to gain insight into the ways that teacher EI influences teacher-student relationship quality and student engagement and achievement. These interviews were held in the school buildings where the 31 teacher participants worked. Interview sessions were scheduled during times that were convenient for teachers and conducted in comfortable locations that they selected. The interview sessions were audio recorded digitally with participants' permission, and following transcription of the recordings, they were destroyed to protect participant identity.

The purpose of this design was to combine quantitative data in the form of EI and relationship quality scores with an in-depth exploration of how such constructs affect the teaching and learning process through qualitative interviews. The research design sought to take advantage of recent advancements in the study of emotion to allow for the traditionally abstract

concepts of emotion and relationship quality to be measured and assigned numerical values. However, because of the limitations of explaining emotion and interpersonal interaction using only numerical values, in-depth qualitative interviews were also conducted to gain further insight into the role of emotion in the teacher-student experience. The design provided rich detail concerning the ways that teachers' emotional capacity influences the student experience. As suggested by Hesse-Biber (2014), "Qualitative data illuminate the meaning of statistical results by adding a narrative understanding to quantitative research findings" (p. 6). These data and their subsequent analysis allowed for an in-depth exploration of the complex and underrepresented concepts of teacher and student emotion in relation to student engagement and achievement.

Study Sites

Two public school districts agreed to participate in the study and granted permission to contact teachers within their school districts. Across two districts, four high schools served as the sites for the research. All of the high schools were in rural settings. The first participating district consisted of one high school with approximately 1,000 students and 50 teachers. The student population was 97% white with 45% of students being from families with low incomes. The second participating district consisted of three high schools serving a total population of more than 1,200 students. Across the three high schools in this district, approximately 100 teachers served students in grades 9-12. The student population was 95% white with 30% of students coming from families with low incomes.

Participants

The study sample consisted of individuals who taught students in grades 9-12 at the high school level. The sample selection took place in all districts and schools that agreed to

participate in the study. The sample was drawn from teachers in four high schools across two school districts. Approximately 150 teachers were invited to participate in the study via an initial email which was sent to all high school teachers within the participating districts (Appendix C). This email contained necessary information about the study, including its purpose and the role of participants. Potential participants were asked to reply to the email if they had further interest in taking part in the study. In the reply email, these individuals were asked to provide additional contact information including a mailing address and telephone number. After the pool of participating teachers was established, the researcher contacted each teacher to extend an invitation to participate. The total number of participating teachers in the study was 31. Of the 31 participants, 22 were female teachers and nine were male teachers. All participating teachers completed a voluntary consent form before engaging in the study.

Methods and Procedures

The study's mixed-method design investigated the relationships between teachers' emotional intelligence (EI), interpersonal relationship quality between teachers and students, and student engagement and achievement. A qualitative research method in the form of semi-structured interviews, as well as quantitative methods in the form of an emotional intelligence test and a student-teacher relationship scale, were used to explore the relationships between these variables.

The first step of the study was to seek access to potential participating teachers through school district approval. Permission was first obtained from the superintendents of the participating school districts before any participants were contacted or any data gathered. An invitation letter that described the study was sent to each superintendent (Appendix D). Out of

five superintendents who were contacted, two agreed to participate in the study and granted access to high school teachers within their districts.

Following district approval, potential participants were contacted by the lead researcher through email to notify them of the study and invite them to participate (Appendix C). This correspondence included a detailed description of the study. Potential participants who had further interest in the study were asked to reply to the communication and include a mailing address and phone number with their reply.

After the pool of participants was established, the researcher contacted each participant to discuss the study. Following this contact, if the potential participant indicated a willingness to participate in the study, a time and location for the interview session were established. Potential participants who did not reply to the email correspondence or those who indicated that they did not wish to participate following a description of the study were excluded. In total, 31 teachers agreed to participate in the study.

Interview sessions with all 31 participants took place at the schools where the participants worked and in locations within the buildings with which each was comfortable (Seidman, 2013). Upon meeting the researcher, the process of consent was discussed. Each participant was given two copies of the consent letter and form (Appendixes E & F). All questions about the study were answered at that time, and participants were informed of the researcher's desire to record the session. After participants agreed to the conditions of the study and signed the consent form, the interview began. Each interview session lasted no longer than 30 minutes (Seidman, 2013). The audio of each interview session was digitally recorded and later transcribed. Following the transcription of interviews, the digital recordings were destroyed to protect the identity of participants. Study participants had the option to end the interview at any time during the

process if they felt uncomfortable or became emotionally unengaged. None of the participants chose to end the interview session early.

Following the qualitative interview, participants were provided with instructions on how to complete the Situational Test of Emotional Understanding (STEU) and the Student-Teacher Relationship Scale (STRS). This instruction sheet, including the web addresses of the online test and survey, can be found in Appendix G. The STEU and the STRS were made available in an online format using the Qualtrics platform and participants took these measures at a time that was convenient for them. Participants were given a deadline for completing the two online measures, and all participants completed the measures within the given timeframe. Copies of the STEU and the STRS are located in Appendixes A and B.

Following the distribution of the instructions for completing the online measures, participants were thanked, and any additional questions they had were answered. If participants were not satisfied with the answers to their questions or felt uncomfortable in any way, they had the option to end the study at that point, which none chose to do. Participants were also informed that they could contact the researcher or faculty sponsor at any time until the study was finalized to have their interview or online measures removed.

Instrumentation

The research tools that were utilized for the study are described here. The quantitative tools including the Situational Test of Emotional Understanding and the Student-Teacher Relationship Scale have been established through previous research. The interview protocol was developed by the researcher and is aligned with the theoretical framework of the study and the research questions.

Situational Test of Emotional Understanding

The Situational Test of Emotional Understanding (STEU) was developed by MacCann and Roberts (2008) as a measure of ability-based emotional intelligence (EI), adding to the limited testing instruments available. At the time of its development, the only measure of ability-based EI was the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) (Mayer et al., 2003). While the MSCEIT has proven to be a valid measure of the four-branch model of ability EI, its application is limited by price and availability. MacCann and Roberts (2008) noted that with only one measure of ability-based EI, it was impossible to know whether results were related to the examined construct or the measurement tool. The STEU is a departure from the MSCEIT in test availability and research transparency in test scoring (Austin, 2010).

The STEU is composed of 42 items that are divided into 14 context-reduced items, 14 personal life-context items, and 14 workplace items. To construct the test items, the STEU uses Roseman's (2001) appraisal theory, which identifies 17 unique emotions that are represented in the questions. The STEU is a valid measure of EI with estimates for Cronbach's α found to be within an acceptable range with α = .71 and .72 in a sample of 207 Australian undergraduates and 850 Belgian medical students respectively (Libbrecht & Lievens, 2012; MacCann & Roberts, 2008).

The value of the STEU as a reliable measure of EI is that it assesses emotional understanding, the only branch of EI that has been found to have nontrivial relationships with cognitive ability (Allen, Weissman, Hellwig, MacCann, & Roberts, 2014). Additionally, the STEU has been shown to correlate to the EI model presented by Mayer, Caruso, and Salovey (2016) and the MSCEIT. STEU scores correlate at .44 with MSCEIT emotional understanding

scores and are also associated with other aspects of EI such as emotional management and emotion perception (Austin, 2010).

The STEU produces a score based on a total number of correct answers out of the possible 42 questions. The test is scored by comparing individual results to the broader population of test takers. The scores are then used to rank EI using four categories: excellent, very superior, superior, and typical.

Student-Teacher Relationship Scale

The Student-Teacher Relationship Scale (STRS) is a widely-used survey to assess the relationship quality between students and teachers. This scale evaluates the relationship quality regarding closeness and conflict (Koomen et al., 2012). The STRS was built on characteristics of relationship quality that have been empirically-supported since its development (Koomen et al., 2012).

The STRS is a representation of the teacher's view of the relationship quality with students. While the perspective of students to assess relationship quality with teachers in older students is often used, teachers' views have also been used as they dictate instructional and interpersonal interaction with students (Koomen et al., 2012).

The STRS was initially designed to assess the quality of the relationship between a teacher and individual students. However, the STRS short form has been adapted and used several times to measure the quality of relationships between a teacher and a group of students. Most recently, the STRS was adapted to measure the quality of relationships between teachers and groups of students by the Pennsylvania Department of Education (Whitaker, Dearth-Wesley, & Gooze, 2015).

The STRS short form, which was used in this study, is a 15-item self-report measure that uses a 5-point Likert rating scale. Seven of the survey items measure closeness, while eight of the items measure conflict. Raw scores on the assessment consist of the sum of responses, producing a variance of between 7 and 35 for the closeness subscale and 8 and 40 for the conflict subscale. The sum of all items is used to show a total STRS score with the test items for conflict being inverted (Patrício, Barata, Calheiros, & Graça, 2015). Adequate internal consistency for both closeness (.72) and conflict (.82) has been demonstrated (Tsigilis & Gregoriadis, 2008).

Interview Sessions

The researcher designed the interview protocol for use in conducting the qualitative interviews. The interview questions are aligned with the research questions and framed by emotional intelligence (EI) theory and the student engagement model. Although there is no single format for creating an interview guide, Seidman (2013) advocated for framing the interview with a broad, open-ended question that is intended to invite personal narrative. Merriam (2009) also encouraged a majority of more general, open-ended questions that allow the researcher to listen to what the interviewee says and then follow areas of inquiry based on those statements.

The interview guide created for this study contains broad questions intended to elicit reflection and response but also to leave room for the researcher to explore areas that emerge as apparently interesting or that were not previously considered (Merriam, 2009). Before its use in this study, the interview guide was piloted with five nonparticipating teachers to ensure question clarity and alignment to the research questions. The alignment of the research questions to the interview protocol is displayed in Table 1.

Table 1

Alignment of Research Questions to Interview Protocol

Research Questions	Interview Questions
Research Question 1: To what extent is emotional intelligence related to student achievement?	Can you describe the typical level of academic achievement that your students experience in your classroom?
Research Question 2: To what extent does emotional intelligence impact student engagement?	Can you discuss how your students typically feel about you, the classroom environment, and the activities in which you ask them to engage? Can you discuss the level to which your students comply with the behavioral expectations of the class and engage in the activities in which they are asked to participate? Can you discuss the level to which your students attempt to take part in the learning process and comprehend the academic material presented?
Research Question 3: To what extent do teachers use emotional intelligence to establish interpersonal relationships with students?	Tell me about how you view the role of interpersonal relationships with your students in the educational process? Can you describe how your actions and emotions influence the quality of your interpersonal relationships with your students? Can you describe how the actions and emotions of your students influence the quality of your interpersonal relationships with them?

The researcher conducted the interview sessions with participants in a way that would put them at ease and allow for the most accurate information to be presented. Seidman (2013) presented the concept that good interviewing is an art based partially on the personality of the interviewer but is also based on skills that can be taught and learned. Additionally, Seidman (2013) discussed what he referred to as doing good work that is "seeking the participants' perspective on their own experience and the meaning they make of it" (p. 140). In attempting to conduct this good work, Seidman (2013) presented the following skills for conducting qualitative interviews that the researcher followed throughout the interview process:

- Listen more, talk less
- Follow up on what the participant says
- Follow up, but don't interrupt
- Avoid leading questions
- Ask for concrete details
- Limit your own interactions
- Explore laughter
- Follow your hunches
- Tolerate silence (p. 81-92)

While conducting interviews, the researcher strove to develop a rapport with participants, managing the relationship between each party. Seidman (2013) suggested that the researcher-participant relationship can be power-laden and unequal. The researcher should attempt to eliminate any power-laden relationships and instead work to create equity with participants by relating to them (Seidman, 2013). In an attempt to create this equity with participants, the researcher related to participants that he too was a high school teacher. Additionally, the rapport

was established with participants by having brief, informal conversations about the school and teaching before each session began.

Summary

The purpose of this mixed-methods research study was to investigate the role of the relationship between teachers' emotional intelligence, interpersonal relationship quality, and student engagement and achievement. A mixed-methods design was used to allow for an in-depth understanding of the relationship between teacher emotional intelligence, teacher-student relationships, and student achievement and engagement.

Research sites were located in the eastern part of the United States. Participating school districts granted site approval and agreed to allow high school teachers to be contacted by the researcher. Teachers who taught students in grades 9-12 within school districts that granted access to their teachers were invited to participate. The study included only those teachers who freely chose to participate.

Data collection included qualitative semi-structured interviews with all 31 participating teachers. Additionally, quantitative data were collected by having all participating teachers complete online versions of the Situational Test of Emotional Understanding as well as the Student-Teacher Relationship Scale. The qualitative data were analyzed through coding the interviews and identifying underlying themes. The quantitative data were analyzed with the SPSS system to explore the relationship between emotional intelligence and teacher-student relationship quality. Both the qualitative and quantitative data were integrated during data analysis to create a more synergistic understanding of the phenomenon in question.

Chapter 4 will reveal findings from the qualitative and quantitative data that were collected.

CHAPTER IV

ANALYSIS OF DATA

The primary purpose of this mixed-methods research study was to investigate the relationship between teachers' emotional intelligence, interpersonal relationship quality, and student engagement and achievement. This study utilized semi-structured interviews with teachers, teacher emotional intelligence scores, and teacher-student relationship quality survey data. During the course of this study, the following questions were used to guide the investigation.

1. To what extent is emotional intelligence related to student achievement?
2. To what extent does emotional intelligence impact student engagement?
3. To what extent do teachers use emotional intelligence to establish interpersonal relationships with students?

This chapter includes demographic information about study participants. The research tools are also described in relation to the research questions. Finally, the results of the study are provided and organized by research question.

Teacher and School Demographics

This study had 31 participating teachers, all of whom taught at least one class of students in grades 9-12 at the time of the study. The teachers' content areas ranged from self-contained special education classrooms to English, science, mathematics, social studies, art, music, and family and consumer science. The participants' teaching experience spanned from two to 32 years. Of the 31 participants, 21 were female and 10 were male. All participating teachers completed a voluntary consent form before engaging in the study. Each of the 31 teachers completed all phases of the study, which consisted of a face-to-face interview session with the

researcher and the completion of the Situational Test of Emotional Understanding and the Student-Teacher Relationship Scale.

The participating teachers taught at four high schools within two school districts in rural settings in the eastern part of the United States. The first participating district consisted of one high school that had approximately 1,000 students and 50 teachers. The student population was 96% White, 2% Black, 1% Hispanic, and 1% Asian. Students who were eligible for free or reduced lunches comprised 45% of district students, indicating they were from low-income families, while 55% of students were from families with average or high incomes. The second participating district consisted of three high schools serving a total enrollment of slightly more than 1,200 students. Across the three high schools in this district, approximately 100 teachers served students in grades 9-12. The student population was 95% White, 2% Black, 2% Hispanic, and 1% Asian. Students who were from families with low incomes comprised 30% of district students, and 70% of students were from families with average or high incomes.

Results and Analysis

Preliminary Analysis

Collecting three forms of data was central to investigating the ways that the emotional intelligence (EI) of teachers influenced teacher-student relationship quality, and student achievement and engagement. Quantitative data were collected using the Situational Test of Emotional Understanding (STEU) to determine teachers' EI scores. Quantitative data were also collected using the Student-Teacher Relationship Scale (STRS) to determine teacher-student relationship quality scores. Additionally, qualitative data were collected by conducting semi-structured interviews with participants to gain a deeper understanding of the ways that teachers use EI in the educational process.

Teacher EI scores, as captured by the STEU, were central to the investigation of all three research questions. As such, teacher performance on the STEU is reported first and will be used to explore questions throughout the remainder of this analysis.

All 31 participating teachers took the STEU using the Qualtrics platform. Using Qualtrics to administer the STEU allowed for ease in distributing and scoring the assessment, as well as making it convenient for participants to complete the measure. In scoring the STEU, an individual's raw score is compared to a normative sample of test takers. Based on the normative sample, the raw score is then ranked in comparison to the sample, and values are assigned. The STEU has an established mean of .62 (MacCann & Roberts, 2008). Based on the mean of .62, percentile ranks are then assigned to individual scores. Table 2 shows the percentile ranking associated with different STEU raw scores.

Table 2

Interpretation of Situational Test of Emotional Understanding (STEU) Scores

Total EI Score Range	Percentage	Category
32.6 – 44	Top 10th percentile	Excellent
30.2- 32.5	Top 20th percentile	Very Superior
28.5 – 30.1	Top 30th percentile	Superior
28.4 or below	Below 30th percentile	Typical

The STEU produces a score based on the number of correct responses out of 42 questions, so the possible score range for the STEU is 0 to 42. The score range for participating teachers was between 23 and 42, with a mean score of 29. Results from the Shapiro-Wilk test revealed a significance of .157, which is greater than .05, indicating no statistical difference

between the STEU test and the normal distribution. This suggests that no specific departure from normality exists. The STEU scores for study participants are shown in Figure 1.

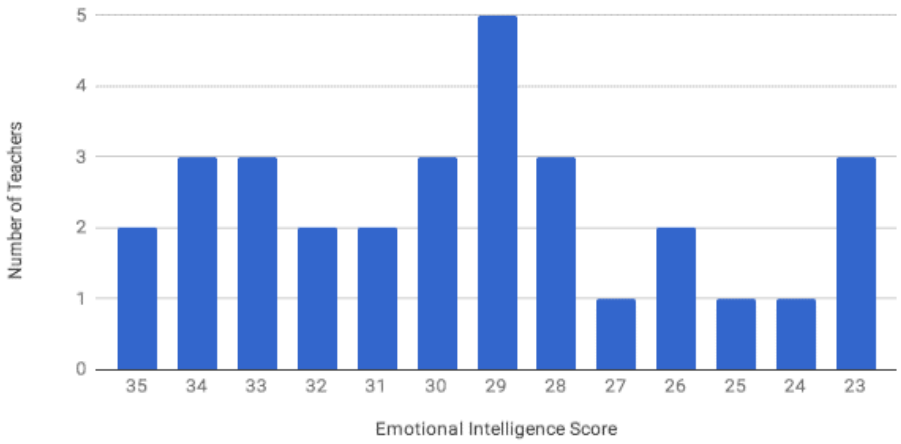

Figure 1. Situational Test of Emotional Understanding (STEU) scores from study participants.

After each participant's STEU scores were recorded, they were grouped based on the categories defined by the STEU, which are displayed in Table 2. This grouping revealed that of study participants, eight (26%) had excellent EI, four (13%) had very superior EI, eight (26%) had superior EI, and 11 (35%) had typical EI. Overall, eight teachers had excellent EI, receiving scores between 32.6 and 42, which is better than 90% of the average population. Four teachers had very superior EI, with scores between 30.2 and 32.5, indicating that their scores were better than 80% of the population. Eight teachers had superior EI scores ranging between 28.5 and 30.1, indicating that they had better EI than 70% of the population. Finally, 11 teachers had typical levels of EI with scores between 0 and 28.4, revealing their EI to be below that of the top 30% of the population. The distribution of teacher EI scores across the EI categories is displayed in Table 3.

Table 3

Situational Test of Emotional Understanding (STEU) Interval Scores for the Population of 31 Teachers

Score Interval	Categories for this study	No. of Teachers	% of Total
32.6 – 44	Excellent	8	26%
30.2- 32.5	Very Superior	4	13%
28.5 – 30.1	Superior	8	26%
28.4 or less	Typical	11	35%
	Total	31	100%

There were 21 (68%) female and 10 (32%) male participants in the study. The ratio of female to male teachers is typical of the secondary teacher population in the United States, where approximately 60% of teachers are female and approximately 40% are male ("Teacher Trends," 2018). Of the 21 female teachers who took the STEU, eight (38%) had excellent EI, four (19%) had very superior EI, five (24%) had superior EI, and four (19%) had typical EI. Of the 10 male teachers who took the STEU, none were represented in either of the top two EI categories. In the lower two categories, three (30%) male teachers had superior EI, and seven (70%) had typical EI. These results are reflective of current literature, which shows that females typically perform better than males on measures of EI (Ackley, 2016).

The age of teacher participants varied from 26 to 59 years. Teachers in the 30-39 age group had the most participants, 12 (39%), while teachers in the 20-29 age group had the least with three (10%). The second largest age group of participating teachers consisted of those between the ages of 40 and 49 with nine (29%) teachers represented. Finally, there were seven (22%) teachers over the age of 50. Older participating teachers tended to have higher EI scores. Seven of the eight teachers who had excellent EI came from either the 30-39 age group or the 40-

49 age group, and no teacher in the 20-29 age group had excellent EI. These results were also representative of the current trends in EI measurement, which show EI typically increases with age (Ackley, 2016). Table 4 shows the distribution of STEU scores for the 31 study participants based on age and gender.

Table 4

Frequency of Categories of Situational Test of Emotional Understanding (STEU) Scores for the Population of 31 Teachers by Age and Gender

	Age								
	20-29		30-39		40-49		50+		
	Female	Male	Female	Male	Female	Male	Female	Male	Total
Excellent	0	0	3	0	4	0	1	0	8
V. Superior	1	0	1	0	1	0	1	0	4
Superior	2	0	1	2	0	0	2	1	8
Typical	0	0	2	3	1	3	1	1	11

The teaching experience for participants in this study ranged from two to 32 years. There were 12 teachers who had taught between 20 and 29 years, which represented the most significant percentage of the group at 39%. Teachers who had taught between one and nine years made up the next largest group, with nine (29%) teachers. There were eight (26%) teachers who had taught between 10 and 19 years, and two (6%) teachers with 30 or more years of experience. The 20-29 age group represented the most significant number of teachers (12) and the highest number of participants with both excellent (four) and typical (five) levels of EI. Table 5 shows the teaching experience in years for each teacher as well as the EI score categories for each group.

Table 5

Frequency of Situational Test of Emotional Understanding (STEU) Scores for This Study Compared to Years of Teaching Experience for the 31 Teachers

	Teaching Experience								
	1-9 years		10-19 years		20-29 years		30+years		Total
	Female	Male	Female	Male	Female	Male	Female	Male	
Excellent	2	0	2	0	4	0	0	0	8
V. Superior	2	0	0	0	2	0	0	0	4
Superior	2	1	1	1	0	1	2	0	8
Typical	1	1	1	3	2	3	0	0	11

The data collected from the STEU provided a structure through which the additional data could be applied to understand the relationship between teacher EI, teacher-student relationship quality, and student achievement and engagement. The research questions were addressed by analyzing the remaining data in conjunction with the teacher EI data provided by the STEU,

Research Question One

Research Question One asked: *To what extent is emotional intelligence related to student achievement?* To explore the relationship between teacher emotional intelligence (EI) and student achievement, student achievement data were gathered from interviews with teachers and used in concert with data on teacher EI gathered from the Situational Test of Emotional Understanding (STEU).

The following interview question was used to gather data on student achievement: *What is the typical level of your students' achievement?* This question was worded intentionally to allow teachers to describe the academic achievement of their students in a variety of ways; they were free to define academic achievement in their classrooms and then to generalize typical levels of achievement for their students.

The limited amount of previous research on the relationship between teacher EI and student achievement has revealed mixed results. Several studies have shown significant correlations between teacher EI and student achievement (Curci et al., 2014; Fernandez & Raffanti, 2011; Moreau Neves et al., 2016), while other studies have found no such statistically significant correlation (Dickey & Boatwright, 2012; Rust et al.,2014).

Teacher EI and student achievement. Information on student achievement was provided by teachers and dependent upon their perceptions. Teachers' ability to accurately perceive the achievement of their students is supported by Sudkamp, Kaiser, and Moller (2012), who found a high correlation between teacher judgment and student achievement. Teachers' responses concerning the typical level of academic achievement of their students were first coded. Responses that indicated having a majority of students who achieved at a high level were coded as high academic achievement. Responses that indicated a wide range of achievement levels were coded as average achievement. Responses that indicated having a majority of students who achieved at low levels were coded as low achievement.

The results of coding teacher interviews revealed that of the 31 participating teachers, 17 reported having students with high academic achievement, 12 reporting having students with average academic achievement, and two teachers reported having students with low academic achievement. Table 6 shows the typical level of student academic performance for teachers in the study by teacher EI level.

Table 6

Teacher Emotional Intelligence (EI) and Student Achievement

	Student Academic Performance			
	High Achievement	Average Achievement	Low Achievement	Total
Excellent	6	2	0	8
V. Superior	4	0	0	4
Superior	2	4	2	8
Typical	5	6	0	11

High-achieving students. Of the 17 teachers who reported having students who typically achieved at a high level, six (35%) had excellent EI, four (24%) had very superior EI, two (12%) had superior EI, and five (29%) had typical EI. A typical description of high-achieving students was, "I don't typically have students who do poorly in my class. If they do poorly, they are flat out refusing to succeed because, typically, I do everything I can for them to help them get to where they need to be."

Average-achieving students. Of the 12 teachers who reported having students who typically achieved at an average level, two (17%) had excellent EI, zero had very superior EI, four (33%) had superior EI, and six (50%) had typical EI. A response representative of the way that many study participants described average performance by their students was, "My achievement ends up being very average. I try to feed the top end, but ultimately I end up teaching to the middle because of time constraints. And, because of the lack of tracking and the lack of time, achievement ends up being really just very average."

Low-achieving students. Only two teachers in the study reported having students who typically achieved at low levels. Both of these teachers had superior EI. A typical response describing low achievement was, "The academic achievement and their readiness when they get

to 10th grade has really gone downhill. Sometimes it's painful to hear them read even a paragraph. It's a lot worse than it was 20 years ago. Overall, the achievement isn't good, but that's because the quality of student performance has really decreased."

Coding and analysis of teacher responses concerning their students' typical levels of academic achievement revealed that most teachers described having students who achieved at either a high or average level. Aligning with Curi and Soleti in 2014, these data revealed that teachers with higher EI had students who achieved at higher levels than teachers with lower EI. Of the 12 teachers with either excellent or very superior EI, two (17%) reported having students who had average or low academic achievement, and 10 (83%) reported having students with high academic achievement. Of the 19 teachers with either superior or typical EI, 10 respondents (53%) reported having students who had average or low academic achievement, and nine (47%) respondents reported having students with high academic achievement. Figure 2 displays levels of student academic achievement grouped by teacher EI.

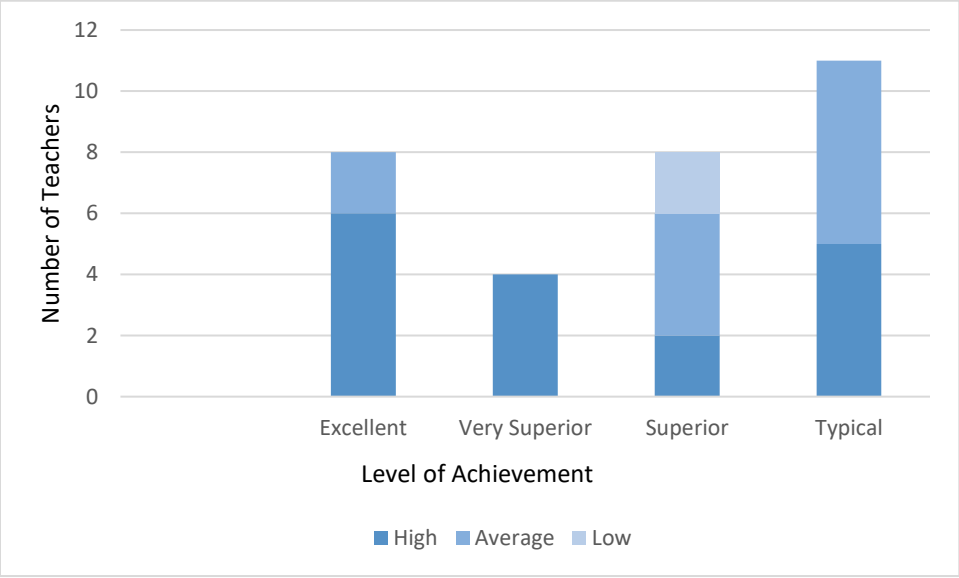

Figure 2. Student academic achievement by teacher emotional intelligence (EI).

Achievement themes. Teachers' descriptions of their students' academic achievement provided insight into their views on the relationship between academic achievement and EI. Teacher descriptions of student achievement afforded the ability to gain greater understanding into how achievement was influenced by teachers' emotions and actions. Additionally, these data offer a perspective of how teachers perceive the emotions and actions of their students in relation to academic achievement.

To generate themes related to student achievement, teachers' responses concerning their students' achievement were first literally coded. Following the literal coding of the data, focused coding took place that allowed the literal codes to be sorted into abstract categories. Finally, themes were generated from abstract categories that were then used to better understand how teachers perceived and influenced the achievement of their students.

The process of coding and creating themes revealed that student achievement was viewed in one of two ways. First, many teachers believed the level to which their students achieved academically was directly related to student ability and interest. These teachers presented student achievement as something that was outside of the scope of what they could control and was, instead, dictated primarily by students. The second way participating teachers chose to view student achievement was in terms of their own influence on student success. In contrast to the first group, these teachers understood student achievement to be directly related to their own behaviors. This division in teacher beliefs about their influence on student achievement is important when considering the work of Curci et al. (2014) who found teacher EI to be directly related to the teacher's ability to influence student perceptions. Within these two general perspectives on student achievement, more specific themes were identified that illustrate the

ways that participating teachers discussed and understood the achievement of their students. A presentation of those themes follows:

Student ability. A significant number of participating teachers presented the belief that their students' achievement was related primarily to their academic ability. Many study participants felt powerless to influence ability. In expressing this belief, teachers did not discuss their influence on the students' academic ability. Rather, these teachers discussed academic ability as a predetermined characteristic over which they had little influence. These teachers seemed willing to distance themselves from responsibility for their students' achievement. This perspective aligns with that of Curci et al. (2014) who found that EI was related to teachers' ability to enhance student perceptions of ability. Teachers presented their belief that academic achievement was related to a predetermined student level of ability as a reason for high, average, and low achievement.

Teachers who described student achievement as being mostly related to student ability often linked ability to the level of classes that were taught. In each of the schools where participants worked, most courses were grouped by student performance ability. Teacher descriptions revealed that some teachers taught primarily high-level courses. A teacher with very superior EI discussed having students who achieved at high levels as a result of the high-level courses that she taught. She said, "These are the high-level students. That's all I teach. If they have a down dip, they don't like it, and it's back up again. That's all on them." A teacher with typical EI also described the high achievement of students in relation to the high-level courses that were taught. This teacher, who discussed teaching only the highest-level courses and having only the best students, also presented the assumption that his students' high

achievement resulted from their ability level. He said, "The achievement is usually what you would see from high-level students. They achieve and move on."

Teachers also presented the belief that teaching a range of high to low ability-grouped courses affected their students' achievement. These teachers described having students who achieved at varying levels due to the variety of abilities present. Students in high-ability classes were reported to achieve at high levels and those in low-ability classes were reported to achieve at low levels. A teacher with typical EI presented an opinion that was representative of this perspective when discussing what she determined to be the average level of academic achievement of her students in relation to their abilities. She said, "I see all students. The achievement is kind of in the middle. The academic kids do well no matter what. The other kids, they do what they do. So overall, it's kind of in the middle." Another teacher with typical EI echoed the opinion that a variety of student achievement levels was due to a variety of ability-grouped courses. This teacher said, "There is definitely a mix. I have high-level and low-level learners. That also results in a really wide variety of achievement levels because everyone has different ability levels."

Some teachers who believed their students' achievement was directly related to their predetermined academic ability linked this achievement to the heterogeneously grouped courses they taught. Most courses within the schools where participating teachers taught were grouped based on ability, but a few subject areas were, instead, free from this category distinction. Teachers who related the various academic abilities of their students within these courses to levels of academic achievement did so by describing either average or low achievement. A teacher with typical EI described the average level of academic achievement of her students in relation to the heterogeneous population of her courses by saying, "I have all students. Most of

the other departments, all of the other departments, are grouped according to ability. Student achievement comes out average. Nobody fails, but I have a very wide range." A teacher with superior EI also related the academic achievement of his students to their own ability by describing the heterogeneously grouped courses he taught. This teacher spent considerable time discussing the ways he believed having students of all ability levels grouped in the same courses resulted in low levels of achievement for all of his students. He expressed his opinion that students in the learning support program should not be in his classroom. In describing the way that the range of student abilities in his classes resulted in low levels of achievement, he said:

> My achievement has gone way down. It's because of the students that I have. Students with an IEP [Individual Education Plan] don't have to do anything. My students in the 80s and 90s would run circles around these students today. Their achievement is bad. It's real bad.

While most teachers described the level of courses that they taught, one teacher presented the unique perspective that the ability of an entire grade level of students impacted the level of achievement in her students. This teacher, who had excellent EI, discussed how she believed the achievement of her students she had previously was the lowest of any group of students she had encountered. She chose to determine the level of her students' achievement based on a state measurement of student growth. When describing the decrease in overall student growth she had experienced, she said:

> Every year we get the rating. I've always gotten them to increase at least one grade level. Last year was the lowest achievement that I had since they started that. But that was traditionally a really challenging group, and everyone had the same struggles with them. I got them to all one year of growth but it was the lowest group that I've had. It was a

> really challenging group. I tried to push them as much as I could. But I did get at least a grade level's growth.

Finally, one participating teacher with typical EI chose to relate the academic achievement of his students to their academic ability by discussing the declining ability of his students over time. This teacher, who was in his 20th year of teaching, spoke at length about the exceptional academic abilities of his students near the beginning of his career and how he believed those abilities had decreased. In discussing the low academic of achievement of his students in relation to a declining ability:

> The academic achievement and their readiness when they get to me has really gone downhill. Sometimes, it's painful to hear them read even a paragraph. It's a lot worse than it was 20 years ago. I've had to lower my expectations. Now it's gotten to the point where I have to give them leading clues before exams, and I would have never done that 20 years ago. It's lowered the bar a little bit. Overall, the achievement isn't good, but that's because the quality of student has really decreased.

Student interest. A second way that some teachers placed responsibility for achievement on their students was in their view that student interests influenced their academic performance. Over 50% of all students experience boredom in school (Macklem, 2015). However, while most students are bored in school, teachers often fail to consider their own role in increasing or decreasing student interest (Macklem, 2015). Many participating teachers reflected this trend and presented student interest as a factor that was dependent upon students. It can be assumed that all students have levels of interest in particular subject areas or topics that either preclude or promote further exploration. The teachers who discussed the relation of student interests to their

level of achievement believed students' predetermined interests led to either high or low levels of achievement.

One-way teachers related student interest to achievement was by discussing how their particular subject area was not interesting to their students. Some teachers believed they taught courses that were not appealing to their students. These teachers tended to see their courses and the curriculum as static entities that could not be adapted. A teacher with superior EI made several references to the fact that he believed he taught a subject that was not traditionally a favorite of students. He commented on the way the content of his course related to student academic achievement in a way that was typical of teachers who expressed this belief:

> I would say most of the students that I've had are pretty average students. In the state, when you get that breakdown, most of those kids are going to be in that middle group, middle achieving. Very few of the students would describe it as their favorite subject, and because of that, initially, their interest is very low.

Student interest was also discussed by teachers who taught elective courses. A common belief among teachers who taught courses that were offered as electives was that students achieved at high levels because they chose to take the course. These teachers believed that because the course was optional, the selection of it indicated a high interest, which, in turn, led to high academic achievement. A teacher with very superior EI described the high achievement of her students in a way that was representative of this belief. In describing the high achievement of her students who elected to take her courses, she said:

> The achievement is super high because the students want to be here. Achievement is not really fair to judge because all of my students have chosen to take the class. They wouldn't have taken it if they weren't interested or didn't want to do well.

Teacher optimism. Some teachers chose to describe their ability to positively influence student achievement. One way that teachers believed they could influence student achievement was through an optimistic attitude that all students could succeed. Teacher optimism has been shown to be a significant factor in determining student achievement (Hong & Cheng, 2013). Teachers who presented an optimistic belief about their students' achievement described how their teaching philosophy influenced academic achievement. Teachers who focused on their ability to influence student achievement viewed their course as a means to improving student learning; they sought to teach rather than to measure student performance until the students learned the concepts that were being presented. The overall number of teachers who presented an optimistic belief about student achievement was found to be much lower than the number of teachers who viewed achievement in terms of student assets and deficiencies.

These teachers were much less concerned with the academic ability of their students and, instead, chose to focus on the ways the teachers worked to improve achievement. A teacher with excellent EI who described the high achievement of her students in a way that was representative of this belief said, "I don't typically have students who do poorly in my class. If they do poorly, they are flat out refusing to succeed because typically, I do everything I can to help them get to where they need to be." This teacher, and several like her, expressed the opinion that they would do everything within their power to ensure that their students achieved at high levels.

A teacher with excellent EI also described the high achievement of her students in relation to a teaching philosophy that was representative of this approach. In describing her approach in relation to her students' achievement, she said, "Any class that I've taught, the students have experienced a lot of success. In here, you are making sure that they learn it and you're not just trying to check boxes off." A teacher with typical EI discussed his teaching

philosophy in relation to the achievement of his students in a way that was also representative of this perspective. This teacher, who described teaching a variety of ability-grouped courses said:

> Every class is geared differently. Mastery learning is where my thoughts always are. My kids always get high grades for the most part. They have to master everything, or otherwise they aren't going to get it out in the real world.

Valuing effort. Another theme that was found within teacher descriptions of student academic achievement was the value that some teachers placed on student effort when measuring achievement. Teacher perceptions of high student effort have been associated with positive impressions by teachers and perceptions of low student effort have been associated with negative impressions by teachers (Kahn, Cheramie, & Stafford, 2013). The way that several teachers discussed valuing effort in relation to determining student achievement also stood in contrast to teachers who presented the belief that they had little influence on student achievement. Rather than viewing academic achievement as an absolute measurement, these teachers, instead, saw student achievement as something that could be adjusted in relation to the amount of effort that was displayed.

Several teachers discussed how their value of student effort translated into higher student achievement than what was attained in other classes where achievement was viewed only in terms of test scores. The teacher with superior EI discussed the value he placed on student effort in determining achievement, saying:

> I have a much higher success rate than many of my colleagues who teach similar students. Students do better in my class than they do in other teachers' classes. That is probably because I value effort more than ability. If they give effort, if they are engaged, they are going to do quite well.

A teacher with excellent EI also discussed the achievement of her students in terms of effort. This teacher taught courses that were not tested using state-level standardized assessments. She believed that because her content area was not subjected to such testing, she had much more freedom to determine what she chose to define as high achievement. In determining what she valued in her students and what resulted in students achieving at high levels, she chose to place a high value on being engaged in the activities of her class. When discussing her students' achievement, she said:

> I have some kids who fail this class. But the kids who fail this class are the kids who won't do anything. It's my standard. There is no standardized test. It's based on what I'm looking for. If they put forth effort, they are going to be just fine. But that's different than what you would have in another class, a class that has standardized tests. My grades can be based on whatever I want, but I like it that way too.

Finally, one teacher with excellent EI presented a unique view of the ways she valued effort in her classroom. This teacher believed that due to her approach with students, they put forth more effort over the course of the school year. Moreover, as a result of her placing a high value on effort, the level of academic achievement of her students then rose throughout the year. This teacher was a learning support teacher who discussed how the learning disabilities of her students often prevented them from achieving at high levels when she first encountered them. However, she discussed how she worked to help improve academic performance through valuing and assessing effort:

> I have students who are not in a self-contained class with me. But typically, a lot of the students I work with may have lower achievement in some subject areas, but that might be related to a specific learning disability. So, what we do, what my job is, is to

overcome that learning disability and help the student succeed in those areas. And that success comes from effort. If I can get them to try in those areas where they are weak, then they have achieved.

Research Question Two

Research Question Two asked: *To what extent does emotional intelligence impact student engagement?* To explore the relationship between teacher emotional intelligence (EI) and student engagement, data from the Situational Test of Emotional Understanding (STEU) were used with data from teacher interviews. The exploration of this research question using a convergent mixed-methods design again called for the mixing of the qualitative and quantitative data. Teacher EI scores were combined with data on student engagement obtained from interviews to explore the relationship between teacher EI and student engagement.

As described by the student engagement model (Poorthuis et al., 2015), student engagement has been divided into three separate types: emotional, behavioral, and cognitive. In order to explore the relationship between EI and student engagement, teacher responses concerning each type of engagement will be presented first.

Previous research focused on the relationship between teacher EI and all forms of student engagement is limited. While few studies have been identified that focus on the potential connections between teacher EI and student engagement, Poulou (2017) found no relationship between teacher EI and student engagement. In contrast to the work of Poulou (2017), Nizielski (2012) did identify a significant correlation between teacher EI and student behavioral engagement.

Emotional engagement. Emotional engagement is defined as students' affective response to learning activities and the people associated with those activities (Park et al., 2012).

To determine the level of emotional engagement that students experienced in each teacher's classroom, the following interview question was asked: *Can you discuss how your students typically feel about you, the classroom environment, and the activities in which you ask them to engage?* The coding of the teacher responses categorized student emotional engagement as either high, average, or low. For the purposes of this study, a code of high-emotional engagement represented teachers who described most of their students as emotionally engaged. A code of average engagement represented teachers who described having some students who were emotionally engaged and some who were not. A code of low-emotional engagement represented teachers who described most of their students as not being emotionally engaged.

The results of coding teacher interviews revealed that of the 31 participating teachers, 23 reported having students with high-emotional engagement, six reported having students with average-emotional engagement, and two reported having students with low-emotional engagement. Table 7 shows the typical level of student emotional engagement for teachers in the study grouped by teacher EI level.

Table 7

Teacher Emotional Intelligence (EI) and Student Emotional Engagement

	Student Emotional Engagement			
	High-Emotional Engagement	Average-Emotional Engagement	Low-Emotional Engagement	Total
Excellent	8	0	0	8
V. Superior	2	2	0	4
Superior	6	1	1	8
Typical	7	3	1	11

High-emotional engagement. Among participating teachers, 23 described their students as being engaged at a high level. Of those 23 teachers, eight (35%) had excellent EI, two (9%) had very superior EI, six (26%) had superior EI, and seven (30%) had typical EI. A typical description of students who were highly emotionally engaged was, "The students feel safe; they feel respected. A family-type environment is built in the classroom. They have positive feelings toward me."

Average-emotional engagement. An average level of emotional engagement was reported by six participating teachers. Of those six teachers, zero had excellent EI, two (33% had very superior EI, one (17%) had superior EI, and three (50%) had typical EI. A typical description of average emotional engagement was, "All of the kids feel safe. Some kids love coming here, and some kids hate it. Some kids really don't like coming to my room because I push them outside of their comfort zone."

Low-emotional engagement. The fewest number of teachers described their students as being emotionally engaged at a low level. Only two study participants believed most of their students were not emotionally engaged. Of these teachers, one had superior EI and one had typical EI. A description that was typical of the way that teachers described low-emotional engagement was, "A few students enjoy my class, but most of them don't really care or like it at all."

Through the coding and analysis of teacher responses concerning their students' typical levels of emotional engagement, the majority of teachers believed their students were emotionally engaged at a high level. In contrast to the work of Poulou (2017), it was found that teachers with higher EI generally described having students who were engaged at higher levels than teachers with lower EI. Of the 12 teachers with either excellent or very superior EI, three

(25%) reported having students who were emotionally engaged at an average or low level and nine (75%) reported having students who were emotionally engaged at a high level. Of the 19 teachers with either superior or typical EI, eight (42%) reported having students who were engaged at an average or low level, and 11 (58%) reported having students who were engaged at a high level. Figure 3 displays student levels of emotional engagement by teacher EI.

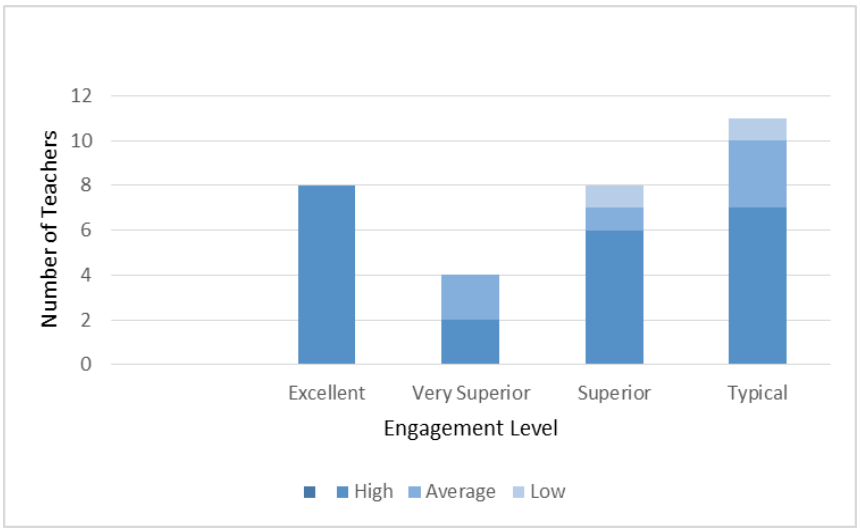

Figure 3. Student emotional engagement by teacher emotional intelligence (EI).

Behavioral engagement. A second form of engagement is behavioral engagement. Behavioral engagement is defined as participation and involvement in academic and social activities (Fredricks et al., 2004). To determine the level of behavioral engagement that students experienced in each teacher's classroom, the following interview question was asked: *Can you discuss the level to which your students comply with the behavioral expectations of the class and engage in the activities in which they are asked to participate?* Teacher responses concerning the behavioral engagement level of their students were first coded. For the purposes of this study, a code of high-behavioral engagement represented teachers who described most of their students as being behaviorally engaged. A code of average-behavioral engagement represented teachers who described having a range of behavioral engagement levels. A code of low-

behavioral engagement represented teachers who described most of their students as not being behaviorally engaged.

The results of coding teacher interviews revealed that of the 31 participating teachers, 26 reported having students who had high-behavioral engagement, three reporting having students who had average-behavioral engagement, and two reported having students who had low-behavioral engagement. Table 8 shows the level of behavioral engagement for students of teachers in the study grouped by teacher EI level.

Table 8

Teacher Emotional Intelligence (EI) and Student Behavioral Engagement

	Student Behavioral Engagement			
	High-Behavioral Engagement	Average-Behavioral Engagement	Low-Behavioral Engagement	Total
Excellent	8	0	0	8
V. Superior	4	0	0	4
Superior	5	2	1	8
Typical	9	1	1	11

High-behavioral engagement. A high level of student behavioral engagement was reported by 26 teachers. Of those 26 teachers, eight (31%) had excellent EI, four (15%) had very superior EI, five (19%) had superior EI, and nine (35%) had typical EI. In a comment that was typical of the way that teachers described high-behavioral engagement for their students, a teacher said, "Overall, all of the students engage in the activities. Most of my students participated every day, all day."

Average-behavioral engagement. Three teachers reported having students who were behaviorally engaged at an average level. Of those teachers, two had superior EI and one had typical EI. No teachers with either very superior or excellent EI reported having students who

had an average level of behavioral engagement. A typical description of average-behavioral engagement was, “For the most part, the students comply. There are a fair number of students who don’t do what they are supposed to do. It is difficult for me to get students to work who don’t want to work.”

Low-behavioral engagement. Two teachers (one with superior EI and one with typical EI) described the behavioral engagement of their students as low. In describing students who were behaviorally engaged at a low level, a teacher said, “I do have a lot of students who don’t want to do anything. I have plenty of problems. I am trying to be more lenient, but there are plenty of students who don’t do anything.”

The coding and analysis of teacher descriptions of their students’ typical levels of behavioral engagement revealed that most teachers believed their students were behaviorally engaged at a high level. Supporting the work of Nizielski (2012), it was found that teachers with higher levels of EI described having students with higher-behavioral engagement than did teachers with lower levels of EI. All 12 teachers with either excellent or very superior EI described having students with high-behavioral engagement. However, of the 19 teachers with either superior or typical EI, five (26%) reported having students who had average or below average levels of behavioral engagement, and 14 (74%) reported having students who had high levels of behavioral engagement. Figure 4 displays student levels of behavioral engagement by teacher EI level.

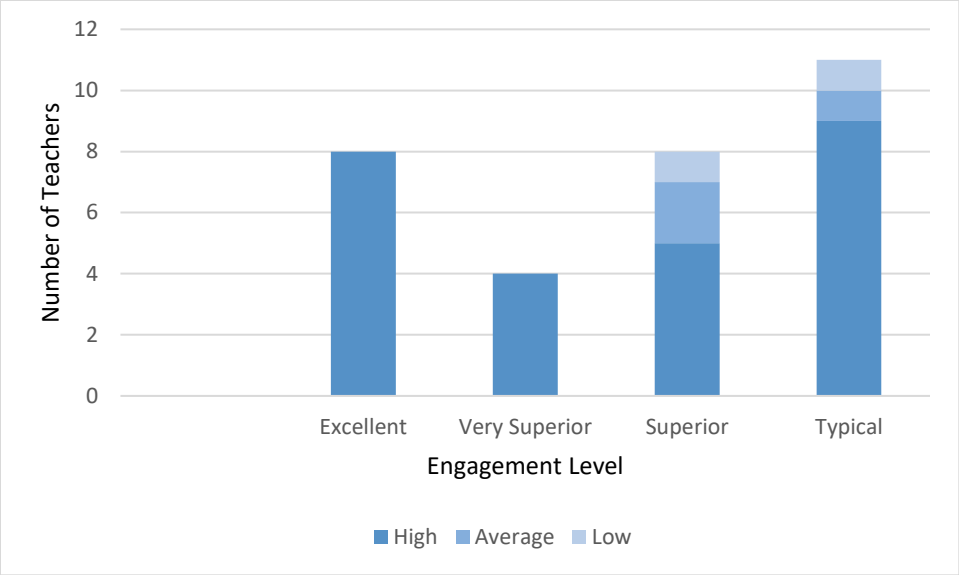

Figure 4. Student behavioral engagement by teacher emotional intelligence (EI).

Cognitive engagement. Cognitive engagement is the third form of engagement in the engagement model. Cognitive engagement is defined as the level to which a student actively seeks to comprehend the academic material that is being presented (Watt et al., 2017). To determine the level of cognitive engagement that students experience in each teacher's classroom, the following interview question was asked: *Can you discuss the level to which your students attempt to take part in the learning process and comprehend the academic material presented?* All teacher responses concerning the level to which their students were cognitively engaged were first coded. The coding of the teacher responses categorized student cognitive engagement as either high, average, or low. For the purposes of this study, a code of high-cognitive engagement represented teachers who described most of their students as being cognitively engaged. A code of average-cognitive engagement represented teachers who described having a variety of cognitive engagement levels among students. Moreover, a code of low-cognitive engagement represented teachers who described most of their students as not being cognitively engaged.

The results of coding teacher interviews revealed that of the 31 participating teachers, 13 reported having students who were cognitively engaged at a high level, 11 reported having students who were engaged at an average level, and nine teachers reported having students who were cognitively engaged at a low level. Table 9 shows the level of behavioral engagement for students of teachers in the study grouped by teacher EI level.

Table 9

Teacher Emotional Intelligence (EI) and Student Cognitive Engagement

	Student Cognitive Engagement			
	High-Cognitive Engagement	Average-Cognitive Engagement	Low-Cognitive Engagement	Total
Excellent	3	3	2	8
V. Superior	3	1	0	4
Superior	1	4	3	8
Typical	6	3	2	11

High-cognitive engagement. A high level of student cognitive engagement was reported by 13 teachers. Of those 13 teachers, three (23%) had excellent EI, three (23%) had very superior EI, one (8%) had superior EI, and six (46%) had typical EI. A teacher provided a typical description of students with high-cognitive engagement, saying, "They are very highly motivated. They want to learn. One way I know [is that] that they ask for more. In terms of them of wanting more and enjoying things and really wanting to learn – that is really high."

Average-cognitive engagement. An average level of student cognitive engagement was reported by 11 teachers. Of these teachers, three (27%) had excellent EI, one (9%) had very superior EI, four (37%) had superior EI, and three (27%) had typical EI. A typical description of average-cognitive engagement was, "That is a very average level. There are those students who

do very well and love to do everything. About half of them really love to learn and the other half are here because they have to be."

Low-cognitive engagement. Seven teachers described having students who had low-cognitive engagement. Of these teachers, two (29%) had excellent EI, zero had very superior EI, three (28%) had superior EI, and two (43%) had typical EI. A typical description of low-cognitive engagement was, "I would say I have about 10% of students who are engaged. That's a real number because those are the students who I know need or want more than they get in the normal class."

The coding and analysis of teacher descriptions of their students' cognitive engagement revealed that fewer teachers described having students who were highly cognitively engaged than those who described high levels of emotional and behavioral engagement in their students. The study results suggest that teachers with higher EI had students who were more cognitively engaged than students with lower EI were. Of the 12 teachers with either excellent or very superior EI, six (50%) reported having students who had students with average or low levels of cognitive engagement, and six (50%) reported having students with high levels of cognitive engagement. Of the 19 teachers with superior or typical EI, 12 (70%) reported having students who were cognitively engaged at an average or low level, and seven (30%) of these teachers reported having students who were engaged at a high level. Figure 5 displays the levels of student cognitive engagement by teacher EI level.

Figure 5. Student cognitive engagement by teacher emotional intelligence (EI).

Engagement themes. In addition to qualitizing the EI scores of each teacher and linking them to the emotional engagement levels of students, the qualitative interview responses by teachers revealed more in-depth meaning. The descriptions provided by teachers concerning their students' levels of engagement were first literally coded. Next, focused coding took place, which allowed for abstract codes to develop. Finally, themes emerged from these abstract codes, and they have been used to organize and to make sense of the data that were collected. This process allowed for teacher descriptions of their students' engagement to provide a more in-depth exploration into the ways that teacher EI may influence student engagement.

The analysis of data clarified that teacher participants chose to discuss the levels of their students' engagement in two distinct ways. Similar to the ways that teachers discussed the achievement of their students, teachers presented the perspective that student engagement was either within or outside of the scope of what they could control. First, many teachers chose to describe student engagement as something that was dictated by students and outside of that which the teachers could control. When describing student engagement, these teachers did so

from an assets or deficits perspective, placing the focus of classroom engagement on the emotions, behaviors, and abilities that they perceived in their students. The descriptions most often removed the teacher from the discussion and, instead, placed the majority of the responsibility for student engagement on the student. A second way that teachers chose to describe student engagement was by considering how their own emotions and behaviors affected students. These teachers discussed how student engagement was within the scope of what could be controlled in the classroom. Teachers who presented this belief did not remove students from their discussion but instead described how their own emotions and actions functioned in relation to those of their students. Themes that emerged from teachers' descriptions of student engagement were related to one of these two general perspectives. The themes found within the descriptions of student engagement follow.

Student interests. One way that teachers considered students influencing classroom engagement was through the level of interest the students displayed. This perspective, which was presented by several participants, aligns with the research of Van Maele and Van Houtte (2010), who found that teachers feel more comfortable around students whom they believe to be interested and teachable. Participating teachers who discussed the influence of student interest on their level of engagement primarily did so by illustrating how a low level of interest resulted in low levels of engagement. Those who presented this perspective believed their students showed a lack of interest in teachers, their course material, and learning.

A common teacher opinion was that student interest in the course material affected the level to which they were engaged in the classroom. Several teachers felt that if their students did not display high levels of engagement, then they were not interested in the material. In a comment that was representative of this belief, a teacher with typical EI said, "I've got a really

nice group of boys this year, but they would rather be anywhere else than here. They just don't really like the class because their heads are somewhere else." Another teacher with typical EI also cited low interest in the course material as the primary reason that many of her students were not behaviorally or cognitively engaged:

> It's more what they're interested in. If they are interested in it, they will be successful in it. A lot of kids who don't like school will probably be successful [in life]. If they don't like a class, they are not engaged. It just depends on the classroom that they are in and the material that they are going over.

Several teachers who described students' low level of interest in the course curriculum as a primary reason for their low engagement also discussed their frustration with that lack of interest. These teachers discussed their passion for the courses they taught and expressed frustration with students who did not seem to share the same passion. A teacher with excellent EI described the frustration he experienced when his students did not seem to be cognitively engaged due to a lack of interest in the material he presented:

> That's probably one of my most frustrating things as a teacher. Usually, I feel it is me pushing them instead of them pushing themselves. I chalk that up a lot of time to just being a teenager and a lack of interest. I really wish they would buy in a lot more.

A teacher with typical EI also described his frustration with low student engagement due to an absence of student interest. This teacher discussed at length his frustration with students in his class who appeared to have no interest in the material he presented:

> That's what's been disappointing to me. The way I approach things, I try to do as many things as possible that are relevant to them. But overall, their reaction is just like, 'blah.'

It's been very disappointing overall. Overall, the level of disinterest in what we are doing is really high.

***Student academic ability*.** Many teachers expressed the belief that students' academic ability directly influenced their engagement, suggesting that those students with high-academic ability were engaged at high levels and those with low-academic ability were engaged at low levels. These findings are consistent with those of Archambault, Janosz, and Chouinard (2012) who discussed how teachers' beliefs about their students' ability to succeed directly impacted student engagement. Once again, the influence of academic ability on student engagement was viewed by teachers as an element that was outside of their control. By relating academic achievement to student engagement, teachers removed themselves from the equation and placed the responsibility for being engaged or unengaged solely on the student.

In similar fashion to teachers who believed the high-academic ability of their students led to high levels of academic achievement, many teachers also believed their students' high-academic ability resulted in high levels of behavioral and cognitive engagement. The general position presented by many teachers was that among the most able students, levels of compliance, effort, and desire to learn were also high.

Several teachers related the high-academic ability of students to high levels of behavioral engagement. In a comment representative of teachers who believed the high level of their students' behavioral engagement was due to their strong academic ability, a teacher with very superior EI said, "They just do what they are supposed to do. But they are high-level learners. They know when they come in here that they are going to work." A teacher with superior EI discussed the behavioral engagement of his students in a similar fashion. He described having students who almost always did what they were asked to do. In relating the high-behavioral

engagement of his students to their academic ability, he said, “It’s almost 100% compliance. I think it’s related to the quality of students I have. They all do what they are supposed to do and want to be driven a little bit higher. They comply and do their assignments.”

Many teachers also described the connection between high levels of academic ability and high levels of cognitive engagement. This association was interesting, as teachers were aware that cognitive engagement was defined as a desire to learn rather than a measurement of learning. However, many still presented the belief that students’ high levels of cognitive engagement were due to their high-academic ability. The comments of a teacher with typical EI were representative of this belief as she discussed the high-cognitive engagement of her top-level classes compared to that of her lower-level, ability-grouped classes. When speaking of the cognitive engagement of her highest-level students, she said, “The Advanced Placement class is very engaged, and they desire to learn. The higher academic students are more engaged. Academic ability is related to cognitive engagement.” This same belief that high-academic ability resulted in high-cognitive engagement was displayed by a teacher with superior EI who said, “High-level students strive to learn more than low-level students.” Additionally, this viewpoint was echoed by a teacher with excellent EI as she described the cognitive engagement of her students. In relating the high-cognitive engagement of her students to their high-academic ability, she said, “I think they all strive to learn. Mostly, they are all trying to grasp what I’m trying to teach them because of the high level that it is, and they all want to do well.”

While many teachers chose to relate high-academic ability to high levels of engagement, teachers also believed low-academic ability resulted in low levels of engagement. The description of this relationship was, again, an effort on the part of teachers to distance themselves from the levels of engagement displayed by their students. Teachers who associated high levels

of engagement with high levels of achievement were not seeking credit, and teachers who chose to associate low levels of engagement with low levels of engagement were not accepting blame. A teacher with excellent EI described how the low-cognitive engagement of her students was related to their academic ability. This teacher believed most of her students had low-academic ability:

> I would say that only a small number of my students really care about learning or doing anything to go above what they need to do. The type of students I have are just trying to get things done and move on.

A teacher with typical EI echoed this perspective. This teacher taught various levels of ability-grouped courses. She discussed how her highest-level classes had the most students who were highly engaged and how her lowest-level classes had the most students with low levels of engagement. She described the cognitive engagement in her low-level classes by saying, "Internal drive for struggling learners is low." A teacher with superior EI also described the cognitive engagement of his students in relation to their academic ability in a way that was representative of this belief. He discussed how his students experienced low levels of cognitive engagement due to their low levels of academic ability:

> I try to make lessons where students feel success. But a lot of students who are not good students just don't try as hard. Most of my students are not willing to think. I struggle with getting them to think.

Classroom atmosphere. An additional way that teachers believed they influenced student engagement was through the classroom atmosphere that they created. The significance of the relationship between teacher EI and classroom atmosphere was previously explored by Galler and Cherniss (2015), who found that outstanding teachers are better at using abilities

associated with EI to create positive classroom environments than average teachers are. This perspective stood in contrast to those teachers who believed they had little influence over student engagement. While teachers who discussed their ability to influence student engagement through their classroom atmosphere may have acknowledged factors such as student interest, they also recognized their own ability to work within those interests to create positive feelings about themselves and their courses. The creation of a positive atmosphere within the classroom was most often linked to high levels of student emotional engagement.

Some teachers discussed influencing class atmosphere through their ability to influence students to have positive feelings about them. These teachers acknowledged that their behavior affected students' enjoyment in coming to their classroom. A teacher with typical EI presented a perspective that represented this opinion. She described how most of her students enjoyed her class and linked that enjoyment to her actions, saying, "I think that they think this class is fun and that it's entertaining. I think they think I'm entertaining. I guess I'm kind of a novelty in this class and this school."

However, while several teachers discussed their own active role in ensuring that students had positive feelings about them, one teacher presented a unique perspective of how she facilitated positive feelings from students. This teacher, who had excellent EI, discussed how she believed it was important for her students to feel positive about her. However, she did not actively seek those students who showed signs that they were unhappy with her. Instead of acknowledging students who were unhappy, she believed it was best to continue as normal, and in the process, most students would see that nothing was gained by expressing feelings of discontent:

> There are days when some students don't like me I guess is a good word for it. But usually they get over that because I don't ever buy into it. If they don't like me, it doesn't matter; you still have to do what you have to do. I feel like they get over it. If I sense that someone isn't liking me for whatever reason, I treat them like I do everyone else, and they get over it.

In addition to actively working to ensure that students had positive feelings about them, teachers also discussed how they worked to facilitate student emotional engagement by creating spaces where students could feel comfortable. For several teachers, creating a laid-back environment where students were able to relax was an important aspect of students feeling comfortable in the classroom. One teacher with excellent EI discussed how she believed her classroom was different from many other classrooms in the school where she taught. She described an atmosphere that provided ample time for students to converse with her and work on assignments at their own pace. She discussed this environment and its positive impact on her students' engagement:

> I think my students like me. They are always excited to see me. They always want to tell me stories and share things with me. They like coming into my classroom. It's more of a place where they can have some downtime and relax.

Another teacher with excellent EI echoed the importance of a relaxed classroom atmosphere in facilitating student engagement. This teacher discussed how she attempted to create a relaxed, comfortable atmosphere that resulted in student enjoyment and high levels of emotional and behavioral engagement. While describing the atmosphere, she mentioned the challenges of maintaining such an approach among colleagues who may not share her same perspective:

> I try to keep it more laid back and positive. They are being asked to do things, not told to do things. They feel comfortable. They feel that I can be trusted. They feel safe. They know that what they are being asked to do is in their best interest. Sometimes other teachers want me to be a little harder on the kids. But I don't want to be the bad guy because when they come in here we need them to feel comfortable.

Teaching style. Several teachers discussed the ways that they influenced student engagement through their teaching style. In findings that were consistent with those of Park et al. (2012), many teachers believed they could positively impact student engagement by providing specific learning opportunities that were autonomous and enjoyable. Most teachers who discussed the influence of their teaching style on student engagement presented the belief that the lessons they designed and delivered included activities that were engaging. This planning and execution led to high levels of emotional and behavioral engagement. However, some teachers believed their teaching style and classroom activities were not to all students' liking, which led to students exhibiting low levels of engagement. These teachers were able to acknowledge their role in designing the learning experiences and their influence on engagement. However, even though they did not believe that their style or activities were successful in engaging students at a high level, they did not change the approach they had chosen; it appears that maintaining their approach was more critical to them than engendering engagement.

Some teachers presented a connection between their teaching style and high levels of student engagement. A teacher with superior EI discussed how he attempted to teach students in ways that led to increased levels of behavioral and cognitive engagement. He described his style and its influence:

> I use different modes of learning. The students I have want to be here. I incorporate technology. I bring in stories from my expertise. It's constantly engaging the students, and when they leave, those who've gone on do appreciate what I've done.

A teacher with excellent EI also discussed the way that teaching style led to increased student engagement. She believed that providing work that students thought was enjoyable and relevant resulted in high levels of engagement. She said:

> They say they like the class. I don't give a lot of homework. I don't give a lot of busy work. When I see them in the hallways, they say that they miss the class, so I know they like what we did.

Teachers also believed they could actively increase student engagement by adapting the curriculum to appeal to student interests. Some teachers believed their role was to ensure their course content appealed to student interests. For them, the content they taught was not static but could be adapted to meet individual student needs and, thus, increase their engagement. One teacher with typical EI who taught only senior students described the way he adapted his curriculum to meet the needs of his students, recognizing that each of his students had different interests and needs depending on their plans after high school. Once he learned students' goals, he tailored the assignments to better fit their needs. He described this process by saying, "They are doing things that they are going to need after high school. There's a direct application to what they going to be doing next. I know what they need, if they know, and I give that to them."

Also, some teachers acknowledged that their teaching style led to low levels of student engagement. These teachers understood that their approach was essential to inspiring student engagement; nonetheless, they placed a higher priority on conducting their class in a certain way. In placing a priority on their chosen approach, these teachers indicated they were doing what

they thought was best for students, regardless of how they may have felt about it. Teachers who presented this opinion were discussing the activities in their classrooms in relation to student emotional engagement. A teacher with excellent EI described this phenomenon, admitting that students did not seem to enjoy her style because it was outside of their comfort zone:

> Mine is a class that requires a lot of participation, and that's something that students don't find fun necessarily. I ask students to engage in what I feel are authentic assessments. Most of the time, students aren't familiar with that. I don't think students are overjoyed with many of the things that I ask them to do. I am asking to not spit out what I give them, I'm asking them to think.

A teacher with typical EI also described low engagement in his students in relation to the conscious choices that he made in designing his course activities. While he acknowledged that students preferred some activities over others, he believed activities that students did not necessarily enjoy were necessary. He described the low engagement of his students in relation to his activities by saying:

> I think what we do has a direct impact on how they feel about the class. They might be checked out and hate the work. If they are discussing or sharing their opinion they might like that more. It really depends on what we are doing. If I'm judging, on five days, I would say more of the days than not it was a bad class, or man I couldn't wait for the class to end.

Proximity. When discussing their influence on student engagement, some teachers described how they increased behavioral engagement through physical proximity. One of the most basic and significant factors in influencing student engagement is the proximity of the teacher to students (Scarlett, 2014). Teachers who discussed their own proximity to their

students believed their physical presence in the classroom was essential to students completing the assigned tasks. When discussing the role their physical presence played in the behavioral engagement of their students, they made it known that they left little option for their students not to do what was asked of them.

One teacher with superior EI discussed his need to be continuously active and moving around the room while his students were working on assignments to ensure they were staying on task. When describing this process of ensuring engagement through physical presence, he said, "Gone are the days when I could give an activity and then go sit down. I have never had a disciplinary problem with a student not complying with an assignment. That doesn't happen." Similarly, a teacher with typical EI described her process of not allowing students to be unengaged behaviorally in her classroom. She believed students had to work in her classroom, and she did everything in her power to ensure they did what they were asked to do. In describing how she approached students who were reluctant to engage, she said:

> I do have conscientious objectors. And I am out there saying do you have everything you need. Do you have a pencil? Do you have paper? You don't get the opportunity to just sit there. That's the biggest thing that we are fighting, from low performers to high performers. I try to do everything I can to make sure that they are doing what they are supposed to do.

The physical influence of the teacher on behavioral engagement was also described by a teacher with superior EI who discussed how she approached some students who did not want to do the work required of them. This teacher discussed the sometimes-lengthy process of getting her students to comply with her requests. She presented her strategy for ensuring behavioral engagement in those students:

> Usually, when I ask them to do something, and they don't want to comply, that is a red flag right away, and I address it. Usually, giving those students some space at first is a good thing. I know that I can kind of back off and let them breathe.

A teacher with excellent EI also described her ability to ensure behavioral engagement in her students through her physical presence. When describing how she approached students who refused to engage behaviorally, she said,

> I have to sit down and talk to them about something else and then they will start to work. Some students will just pretend to do work for a while. However, then maybe they have to come sit by me, or I have to go sit by them.

A culture of learning. Several teachers stated that they could influence their students' engagement by creating a culture that promoted learning. Teachers have the ability to influence classroom culture in ways that increase student engagement and achievement (Middleton & Perks, 2014). In similar findings to those of Ahnert et al. (2013), many participating teachers discussed how they could influence student engagement through environment and relationships. Again, the ways in which these teachers described creating a culture of learning within their classrooms stood in contrast to the approach of those teachers who chose to discuss engagement through the prism of student ability. Teachers who related student ability to cognitive engagement felt that their students either were or were not cognitively engaged as a result of their academic ability. Those who, instead, discussed how their actions actively promoted cognitive engagement chose to present how they worked to establish a culture of learning within their classrooms. They believed student cognitive engagement had increased as a result of their efforts.

A teacher with typical EI discussed how he believed the cognitive engagement of his students had improved in recent years due to a change in his approach in the classroom. He believed that, in the past, he might not have encouraged the type of higher-level thinking that was necessary to promote cognitive engagement. In discussing his new approach to increasing the cognitive engagement of his students, he said:

> I think their cognitive engagement is at a pretty high level, especially in the past couple of years. I've started to push the kids, and I think they've responded. They might struggle at first, but, in the long run, I think they respond better.

Other teachers discussed the process of increasing the level of cognitive engagement in their students throughout the school year. One teacher with superior EI discussed her attempts to create a transition in students from being extrinsically motivated to becoming intrinsically motivated:

> I think that once they start figuring out the intrinsic part, they start to get it. I talk to them about what I've done in my life, and they see where this could take them. They start to see how this can benefit them.

Another teacher with superior EI also discussed the change he attempted to create in the cognitive engagement of his students throughout the year. This teacher taught a content area with which he believed many students traditionally struggled. He presented the process of building high levels of cognitive engagement in students as something that required constant work and attention:

> One of the things that I start to see is that it changes from the beginning of the year to the end of the year. They are starting to ask some more questions. They are starting to make those connections. They are starting to go ahead, and they would never have done that at

> the beginning of the semester. I see the increased engagement in the questions that they are asking and the discussions that they're having. As the semester has grown, I've seen their cognitive engagement increase. They feel safe. They feel this is a place where they can do that. They feel there is just an excitement about what I'm teaching. We are trying to build thinking and critical thinking skills. As they start to buy into that, the engagement really increases.

In addition to discussing the ways teachers could directly influence the cognitive engagement of their students, several teachers also expressed a belief that the atmosphere they created in their classrooms led to increased student engagement through peer support. The relationship between teacher actions and peer support in the classroom was previously noted by Lucas-Molina et al. (2015) who found that teachers can positively influence peer support. One teacher with very superior EI illustrated how the students in her classroom persuaded any students who may show a reluctance to learn:

> In general, most of them want to achieve at high levels, and the ones who don't, get dragged up. The students are going to rise to where you want them to get. In here, you have kids who are bringing them up, not bringing them down.

Another teacher with excellent EI described how her students actively worked to assist those who may be in need of help and to ensure their cognitive engagement. She presented the process of having a community of students all working toward a common goal:

> Someone in the class will help them, or I will help them. And it's not always the kid who is getting the help who is benefitting. It's the kid who is helping too. So a lot of students are really trying to learn and get better together.

Research Question Three

Research Question Three asked: *To what extent do teachers use emotional intelligence to establish interpersonal relationships with students?* Three sets of data were used to explore the extent to which teachers use emotional intelligence (EI) to establish interpersonal relationships with students. The Situational Test of Emotional Understanding (STEU) was used to measure teacher EI, the Student-Teacher Relationship Scale (STRS) was used to measure relationship quality between teachers and students, and interviews with teachers were used to obtain more thorough data on how teachers use EI in the relationship-building process. Although there is an absence of research concerning the role of teacher EI in establishing interpersonal relationships with students, recent studies have indicated a positive correlation between the two (Friedman & Gregory, 2014; Poulou, 2017).

Emotional intelligence and relationship quality. To explore the relationship between teacher EI and interpersonal relationships between teachers and students, data from both the STEU and the STRS were analyzed using the Spearman correlation. Three separate analyses were conducted to explore the relationship between teacher EI and teacher-student relationship quality, teacher EI and teacher-student relationship closeness, and teacher EI and teacher-student relationship conflict.

Data on teachers' EI levels were collected using the STEU. Results of the STEU have been used to inform the previous two research questions. These results were reported in the preliminary analysis section of this chapter. Teacher performance on the STEU can be found in Tables 2 through 6 and in Figure 1.

***Overall relationship quality*.** Data from the STRS were used with data from the STEU to explore the relationship between teacher-student relationship quality and teacher EI. The

purpose of the STRS is to provide a score indicating the quality of the relationship that teachers have with students. Higher scores reveal a higher-quality relationship, while lower scores reveal a lower-quality relationship. All 31 participating teachers took the STRS. Descriptive statistics for teacher performance on the STRS are displayed in Table 10.

Table 10

Teacher-Student Relationship Quality Scores

M	*N*	*SD*
61.2581	31	6.86522

The STRS is composed of 15 items that are scored using a 5-point scale. The STRS is divided into two subcategories: relationship closeness and relationship conflict. Seven items of the STRS measure relationship closeness and eight measure relationship conflict. When scoring the STRS, items for relationship conflict are inverted, so that higher scores indicate less relationship conflict.

The lowest score that can be achieved on the STRS is 15, and the highest score that can be achieved is 75. For the teachers in the survey, a mean score of 61 was determined. The results of this survey reveal that 22 of the 31 participating teachers scored at or above the mean of 61. While looking for extreme values, it was found that the relationship quality scores of 43, 45, 46, and 51 were outliers. Figure 6 displays the results of each teacher's relationship quality score, as determined by the STRS.

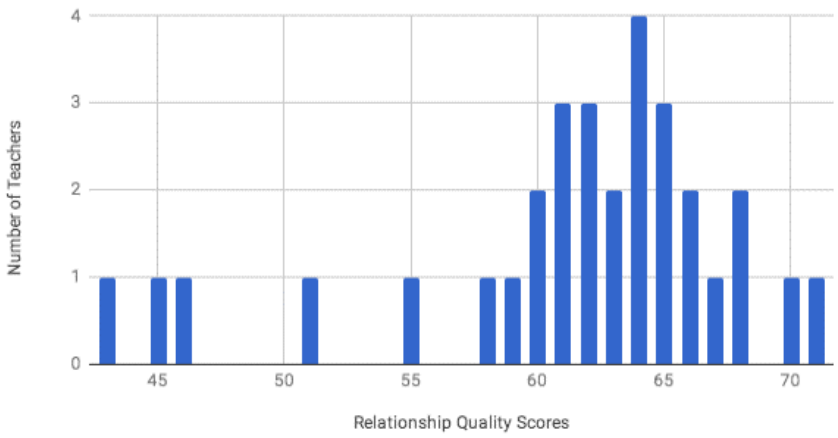

Figure 6. Student-teacher relationship quality scores.

To explore the relationship between teacher EI scores and student-teacher relationship quality scores, the Spearman correlation was used. Statistical assumptions were met for the Spearman correlation, and the results of this analysis are shown in Table 11.

Table 11

Correlational Data Between Teacher Emotional Intelligence (EI) Scores and Teacher-Student Relationship Quality Scores

		Teacher – Student Relationship Quality
Teacher Emotional Intelligence Score	Spearman correlation	.250
	Sig (2-tailed	.175
	N	31

A Spearman's rank-order correlation was run to assess the relationship between teacher EI score and relationship quality between teachers and students. A preliminary analysis showed the relationship to be monotonic, as assessed by visual inspection of a scatterplot. There was a positive correlation between teacher EI scores and STRS scores, r=.250. The correlation between teacher EI scores and STRS scores was not statistically significant, p=.175.

In addition to an overall relationship quality score, the STRS also provided two sub-category scores. The sub-categories of relationship closeness and relationship conflict were also analyzed to determine the significance of their relationship to teacher EI.

Relationship closeness. The STRS provides a relational closeness sub-score indicating the amount of relational closeness between teachers and students. Seven items on the 15-item scale measured relationship closeness. Relationship closeness scores can range from 7 to 35. Higher relationship closeness scores indicate more closeness in the relationships between teachers and students and lower scores indicate less closeness. The teacher relationship closeness scores are displayed in Figure 7.

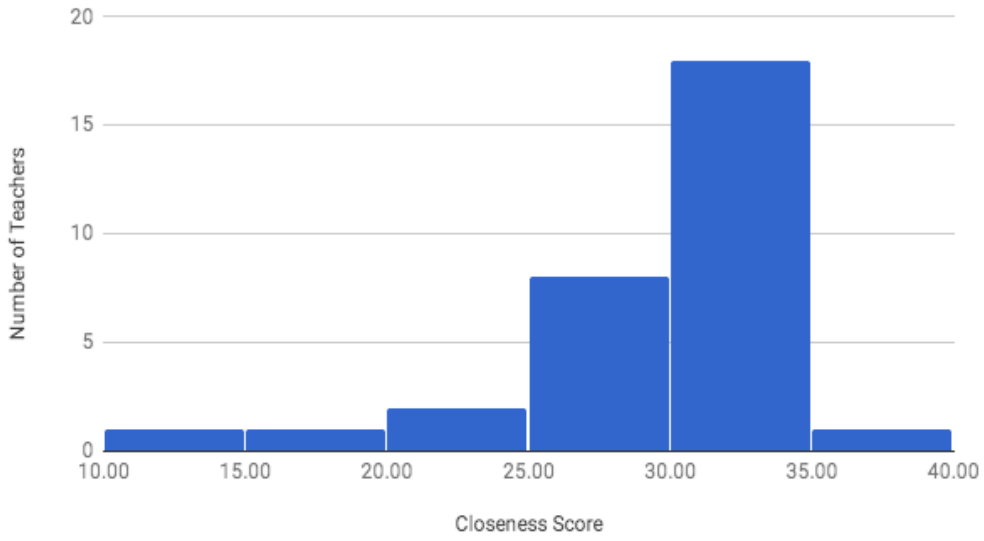

Figure 7. Teacher-student relationship closeness scores.

Teacher relationship closeness scores on the STRS ranged from 13 to 35. The data reveal a mean relationship closeness score of 29. Of the 31 teachers, 23 scored at or above the mean of 29. Descriptive statistics for teacher-relationship closeness as measured by the STRS are displayed in Table 12.

Table 12

Teacher-Student Relationship Closeness Scores

M	*N*	*SD*
29.3871	31	4.8997

To explore the relationship between teacher EI scores and teacher-student relationship closeness scores, the Spearman correlation coefficient was used. Statistical assumptions were met for the Spearman correlation, and the results of this analysis are shown in Table 13.

Table 13

Correlational Data Between Teacher Emotional Intelligence (EI) Scores and Teacher-Student Relationship Closeness Scores

		Teacher – Student Relationship Closeness
Teacher Emotional Intelligence Score	Spearman correlation	.287
	Sig (2-tailed	.117
	N	31

A Spearman's rank-order correlation was run to assess the relationship between teacher EI score and relationship quality between teachers and students. A preliminary analysis showed the relationship to be monotonic, as assessed by visual inspection of a scatterplot. There was a positive correlation between teacher EI scores and STRS scores, r=.287. The correlation between teacher EI scores and STRS scores was not statistically significant, p=.117.

Relationship conflict. Scores for relationship conflict were obtained through eight survey questions using a 5-point Likert-scale scoring system. Scores for relationship conflict can range from 8 to 40. For the purpose of this study, the relationship-conflict scores were inverted, such that higher scores represent less relationship conflict and lower scores represent more relationship conflict. Relationships characterized by less conflict are said to be of a higher

quality than those with more conflict. The teacher-student relationship conflict scores are displayed in Figure 8.

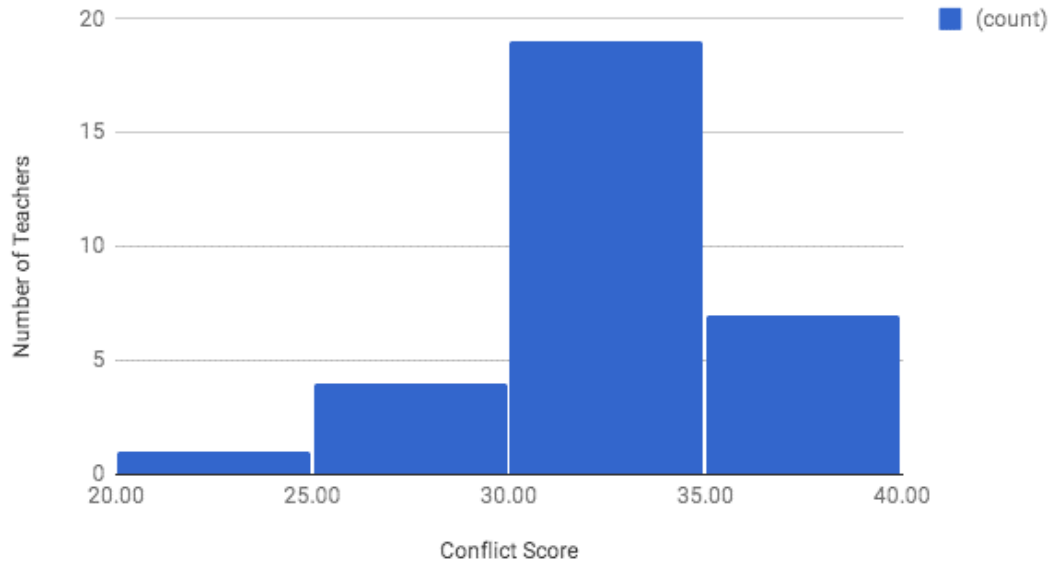

Figure 8. Teacher-student relationship conflict as measured by the STRS.

Teacher relationship conflict scores ranged from 23 to 39. The data reveal a mean score for relationship conflict of 31. Of the 31 teachers, 21 scored at or above the mean of 31. Descriptive statistics for relationship conflict as measured by the STRS are displayed in Table 14.

Table 14

Teacher-Student Relationship Conflict Scores

M	*N*	*SD*
31.8710	31	3.60316

To explore the relationship between teacher EI scores and student-teacher relationship conflict scores, the Spearman correlation was used. Statistical assumptions were not met for the

Pearson correlation as the data contained several outliers. Statistical assumptions were met for the Spearman correlation, and the results of this analysis are shown in Table 15.

Table 15

Correlational Data Between Teacher Emotional Intelligence (EI) Scores and Teacher-Student Relationship Conflict Scores

		Teacher – Student Relationship Conflict
Teacher Emotional Intelligence Score	Spearman correlation	.174
	Sig (2-tailed	.350
	N	31

A Spearman's rank-order correlation was run to assess the relationship between teacher EI score and relationship quality between teachers and students. A preliminary analysis showed the relationship to be monotonic, as assessed by visual inspection of a scatterplot. There was a positive correlation between teacher EI scores and STRS scores, r=.174. The correlation between teacher EI scores and STRS scores was not statistically significant, p=.350.

Summary. This analysis of the relationship between teacher EI, as represented by scores on the STEU, and teacher-student relationship quality, as represented by the STRS, reveals no significant relationship between the two. Additionally, analysis of the relationship between teacher EI and the STRS sub-scores of both relational closeness and relational conflict also reveals an absence of a significant relationship. The results of each of the three correlational tests are displayed in Table 16.

Table 16

Correlational Data Between Teacher Emotional Intelligence (EI) Scores and Teacher-Student Relationship Quality, Closeness, and Conflict Scores

		Teacher-student relationship quality	Teacher-student relationship closeness	Teacher-student relationship conflict
Teacher Emotional Intelligence Score	Spearman correlation	.250	.287	.174
	Sig (2-tailed	.175	.117	.350
	N	31	31	31

Contrary to the recent work of Friedman and Gregory (2014) and Poulou (2017), results from this analysis revealed no significant relationship between teacher EI and teacher-student relationship quality. The lack of a significant relationship between teacher EI and relationship quality between teachers and students was revealed through results of the Spearman correlation. This test showed positive relationships between STEU scores and STRS scores (r=.250), STEU and relationship closeness scores (r=.287), and STEU and relationship conflict scores (r=.174). However, while positive, none of these relationships were statistically-significant at the .05 level.

Teacher perceptions. To more thoroughly understand how some teachers use EI to establish interpersonal relationships with students and further address Research Question Three, data obtained from interviews with teachers were used. Three interview questions were used to focus specifically on how teachers view the nature of interpersonal relationships with their students and how the actions and emotions of both teachers and students can influence such relationships. Teacher responses about establishing interpersonal relationships with their students have been divided into those focused on the actions and emotions of teachers and those focused on the actions and emotions of students.

Teacher actions and emotions. In order to explore how teachers' actions and emotions influenced the establishment of interpersonal relationships with their students, two interview questions were used. Interview Question One asked: *Tell me about how you view the role of*

interpersonal relationships with your students in the educational process? Interview Question Two, which was also used to better understand the actions and emotions of teachers in establishing relationships with students, asked: *Can you describe how your actions and emotions influence the quality of your interpersonal relationships with your students?* Teacher responses to these questions were first coded and grouped into nodes. Focused coding then took place to transition the literal codes to abstract codes. Finally, themes were generated from the abstract codes to represent the ways that teachers established interpersonal relationships with students and what they perceived the impact of those relationships to be. The themes that were discovered illustrated how teachers view the significance of interpersonal relationships with students in the educational process and the specific actions and emotions that influenced relationship quality between teachers and students. These themes are presented here.

Care. A prominent theme concerning the ways teachers established interpersonal relationships with students was the way they discussed the importance of care. The importance that many teachers placed on displaying a caring attitude aligns with the findings of Allen, FitzGerald, Edwards, and McCown (2017) who identified care as a significant component of teacher-student interpersonal relationships. Several teachers believed that care was not only an essential component of positive relationships, but also of the educational process itself. The teachers who expressed this belief felt that their students needed to know they cared about them before they would believe in what the teachers were attempting to accomplish. In describing how caring about students was an essential component of her class, a teacher with very superior EI said, “I think if they think you don’t care, you’ve lost.” Another teacher with excellent EI described the necessity of students knowing she cared in much the same way, saying,

"Sometimes it's just that they know someone cares. I think that makes them feel more comfortable in class and willing to take a chance and to try."

Many teachers who discussed the concept of care in establishing relationships with their students tended to treat the idea of care as an abstract concept. Teachers who discussed care chose to present the belief that they cared about their students rather than to demonstrate the ways that they showed that care. However, one teacher with typical EI did illustrate how her care for students was displayed in her classroom. While talking about care, she went as far as to describe it as love. She said, "I love them. I tell them that every day. At times, you have to love the most unlovable."

Most teachers who discussed care did not mention the specific ways they demonstrated care, but they did describe how care related to student engagement. Teachers believed that students who knew they cared about them would then desire to please them through their actions. In describing the relationship between teacher care and student actions, a teacher with superior EI said, "If you have a good rapport with the kids, they like you, you like them, they are more apt to try and please you. They want to please you if they think you care." A teacher with very superior EI also discussed the concept of students desiring to please their teachers as a result of care. She said, "I think students strive to make people happy who care about them. For some students, the teacher takes on that role. And the student would try harder than they would if they didn't think that you cared."

While teachers discussed how the presence of care increased student engagement through a desire to please, others described changes that occurred to student emotions as a result of care. A teacher with typical EI discussed the presence of care in terms of its impact on student emotion and drive, saying, "If they feel like you care about them, they start to care about their

education. Their drive to be successful is greater." The same teacher with typical EI who described care in terms of love also described how that love impacted student emotions:

> They want to know that you love them, and you want them to succeed. You need to help them to believe in themselves in ways that they can't and don't even know that they're supposed to be believing in themselves.

Trust. In addition to care, many teachers discussed the need for trust to be established between themselves and their students for positive interpersonal relationships to result. Trust has been identified as an essential component of all social relationships, including those between teachers and students (Van Maele, Van Houtte, & Forsyth, 2014). Several participating teachers discussed what they believed to be the significance of trust in establishing and maintaining relationships with their students as well as the positive outcomes that resulted.

One positive outcome discussed was students' willingness to take a chance academically. Teachers believed some students were reluctant to put forth effort because they were afraid to fail. However, as those students came to trust their teachers, a comfort level was established, and they were then willing to take chances without fear of being unsuccessful. One teacher with very superior EI described the way trust allowed students to take an academic risk by saying, "I think it's really important for teachers to build trust. If you don't build relationships, they won't be comfortable with making mistakes." Another teacher with very superior EI described the role of trust in allowing students to take academic risks in much the same way. She said, "They are going to get a lot of errors. I think it's really important for teachers to build trust so they are able to make mistakes. If you don't build trust, they won't be comfortable making mistakes."

Teachers also posited that establishing trust is a way to ensure that students seek help when they are in need. Several teachers described how building trust with students allowed

students to reveal their faults without fear. These teachers believed students who needed help would only come to them once they knew they were someone to be trusted. In a comment that was typical of this belief, a teacher with superior EI said, "They tend not to want to show people around them that they are struggling, and the relationships with trust are really important for them so they can show that." A teacher with typical EI also described the way that establishing trust with students allowed them to come to her with problems. She said, "First, you have to gain the students' trust. Once you gain their trust, and they feel that they are safe, then you can begin. They have to be able to come to you with any problem they are having." Another teacher with superior EI described the way establishing trust in a relationship allowed students to come to her with problems, saying, "Building positive relationships is important because they're able to trust me. They're able to come to me when they have a question. Hopefully, it helps their achievement, but also hopefully, well beyond that, it helps them too."

When discussing the importance of trust in establishing positive interpersonal relationships with students, most teachers presented it as an abstract concept as well without describing specific actions that led to its establishment. However, one teacher with excellent EI did discuss how she worked to establish trust with her students. She described the process of establishing trust:

> Mostly, they know I'm here for them and that's how I do business. It's a lot of building trust. It's dropping whatever I'm doing for them. And then they come to me with a problem and they know I will go out of my way for them.

Showing interest. Several participants discussed how they believed taking an interest in the lives of their students was an essential aspect of building relationships with them and getting students to open up to them. Teacher descriptions of showing interest align with previous

research by Fredricks (2014), who noted the importance of teacher interest in improving relationship quality. In a comment that was typical of the way that teachers discussed the importance of taking an interest, a teacher with superior EI said, "Just knowing your students, their interests, what they like, what their goals are, what they want to do after school, helps you connect with them."

Teachers discussed how they took an interest in the lives of their students by providing concrete examples of that behavior. Some teachers who discussed how they displayed interest in the lives of their students did so by describing prescribed actions that they took each school year. These teachers required students to share personal information with them near the beginning of the year. One teacher with typical EI described her formal process of taking an interest in student lives, saying, "I have conducted student surveys to get a little snapshot of what the students are interested in. I use that to build a bridge between the two of us to start a positive rapport." Another teacher with very superior EI described how she began each school year with activities intended to allow her to get to know her students better. She then used the information gathered from those early activities to initiate and continue conversations with students throughout the remainder of the school year.

For some teachers, taking an interest in the lives of students began as early as the first day of school with learning student names. A teacher with superior EI said, "The first thing I do is give myself a little homework assignment and try to learn the kids' names, to learn who they are. That's really important for getting the kids engaged and interested." This same teacher then went on to describe how after initially learning basic information about his students, he would then incorporate it into his lesson plans. He mentioned how having a basketball player in class led him to create a lesson about basketball. He went on to describe how many of his lessons

were built in that same way, designed around student interests to demonstrate personal knowledge of students.

Other teachers who spoke about the process of taking an interest in the lives of their students described it as a more casual process. Teachers discussed how each day they would have conversations with their students about their lives. A teacher with typical EI described how she attempted to reach out to students each day, saying, "I make a point of trying to reach out to somebody. Even if it might be for a minute. I am very aware that I might be the only adult that notices that student that day." Another teacher with excellent EI described how she prompts students to open up to her. She said, "Almost all of my students like to share. So I think that being inquisitive, asking them questions about themselves is really important." Similarly, a teacher with very superior EI described how she asked students questions about their personal lives to demonstrate an interest in them:

> I try to ask them personal questions to build that rapport. I don't have a hard time if they are having a personal problem to call them out on that, but you have to know your students to be able to do that.

Teachers who discussed the process of showing an interest in the lives of their students also believed that their classroom atmosphere allowed them to converse with students more easily. One teacher described how the conversations she had with students were not always related to what was taking place in class. She labeled her curriculum as being project based, which allowed students plenty of time to work independently. This teacher who had excellent EI said:

> I pay attention to what is happening in their personal lives. It's easier in my room to do some of those things because they are working on things, and we talk all the time. I think

in some ways, in this room, it's easier to establish rapport because I tend to converse with them even if it's off topic.

Opening up. Another theme in teacher discussions of the ways that interpersonal relationships were established with students was an attempt to remove the perceived barrier between teacher and student. The ways that several teachers described their efforts to share their personal lives with students is supported by the work of Claessens et al. (2017) who found that teachers often discuss topics that are removed from the classroom setting with students when attempting to establish positive relationships. By removing the perceived barrier, teachers believed they became a real person to their students and not just a teacher. Several teachers' statements reflected a belief that students should see them as something more than just a presenter of the curriculum.

One way that teachers discussed attempting to become "human" to their students was through honesty. Teachers who believed they needed to remove the barrier between themselves and their students felt that open, honest dialogue was essential to that process. A teacher with typical EI who discussed her need to be real with her students said, "I just feel like I'm consistently really honest with my students because I like people to be honest with me. I treat them like adults. It's half school and half being a real person."

Some teachers also spoke about breaking down barriers between themselves and their students through open conversations about their personal lives. A teacher with very superior EI discussed how the way she presented herself to her students had changed over the course of her career:

> I think one thing I do is I become a person to my kids. When I first started teaching, I thought my personal life was my personal life. I don't see it that way anymore. I do involve my personal life if I can, just to be a person.

Another teacher with excellent EI also discussed the fact that she talked with her students about her personal life in an attempt to build positive relationships with them. She said, "I talk to them about my personal life. I don't know if that is kosher or not, but I do it, and I think it helps."

*Managing emotions***.** A focus of some teachers in the relationship-building process was the need to maintain a consistent, positive approach in the classroom. Paralleling the perspective of Raz and Zysberg (2014), teachers acknowledged that their jobs required a high degree of emotional labor and they needed to actively work to maintain consistent emotions when interacting with students. Teachers believed that not allowing their outside lives and emotions to permeate what they did with their students was essential to establishing positive relationships with them. A teacher with excellent EI described the way she attempted to separate emotions within the classroom from those emotions she may have experienced outside the classroom by saying:

> I try not to bring issues into the classroom. I think I've learned over the years, if I'm having a bad day, to leave it at the door. I like that. If I'm having a bad day, it's a good way not to think about it.

The process of attempting to separate emotions from outside of school from the classroom experience was similarly discussed by a teacher with typical EI who said:

> If I'm having a bad day, I have to try and be positive. They might be having to deal with something at home and they don't want to deal with me who is having a bad day. My job is to turn my emotions off.

Another teacher with excellent EI also described her ability to maintain a positive nature with students regardless of what may have happened to her outside of the classroom. In describing her positive nature despite outside influences, she said:

> One of the things my students say about me all the time is that I'm always in a good mood. There are a lot of times that I fake it. I try when I come into my room to be my best. My students deserve my best, and sometimes I have to fake it. And most of the time, they bring me around anyway.

Teachers who discussed the importance of maintaining a positive attitude in class also relayed their ability to recognize the results of not being positive with their students. A teacher with superior EI discussed the impact of a negative approach on his students:

> If I'm upset for instance, or if I'm impatient, or if something happened to me, it puts a damper on the mood for sure. If I can't let something go, I think it makes me a little sharper. I might respond to something different than I normally would. When a kid or a class recognizes that something's off, the whole level of the class drops a little bit. If I come in high energy, they meet the energy level; they meet the expectations. The whole mood of the class depends on me.

Another teacher with very superior EI also described how bringing her own negative emotions into the classroom adversely affected her students. She said, "I can see where if I've had a bad day, it changes things. I can't come in and be grumpy. I can't be that hold-a-grudge teacher." And in similar fashion, a teacher with typical EI described the effects of her negative emotions

by saying, “If the teacher gets upset, it rubs off on the kids. They definitely pick up on those social cues.”

*Nurturer***.** Several teachers who described the establishment of interpersonal relationships presented themselves as nurturers to their students. In supporting the work of Gallagher et al. (2013), these teachers saw themselves as caregivers who could support students in times of stress. The teachers who believed to be nurturers discussed interpersonal relationships that moved far beyond the school curriculum. They believed their role in students’ lives was to provide real-life support rather than academic support. In a comment that was typical of teachers who viewed themselves as nurturers to their students, a teacher with superior EI said, “I think I’m seen as a father figure in the classroom. My job is to prepare students for life, not just for the subject area. The relationships we build together are very important for that future preparation.”

Teachers who viewed themselves as nurturers communicated a belief that their role as a teacher was to provide support for students in the affective domain. Those who believed this additional support was necessary communicated that many of their students did not have an adequate support system outside of school. When describing the nurturing support that he provided for students in the classroom, a teacher with typical EI said:

> I have to adjust to them instead of them adjusting to me. I see it more and more. I don’t know if it’s society changing or students or both of them changing together. There’s more parenting going on than teaching.

Several teachers described their relationship with students as either serving as a parent or a grandparent to students. Teachers who described themselves as a parent to students were willing to move into the personal lives of students to discover how they could best help them.

One teacher with typical EI presented her role in the classroom as a grandmother. She described herself as someone to whom her students could come with any problem they may have. Finally, in discussing how she functioned as a parent to her students, a teacher with excellent EI said,

> And they come to me with a problem, and they know I will go out of my way for them. They are not afraid to tell me the truth. It's fun to be that person in school. It's almost a mom role. Like a parent role.

Crossing the line. While discussing the ways that interpersonal relationships were established with students, many teachers discussed their belief that a professional line should not be crossed. As noted by Zarra (2013), teachers must establish and maintain boundaries between themselves and their students. Several teachers discussed their understanding of these boundaries in establishing and maintaining interpersonal relationships, stating that there was a separation between teachers and students, and that line should not be blurred. This perspective stood in contrast to that of teachers who discussed their role as a nurturing figure to students. A teacher with typical EI represented the beliefs of many teachers who discussed the presence of an ethical line that should not be crossed when he said, "It's that old adage; you're friendly but you're not their friend, and that's how I keep things."

Teachers who discussed a professional line that should be respected did so in the context of explaining the need to connect with students on a personal level in order to provide support to them. These teachers believed that to go too far in expressing care was dangerous. A teacher with superior EI discussed this professional line:

> But there is a very fine line between getting to know a student and being a professional and maintaining that distance. There is a fine line that you can't cross, and you have to be very aware of where it is.

Many teachers who described a line that they believed should not be crossed in establishing relationships with students did so in a way that was critical of the actions that they observed in some of their colleagues. These teachers knew where their boundaries were and believed that some of their colleagues went too far in establishing interpersonal relationships with students. A teacher with excellent EI discussed her reluctance to become as close to students as some of her coworkers were:

> I try to hold myself, when I'm in the classroom, as the teacher. There are some teachers who try to get very friendly with the kids, and it's not that I think that's wrong, but I try to be the professional…a step apart from them.

The idea of keeping distance between the teacher and student was also discussed by a teacher with typical EI. He discussed how he was uncomfortable getting too close to his students, saying, "But I don't get too terribly involved. I would never call it a friend. If you can help them, get to know them, that's fine. But I don't get into their personal lives at all."

Student actions and emotions. In order to explore the ways that teachers use EI to establish relationships with students, the actions and emotions of students were also considered. To further the understanding of student actions and emotions in the relationship process, the following interview question was asked: *Can you describe how the actions and emotions of your students influence the quality of your interpersonal relationships with them?* To analyze teacher answers to this question, nodes were first created based on common responses. The nodes were then used to create literal codes, which then were used to establish themes. The established themes follow.

The desire to learn. Many teachers within the study believed that students' display of behavioral engagement within their classroom was the most important factor in being able to

establish positive relationships with them. This perspective aligns with the work of Scarlett (2014) who found that students who display behavior problems or struggle academically are more likely to have high levels of conflict with teachers. When discussing the influence of student behavioral engagement on relationship quality, most teachers chose to discuss how low student behavioral engagement led to lower relationship quality with their students. Teachers believed that when students displayed low levels of interest, it was difficult to establish positive relationships with them. A teacher with superior EI described how students who lacked motivation were more difficult to reach by saying, "If they don't have any motivation, if they don't really care about what they're doing, it kind of rubs off on me, and I can only go so far toward wanting to teach them." Another teacher with superior EI echoed these thoughts about the challenges of building positive relationships with students who displayed low behavioral engagement:

> When a group of kids looks tired or consistently a little bit down, it does make it harder to relate to them in some cases. If I'm doing high-energy classes and kids are down, it makes it harder to build those relationships.

In addition to students being unmotivated, teachers also discussed how having students who were openly defiant made building positive relationships with them challenging. These teachers discussed the difficulty in keeping their own emotions under control when encountering students who openly challenged their authority. A teacher with excellent EI expressed the challenges of dealing with students who refused to work by saying, "I try not to let some of their actions influence their interactions with me. But they are teenagers. If someone is really oppositional and won't work, it's hard to establish a relationship with them." A teacher with

superior EI also discussed the challenges of establishing positive relationships with defiant students:

> If they are reactive, if they are confrontational, that is difficult. If there are students who won't work in your classroom, that is hard. It takes a very humble and professional person to just chalk it up to them being young adults and students and not take it personally. If they come across negatively, many teachers take it that way.

The quiet student. Teachers also discussed the challenges of establishing positive interpersonal relationships with students who were reluctant to have discussions. Poulou (2017) discussed how some students are reluctant to actively express their feelings, making the establishment of interpersonal relationships with them more difficult. The inherent challenges of connecting with quiet students were reflected in the statements of several teachers. Teachers described students who were unwilling to have conversations as being particularly challenging. The difference in establishing positive relationships with students who would have open discussions as opposed to those who were reserved was discussed by a teacher with excellent EI. She said, "Students who are typically more personable, and they want to talk and want to share, they are easier to build relationships with. The harder students are the ones who don't want to open up and want to share." A teacher with very superior EI focused on the challenges of building relationships with students who were reluctant to be open by saying, "It can definitely be hard if there are students who don't open up much. That makes me question if it's me or the class." A teacher with excellent EI described the frustrations with encountering students who would not share with her. She said, "Every year, I have students that just don't want to let you into their world. They are so frustrated or upset that they shut down. I wish they would let me in more, and I get frustrated with that."

Student personality. Teachers also noted the effects of student personality on the ability to establish interpersonal relationships. Teachers who discussed the influence of student personality on their own ability to form high quality relationships with them support the perspective of Li and Lerner (2013) who found that certain students are simply easier to form positive relationships with than others are. Again, almost all teachers who discussed how students' personalities influence relationship quality focused on negative student emotions. Teachers who expressed this belief pointed to the fact that some students were more likable than others were. One teacher with typical EI discussed the difficulty in treating all students the same regardless of the type of emotions they displayed. She said, "I would start out with the intent of treating everyone equally. However, that's just not possible to do. There are some personalities that are easier to get along with, so you don't have to try as hard." The belief that students' personalities influenced the quality of relationship that teachers established with their students was also presented by a teacher with typical EI. She discussed how students who displayed negative emotions in her class were more difficult to build positive relationships with by saying, "Nobody wants to teach a grumpy, pessimistic student, just like nobody wants to be friends with a jerk or nobody wants to spend time with somebody with a dark cloud over their head." However, she went on to discuss how negative emotions displayed by students were not an excuse to treat them differently, saying, "But maybe because I don't enjoy a student's personality doesn't mean that I'm allowed to not treat them equally. But it makes my job more difficult."

Despite the fact that students who were reserved presented more of a challenge in establishing interpersonal relationships, several teachers believed such challenges could be overcome. A teacher with typical EI discussed how it was important to attempt to help students despite the presence of negative emotions, saying, "Kids come to school with a lot more baggage

than they ever did. They seem to be very needy. Just like you, they have bad days too, and that's where you can help." A teacher with excellent EI also discussed a willingness to help students despite negative emotions that they may display that was representative of the teachers in the study. She said:

> Usually, some students who are upset need some space. I have some students who have experienced some major trauma, and they have some serious issues as a result. But it's hard not to take their behavior personally and to try and step back. Those are the kids who need the relationship the most.

Teacher Profiles

By creating nodes from the teacher interview data and allowing themes to emerge, a great deal was discovered about the role that teacher emotional intelligence (EI) plays in the educational process and the student experience. However, to better understand the relationship between teachers' EI and their thoughts and actions, four teacher profiles were created. One teacher participant was selected to represent each level of EI as defined by the Situational Test of Emotional Understanding. This selection was based on the depth and richness of each participant's interview. A profile was created for each selected teacher based on their responses to the interview questions. When creating the teacher profile, pseudonyms were used and careful attention was paid to omit or change any responses that may be used to identify the individual. The four profiles follow.

Excellent Emotional Intelligence

Karen was a female teacher with 14 years of teaching experience. Karen believed that relationships were the key to successfully educating her students. Overall, it was apparent that her high emotional intelligence influenced the way that she understood her own emotions and

those of her students. She often allowed her role as a learning support teacher to frame her discussion on the role of relationships in her classroom. Karen believed that because she often dealt with reluctant learners, the quality of relationship she established with them was essential to ensuring their success. When discussing the importance of interpersonal relationships in her classroom, Karen said:

> Well, especially for this department, it's insanely important. I get a lot of time, one-on-one with kids, where I get to establish relationships with them. Mostly they know I'm here for them and that's how I do business. In this position, we get to see what every teacher in the school does and how they interact with the kids. And I can tell you, it all depends on the teacher. For the other classes they are in, there are varying levels of success. It all depends on the class and the relationship that they have with the teacher. I have some kids who the teacher is cool with, so the kid does really well; and in another class, the teacher hasn't taken the time to get to know the kid so he's getting written up all the time. It's really all about the time the teacher has taken to build the relationship with the student.

As Karen reflected on the actions and emotions that helped her to build positive interpersonal relationships with her students, she talked about the importance of building trust. She said, "It's a lot of building trust. It's dropping whatever I'm doing for them. And then they come to me with a problem and they will know I will go out of my way for them." In further discussing the actions that allowed her to build positive relationships with students, Karen described herself as serving as a parent to many students. Karen said, "And then they're not afraid to tell me the truth. It's fun to be that person in the school. It's almost a mom role. Like a parent role."

Karen described presenting calm and consistent emotions when attempting to establish and maintain positive relationships with her students and seemed to have a strong understanding of how her own emotions influenced the emotions and actions of her students. When speaking about her emotional approach, she said, "They need to know that I'm not going to get upset if they don't have their work done. We need to get past that, so we can figure out what needs to be done and then just get it done." Karen believed that her calm demeanor was a large part of her ability to reach her students. She spoke extensively about the need for her students to know that she was not going to be upset with them or overreact, but, instead, be someone who would be there to help.

Karen also seemed to have a strong understanding of how her students' emotions and actions influenced the interactions she had with them and the quality of relationships that were established. When considering the actions and emotions of her students and how they may affect interpersonal relationship quality, Karen presented a confidence in being able to connect with most students:

> There are some kids that are really easily to get through to. There are some that have chips on their shoulder, or they have coping mechanisms they have to get them through. But the kids with behavior plans, the tough kids, man, that's my ball game. I actually have a better time of reaching kids with behavior plans. Those are the kids who I like to work with the most and who I can connect with the best.

However, despite discussing her ability to connect positively with some of the most difficult students, Karen also described some students with whom she had difficulty building relationships. In describing these students, she said, "The kids who I have a hard time relating

to, are the quiet girls, the girls who don't want to talk. For some of them, it takes years to get to where you want to be."

Karen believed that her students had the ability to be successful academically, but that they were not always taught in the right ways. She described an approach to teaching that was different than that of many of her colleagues. When describing this contrast, Karen said:

> In any class that I've taught, the students have experienced a lot of success. In here, you are making sure that they learn it, and you're not just trying to check boxes off. For the other classes they are in, there are varying levels of success. Because in those classes, they are used to the teachers just pushing through no matter what, and that doesn't work.

Karen believed that maintaining high levels of emotional engagement in her students was challenging because the assignments that she presented were not often her own. She was forced to provide assignments that came from other teachers and then get the students to see the value in them. Karen discussed the importance of her rapport with her students in getting them to see the value in assignments that they may not want to do initially. Because her students felt positively about her, she was able to create positive feelings about the assignments that were given.

Karen rarely had any behavior problems or problems with students refusing to do work. She said, "Behavioral engagement is almost 100%. Behavior wise, in 14 years, I may have written up four slips. It's rare that they don't do what I ask them to do. Sometimes, they don't, but it's rare." Karen did have some students who were reluctant to become engaged in the academic activities, but she had strategies in place to cope with this, explaining:

> They walk through walls for me. They trust me. If I ask them to do something and they don't want to do it, I have to sit down and talk with them about something else and then they will start to work. But I have the luxury in here. It's rare that they don't do what I

ask them to do. Some will just pretend for a while, but then maybe they have to come sit by me, or I have to go sit by them.

The aspect of student engagement that presented the most problems for Karen was cognitive engagement. Only a few of her students were truly invested in their learning, despite the fact that the vast majority were emotionally and behaviorally engaged. Karen expressed a sense of sadness in not being able to create a higher level of cognitive engagement in her students:

> You can tell students are disappointed when they look at their report card. But sometimes they don't have anyone else to show it to but me. It's my job to care for them. It's part of the job I guess. It's a parent job.

Very Superior Emotional Intelligence

Jennifer had been teaching for 22 years. The ways that Jennifer understood her own emotions and those of her students, as well as the ways that she attempted to interact with students in the learning process, seemed to correspond to her very superior level of emotional intelligence. Much of what Jennifer discussed regarding building and maintaining relationships with students was framed by her relationships with her own children and their friends. Her perspective on the importance of relationships in the classroom and her ability to form interpersonal relationships with students came from the relationships that she formed with the friends of her children who later became her students. The ability to form relationships with young people then continued even when her children no longer attended the school.

Jennifer placed a very high value on the importance of interpersonal relationships in the learning process. When speaking about interpersonal relationships with her students in the classroom, she said:

I have a different perspective, in that a lot of my kids went to school here. Having known their peers, coming up though, I think I've been looked at more of a mom to those grades. So I find myself reaching out to those kids I don't know as well to try and build those close relationships. I find myself trying to get to know them, I find myself missing that. I know my kids. I know when they have a good day; I know when they have a bad day. When they get to know me, they aren't hesitant to ask questions.

For Jennifer, controlling her own emotions was important in maintaining positive connections with her students. In speaking about these emotions, she said:

I think I try to be fun. I've had ups and downs. I don't really think I've let that influence what I do. I can see where if I've had a bad day, it changes things. I can't come in and be grumpy. I can't be that hold-a-grudge teacher. I've always made a very conscious effort to be calm and consistent.

When discussing the emotions or behaviors that would influence the quality of interpersonal relationships she had with her students, Jennifer chose to focus on negative emotions and behaviors. She believed that she did not often see any negative emotions or behaviors that would limit the quality of relationships she had with her students because of the level of students she taught. She said, "I have almost all high-level kids. I can tell a difference now, having the best students." However, when she did see students who were exhibiting negative behaviors, she felt it was important to address them right away:

There have been students where I've said, you need to go take a walk. You need to take a break. They can't learn or be part of the class if they are not in the right frame of mind. I try to catch them right when they come through the door because I think their behavior can influence the whole class.

Most of Jennifer's students were high achieving. She related this achievement to the level of students that she taught, saying, "It's pretty high. In general, most of my kids are high achievers. These are the high-level students; that's all I teach." Jennifer also described how most of her students were self-motivated and would correct their own mistakes, saying, "If they have a down dip, they don't like it, and its back up and that's on them." However, Jennifer also had a varying scale for measuring academic achievement. She said, "I have certain kids for whom a high level of achievement is a C and that's what we get them to do. I have other students for whom a high level of achievement is a 98%."

Jennifer's students saw her in a positive light and enjoyed the classroom environment that she created. She described how many of her students came to her with all of their problems and would come to her room at any free chance that they got:

> They come to me with just about everything. I have kids who come here all the time. The atmosphere that I have here is good for them. Sometimes, they come back more than I want them to. This is where they want to be.

Jennifer also discussed a high level of behavioral engagement for her students. She stated that she had almost no problems with getting students to comply with everything that she asked them to do. She again attributed much of this behavioral engagement to the level of students that she taught. When discussing this engagement, she said, "They just do what they are supposed to do. They just do what they are supposed to do. But they are high-level learners. They know when they come in here that they are going to work."

According to Jennifer, her students also had high levels of cognitive engagement. However, while she stated that most of her students genuinely wanted to learn, she again presented a varying scale to measure this engagement. Jennifer said, "They do the best they

can." Jennifer believed that the atmosphere of her classroom and the quality of the students whom she taught allowed for any students who may not be interested in learning the material to be encouraged to do better. When describing this process, Jennifer said, "In general, I feel that most of them want to achieve the highest levels that they can, and the ones who don't get dragged up by the ones who do."

Superior Emotional Intelligence

Ryan had been teaching for 14 years. Ryan described building interpersonal relationships with students as an art form. He continually spoke about the challenges of connecting with students in ways that would be beneficial to their learning while not crossing an ethical line. His thoughtful responses concerning the nature of his interpersonal relationships with students provided insight into the ways that he used his emotional intelligence while engaging with students.

Ryan described the challenge of establishing and maintaining positive interpersonal relationships with his students:

> Relationships with students are very challenging. It's an art form. Having a relationship that remains healthy and professional without it being a distraction but also managing it so they want to perform for you in the classroom, that's tricky. Like I said, it's an art form. You have to have a good relationship with students who struggle in school especially, or they're not going to work for you and they're not going to pay attention; they are just not going to do well in your classroom. Students who are really good at being a student, those relationships are not nearly as essential I don't feel. But those students who struggle a little bit, those interpersonal relationships will be the difference between them having success versus not caring and not doing well.

Ryan believed that his ability to connect with his students had improved over the course of his teaching career. While reflecting on this improvement, he said:

> Our roles as teachers have a greater impact than we will ever know. I've been doing this long enough to know that the way I acted as a young teacher was detrimental to my students' performance in my classroom. Years later, they would come back and say, you know, you were kind of a jerk as a young teacher. You kind of put up a front that we didn't really like. Then you learn that, as a young teacher, you're trying to have proper classroom management and you're cocky and you're arrogant.

Ryan discussed how those mistakes he may have made as a young teacher helped him to gain the perspective he now has about the importance of relationships with his students. In speaking from that perspective, Ryan said, "Our actions are hung on by the students. Every single action we take has an impact on them. It's an art form to do it in a way that's not going to detract from the overall experiences in the classroom."

Ryan also discussed how the actions of his students influenced the quality of relationships he had with them. When speaking about how his students' actions influenced his relationship quality with them, Ryan said:

> Their reaction drastically impacts the quality. If they are reactive, if they are confrontational, that is difficult. If there are students who won't work in your classroom, that is hard. This is a human-to-human interaction all day, every day. It takes a very humble and professional person to not let negative student actions influence their response. If they come across negative, many teachers are going to treat them negatively. Teachers have to stay positive and professional in spite of their negative or frustrating behavior.

Ryan described the academic achievement of his students as better than their achievement in other teachers' classes. Ryan attributed this to his teaching and assessment style. He stated that he had a very small number of students fail his classes.

When considering the emotional engagement of his students, Ryan described students who were highly engaged. He discussed how each day's activities were different and how he believed his students appreciated the variety of lessons that were presented. When reflecting on how his students felt about him and his class, he said, "I think students are genuinely happy to come to my class. The students say that this is their favorite class. I do get that a lot."

The behavioral engagement of Ryan's students was also described as high. When discussing the level to which his students engaged in the activities of the class, Ryan said, "My students perform for me. If I give them assignments, the vast majority of them get right to it." But Ryan also talked about the added attention necessary on his part to ensure this behavioral engagement. In describing his strategies for ensuring student behavioral engagement, he said:

> Gone are the days when I say all right folks, I want you to complete this activity and then I can go sit down and get to work. I have to be vigilant, proximity control. I have to be on top of each and every student who struggles. So, with the effort I put in, I have a 95% compliance rate. I have not had a compliance issue with a student refusing to do an assignment in years.

The cognitive engagement of Ryan's students was varied. Ryan described the cognitive engagement of his students as one of his most significant challenges as a teacher:

> The comprehension is difficult with the students who struggle each and every day with the comprehension. Fifty percent don't really care, and if they do care, they lack the skill to be able to do it on their own. If you're teaching at the board, they don't ask, they don't

let you know. That is probably the biggest disconnect between teachers and students in the modern era. If they don't comprehend, they aren't empowered enough to ask.

Typical Emotional Intelligence

Keith had been teaching social studies for 9 years. He was able to openly discuss what he believed to be the challenges of interpersonal relationships between himself and his students. Keith's openness in expressing some of his frustrations as a teacher allowed for an authentic perspective into the ways he used his emotional intelligence to interact with students. Keith placed high importance on the role interpersonal relationships played in his classroom, but also discussed his frustrations in teaching some students who were not engaged at the level to which he expected. An apparent misalignment was perceived between the actions and emotions that Keith believed he was presenting to his students and their reception of those actions and emotions. It was also apparent that Keith struggled with understanding the emotions and actions of his students in relation to the classroom activities he asked them to engage in as well as their overall performance in his classes.

When discussing the interpersonal relationships that he had with his students, Keith said, "The student-teacher relationship is something I've always tried to do. I'm sure there's better ways to do it, but yeah, I'd say it's very important outside of just being a teacher who teaches the students." Keith believed positive interpersonal relationships lead to increases in student engagement. While discussing the relation of interpersonal relationships to student engagement, he said:

When kids think you are interested in them, they are much more likely to pay attention. They are much more likely to respond. I see that every day. I can flat out say, right now,

with some periods, that's a pretty good back and forth. But with other periods, I just haven't really been able to get more out of them as far as the student and teacher relationship goes

Keith described several ways he attempted to establish and maintain interpersonal relationships with his students. He discussed how he attempted to take an interest in his students outside of class by attending extra-curricular activities such as sporting events, elaborating:

I ask them, hey, how was your weekend. They just like attention. I usually start in class with a very brief small talk. I think that as much as you can build that student-teacher relationship, it's very important outside of being just a teacher who teaches the students.

When considering the actions of his students and how they related to his interpersonal relationship quality with them, Keith discussed the challenges of dealing with specific negative student behaviors:

It's hard to realize that the kids aren't personally going at you just to go at you. We have a lot of students now who have rough home lives, so they come to school with a lot of stuff. I think not taking things personally whenever a student is kind of short or kind of rude is something that is really hard. I think that is something that absolutely makes it harder to teach. For you yourself to stay in a positive state of mind, your student's behavior absolutely has an impact on it.

Keith's students had a wide range of academic achievement levels. He believed the academic level of students he had in each class impacted their level of achievement. In describing how his students' academic level impacted achievement, Keith said:

> You have the academic kids who do well no matter what. You have the other kids for whom school is not their thing, so they just want to pass and don't really care. So, it all results in about an average level of achievement.

Keith stated that he thought his students liked him but probably did not always enjoy his class. When discussing his students' enjoyment level in his classes, Keith seemed to believe that while students enjoyed some activities more than others; the types of activities they liked the most could not be done all the time. He also believed that his students' low levels of enjoyment with his classes might be due to his shortcomings as a teacher. While discussing his students varying levels of enjoyment with his class, he said:

> I don't like to just come in Monday to Thursday and do the same thing. I think that has a direct impact on their behavior. I have some academic classes where if I just do notes, they are really engaged, but for my other students they are just checked out and don't want to do it. If there is time where they are discussing and sharing their opinion, then those other kids are engaged too. I would say, if I'm just judging how many days do they seem like it was a great class, more of the days than not, they were like man I couldn't wait for that class to end. I think it's a combination of things really. I could say maybe I could teach it better or maybe the kids don't really care.

Keith expressed a great deal of frustration when talking about the level of his students' behavioral engagement. He attempted to vary his assignments to increase student interest. However, despite these efforts, Keith described his students as having a low level of behavioral engagement:

> Complying with the activities has been disappointing to me. I try to do a lot of engaging things. They are relevant to the students. Overall, my academic kids are just like blah. And I'm thinking, *guys I can't do much more for you*.

Keith described the level of his students' cognitive engagement in much the same way as their behavioral engagement. He believed his students were just going through the motions, and he expressed frustration with not being able to change that. Keith seemed to be genuinely troubled by the fact that his students were not more cognitively engaged but placed the responsibility for this low engagement on his students. He said:

> Overall, the level of disinterest, the level of critical thinking is low. They just want the class to go by so they can go to their next class. That's what's been disappointing to me. They just want the 42 minutes to go by so they're out of here, so they can get their 60% and pass the class. Overall, I would say not really good. It's scarily low. That's the thing that I think does fall on the students. The kids just want to get through the year. And we just try to get them through the year and kids are a reflection of that. The seniors, they just want to get through the year. And that's how we are teaching kids. The kids just want to know what they need to know to do well on the test and that's very concerning.

Summary

This chapter provided results from a mixed-methods investigation of the relationship between teacher emotional intelligence, teacher-student relationship quality, and student achievement and engagement. The data used for this investigation included results from an emotional intelligence test, a relationship-quality survey, and interviews with teachers. Research Question One sought to explore the relationship between teacher emotional intelligence and

student achievement. To explore this relationship, teacher emotional intelligence scores were analyzed in conjunction with teacher assessments of student achievement. Research Question Two focused on the relationship between teacher emotional intelligence and student engagement. Teacher emotional intelligence scores were again used in conjunction with teacher descriptions of students' emotional, behavioral, and cognitive levels of engagement. Finally, research Question Three sought to investigate the role of emotional intelligence in establishing interpersonal relationships between students and teachers. The analysis of data revealed no statistically significant relationship between teacher emotional intelligence and teacher-student relationship quality. Teacher descriptions of interpersonal relationships with students were also used to further explore the role of teacher EI in forming interpersonal relationships between teachers and students. Chapter V will provide the significance of the research findings, study limitations, implications, and recommendations for future research.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Emotional intelligence (EI) is defined as "the ability to reason validly with emotions and with emotion-related information and to use emotions to enhance thought" (Mayer et al., 2016). The theory of EI has emerged as a significant tool for understanding the emotional capacity of employees across the workforce. However, despite the ability of EI theory to assist in understanding the emotional capacity of employees, the impact of teacher EI on the educational experiences of teachers and students is largely unknown (Murray et al., 2016). What is known about the emotional experiences of teachers and students is that quality interpersonal relationships between the two parties have been associated with positive student outcomes (Fredricks et al., 2016). EI theory aligns with the skills and abilities necessary within teachers to form positive interpersonal relationships with students, but its capacity to predict positive relationships and student outcomes has not been adequately investigated. This research explored the potential relationships between teacher EI, teacher-student interpersonal relationships, and student achievement and engagement. This chapter will address the findings from the research and its implications, as well as provide recommendations for future research.

Overview of the Study

This mixed-methods research study explored the relationships between teacher emotional intelligence (EI), teacher-student interpersonal relationships, and student achievement and engagement. In order to explore these relationships, EI theory served as the central theoretical framework. EI has been shown to be positively correlated to job performance (Jung & Yoon, 2016), life satisfaction (Extremera & Rey, 2016), and creativity (Tsai & Lee, 2014). While the majority of research on EI has taken place in the private sector, studies focused on the emotional

capacity of school leaders and teachers have revealed positive correlations between EI and overall teacher performance (Naqvi et al., 2016). However, while research has revealed positive correlations between EI and the overall performance of individuals who work in professions with significant interpersonal interaction, research has yet to be conducted on the relationship between teacher EI, teacher-student relationship quality, and student performance.

To explore potential relationships between teacher EI, teacher-student relationship quality, and student engagement and achievement, a mixed-methods research model was used. This study sought to integrate the measurable quality of EI with a qualitative exploration of teacher beliefs concerning interpersonal relationships with students, as well as the impact of those relationships on the student experience. The goal was to create an understanding of the role of emotion and relationship quality in the educational process. Teacher EI was first measured using the Situational Test of Emotional Understanding. Additionally, teacher-student relationship quality was measured by having teachers complete the Teacher-Student Relationship Survey. Following the use of these quantitative measures, qualitative interviews were conducted with teachers to assess their students' level of engagement and achievement. Teacher interviews also explored ways that teachers established and maintained interpersonal relationships with their students. These quantitative and qualitative data were combined to fully explore the potential impact of teacher EI on teacher-student interpersonal relationships and student engagement and achievement.

This study does reveal possible connections between teacher EI and student achievement and engagement as well as teacher-student relationship quality. Although the quantitative analysis of the relationship between teacher EI scores and teacher-student relationship quality

scores revealed no significant relationship between the two, further analysis revealed significant relationships between teacher EI, student engagement, and student achievement.

Major Findings

The major findings from this research study are presented below. These findings are arranged by the research question and include a summary and interpretation of the results.

Research Question One

Research Question One asked: *To what extent is emotional intelligence related to student achievement?* The results of this research explored the extent to which teacher emotional intelligence (EI) was related to student achievement. Previous research on the correlation between teacher EI and student achievement has produced mixed results. The recent work of Curci et al. (2014) and Clemmer, Beach, Gentry, and Reyes (2017) revealed a significant relationship between teacher EI and student achievement while the work of Dickey and Boatwright (2012) and Rust et al. (2014) found no such relationship. To explore this research question, two methods of analysis were employed. First, teacher EI scores obtained from participants completing the Situational Test of Emotional Understanding (STEU) were linked to teacher descriptions of their students' academic achievement. Additionally, teacher responses to interview questions were analyzed, and themes were identified that provided insight into the ways that teacher EI impacts student achievement.

Through the process of qualitizing the teacher scores on the STEU and using them to describe four levels of teacher EI, the research explored trends in the data related to teacher EI and student achievement. An exploration of the trends for each level of teacher EI revealed a positive association between teacher EI and student achievement. While the majority of participating teachers generally described their students as performing at high levels, it can be

seen that teachers with higher levels of EI had students who performed at higher levels academically than the students of teachers with lower levels of EI.

Teachers in the top two categories of EI, excellent and very superior, reported having higher percentages of students with high academic achievement than did teachers in the bottom two categories of EI. Of the 12 teachers in the top two categories of EI, 10 (83%) reported having students with high academic achievement and two (17%) reported having students with average or low academic achievement. However, of the 19 teachers in the bottom two categories of EI, nine (47%) reported having students who achieved at high levels and 10 (53%) reported having students who achieved at average or low levels. These data reveal that for the teachers in this study, higher levels of EI are positively associated with higher levels of student achievement.

Teacher responses concerning the levels to which their students achieved academically were also analyzed to reveal emergent themes. These themes allowed for a deeper understanding of the ways participating teachers viewed the achievement of their students and how those views related to their own EI. The themes identified within teacher descriptions of their students' achievement were student ability, student interest, teacher optimism, and valuing effort. The identified themes can be divided into two distinct classifications based on the ways participating teachers chose to view and discuss the achievement of their students. Teachers either viewed the achievement of their students as a predetermined characteristic that they had little influence over or as something that was within their control to influence based on their actions and emotions.

Teachers who believed their students' achievement was predetermined discussed the academic ability and interests of their students. These teachers believed that high-achieving students performed well in school because of their high ability and that low-achieving students performed poorly because of their low levels of academic ability. Additionally, teachers who

believed they had little influence over their students' achievement discussed the ways that student interest led either to their high or low achievement. Those teachers who presented the belief that the ability and interests of their students were the primary influences over their achievement did so by removing themselves from the classroom dynamic. They did not take responsibility for the success or failure of their students and, instead, placed the majority of the credit or blame on the students.

The second major theme that was discovered within teachers' descriptions of student achievement was an introspective examination of the ways that teachers' actions influenced that achievement. The belief by some participating teachers that they could influence the achievement of their students was found in the themes of valuing effort and teacher optimism. However, fewer participating teachers chose to relate their students' achievement to their own actions. Teachers with higher EI tended to discuss the achievement of their students in relation to their actions more often than did teachers with lower EI. It was found that teachers who discussed the achievement of their students regarding their own actions believed they had a distinct ability to influence the level to which their students achieved academically. Some participating teachers discussed the achievement of their students with optimism, presenting high student achievement as something that would happen rather than something that could happen. Additionally, it was found that some teachers focused on student effort as a determinant of student achievement. These teachers reported having students who achieved at high levels due to their high levels of engagement with the course material.

This research suggests that teacher EI is related to student academic achievement. These findings align with the previous research of Curci et al. (2014) and Clemmer et al. (2017). Teacher descriptions of their students' levels of academic achievement revealed a positive

relationship between teacher EI and student achievement. Teachers who displayed higher levels of EI reported that they had students who achieved at higher academic levels than the students of teachers with lower levels of EI. Additionally, the qualitative analysis of teacher descriptions of their students' academic achievement revealed distinct ways teachers chose to view student achievement. Teachers were found to believe that achievement was related either to predetermined student characteristics or to their own ability to influence student learning.

Research Question Two

Research Question Two asked: *To what extent does emotional intelligence impact student engagement?* The results of this research explored the extent to which teacher emotional intelligence (EI) was related to student engagement. Previous research on the relationship between teacher EI and student engagement has produced varied results, with Poulou (2017) finding no significant relationship and Nizielski (2012) identifying a significant correlation between teacher EI and student behavioral engagement. To explore this research question, two methods of analysis were employed. Teacher EI scores, as determined by the STEU, were used in conjunction with teacher descriptions of their students' levels of engagement to explore the extent to which EI affected engagement. Additionally, teacher responses concerning the engagement levels of their students were analyzed, revealing emergent themes and providing further insight into the ways that teacher EI may affect student engagement.

For the purpose of this research, student engagement was divided into three separate categories as described by the student engagement model: emotional, behavioral, and cognitive (Poorthuis et al., 2015). In this study, a positive association was found between teacher EI and all three forms of student engagement.

It was found that teachers with higher EI generally described having students who were emotionally engaged at higher levels than did teachers with lower EI. Of the teachers with the highest levels of EI in the study, either excellent or very superior, 10 (83%) reported having students who were emotionally engaged at a high level. However, 13 (68%) of teachers with lower levels of EI, either superior or typical, reported having students who were emotionally engaged at a high level.

Teachers with higher EI generally described having students who were behaviorally engaged at higher levels than those of teachers with lower EI. Each of the 12 teachers with either excellent or very superior EI reported having students who were behaviorally engaged at a high level. However, all of the participating teachers who reported having students who were behaviorally engaged at either average or low levels had either superior or typical levels of EI. Of the 19 teachers with either superior or typical EI, five (26%) reported having students who had average or low levels of behavioral engagement.

Finally, a positive relationship between teacher EI and student cognitive engagement was found. Fewer teachers described having students who were cognitively engaged at a high level than described having students with high levels of emotional and behavioral engagement. The data revealed that teachers with higher levels of EI had students who were more cognitively engaged than students of teachers with lower levels of EI. Of the teachers in the highest two categories of EI, excellent or very superior, six (50%) reported having students who were cognitively engaged at a high level. Of the teachers with lower EI, either superior or typical, seven (37%) reported having students who were engaged at a high level.

Teacher responses concerning their engagement levels were also analyzed to reveal emergent themes. These themes were used to gain deeper insight into the ways that teachers

understood student engagement and how that engagement may be related to their own EI. The themes that emerged from the qualitative data were: student interests, student ability, classroom atmosphere, teaching style, proximity, and a culture of learning. These emergent themes revealed that teachers chose to view student engagement in one of two distinct ways. Teachers presented the belief that the engagement of their students was either within or outside their scope of control.

Teachers who described student engagement as something that was dictated by students and outside of their own control did so by presenting the themes of student interests and student ability. Teachers who described the influence of their students' interests and academic ability on their levels of engagement removed themselves from the discussion and placed the responsibility for student engagement on their students. Descriptions of the influence of student interest and ability on engagement were found in discussions concerning all three forms of student engagement. Many participating teachers believed that students' emotions, behaviors, and dedication to learning were primarily set by predetermined factors over which the teachers had little control.

In contrast to the perspective that student engagement was primarily related to student characteristics, some study participants discussed the engagement of their students by relating the ways that their actions and emotions either increased or decreased their students' engagement levels. The perspective that the characteristics of the teacher influenced student engagement was found within the themes of classroom atmosphere, teaching style, proximity, and a culture of learning. Teachers who discussed their influence on student engagement presented the perspective that their actions and emotions influenced their students' engagement levels. In contrast to teachers who believed engagement was based on a predetermined characteristic, these

teachers chose to reflect on how they worked to influence engagement regardless of student ability or interest. Teachers who discussed their influence on student engagement did not remove student actions and emotions from the discussion. Instead, they described how they worked to increase engagement by meeting the needs of students based on their ability and interest.

This research reveals that teacher EI is related to student engagement. These findings are supported by the previous research of Nizielski (2012). Teachers with higher levels of EI reported having students who were more emotionally, behaviorally, and cognitively engaged than the students of teachers with lower levels of EI. Additionally, through qualitative analysis of teacher responses concerning the engagement of their students, it was discovered that teachers view student engagement in two distinct ways. Some teachers chose to view student engagement as being determined by student action and ability, while others believed engagement was related to their own actions and emotions. The distinct perspectives that were revealed during coding and analysis lend insight into the ways that teachers understand student engagement and provide paths to future work concerning teacher EI and student engagement.

Research Question Three

Research Question Three asked: *To what extent do teachers use emotional intelligence to establish interpersonal relationships with students?* The results of this research explored the extent to which teachers use emotional intelligence to establish interpersonal relationships with students. Previous research has found a significant relationship between teacher EI and interpersonal relationship quality between teachers and students (Friedman & Gregory, 2014). To explore this research question, the correlation between teacher EI scores as assessed by the STEU and teacher-student relationship quality scores as assessed by the Student-Teacher

Relationship Scale (TSRS) was explored. Additionally, qualitative data obtained through interviews with teachers were used to gain further insight into how teachers established and maintained interpersonal relationships with students.

To explore potential correlations between teacher EI and teacher-student relationship quality, relationships between overall teacher-student relationship quality and two subcategories of relationship quality were explored. No relationship between teacher EI and overall teacher-student relationship quality was found as a result of this research. The results of the Spearman correlation revealed a correlation r=.250 and was not statistically significant, p=.175. Additionally, no relationship between teacher EI and relationship closeness or conflict between teachers and students was found. The results of the Spearman correlation revealed a correlation of r=.287 between teacher EI and teacher-student relationship closeness. Moreover, the results of the Spearman correlation revealed a correlation of r=.174 between teacher EI and teacher-student relationship conflict.

In addition to the quantitative data that were collected and analyzed to explore research Question Three, qualitative data collected from teacher interviews were used to gain a deeper understanding of the ways in which teachers establish and maintain interpersonal relationships with students. Through an analysis of the teacher responses concerning their perspectives on interpersonal relationships between themselves and their students, several themes emerged. These themes were categorized as either being focused on the actions and emotions of teachers or the actions and emotions of students. Emergent themes related to the actions and emotions of teachers included: caring, earning trust, showing interest, opening up, managing emotions, being nurturing, and crossing the line. Those themes related to the actions and emotions of students included a desire to learn, the quiet student, and student personality.

Teachers who described their actions and emotions in building and maintaining positive interpersonal relationships with students presented responses that developed into emergent themes. However, within these emergent themes existed a wide array of opinions as to what was appropriate and how each strategy was employed. The most significant disparity in beliefs about how interpersonal relationships should be established and maintained existed within the themes of opening up, nurturing, and crossing the line. It was apparent that some participants believed a strict focus on curriculum and classroom activities that did not delve into the personal lives of either party should always be maintained. It was also apparent that other participants were much less concerned with maintaining such a strict focus on curriculum and classroom activities and, instead, believed their position as a teacher should extend into the personal lives of students to help them inside and outside the classroom. The difficulty in differentiating between these positions comes in the discussion of a hypothetical ethical line that almost all participants believed should not be crossed. Most participants chose to place the line at different positions, however.

In addition to discussions about their actions and emotions in the relationship-building process, teachers also discussed the influence of student actions and emotions in the learning process. Emergent themes focused on these student actions and emotions included student interests, the quiet student, and student personality. It was evident through the analysis of these themes that most participating teachers believed it was easier to build and maintain positive relationships with some students than with others. Teachers expressed the opinion that it was easy to build and maintain positive relationships with students who were actively engaged in the learning process, were open to dialogue in the classroom, and who shared interests similar to their own. Conversely, it was much more difficult for teachers to establish and maintain

interpersonal relationships with students who showed little interest in classroom activities, were quiet, and displayed interests in areas that were different from their own.

This research finds no significant relationship between teacher EI and teacher-student relationship quality. This finding is supported by the previous research of Nizielski (2012). Teacher EI scores as measured by the STEU were not found to correlate at a significant level to teacher assessments of their relationship quality with students as measured by the TSRS. Qualitative analysis of teacher responses concerning the ways they established and maintained interpersonal relationships with students revealed valuable insight. Teachers viewed interpersonal relationships with their students in different ways. A distinction was found between teachers who believed interpersonal relationships with students should be focused only on what takes place in the classroom and those who believed their relationships with students should relate to all areas of their own lives and the lives of their students.

Discussion of the Quantitative Measures

This research employed the use of two quantitative measures. The first was the Situation Test of Emotional Understanding (STEU), an ability-based measure of emotional intelligence (EI) developed by MacCann and Roberts (2008). In assessing ability-based EI, the STEU produces a score report based on a total number of correct answers out of the 42 questions. The score of each test taker is compared to the broader population of test takers to rank one's emotional intelligence in one of four categories: excellent, very superior, superior, and typical.

Results from the STEU produced scores from 23 to 35, with a mean score of 29. Results from the Shapiro-Wilk test revealed a significance of .157, suggesting that no specific departure from normality existed. Of study participants, eight (26%) had excellent EI, revealing their EI to be better than 90% of the average population. There were four (13%) teachers with very

superior EI, indicating that their scores were better than 80% of the population. Of study participants, eight (26%) had superior EI, indicating scores that were better than 70% of the population. Finally, 11 (35%) participants had typical levels of EI, revealing their EI to be below that of the top 30% of the population.

Results from the STEU also indicated that the sample of test takers reflected current trends for both gender and age. Female teachers performed better than male teachers on the STEU, which is in line with the current EI trend that females typically perform better than males on EI measures (Ackley, 2016). Of the study participants, female teachers represented all of the teachers in the top two EI categories. Additionally, seven (70%) male teachers received EI scores in the lowest EI category of typical. Older teachers tended to perform better than younger teachers on the STEU, in line with current trends in EI literature revealing that EI typically increases with age (Ackley, 2016). The age of teacher participants varied from 26 to 59 years. The majority of teachers with the highest EI came from either the 30–39 age group or the 40–49 group. Interestingly, participants in the oldest age category did not perform as well as those teachers in the middle two categories.

The second quantitative measure that was employed for this study was the Student-Teacher Relationship Scale (STRS). The STRS is a widely used test to assess student-teacher relationship quality. To assess relationship quality, the STRS measures both relationship closeness and conflict (Koomen et al., 2012). The STRS short form, which was used for this study, is a 15-item, self-report measure that uses a five-point Likert scale. Seven of the survey items assess relationship closeness, and eight items assess relationship conflict.

The STRS produces three scores. An overall relationship quality score is produced along with the subcategory scores of closeness and conflict. Higher scores on the STRS reveal higher-

quality relationships, while lower scores reveal a lower-quality relationship. At this time, an average score on the STRS does not exist. Results from this research revealed a mean score of 61 on the 75-point relationship quality scale. Of the 31 teachers, 22 (71%) scored at or above the mean of 61, while four (13%) teachers produced scores that were identified to be extreme values below 52. Overall, the scores on the STRS were not normally distributed, due in part to the four extreme values that were identified. Results for the subcategory of relationship closeness revealed a mean score of 29 on the 35-point scale. Of the teacher participants 23 (74%) scored at or above the mean of 29. The subcategory of relationship conflict revealed a mean score of 31 on the 40-point scale. Finally, 21 (68%) of the 31 teachers scored at or above the mean of 31.

Implications

When considering student achievement and engagement, it is essential to consider the impact of teacher emotional intelligence (EI). This research explored the relationships between teacher EI, student achievement and engagement, and teacher-student relationship quality. Teachers with higher EI scores were found to have students with higher levels of academic achievement and engagement. Additionally, teacher EI was not found to be related to teacher-student relationship quality through quantitative analysis. However, further investigation using qualitative data provided valuable insight into connections between teacher EI and interpersonal relationships between teachers and students.

The major findings of this study carry several implications. The first is that teacher EI may influence beliefs about the ability of students to achieve academically. This study revealed a relationship between high teacher EI and student achievement, which is supported by prior research (Clemmer et al., 2017; Curci et al., 2014). However, this research also explored the ways teachers viewed student achievement in relation to their own levels of EI. The relationship

of teacher EI to student achievement may be related to teachers' ability to understand their actions and emotions and those of their students. Qualitative data obtained from interviews with teachers indicated that some teachers believed they can influence the achievement of their students, while others believed student achievement was based on fixed characteristics. Thus, this research found that teachers view the achievement of their students in different ways. Those teachers who chose to view student achievement as related to their own abilities rather than to students' fixed characteristics may have an enhanced ability to influence student achievement.

The second implication of this research is that EI may impact teachers' ability to influence student engagement. This study revealed that teachers with higher EI reported having students who were more emotionally, behaviorally, and cognitively engaged. Previous research supports these findings in this area (Nizielski, 2012). However, perhaps more importantly, this research discovered that teachers viewed student engagement in two distinct ways. Some teachers chose to view student engagement as something they had little influence over, while others believed their actions and emotions could positively influence engagement. If EI is related to a teacher's beliefs about their influence on student engagement, EI thus becomes an essential tool in increasing student engagement. Teachers who believe they have little influence over student engagement are likely to have no real impact on it. However, teachers who believe that their actions and emotions can influence the engagement of their students are likely to improve that engagement through their actions and emotions.

The third implication of this research is that teachers view the function of interpersonal relationships within the classroom in a variety of ways. This research found no statistically significant correlation between teacher EI and teacher-student relationship quality. However, despite the absence of a statistically significant correlation, essential aspects of the ways that

teachers view and form interpersonal relationships with students were revealed. It was found that most participating teachers viewed interpersonal relationships with students as being either something that should remain very professional in nature and only related to academic activities, or as something that should serve to nurture students within and beyond the classroom. This dichotomy of views is significant to understanding the potential impact of interpersonal relationships between teachers and students on student achievement and engagement. The varied nature of perspectives on the form and function of interpersonal relationships with students presented by teachers points to the fact that teachers understand and use interpersonal relationships in a multitude of ways. As such, the ability of teachers to form relationships with students and influence student performance through them may relate to their own perspectives on what the nature of the relationship should be and where lines should be drawn.

Recommendations for Professional Development

In light of this research, several recommendations can be made for the future professional development of educators. The first recommendation for professional development for educators is emotional intelligence (EI) training. This study and those that have produced similar findings point to the fact that teacher EI is an essential component in student achievement and engagement. The ability-based model of EI suggests that EI is not a fixed characteristic but is, instead, one that can be improved over time (Mayer et al., 2016). Thus, exposure to EI training would serve teachers well, allowing their EI to be assessed and improved. Teachers who are able to better understand their own and their students' emotions may be better prepared to positively influence the academic achievement and engagement of their students. In addition to potentially improving the achievement and engagement of students, EI training may also benefit teachers' emotional well-being. Teaching has been described as heavy emotional labor (Corcoran &

Tormey, 2012). Many participating teachers described the process of having to deal with their own emotional well-being as they entered the classroom and being forced to deal with their students' emotions. EI training would provide an opportunity for teachers to learn how to manage their own emotions better as they simultaneously dealt with those of their students.

The second recommendation for professional development is for training related specifically to the influences on student engagement and achievement. The majority of teacher participants believed that achievement was related to fixed characteristics found among students. However, while teacher EI may impact this opinion, this research recommends that training related specifically to influence on student achievement could inform the perspective of teachers in ways that may guide future actions. Teachers should be made aware of the ways their actions and emotions can influence the achievement and engagement of students. If achievement and engagement are only related to predetermined student abilities, then there is no need for teachers. However, as teachers come to realize the influence of their actions and emotions on the student experience, they may be better equipped to influence student achievement and engagement in positive ways.

The third recommendation for professional development is for teacher training on the student engagement model. While researchers have shown that emotional, behavioral, and cognitive engagement are three separate and vital characteristics of teaching and learning, (Poorthuis et al., 2015) most participating teachers expressed low levels of understanding of this model and its components. If student emotional, behavioral, and cognitive engagement are to be essential components of understanding and influencing student achievement, teachers must understand both what each type of engagement is and how they can be a positive influence on each. Debate surrounds the exact nature of the relationship between emotional, behavioral, and

cognitive engagement. However, there is no refuting that students who possess high levels of each of the three forms of engagement achieve at higher levels than those who have low levels (Burch et al., 2015). If teachers are to influence student achievement positively, they should come to understand the types of student engagement and how they can best increase each.

A final recommendation for professional development is training in establishing and maintaining interpersonal relationships with students. While this research did not find a connection between teacher EI and teacher-student relationship quality, it did find a variety of perspectives on interpersonal relationships with students and varied approaches to establishing and maintaining them. While it has previously been stated that interpersonal relationships between teachers and students are complex and difficult to understand (Scarlett, 2014), all teachers should have a unified understanding of what is appropriate within such relationships and the best strategies that exist to establish and maintain them. A prominent refrain found within collected data was that teachers were fearful of crossing a hypothetical ethical line with students. However, while this fear existed, no teacher clearly defined where the hypothetical line existed. As a result, this research recommends that teachers be provided with specific training that addresses appropriate and inappropriate relationships with students. Additionally, teachers would benefit from being provided with the best possible strategies for establishing and maintaining relationships with their students.

Recommendations for Future Research

This research has served as a foundation on which future exploration into teacher emotional intelligence (EI) and teacher-student interpersonal relationships can be built. While this study explored the role of teacher EI in student achievement and engagement as well as interpersonal relationships with students, it has raised additional questions that should be

addressed. The role of emotion in teaching and learning and specifically the effects of teacher EI on students require subsequent research.

The first recommendation for future research is to include data collected directly from students concerning their achievement and engagement, as well as the quality of their relationships with teachers. There is currently a lack of research that considers students' perceptions of their relationships with teachers (Yu, Johnson, Deutsch, & Varga, 2018). The data collected for this research came exclusively from the perspective of teachers. Moreover, while this perspective has proven to be valuable in advancing thinking about the role of teacher EI in the educational process, future research must consider the perspective of students if advances in understanding are to continue. Students' perspectives would be especially helpful in the area of understanding relationship quality between teachers and students. Thus, future research that includes students' perspectives of their relationships with their teachers will provide a more complete view of the nature of relationships between teachers and students.

The second recommendation for future research is to explore the nature of the relationship between teacher EI and teacher beliefs about their students' ability to achieve and be engaged. This research revealed connections between teacher EI and student achievement and engagement. However, while qualitative data also illustrated the distinct ways that teachers believe they influence achievement and engagement, potential links between EI and achievement and engagement were not fully explored. This research revealed the EI level of teachers as they discussed their students' achievement and engagement. Future research should explore these possible connections more fully to determine if teacher EI influences beliefs about student achievement and engagement.

A final recommendation for future research is to expand the sample size of participating teachers in order to explore possible connections between teacher EI and student achievement and engagement more fully, along with interpersonal relationships between teachers and students. The sample size used for this study of 31 teachers allowed for both qualitative and quantitative data to be combined to explore the concepts being researched. However, future studies may benefit from larger sample sizes that allow for specific quantitative explorations into the connections between teacher EI, student achievement and student engagement, and teacher-student relationship quality. Additionally, the relatively small sample size did not facilitate the type of participant diversity that would make exploring issues associated with race and culture possible. Each of these individual areas could develop into quantitative and qualitative studies that can explore the given concepts in more depth.

Conclusion

This research explored the relationship between teacher emotional intelligence (EI), teacher-student interpersonal relationships, and student achievement and engagement. The findings of this research revealed that there were significant connections between teacher EI, student achievement, and student engagement. In addition, this study found no significant relationship between teacher EI and teacher-student relationship quality. The qualitative component of this study served to explore the ways teachers understand the achievement and engagement of their students in relation to their own EI. Additionally, qualitative findings explored the ways teachers understand interpersonal relationships with their students as well as the ways they establish and maintain those relationships.

The limited amount of previous research conducted on this study's areas of focus necessitates that this exploration be an initial step to better understanding the influence of teacher

EI on the student experience. Future research must continue to explore the ways that the EI of teachers affects the ways that they establish and maintain interpersonal relationships with their students and how it affects student achievement and engagement.

The researcher began with the belief that interpersonal relationships between teachers and students are essential to the learning process and that the EI of teachers may be a significant factor in influencing such relationships. While that fundamental belief has been maintained, much has been learned about the ways in which teacher EI influences interpersonal relationships with students.

Ultimately, the purpose of education is for students to learn and become adequately prepared for the future. This study recognized the importance of this purpose by exploring the ways that teacher EI influenced the achievement of students. Further exploration of emotion in education is essential to understanding the ways teachers teach and students learn. This research supports the initial assertions that emotion is significant to the experiences of teachers and students. As improvements to teaching and learning are sought, further exploration into the relationship between emotion and learning is imperative.

References

Ackley, D. (2016). Emotional intelligence: A practical review of models, measures, and applications. *Consulting Psychology Journal: Practice and Research*, *68*(4), 269-286. doi:10.1037/cpb0000070

Ahnert, L., Milatz, A., Kappler, G., Schneiderwind, J., & Fischer, R. (2013). The impact of teacher-child relationships on child cognitive performance as explored by a priming paradigm. *Developmental Psychology*, *49*(3), 554-567. doi:10.1037/a0031283

Al-Bawaliz, M. A., Arbeyat, A., & Hamadneh, B. M. (2015). Emotional intelligence and its relationship with burnout among special education teachers in Jordan: An analytical descriptive study on the southern territory. *Journal of Education and Practice*, *6*(34), 88-95.

Allen, E., FitzGerald, A. M., Edwards, J., & McCown, R. (2017). *Cultural care and inviting practices: Building relationships in an urban elementary school. Teacher perspectives in forming positive teacher-student relationships based on care and equity*,(Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses.

Allen, V.D., Weissman, A., Hellwig, S., MacCann, C., & Roberts, R. D. (2014). Development of the situational test of emotional understanding – brief (STEU-B) using item response theory. *Personality and Individual Differences*, *65*(C), 3-7. doi:10.1016/j.paid.2014.01.051

Archambault, I., Janosz, M., & Chouinard, R. (2012). Teacher beliefs as predictors of adolescents' cognitive engagement and achievement in mathematics. *Journal of Educational Research*, *105*(5), 319-328. doi:10.1080/00220671.2011.629694

Archambault, I., Vandenbossche-Makombo, J., & Fraser, S. (2017). Students' oppositional behaviors and engagement in school: The differential role of the student-teacher relationship. *Journal of Child and Family Studies, 26*(6), 1702-1712. doi:10.1007/s10826-017-0691-y

Arguedas, M., Daradoumis, T., & Xhafa, F. (2016). Analyzing how emotion awareness influences students' motivation, engagement, self-regulation and learning outcome. *Educational Technology & Society, 19*(2), 87-103.

Austin, E. (2010). Measurement of ability emotional intelligence: Results for two new tests. *British Journal of Psychology, 101*(3), 563-578. doi:10.1348/000712609x474370

Ayiro, L. P. (2012). *A functional approach to educational research methods and statistics: Qualitative, quantitative, and mixed methods approaches*. Lewiston, NY: Edwin Mellen Press.

Baracsi, Á. (2016). Emotional intelligence of Hungarian teachers. *Universal Journal of Educational Research*, *4*(7), 1734-1743. doi:10.13189/ujer.2016.040728

Bar-On, R. (2010). Emotional intelligence: An integral part of positive psychology. *South African Journal of Psychology*, *40*(1), 54-62. doi:10.1177/008124631004000106

Bernstein-Yamashiro, B., & Noam, G. (2013). *Teacher-student relationships: Toward personalized education*. San Francisco, CA: Jossey-Bass/Wiley.

Brickhouse, T., & Smith, N. (2013). Persuade or obey. *The Harvard Review of Philosophy*,*19*, 69-83. doi:10.5840/harvardreview2013195

Burch, G. F., Heller, N. A., Burch, J. J., Freed, R., & Steed, S. A. (2015). Student engagement: Developing a conceptual framework and survey instrument. *Journal of Education for Business*, *90*(4), 224-229. doi: 10.1080/08832323.2015.1019821

Chase, P., Hilliard, A., Geldhof, L., Warren, J., & Lerner, G. (2014). Academic achievement in the high school years: The changing role of school engagement. *Journal of Youth and Adolescence, 43*(6), 884-896. doi:10.1007/s10964-013-0085-4

Chiu, M. M., Pong, S., Mori, I., & Chow, B. W. (2012). Immigrant students' emotional and cognitive engagement at school: A multilevel analysis of students in 41 countries. *Journal of Youth and Adolescence, 41*(11), 1409-1425. doi:10.1007/s10964-012-9763-x

Choi Sang, L., Yaacob, M., & Tan Wee, C. (2016). The impact of emotional intelligence on job satisfaction among teachers. *International Journal of Management, Accounting & Economics, 3*(8), 544-552.

Claessens, L., Van Tartwijk, J., Van Der Want, A., Pennings, H., Verloop, N., Den Brok, P., & Wubbels, T. (2017). Positive teacher–student relationships go beyond the classroom, problematic ones stay inside. *The Journal of Educational Research, 110*(5), 478-493. doi:10.1080/00220671.2015.1129595

Clemmer, A., Beach, D., Gentry, J., & Reyes, J. (2017). *An analysis of the relationship of the emotional intelligence of special education teachers and special education student achievement* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses.

Collins, B. A. (2017). Behavior problems in elementary school among low-income boys: The role of teacher-child relationships. *Journal of Educational Research, 110*(1), 72-85. doi:10.1080/00220671.2015.1039113

Conner, J., & Pope, O. (2013). Not just robo-students: Why full engagement matters and how schools can promote it. *Journal of Youth and Adolescence, 42*(9), 1426-1442. doi:10.1007/s10964-013-9948-y

Corcoran & Tormey. (2012). How emotionally intelligent are pre-service teachers? *Teaching and Teacher Education*, *28*(5), 750-759. doi:10.1016/j.tate.2012.02.007

Curci, A., Lanciano, T., & Soleti, E. (2014). Emotions in the classroom: The role of teachers' emotional intelligence ability in predicting students' achievement. *The American Journal of Psychology*, *127*(4), 431-445. doi:10.5406/amerjpsyc.127.4.0431

Darensbourg, A., & Blake, J. (2013). Predictors of achievement in African American students at risk for academic failure: The roles of achievement values and behavioral engagement. *Psychology in the Schools, 50*(10), 1044-1059. doi:10.1002/pits.21730

De Laet, S., Colpin, H., Van Leeuwen, K., Van Den Noortgate, W., Claes, S., Janssens, A., … Verschueren, K. (2016). Teacher–student relationships and adolescent behavioral engagement and rule-breaking behavior: The moderating role of dopaminergic genes. *Journal of School Psychology*, *56*, 13-25. doi:10.1016/j.jsp.2016.02.002

Dewey, J. (1916). *Democracy and education: An introduction to the philosophy of education*. New York, NY: Macmillan.

Dewi, E. R., Bundu, P., & Tahmir, S. (2016). The effect of emotional intelligence, competence and interpersonal communication on the performance of senior high school teachers through achievement motivation in Makassar, Indonesia. *New Educational Review*, *44*(1), 176-183.

Di Fabio, A., & Kenny, M. (2016). Promoting well-being: The contribution of emotional intelligence. *Frontiers in Psychology, 7*, 1182. doi:10.3389/fpsyg.2016.01182

Dickey, K., & Boatwright, M. (2012). *An analysis of the relationship between 3rd grade teachers' emotional intelligence and classroom management styles and implications on*

student achievement in title I elementary schools: A correlational study (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses.

Dolcos, F., & Denkova, E. (2014). Current emotion research in cognitive neuroscience: Linking enhancing and impairing effects of emotion on cognition. *Emotion Review, 6*(4), 362-375. doi:10.1177/1754073914536449

Engels, M. C., Colpin, H., Van Leeuwen, K., Bijttebier, P., Van Den Noortgate, W., Claes, S., . . . Verschueren, K. (2016). Behavioral engagement, peer status, and teacher–student relationships in adolescence: A longitudinal study on reciprocal influences. *Journal of Youth and Adolescence, 45*(6), 1192-1207. doi:10.1007/s10964-016-0414-5

Extremera, N., & Rey, L. (2016). Ability emotional intelligence and life satisfaction: Positive and negative affect as mediators. *Personality and Individual Differences, 102*, 98-101. doi:10.1016/j.paid.2016.06.051

Fernandez, S., & Raffanti, M. A. (2011). *The relationship between teachers' emotional intelligence and sense of humor, and student achievement* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses.

Fernández-Zabala, A., Goñi, E., Camino, I., & Zulaika, L. M. (2016). Family and school context in school engagement. *European Journal of Education and Psychology, 9*(2), 47-55. doi:10.1016/j.ejeps.2015.09.001

Fetters, M., Curry, L., & Creswell, J. (2013). Achieving integration in mixed methods designs—principles and practices. *Health Services Research, 48*, 2134-2156. doi:10.1111/1475-6773.12117

Fowler, L., Banks, T., Anhalt, K., Der, H., & Kalis, T. (2008). The association between externalizing behavior problems, teacher-student relationship quality, and academic

performance in young urban learners. *Behavioral Disorders, 33*(3), 167-183. doi:10.1177/019874290803300304

Fredricks, J. (2014). *Eight myths of student disengagement: Creating classrooms of deep learning (classroom insights from educational psychology).* Thousand Oaks, CA: Corwin Press.

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research, 74*(1). 59-109. doi:10.3102/00346543074001059

Fredricks, J. A., Filsecker, M., & Lawson, M.A. (2016). Student engagement, context, and adjustment: Addressing definitional, measurement, and methodological issues. *Learning and Instruction, 43*, 1-4. doi:10.1016/j.learninstruc.2016.02.002

Friedman, S., & Gregory, A. (2014). *Teacher emotional intelligence and the quality of their interactions with students* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses.

Gallagher, K. C., Kainz, K., Vernon-Feagans, L., & White, K. M. (2013). Development of student–teacher relationships in rural early elementary classrooms. *Early Childhood Research Quarterly*, *28*(3), 520-528. doi:10.1016/j.ecresq.2013.03.002

Galler, D., & Cherniss, C. (2015). *Emotional intelligence and positive classroom climate: An exploration of how outstanding teachers use emotional intelligence to create positive classroom climates* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses.

Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York, NY: Basic Books.

Goleman, D. (1995). *Emotional intelligence: Why it can matter more than IQ*. New York, NY: Bantam Books.

Guo, Y., Sun, S., Breit-Smith, A., Morrison, F. J., & Connor, C. M. (2015). Behavioral engagement and reading achievement in elementary-school-age children: A longitudinal cross-lagged analysis. *Journal of Educational Psychology, 107*(2), 332-347. doi:10.1037/a0037638

Gutiérrez-Cobo, M. J., Cabello, R., & Fernández-Berrocal, P. (2017). The three models of emotional intelligence and performance in a hot and cool go/no-go task in undergraduate students. *Frontiers in Behavioral Neuroscience, 11*. doi:10.3389/fnbeh.2017.00033

Hakkak, M., Nazarpoori, A., Mousavi, S. N., & Ghodsi, M. (2015). Investigating the effects of emotional intelligence on social-mental factors of human resource productivity. *Journal of Work and Organization Psychology, 31*(3), 129-134. doi:10.1016/j.rpto.2015.06.005

Halcomb, E., & Andrew, S. (2009). *Mixed methods research for nursing and the health sciences*. Chichester, UK: Wiley-Blackwell.

Hall, P. (2009). *Potential predictors of student teaching performance: Considering emotional intelligence* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses.

Harris, L. (2011). Secondary teachers' conceptions of student engagement: Engagement in learning or in schooling? *Teaching and Teacher Education, 27*(2), 376-386. doi:10.1016/j.tate.2010.09.006

Hesse-Biber, S. (2014). *Mixed methods research merging theory with practice*. New York, NY: Guilford Press.

Hong, F.-Y., & Cheng, K.-T. (2013). A study of the relationships among high school principal transformational leadership, school academic optimism, teacher's academic optimism and students' academic achievement. *Journal of National University of Tainan*, *47*(2), 47–72.

Hughes, J. N. (2012). Teacher–student relationships and school adjustment: Progress and remaining challenges. *Attachment & Human Development, 14*(3), 319-327. doi:10.1080/14616734.2012.672288

Jung, H. S., & Yoon, H. H. (2016). Why is employees' emotional intelligence important? *International Journal of Contemporary Hospitality Management*, *28*(8), 1649-1675. doi:10.1108/ijchm-10-2014-0509

Kahn, D. A., Cheramie, G. M., & Stafford, M. E. (2013). The effect of perceived student effort on teacher impressions of students with learning difficulties. *Journal on Educational Psychology, 7*(1), 7-12. doi:10.26634/jpsy.7.1.2345

Karimi-Aghdam, S. (2016). Zone of proximal development (ZPD) as an emergent system: A dynamic systems theory perspective. *Integrative Psychological and Behavioral Science, 51*(1), 76-93. doi:10.1007/s12124-016-9359-1

Koomen, H., Verschueren, K., Van Schooten, E., Jak, S., & Pianta, R. C. (2012). Validating the student-teacher relationship scale: Testing factor structure and measurement invariance across child gender and age in a Dutch sample. *Journal of School Psychology, 50*(2), 215-234. doi:10.1016/j.jsp.2011.09.001

Lam, S., Jimerson, S., Wong, B., Kikas, E., Shin, H., Veiga, F., . . . Zollneritsch, J. (2014). Understanding and measuring student engagement in school: The results of an international study from 12 countries. *School Psychology Quarterly, 29*(2), 213-232. doi:10.1037/spq0000057

Lei, H., Cui, Y., & Chiu, M. (2016). Affective teacher-student relationships and students' externalizing behavior problems: A meta-analysis. *Frontiers in Psychology, 7*, 1311. doi: 10.3389/fpsyg.2016.01311

Li, Y., & Lerner, R. M. (2013). Interrelations of behavioral, emotional, and cognitive school engagement in high school students. *Journal of Youth and Adolescence, 42*(1), 20-32. doi:10.1007/s10964-012-9857-5

Libbrecht, N., & Lievens, F. (2012). Validity evidence for the situational judgment test paradigm in emotional intelligence measurement. *International Journal of Psychology, 47*(6), 438-447. doi:10.1080/00207594.2012.682063

Lucas-Molina, B., Williamson, A. A., Pulido, R., & Pérez-Albéniz, A. (2015). Effects of teacher-student relationships on peer harassment: A multilevel study. *Psychology in the Schools, 52*(3), 298-315. doi:10.1002/pits.21822

Lynn, A. & Lynn, R. (2016). The emotional intelligence activity kit: 50 easy and effective exercises for building EQ. *TD Magazine, 70*(1), 83.

MacCann, C., Roberts, R. D. (2008). New paradigms for assessing emotional intelligence: Theory and data. *Emotion, 8*(4), 540-551. doi:10.1037/a0012746

Macklem G. L. (2015) *Boredom in the classroom*. Cham, Switzerland: Springer.

Martin, T., Evans, A., Liem, P., Chong, G., & Chong, W. H. (2017). Student engagement in the Caribbean region: Exploring its role in the motivation and achievement of Jamaican middle school students. *School Psychology International, 38*(2), 184-200. doi:10.1177/0143034316683765

Martínez-Sierra, G. G., & García-González, M. S. (2015). Students' emotions in the high school mathematical class: Appraisals in terms of a structure of goals. *International Journal of Science & Mathematics Education, 15*(2), 349-369. doi:10.1007/s10763-015-9698-2

Mason, B. A., Hajovsky, D. B., McCune, L. A., & Turek, J. J. (2017). Conflict, closeness, and academic skills: A longitudinal examination of the teacher-student relationship. *School Psychology Review*, *46*(2), 177-190. doi:10.17105/spr-2017-0020.v46-2

Mayer, J., Caruso, D, & Salovey, P. (2016). The ability model of emotional intelligence: Principles and updates. *Emotion Review*, *8*(4), 290-300. doi:10.1177/1754073916639667

Mayer, J., Salovey, P., Caruso, D., Sitarenios, G., Davidson, R. J., & Scherer, K. R. (2003). Measuring emotional intelligence with the MSCEIT V2.0. *Emotion*, *3*(1), 97-105. doi:10.1037/1528-3542.3.1.97

Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. Sluyter (Eds.), *Emotional development and emotional intelligence*: *Educational implications* (pp. 3–31). New York, NY: Basic Books.

Mehta, J. (2015). Escaping the shadow: A Nation at risk and its far-reaching influence. *American Educator*, *39*(2), 20-26.

Merriam, S. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: Jossey-Bass.

Mestre, J., MacCann, C., Guil, R., & Roberts, R. (2016). Models of cognitive ability and emotion can better inform contemporary emotional intelligence frameworks. *Emotion Review, 8*(4), 322-330. doi:10.1177/1754073916650497

Middleton, M., & Perks, K. (2014). *Motivation to learn: Transforming classroom culture to support student achievement.* Thousand Oaks, CA: Corwin Press.

Moreau Neves, D., Qian, Y., DeFigueiredo, R., & Matthews-Denatale, G. (2016). *The relationship between teacher emotional intelligence and the academic progress of urban, elementary school students* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses.

Mortiboys, A. (2012). *Teaching with emotional intelligence: A step-by-step guide for higher and further education professionals*. London, UK: Routledge.

Morton, C., Shoop, R., Curtis, L., Hughey, J., Miller, T., & Salsberry, T. (2014). *Exploring teacher emotional intelligence and its impact on school climate* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses.

Murray, C., Kosty, D., & Hauser-McLean, K. (2016). Social support and attachment to teachers: Relative importance and specificity among low-income children and youth of color. *Journal of Psychoeducational Assessment*, *34*(2), 119-135. doi:10.1177/0734282915592537

Naqvi, I., Iqbal, M., & Akhtar, S. N. (2016). The relationship between emotional intelligence and performance of secondary school teachers. *Bulletin of Education & Research*, *38*(1), 209-224.

Nation's Report Card. (2017). Long-term trend [Data file]. Retrieved from https://www.nationsreportcard.gov/ltt_2012/.

Nizielski, S. (2012). Attention to student needs mediates the relationship between teacher emotional intelligence and student misconduct in the classroom. *Journal of Psychoeducational Assessment*, *30*(4), 320-330. doi:10.1177/0734282912449439

O'Connor, E. (2010). Teacher–child relationships as dynamic systems. *Journal of School Psychology*, *48*(3), 187-218. doi:10.1016/j.jsp.2010.01.001

Park, S., Holloway, S. D., Arendtsz, A., Bempechat, J., & Li, J. (2012). What makes students engaged in learning? A time-use study of within- and between-individual predictors of emotional engagement in low-performing high schools. *Journal of Youth and Adolescence*, *41*(3), 390-401. doi:10.1007/s10964-011-9738-3

Patrício, J. N., Barata, M. C., Calheiros, M. M., & Graça, J. (2015). A Portuguese version of the student-teacher relationship scale - short form. *The Spanish Journal of Psychology, 18*, E30. doi:10.1017/sjp.2015.29

Pianta, R. C. (2001). *Student–teacher relationship scale: Professional manual.* Lutz, FL: Psychological Assessment Resources.

Poorthuis, A. G., Juvonen, J., Thomaes, S., Denissen, J. A., Orobio de Castro, B., & Van Aken, M. G. (2015). Do grades shape students' school engagement? The psychological consequences of report card grades at the beginning of secondary school. *Journal of Educational Psychology*, *107*(3), 842-854. doi:10.1037/edu0000002

Poulou, M. S. (2017). Social and emotional learning and teacher-student relationships: Preschool teachers' and students' perceptions. *Early Childhood Education Journal*, *45*(3), 427-435. doi:10.1007/s10643-016-0800-3

Quin, D. (2017). Longitudinal and contextual associations between teacher-student relationships and student engagement: A systematic review. *Review of Educational Research, 87*(2), 345-387. doi:10.3102/0034654316669434

Raz, S., & Zysberg, L. (2014). *Emotional intelligence: Current evidence from psychophysiological, educational and organizational perspectives*. Hauppauge, NY: Nova Science Publishers, Inc.

Reeve, J. (2006). Teachers as facilitators: What autonomy supportive teachers do and why their students benefit. *The Elementary School Journal, 106*(3), 225-236. doi:10.1086/501484

Roseman, I. J. (2001). A model of appraisal in the emotion system: Integrating theory, research, and applications. In K. R. Scherer & A. Schorr (Eds.), *Appraisal processes in emotion: Theory, methods, research. Series in affective science* (pp. 68-91). New York, NY: Oxford University Press.

Rust, D., Bjork, L., Rous, B., Bathon, J., McCormick, K., & O'Connor, L. (2014). *Relationship between the emotional intelligence of teachers and student academic achievement* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses.

Sabol, T., & Pianta, R. (2012). Recent trends in research on teacher–child relationships. *Attachment & Human Development*, *14*(3), 213-231. doi:10.1080/14616734.2012.672262

Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, cognition and personality*, *9*(3), 185–211. doi:10.2190/dugg-p24e-52wk-6cdg

Salovey, P., Mayer, J., Caruso, D., & Yoo, S. (2009). The positive psychology of emotional intelligence. In S. Lopez & C. R. Snyder (Eds.), *The Oxford handbook of positive psychology* (2nd ed., pp. 237-246). New York, NY: Oxford University Press.

Scarlett, W. G. (2014). Teacher–student relationships. In W. G. Scarlet (Ed.) *The Sage encyclopedia of classroom management* (pp. 825-827). Thousand Oaks, CA: SAGE Publications Ltd.

Seidman, I. (2013). *Interviewing as qualitative research: A guide for researchers in education and the social sciences*. New York, NY: Teachers College Press.

Spilt, J. L, & Hughes, J. N. (2015). African American children at risk of increasingly conflicted teacher-student relationships in elementary school. *School Psychology Review, 44*(3), 306-314. doi:10.17105/spr-14-0033.1

Strati, A. D., Schmidt, J. A., & Maier, K. S. (2017). Perceived challenge, teacher support, and teacher obstruction as predictors of student engagement. *Journal of Educational Psychology, 109*(1), 131-147. doi:10.1037/edu0000136

Sudkamp, A., Kaiser, J., & Moller, J. (2012). Accuracy of teachers' judgments of students' academic achievement: A meta-analysis. *Journal of Educational Psychology*, *104*(3), 743-762. Doi:10.1037/a0027627

Tsai, C., & Lee, Y. (2014). Emotional intelligence and employee creativity in travel agencies. *Current Issues in Tourism*, *17*(10), 862-871. doi:10.1080/13683500.2013.859232

Tsigilis, N., & Gregoriadis, A. (2008). Measuring teacher-child relationships in the Greek kindergarten setting: A validity study of the student-teacher relationship scale-short form. *Early Education and Development*, *19*(5), 816-835. doi:10.1080/10409280801975826

Ulmanen, S., Soini, T., Pietarinen, J., & Pyhalto, K. (2016). The anatomy of adolescents' emotional engagement in schoolwork. Social Psychology of Education, 19(3), 587-606. doi:10.1007/s11218-016-9343-0

Van Maele, D., Van Houtte, M., & Forsyth, P. (2014) Introduction: Trust as a matter of equity and excellence in education. In: D. Van Maele, P. Forsyth, & M. Van Houtte (Eds.), *Trust and school life* (pp. 1-36). New York, NY: Springer.

Van Maele, D., & Van Houtte, M. (2010). The quality of school life: Teacher-student trust relationships and the organizational school context. *Social Indicators Research,100*(1), 85-100. doi:10.1007/s11205-010-9605-8

Van Ryzin, M. (2010). Secondary school advisors as mentors and secondary attachment figures. *Journal of Community Psychology, 38*(2), 131-154. doi:10.1002/jcop.20356

Van Uden, J. M., Ritzen, H., & Pieters, J. M. (2014). Engaging students: The role of teacher beliefs and interpersonal teacher behavior in fostering student engagement in vocational education. *Teaching and Teacher Education, 37,* 21-32. doi:10.1016/j.tate.2013.08.005

Vygotsky, L., & Cole, M. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

Wang, M., Chow, A., Hofkens, T., & Salmela-Aro, K. (2015). The trajectories of student emotional engagement and school burnout with academic and psychological development: Findings from Finnish adolescents. *Learning and Instruction, 36*(6), 57-65. doi:10.1016/j.learninstruc.2014.11.004

Wang, M., & Eccles, J. (2011). Adolescent behavioral, emotional, and cognitive engagement trajectories in school and their differential relations to educational success. *Journal of Research on Adolescence, 22*(1), 31-39. doi:10.1111/j.1532-7795.2011.00753.x

Watt, H., Carmichael, C., & Callingham, R. (2017). Students' engagement profiles in mathematics according to learning environment dimensions: Developing an evidence base for best practice in mathematics education. *School Psychology International, 38*(2), 166-183. doi:10.1177/0143034316688373

Whitaker, R. C., Dearth-Wesley, T., & Gooze, R. A. (2015). Workplace stress and the quality of teacher–children relationships in head start. *Early Childhood Research Quarterly, 30,* 57-69. doi:10.1016/j.ecresq.2014.08.008

Wu, Y. C. (2011). Job stress and job performance among employees in the Taiwanese finance sector: The role of emotional intelligence. *Social Behavior and Personality, 39,* 21-32. doi:10.2224/sbp.2011.39.1.21

Yeung, R. (2009). *Emotional intelligence the new rules*. London, UK: Marshall Cavendish.

Yu, M. V. B., Johnson, H. E., Deutsch, N. L., & Varga, S. M. (2018). "She calls me by my last name": Exploring adolescent perceptions of positive teacher-student relationships. *Journal of Adolescent Research*, *33*(3), 332-362. doi:10.1177/0743558416684958

Zarra, E. (2013). *Teacher-student relationships crossing into the emotional, physical, and sexual realms*. Lanham, MD: Rowman & Littlefield Education.

Zhang, Q., & Zhang, J. (2013). Instructors' positive emotions: Effects on student engagement and critical thinking in U.S. and Chinese classrooms. *Communication Education, 62*(4), 395-411. doi: 10.1080/03634523.2013.828842

Zhu, Y., Liu, C., Guo, B., Zhao, L., & Lou, F. (2015). The impact of emotional intelligence on work engagement of registered nurses: The mediating role of organizational justice. *Journal of Clinical Nursing*, *24*(15/16), 2115-2124. doi:10.1111/jocn.12807

Appendix A

Situational Test of Emotional Understanding

1. A pleasant experience ceases unexpectedly and there is not much that can be done about it. The person involved is most likely to feel?
[A] Ashamed
[B] Distressed
[C] Angry
[D] Sad
[E] Frustrated

[2] Xavier completes a difficult task on time and under budget.
Xavier is most likely to feel?
[A] Surprise
[B] Pride
[C] Relief
[D] Hope
[E] Joy

[3] An irritating neighbor of Eve's moves to another state.
Eve is most likely to feel?
[A] Regret
[B] Hope
[C] Relief
[D] Sadness
[E] Joy

[4] There is great weather on the day Jill is going on an out-door picnic.
Jill is most likely to feel?
[A] Pride
[B] Joy
[C] Relief
[D] Guilt
[E] Hope

[5] Regret is most likely to occur when?
[A] Events are unexpected
[B] You have caused something you didn't want to happen and cannot change it.
[C] Circumstances have caused something you didn't want to happen.
[D] You have caused something you didn't want to happen and are trying to change it.
[E] Events are getting beyond your control.

[6] Edna's workmate organizes a goodbye party for Edna, who is going on holidays. Edna is most likely to feel?
[A] Surprise
[B] Gratitude
[C] Pride
[D] Hope
[E] Relief

[7] Something unpleasant is happening. Neither the person involved, nor anyone else can make it stop. The person involved is most likely to feel?
[A] Guilty
[B] Distressed
[C] Sad
[D] Scared
[E] Angry

[8] If the current situation continues, Denise's employer will probably be able to move her job to a location much closer to her home, which she really wants. Denise is most likely to feel?
[A] Distress
[B] Joy
[C] Surprise
[D] Hope
[E] Fear

[9] Song finds out that a friend of hers has borrowed money from others to pay urgent bills, but has in fact used the money for less serious purposes. Song is most likely to feel?
[A] Anger
[B] Excitement
[C] Contempt
[D] Shame
[E] Horror

[10] Somebody is most likely to feel surprised after?
[A] Something unexpected happens.
[B] Something unfamiliar happens.
[C] Something unusual happens.
[D] Something scary happens.
[E] Something silly happens.

[11] Leya works as a trouble-shooter. She is presented with a standard looking problem but cannot work out how to solve it. Leya is most likely to feel?
[A] Confused
[B] Frustrated
[C] Surprised
[D] Relieved
[E] Distressed

[12] Charles is meeting a friend to see a movie. The friend is very late, and they are not in time to make it to the movie. Charles is most likely to feel?
[A] Depressed
[B] Frustrated
[C] Angry
[D] Contemptuous
[E] Distressed

[13] Rashid needs to meet a quota before his performance review. There is only a small change that he will be able to do so and there isn't much he can do to improve the outcome. Rashid is most likely to feel?
[A] Irritated
[B] Scared
[C] Distressed
[D] Sad
[E] Hopeful

[14] Someone believes that another person harmed them on purpose. There is not a lot that can be done to make things better. The person involved is most likely to feel?
[A] Dislike
[B] Rage
[C] Jealousy
[D] Surprise
[E] Anxiety

[15] Phil's workmate Bart asks Phil to lie for him about money Bart has been stealing from the company. Phil does not agree. Phil is most likely to feel?
[A] Excitement
[B] Anger
[C] Horror
[D] Contempt
[E] Shame

[16] Jim enjoys spending Saturdays playing with his children in the park. This year they have sporting activities on Saturdays and cannot go to the park with him anymore. Jim is most likely to feel?
[A] Angry
[B] Sad
[C] Frustrated
[D] Distressed
[E] Ashamed

[17] If all goes well, then it's fairly likely that Derek's house will increase in value. Derek is most likely to feel?
[A] Distress
[B] Fear
[C] Surprise
[D] Joy
[E] Hope

[18] Sheila's workmate intentionally does not give Sheila some important information about applying for a raise. Sheila is most likely to feel?
[A] Depressed
[B] Contemptuous
[C] Frustrated
[D] Angry
[E] Distressed

[19] Megan is looking to buy a house. Something happened, and she felt regret. What is most likely to have happened?
[A] She didn't make an offer on a house she wanted, and now she is trying to find out if it is too late.
[B] She found a house she liked that she didn't think she would find.
[C] She couldn't make an offer on a house she liked because the bank didn't get her the money in time.
[D] She didn't make an offer on a house she liked and now someone else has bought it.
[E] She made an offer on a house and is waiting to see if it is accepted.

[20] Mary was working at her desk. Something happened that caused her to feel surprised. What is most likely to have happened?
[A] Her work-mate told a silly joke.
[B] She was working on a new task she hadn't dealt with before.
[C] She found some results that were different from what she thought they would be.
[D] She realized she would not be able to complete her work.
[E] She had to do a task she didn't normally do at work.

[21] Garry's small business is attracting less and less clients and he can't tell why. There doesn't seem to be anything he can do to help matters. Garry is most likely to feel?
[A] Scared
[B] Angry
[C] Sad
[D] Guilty
[E] Distressed

[22] Someone thinks that another person has deliberately caused something good to happen to them. They are most likely to feel?
[A] Hope
[B] Pride
[C] Gratitude
[D] Surprise
[E] Relief

[23] Kevin has been working at his current job for a few years. Out of the blue, he finds that he will receive a promotion. Kevin is most likely to feel?
[A] Pride
[B] Relief
[C] Joy
[D] Hope
[E] Guilt

[24] By their own actions, a person reaches a goal they wanted to reach. The person is most likely to feel?
[A] Joy
[B] Hope
[C] Relief
[D] Pride
[E] Surprise

[25] An unwanted situation becomes less likely or stops altogether. The person involved is most likely to feel?
[A] Regret
[B] Hope
[C] Joy
[D] Sadness
[E] Relief

[26] Hasad tries to use his new mobile phone. He has always been able to work out how to use different appliances, but he cannot get the phone to function.
Hasad is most likely to feel?
[A] Distressed
[B] Confused
[C] Surprised
[D] Relieved
[E] Frustrated

[27] Dorian's friend is ill and coughs all over him without bothering to turn away or cover his mouth. Dorian is most likely to feel?
[A] Anxiety
[B] Dislike
[C] Surprise
[D] Jealousy
[E] Rage

[28] Although she has been careful to avoid all risk factors, Tina has contracted cancer. There is only a small chance that the cancer will be benign and nothing Tina does now can make a difference. Tina is most likely to feel?
[A] Scared
[B] Distressed
[C] Irritated
[D] Sad
[E] Hopeful

[29] Quan and his wife are talking about what happened to them that day. Something happened that caused Quan to feel surprised. What is most likely to have happened?
[A] His wife talked a lot, which did not usually happen.
[B] His wife talked about things that were different to what they usually discussed.
[C] His wife told him that she might have some bad news.
[D] His wife told Quan some news that was not what he thought it would be.
[E] His wife told a funny story.

[30] An upcoming event might have bad consequences. Nothing much can be done to alter this. The person involved would be most likely to feel?
[A] Sad
[B] Irritated
[C] Distressed
[D] Scared
[E] Hopeful

[31] It is clear that somebody will get what they want. They are most likely to feel?
[A] Pride
[B] Relief
[C] Joy
[D] Hope
[E] Guilt

[32] By chance, a situation arises where there is the possibility that a person will get what they want. The person is most likely to feel?
[A] Distress
[B] Hope
[C] Surprise
[D] Joy
[E] Fear

[33] A supervisor who is unpleasant to work for leaves Alfonso's work. Alfonso is most likely to feel?
[A] Joy
[B] Hope
[C] Regret
[D] Relief
[E] Sadness

[34] The nature of Sara's job changes due to unpredictable factors and she no longer gets to do the portions of her work that she most enjoyed. Sara is most likely to feel?
[A] Ashamed
[B] Sad
[C] Angry
[D] Distressed
[E] Frustrated

[35] Leila has been unable to sleep well lately and there are no changes in her life that might indicate why. Leila is most likely to feel?
[A] Angry
[B] Scared
[C] Sad
[D] Distressed
[E] Guilty

[36] A person feels they have control over a situation. The situation turns out badly for no particular reason. The person involved is most likely to feel?
[A] Confused
[B] Relieved
[C] Surprised
[D] Frustrated
[E] Distressed

[37] Someone believes another person has deliberately caused something good to stop happening to them. However, they feel they can do something about it. They are most likely to feel?
[A] Angry
[B] Contemptuous
[C] Distress
[D] Depressed
[E] Frustrated

[38] The new manager at Enid's work changes everyone's hours to a less flexible work pattern, leaving no room for discussion. Enid is most likely to feel?
[A] Dislike
[B] Rage
[C] Jealousy
[D] Surprise
[E] Anxiety

[39] Someone believes that another person has caused harm to them, due to that person's bad character. They think they can probably handle the situation though.
The harmed person is most likely to feel?
[A] Contempt
[B] Anger
[C] Horror
[D] Excitement
[E] Shame

[40] Pete gets home late, after his favorite TV show has ended. Pete's partner has taped the show for him. Pete is most likely to feel?
[A] Surprise
[B] Hope
[C] Pride
[D] Relief
[E] Gratitude

[41] Matthew has been at his current job for six months. Something happened that caused him to feel regret. What is most likely to have happened?
[A] He did not apply for a position he wanted, and has found out that someone else less qualified got the job.
[B] He did not apply for a position he wanted and has started looking for a similar position.
[C] He found out that opportunities for promotion have dried up.
[D] He found out that he didn't get a position he thought he would get.
[E] He didn't hear about a position he could have applied for and now it is too late.

[42] Penny's hockey team trained hard and won the championship. Penny is most likely to feel?
[A] Hope
[B] Pride
[C] Relief
[D] Joy
[E] Surprise

MacCann, C., Roberts, R. D. (2008). New paradigms for assessing emotional intelligence:

Theory and data. *Emotion, 8*(4), 540-551. doi:10.1037/a0012746

Appendix B

Student-Teacher Relationship Scale

Please reflect on the degree to which each of the following statements currently applies to your relationship with your students. Using the scale below, circle the appropriate number for each item.

Definitely does not apply 1	**Not really 2**	**Neutral, not sure 3**	**Applies somewhat 4**	**Definitely applies 5**

1.	**I share an affectionate, warm relationship with students.**	**1**	**2**	**3**	**4**	**5**
2.	**The students and I always seem to be struggling with each other.**	**1**	**2**	**3**	**4**	**5**
3.	**If upset, the students will seek comfort from me.**	**1**	**2**	**3**	**4**	**5**
4.	**The students are uncomfortable with physical affection or touch from me.**	**1**	**2**	**3**	**4**	**5**
5.	**The students value their relationships with me.**	**1**	**2**	**3**	**4**	**5**
6.	**When I praise the students, they beam with pride.**	**1**	**2**	**3**	**4**	**5**
7.	**The students spontaneously share information about themselves.**	**1**	**2**	**3**	**4**	**5**
8.	**The students easily become angry with me.**	**1**	**2**	**3**	**4**	**5**
9.	**It is easy to be in tune with what the students are feeling.**	**1**	**2**	**3**	**4**	**5**
10.	**The students remain angry or are resistant after being disciplined.**	**1**	**2**	**3**	**4**	**5**
11.	**Dealing with the students drains my energy**	**1**	**2**	**3**	**4**	**5**
12.	**When the students are in a bad mood, I know we're in for a long and difficult day.**	**1**	**2**	**3**	**4**	**5**
13.	**The students' feelings toward me can be unpredictable or can change suddenly.**	**1**	**2**	**3**	**4**	**5**
14.	**The students are sneaky or manipulative with me.**	**1**	**2**	**3**	**4**	**5**
15.	**The students openly share their feelings and experiences with me.**	**1**	**2**	**3**	**4**	**5**

Adapted from

Pianta, R. C. (2001). *Student–teacher relationship scale: Professional manual.* Lutz, FL: Psychological Assessment Resources.

Appendix C

Invitation Email

Dear Teacher,

I am a doctoral candidate in the Department of Professional Studies at Indiana University of Pennsylvania. I am currently conducting research for my dissertation on the role that teacher emotional intelligence plays in student achievement and engagement. I would like to invite you to consider participating in this study as I believe it will make a significant contribution to the teaching profession and help improve the ability of teachers to positively impact the lives of students.

Emotional intelligence is a theory the purports that the ability of an induvial to understand their own emotions and those of others is a separate and significant form of intelligence. This study will investigate the role of teacher emotional intelligence in building positive interpersonal relationships with students and its impact on student engagement and achievement. If it is found that teacher emotional intelligence is significant in predicting relationship quality with students, student engagement, and achievement, teacher education programs and educational researchers may be able to focus more on the soft emotional side of teaching.

Your participation in this study will consist of three components. First, you will be asked to complete an in-person interview with the researcher that will obtain information about how you build interpersonal relationships with students as well as your students' level of engagement and achievement. This interview session is not expected to last more than 30 minutes. After the interview session is complete, you will be asked to take an on-line emotional intelligence test as well as an on-line survey investigating your perceived relationship quality with your students. Both of these on-line measures can be completed at your convenience at a separate time from the scheduled interview session.

Your participation in this research study is expected to make a significant contribution to the current literature on teacher emotional intelligence and the significance of positive interpersonal relationships between teachers and students. The time that you spend as a study participant would be very much appreciated.

If you would like to be considered for participation in this study, please reply to this email in a timely fashion. Please include your name, the school where you teach, and your telephone number.

The target number of teacher participants is between 30 and 50. If the total number of respondents exceeds 50, participants will be selected at random. If you have been selected to participate in the study, you will be called by the researcher.

Your participation in this research study is entirely voluntary and all your responses will be anonymous. Participation or non-participation will not affect your relationship with your school district in any way. THIS PROJECT HAS BEEN APPROVED BY THE INDIANA

UNIVERSITY OF PENNSYLVANIA INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF HUMAN SUBJECTS (PHONE 724.357.7730). If you have any questions or concerns, please contact me at 814-724-9929 or at m.oshea@IUP.edu

Thank you for your consideration. Further interest would be greatly appreciated.

Best,

Miles O'Shea
Doctoral Candidate
Email: m.oshea@IUP.edu
Phone: (814)-724-9929
Department of Professional Studies in Education
Indiana University of Pennsylvania
Indiana, PA, 15701

Appendix D

Letter to Superintendent

Dear _____

My name is Miles O'Shea and I am a Doctoral Candidate at Indiana University of Pennsylvania. As part of my degree requirements, I am currently planning a research study that investigates the relationship between teacher emotional intelligence and student achievement and engagement. I seek your permission to use the high schools in your school district as sights for my research study.

The proposed study seeks to investigate the relationship between teachers' emotional intelligence and interpersonal relationship quality with their students. Through the use of quantitative data in the form of the Situational Test of Emotional Understanding and the Student-Teacher Relationship Scale administered to teachers, the correlation between teacher EI and relationship quality between teachers and students will be explored. This study will also seek to investigate the ways that teacher emotional intelligence and student emotion, as measured by teacher-student relationship quality, impact student engagement and achievement through the use of interviews with teachers. These qualitative interviews with teachers will be employed to allow for a deeper investigation into the ways that the EI of teachers impacts relationship quality with students and student emotional, behavioral, and cognitive engagement. This study will ultimately allow for a unique exploration into the ways that emotion and the EI of teachers impacts the overall educational experience for students.

Study participants would be current teachers at each of the five high schools within your district. The extent of participation would include the completion of an emotional intelligence test, a teacher-student relationship quality survey, and a 30 minute interview session. The emotional intelligence test and the relationship quality survey would be completed by participants on their own time in an on-line format. The interview sessions would be completed after the school day at the school buildings where each participant works.

With your permission, I would like to send an invitation email to each high school teacher within your district. A copy of this invitation email is available upon your request. At no time would the identity of any teacher or student within your district be revealed. The study poses no risk to any of the participating teachers. Information obtained from the teachers in the form of test and survey data as well as qualitative data from interview sessions may be used in conferences or research papers.

THIS PROJECT HAS BEEN APPROVED BY THE INDIANA UNIVERSITY OF PENNSYLVANIA INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF HUMAN SUBJECTS (PHONE 724.357.7730). If you have any questions or concerns, please don't hesitate to contact me at ZJGP@iup.edu (or 814-724-9929) or the IRB's director at irb-research@iup.edu

Thank you for considering your district's participation in this study.

Best,

Miles O'Shea
Doctoral Candidate
Email: m.oshea@IUP.edu
Phone: (814)-724-9929
Department of Professional Studies in Education
Indiana University of Pennsylvania
Indiana, PA, 15701

Appendix E

Consent Letter

Indiana University of Pennsylvania

Dear Participant,

My name is Miles O'Shea and I am a doctoral candidate in the Department of Professional Studies in Education at Indiana University of Pennsylvania. The information in this form is being provided to you so that you can make an informed decision about participating in the study. You have been invited to participate because you are over 18 years old and you are a teacher who educates students in grades 9-12. If you have any questions, do not hesitate to ask.

Purpose and Benefits of this Study:
The primary purpose of this mixed-methods research study is to investigate the relationship between teachers' emotional intelligence and interpersonal relationship quality with their students. This study will also seek to explore the ways that teacher emotional intelligence and student emotion, as measured by teacher-student relationship quality, impact student engagement and achievement. If emotional intelligence is shown to be a key component in positive classroom activities, teacher education programs can tailor their experiences to specifically improve the EI of teacher candidates and highlight the importance of emotion in the learning process while simultaneously providing a means to improve student lives.

Your Involvement in this Study
Your participation in the study begins with reading and signing of this consent form. After agreeing to be a participant, the lead researcher will conduct an interview with you and ask you to complete an emotional intelligence test and a survey focused on your relationship quality with your students. It is anticipated that the interview will last for approximately 30 minutes. The emotional intelligence test and relationship quality survey will be completed by you on-line and are not expected to take more than 30 minutes to complete. Information from the conducted interview will be used to determine how you establish interpersonal relationships with your students as well as information about the level of your students' engagement in the classroom and their academic achievement. The emotional intelligence test will provide the researcher with a score depicting your current level of ability-based emotional intelligence, and the relationship quality survey will determine the quality of interpersonal relationships that you have with students.

After you have completed the interview session, you will have the option to review the information you have presented and may ask that any or all of it is omitted from the research project.

Potential Risks
No risk beyond the minimal risks of daily living will be involved.

Your participation in this study is voluntary.
Participation in this study is completely voluntary. You are free to decide not to participate in this study or to withdraw at any time without adversely affecting your relationship to the investigator. Your identity will remain anonymous throughout the duration of the study. At no time will anyone have the ability to determine who you are through the information that you provide and your name will never be used. No risk beyond the minimal risks of daily living will be associated with participating in this study. There is no anticipated harm or benefits that you may reasonably expect due to participating. Refusal to participate in the study will not result in any penalty or harm to you. If at any time during or after the study you wish to withdraw you may do so and any collected data will be destroyed. You may withdraw from the study during the interview by simply indicating this desire to the researcher or you may withdraw after the interview by contacting the researcher and stating that you no longer wish to be a participant. In either case, this withdrawal will not negatively impact you in any way and the data collected will be destroyed.

If you choose to participate, all information will be held in strict confidence. The information obtained in the study may be published in educational journals or presented at educational meetings but your identity will be kept strictly confidential.

Thank you for considering to be part of this study. If you would like further information about the study or have any questions, please contact Miles O'Shea, the lead researcher. If you are willing to participate in the study, please sign the statement below and return it to the lead researcher. Please keep the extra unsigned copy for your records. If you choose not to participate, simply return the unsigned form.

Thank you for your time,

Miles O'Shea

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Appendix F

Voluntary Consent Form

Indiana University of Pennsylvania

I have read and understand the information on the form and I consent to volunteer to be a subject in this study. I understand that my interview responses are completely confidential and that a pseudonym will be used in the place of my name and all identifying nouns. I understand that if I give permission for the audio of my conversation to be recorded, it will be transcribed by only the researcher and then destroyed. I understand that after the interview, I will have the opportunity to review my responses and approve or disapprove any or all of the information. I also understand that I can request a final copy of the research report summery once the study is finalized.

I understand that my score on the emotional intelligence test as well as my survey responses will be shared in a way that will not have any identifiable characteristics that will link the information to me.

I understand that I have the right to withdraw at any time by contacting the researcher or faculty sponsor by telephone, email, or traditional mail. I also understand that I can end the interview at any time and the study will end. I have received an unsigned copy of this informed Consent Form to keep in my possession.

Name (PLEASE PRINT)

_____

Signature

_____

Date:_____

Phone number, email, and location where I (participant) can be reached:

Phone Number:_____

Email: _____

Address: _____

_____

Best days and times to be reached:_____

I certify that I have explained the above individual the nature, purpose, potential benefits, and any possible risks associated with participating in this research study. I have answered any questions that have been asked by the above individual.

Date:_____ Investigator's Signature:_____

THIS PROJECT HAS BEEN APPROVED BY THE INDIANA UNIVERSITY OF PENNSYLVANIA INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF THE HUMAN SUBJECTS (PHONE 724-357-7730)