ABSTRACT OF CAPSTONE

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The Graduate School
Morehead State University
March 6, 2013
THE HEART OF TEACHING:
USING EMOTIONAL INTELLIGENCE TO IMPROVE STUDENT ACHIEVEMENT

Abstract of capstone

A capstone submitted in partial fulfillment of the Requirements for the degree of Doctor of Education in the College of Education At Morehead State University

By
Scottie Billiter

Jenkins, Kentucky

Committee Chair: Dr. David Barnett, Professor

Morehead, Kentucky

March 6, 2013

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The Heart of Teaching is a professional development module that was designed to determine the emotional intelligence of participants and provide training for them to improve their emotional intelligence in order to help their students succeed academically. The conceptual framework for this training was Abraham Maslow’s Hierarchy of Needs. At the beginning of this project, the participants were apprised of their emotional intelligences and given an overall score which served as the baseline emotional quotient (EQ). They were also given a score in the four domains of self-awareness, self-management, social-awareness, and relationships. The participants were presented with three trainings to help them develop strategies and share ideas with one another on how to improve their emotional intelligence and the benefits of good emotional intelligence to academic achievement. At the conclusion of the training, the participants were administered a post assessment using the Emotional Intelligence Appraisal-Me Edition.

KEYWORDS: Emotional intelligence, relationships, Maslow, Professional Development
THE HEART OF TEACHING: USING EMOTIONAL INTELLIGENCE TO IMPROVE STUDENT ACHIEVEMENT

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Dedication

I would like to dedicate this work to my lovely wife, Jamela, and my three children, Jamie, Mikael, and Arianna. They are my source of support and inspiration. They have always been supportive of this endeavor through their patience, love, and encouragement. Without them, this work would not have been possible. Thank you each. I love you and hope my vision for your future of greatness is shared.

I also want to dedicate this to my late parents, Henry and Lorraine. They always had a vision of my future and always encouraged me to do my best and never give up on any of life’s challenges. When the journey was most challenging, I knew that I could call upon their guidance and knowledge that was instilled in me from birth and find a way to keep on my journey.

A final dedication is due to my best friend, Bert Slone, who has walked many miles of this journey with me and has always encouraged me to keep focused. His words of encouragement and empathy have helped me reach this point in my journey. Without him, I am not sure the journey to this point would have been possible. Thank you my good brother.
ACKNOWLEDGEMENTS

I owe many acknowledgements to many different people who helped me get to this point in my journey. I want to first thank God for his never ending grace and ultimate source of strength throughout my life. I prayed many times throughout this project that this work would allow God’s love to shine.

Stephen Boggs, my principal, boss, and friend, has been so agreeable through this journey. He has done whatever needed to be done to accomplish this goal. He understands the importance of emotional intelligence for teachers and students. Mr. Boggs helped equip my mind with the thought that as educators we are not “here to judge, but to offer hope”. I am eternally grateful.

Dr. David Barnett, my chairperson, has been patient and encouraging throughout this journey. I often had to pinch myself to know that this experience was real and Dr. Barnett was always available with a smile and a new perspective that always kept me on track. At times when I would drift off course, I knew Dr. Barnett would be right around the corner to make sure that I got back on track and he was always there. Dr. Barnett always kept the focus on the journeyman and not necessarily the journey. I am fortunate to have him serve as a guide along the way.

Dr. Rocky Wallace has been instrumental in many ways for me reaching this destination on my journey. Dr. Wallace introduced me to the concept of emotional intelligence at the beginning of the doctoral program and I have been “hooked” since. His words of encouragement always came at the right time and helped motivate me to keep on the journey. Thank you!
Dr. Carol Christian has always been available to me when I needed someone to listen to my ideas. She was always available, regardless of time or day, and helped keep me focused on this juncture in my journey. Thank you!

To the staff of Letcher County Central High School who participated in this project, thank you. I believe in each of you and am honored that you shared this journey with me. You were always willing and receptive to the idea of using emotional intelligence to improve student achievement. Karen Boggs, you were always available to help me with so many aspects of putting together my work. I am grateful. I am not sure what I would have done if you were not there.

Dr. Ramone Cuellar and Zelma Forbes were helpful in explaining the statistical aspects of my study. Without them, I would have been lost in numbers. I am so thankful to you for your wisdom.
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Executive Summary

This is a training module that was developed by the researcher to introduce, assess, and improve the emotional intelligence of school personnel. The module included emotional intelligence assessments and 3 group sessions to improve the emotional intelligences of the participants.

There were two purposes of this project. The first purpose was to train educational professionals to use emotional intelligence to improve academic achievement. Participants completed an initial assessment and post assessment using the Emotional Intelligence Appraisal-Me Edition to determine growth in EQs.

The second purpose of this project was to determine if any relationships existed between participant EQs and student achievement. A paired t test was conducted on participant EQs and student grades from the 2011-2012 school year to determine if any relationships existed between participant EQ and student achievement. There was a negative correlation (-.38) indicating a relationship between EQ and student grades.

The population for this study consisted of 21 educational professionals. 19 of the participants were teachers and 2 were non-teaching educational professionals. There were 12 female and 9 male participants, with a range of educational professional experience and ages.

At the conclusion of the training, 16 of 21 participants had improved their emotional intelligences. The average EQ on the initial assessment was 77 while the average EQ on the post assessment was 82. In addition, there was a significant
relationship that existed between participant EQ and student grades. A negative correlation existed (-.38) and a paired t test suggested a significant relationship existed between participant EQ and student grades.

In conclusion, educational professionals improved their emotional intelligence after completing this training. Based on the findings from this study, emotional intelligence training is strongly recommended for school personnel.
The Heart of Teaching:

Using Emotional Intelligence to Improve Student Achievement

Section I

Conceptual Framework and History of Emotional Intelligence

In today's world of high stakes accountability for schools, our educational leaders and schools are seeking programs and strategies that will help improve test scores, increase student achievement, and help schools reach their respective accountability goals for their respective schools. However, many school leaders are struggling to meet the needs of students by failing to understand the circumstances and conditions that face these students as they enter the front doors of their schools each day.

The "Heart of Teaching" is a training module that incorporated the theories and practice of researchers such as Mayer and Salovey (1990), Goleman (1995), and Bradberry and Greaves (2009). The Emotional Intelligence Appraisal-Me Edition was used in this module to assess participants at the beginning of the training and at the conclusion of the training. The module was developed in order to help educational professionals understand and thus begin to meet the various needs, which includes emotional needs, and the needs that Maslow illustrates in his Hierarchy of Needs pyramid.
Abraham Maslow’s Hierarchy of Needs.

Maslow helped pave the way for the importance of emotions for educators by indicating that emotions play a significant role in the learning process. In the mid-1900s Maslow changed the direction of thinking when he described how people can build their emotional strength and thus make emotions pertinent to education (Fried, 2011).

It is recognized that the various aspects of cognition that are the focus of schooling (learning, attention, memory, decision making, motivation, and social functioning) are not only affected by emotion but intertwined within the emotion process. These processes, including the application of knowledge, facts, and logical reasoning, require emotional processing. Emotions are not only based on cognitive processes but may also exert a powerful influence on these and motivational processes. For example, negative emotions can reduce working memory, which plays a pivotal role in the cognitive process (Fried, 2011).

According to Maslow’s theory of human motivation, people are motivated through unmet needs (Lester, Hvezda, Plourde, and Sullivan, 1983). Maslow had an article published in 1943 in the Psychological Review that revealed his comprehensive theory of human motivation. Maslow continued to refine his theory based on the concept of a “hierarchy of needs” over several decades. Maslow outlined what he called the most basic needs: physiological, safety, love, esteem, and self-actualization (Norman & Wininger, 2010). These unmet needs are built on a
hierarchical structure in which one set of needs must be met before another level of needs can be addressed.

Maslow’s needs are often presented as a five level pyramid, with higher needs coming into focus only after lower, more basic needs are met. The bottom four levels are called deficiency needs because a person does not feel anything if they are not met and becomes anxious. The fifth level, self-actualization, is a growth need, which means that a person at this point may begin to reach his full potential as a human being (Burton, 2012).

The “Heart of Teaching” training module incorporated the work of Maslow to help facilitate an understanding of the needs of all students and provided strategies that educational professionals could incorporate into their daily work with students. 19 of 21 participants in the “Heart of Teaching” training module reported that they did not know the needs of all their students. Emotionally intelligent strategies were incorporated from the works of Mayer and Salovey (1990), Goleman (1995), and Bradberry and Greaves (2009) to help address the diverse needs of their students and improve the academic achievement of all students.

At the base of Maslow’s hierarchy are physiological needs. When the physiological needs are met, a person can progress to the next level on the hierarchy which is the need for safety and security. Safety and security needs include protection, law, security, limits, and stability. For children, safety needs also includes having order and stability, such as a schedule, routine, or a degree of stability. If these needs are fairly well satisfied, a person can then move on to the level of love-
affection-belongingness, also called the love needs. The love needs, which includes family, belongingness, friendship groups, as well as giving and receiving love (Norman & Wininger, 2010).

After a person is able to satisfy the deficiency needs of physiological, safety, and love, he or she would then be motivated to meet the need of self-esteem, which is the next level on Maslow's hierarchy (Lester et al, 1983). The need for self-esteem was classified into two categories: the desire for achievement or adequacy, and the desire for reputation or respect from others (Norman & Wininger, 2010). This is a key component to this research project, in which teachers can act in an emotionally intelligent manner in promoting academic achievement.

The level of self-esteem includes the need for achievement, status, responsibility, and reputation. Once these needs are met a person would then be able to reach the final level of the hierarchy, which is self-actualization. Self-actualization includes the ideas of personal growth and fulfillment (Lester et al., 1983). Self-actualization is the desire to become everything one is capable of becoming (Norman & Wininger, 2010).

**Student Needs and Academic Achievement.**

Many students attend school on a daily basis with their most basic physiological, safety, and security needs being unmet. According to Maslow's theory these students will struggle with love, belonging, and self-esteem if their lower hierarchical needs are not met. In the mid-1900s, Maslow stated that emotions were pertinent to education. Maslow suggested that people can build emotional strength
and can enhance cognitive processes (Fried, 2011). This training module was developed with the premise that educational professionals can improve their emotional intelligence and thus enhance the cognitive abilities of all students.

When students have someone in the school that they feel truly cares about them, in spite of their choices, the outcomes can be significant. Schools that developed programs that built positive relationships between school personnel and students had positive outcomes for students. Students who grew up in challenging environments were able to overcome the odds and achieve resilient outcomes based on positive relationships that were developed with the principal and teachers (Cox et al., 2012).

School connectedness is the belief by students that the adults in the school care about their learning as well as about them as individuals. The “Heart of Teaching” promoted emotionally intelligent behaviors such as adults caring about students. Teachers who show a caring attitude are more likeable. The perception that the teacher likes the student brings out the best in students. Likeable teachers often become positive influences for their students (Sanders, 2005). Research has also demonstrated a strong relationship between school connectedness and educational outcomes, including school attendance, staying in school longer, and higher grades and classroom test scores (Blum, 2005).

The “Heart of Teaching” training module was developed to train teachers to use emotional intelligence skills to meet the needs of their students. These emotional
intelligence skills were developed in the 4 domains of self-awareness, self-management, social-awareness, and relationship management throughout the training.

The consequences for low student achievement can have long lasting outcomes for the student. Poor academic achievement ranges from marginal passes in subjects to failed courses or grades (Lapadat & Ponsford, 2001). According to the Center for Disease Control (2008), data presented from a National Youth Behavior Survey, students who made grades of D or F are more likely to engage in unhealthy behaviors. These unhealthy behaviors include: a more likely chance to “carry a weapon, smoke cigarettes, use alcohol, be sexually active, watch television more, and be less physically active than their counterparts who made higher grades (A, B, or C)” (p. 5). The findings from this survey indicated that as the student grades improved the risk for engaging in unhealthy behaviors decreased (Center for Disease Control, 2008).

Poor academic achievement, which is predicated on student graded performances in a series of classes, can have long reaching implications on the overall well-being of the student who does not succeed academically. Students who have low academic achievement can be withheld from school activities due to “no pass, no play” policies, which could have a negative impact on the student participant. In addition the student’s academic failure could prevent him or her from gaining access to more rigorous curricula, and also put a strain on the family relationship. Poor academic achievement can also transcend into adulthood. Issues such as dropping out of school, less likelihood of entering college leading to lower wage earnings, higher
incidences of mental illness, and a decrease in the longevity of life (Crosnoe, Muller, & Needham, 2010).

Price and Reeves (2003) found that nearly a decade after education reform began in Kentucky there are still high schools with large numbers of poor students that send a smaller proportion of their graduates to college than do high schools with fewer poor students. Further, impoverished high schools that manage to perform well on the accountability tests lag well behind like-performing affluent schools in postsecondary enrollment. The harmful effects of poverty on education are felt throughout the state and undercut the goals that are embraced by the Kentucky educational reform.

Schools can begin understanding and meeting the needs of its diverse student population through a training module that assesses and develops emotional intelligence skills and abilities of school personnel. By studying emotional intelligence, individuals can develop the awareness that is necessary to create school cultures that have trust and respect, while maintaining a focus on high achievement for all students (Moore, 2009). This training module was designed to create an awareness of student needs and each participant’s emotional intelligence and how it has an impact on student achievement.

**The History of Emotional Intelligence**

By understanding the historical developments in the field of psychology and in particular in the area of social emotional intelligence, the concept of emotional intelligence is better understood and the benefits to school personnel on the
development and use of good emotional intelligence were examined in this research project. In the last 20 years, the field of emotional intelligence has continued to grow. According to BarOn (2006), there has been confusion, controversy, and opportunity that have developed in recent years in the field of social emotional intelligence.

Given this information about the importance of emotional intelligence for school personnel, it is imperative to understand what emotional intelligence is. Mayer (2012) stated that although there are many definitions for emotional intelligence on the internet, the more clear and scientific definition for emotional intelligence involves an intersection of emotions and thought. Mayer (2012) said that emotional intelligence is the ability to validly reason with emotions and to use these emotions to enhance thought.

The history of emotional intelligence traces its roots to the early 1900s when Binet started administering intelligence tests to school-aged children in France. France had radically changed its philosophy of education by requiring all children from six to fourteen to attend school. It was Binet’s desire to administer a test to all children to determine the differences between the normal children and the subnormal children. This was the beginnings of testing of human intelligence (Labby, Lunenburg, & Slate, 2012).

Thorndike theorized in 1920 that there were “three types of intelligence: social, mechanical, and abstract” (Labby, et al., 2012, p. 2). Thorndike defined social intelligence as “the ability to manage and understand people” (p. 2). Many of the early studies on intelligence focused on describing, defining, and assessing socially
competent behavior. Dolly published the first instrument to measure socially intelligent behavior in young children in 1935 (BarOn, 2006). This research project focused on the social intelligence that Thorndike detailed, in which participants were trained on understanding and managing their emotions and emotions in other people, and acting in an emotionally intelligent manner to increase student achievement.

By 1940 Weschler felt there were other areas of intelligence that needed to be measured (Deutschendorf, 2009). Weschler later defined intelligence as the "global or composite capacity of an individual to act purposefully, to think rationally, and to deal effectively with the surroundings or situation" (Labby et al., 2012, p.3). "The Heart of Teaching" training module trained participants to think or act in an emotionally intelligent manner, which involved being aware of and managing their emotions and the emotions of students and others to help promote academic achievement for all students.

Erik Erikson theorized in the later part of the 1900s that people continue to grow and develop emotionally. Erikson suggested that there are eight stages that a person goes through during the course of their lifetime. Throughout this process, people go from one stage to another depending upon the situation. An understanding of each stage helps individuals to understand their emotional health as they meet life's challenges. During each stage, emotional safety is important. During each stage of human development, the emotional skills development is critical to achieving success in life and work. (Labby et al., 2012, p. 4)
In 1983, Gardner wrote about multiple intelligences in his book *Frames of Mind* “that seven categories of intelligences existed: visual/spatial, musical, verbal, logical/mathematical, interpersonal, intrapersonal, and bodily/kinesthetic” (Perini, Silver, & Strong, 2000, p. 7). The information in Gardner's book broke from the tradition of IQ theory, which up to this point in time held that human cognition could be described as having a single, quantifiable intelligence” (Perini et al., 2000, p. 8).

Among the seven intelligences that Gardner discussed, the interpersonal and intrapersonal intelligences were considered as “important as the intelligences characteristically measured by IQ and similar tests” (Labby et al., 2012, p. 3). Gardner identified intrapersonal intelligence as “the aptitude to develop one’s own model and use that model successfully in self-management, which included achievement, adaptability, emotional self-control, initiative, optimism, and transparency” (Labby et al., 2012, p. 3).

Gardner's theory does not specifically mention EQ but the concepts of interpersonal and intrapersonal intelligence describe many of the basic concepts of EQ, such as using interpersonal intelligence to interact effectively with other people (Robertson, 2007). Gardner suggested that interpersonal intelligence was the ability to have social awareness and manage relationships, including “being a change catalyst, building bonds, collaboration, conflict management, developing others, empathy, influence, inspirational leadership, organizational awareness, service, and teamwork. Gardner’s work opened new avenues for investigating human intellectual development” (Labby et al., 2012, p.3).
Development of an emotional intelligence test began in 1980 when BarOn, an Israeli psychologist and Rhodes Scholar, “began to study how emotions affect people’s functioning” (Deutschendorf, 2009, p. 10). BarOn developed the first scientifically valid test known as BarOn Emotional Quotient Inventory.

John Mayer of the University of New Hampshire, Peter Salovey of Yale University, and his colleague, David Caruso were the first individuals to use the term emotional intelligence when the three developed an alternate test for emotional intelligence in 1990. Their test is called the Mayer-Salovey-Caruso Emotional Intelligence Test (Deutschendorf, 2009).

“When emotional intelligence was first discovered, it served as the missing link” (Bradberry & Greaves, 2009, p. 10) to understanding what makes one successful. It had been known previously that people with the highest levels of intelligence (IQ) only outperformed those with average IQ just 20% of the time, while people with average IQs outperform those with high IQs 70% of the time (Bradberry & Greaves, 2009, p.10).

Emotional intelligence began to gain momentum in the mid-1990s. Goleman (1995) published his first book, Emotional Intelligence, which gave much credence to the concept of emotional intelligence for business leaders. In this book the idea of why individuals with average IQs outperform their counterparts with higher IQs was examined. Goleman found that EQ was the key difference.

due to its popularity. In the article, Goleman (2004) detailed that after studying many corporations, not only were skills such as toughness, intelligence, vision, and determination necessary ingredients in successful leadership, it was emotional intelligence that truly exemplified an effective leader. The article indicated that emotional intelligence included such traits as social-awareness, self-regulation, motivation, empathy, and social skills.

With the Goleman article that was published in 1998, and subsequently in 2004, the concept of emotional intelligence as a component of successful business practice was borne. Corporations such as Six Seconds and TalentSmart, began to develop emotional intelligence tests that business and educational leaders can use to appraise and train staff on improving emotional intelligence. This research project included the Emotional Intelligence Appraisal-Me Edition, published by the TalentSmart Company.

Understanding Emotional Intelligence

In order to understand emotional intelligence, it is important to understand the concept of intelligence in general. Intelligence is most often cited by Weschler's statement that intelligence is the “aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his environment” (Mayer & Salovey, 1990, p. 186). Mayer and Salovey (1997) later stated that intelligence “pertains to abilities such as the power to combine and separate concepts, to judge and to reason, and to engage in abstract thought”. (p. 10).
There are a variety of scientists, authors, and organizations who have given a
definition of emotional intelligence. For this research project the definitions of
Mayer and Salovey (1990), Goleman (1995), BarOn (2006), Six Seconds (2012), and
Talent Smart (2012) were examined for the design and implementation of this
research project. The Talent Smart Emotional Intelligence Appraisal-Me Edition was
chosen for this research project, because of its ease of use and its reliability and
validity to accurately measure an individual’s EQ.

Mayer and Salovey (1997), two psychology professors, who published their
original work in 1990, expanded their definition to include “thinking about feelings”
(p. 10), which involved

the ability to perceive accurately, appraise, and express emotion; the ability to
access and/or generate feelings when the facilitate thought; the ability to
understand emotion and emotional knowledge; and the ability to regulate
emotions to promote emotional and intellectual growth” (p.10). In their 1990
model (Table 1), five specific domains were characterized: self-awareness,
managing emotions, motivating self, empathy, and managing other’s
emotions. (Mayer & Salovey, 1997, p. 10)
Table 1

Mayer and Salovey Construct

Conceptualization of Emotional Intelligence

<table>
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<td>Appraisal and expression of emotion</td>
<td>Involves self</td>
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<td></td>
<td>• Verbal</td>
</tr>
<tr>
<td></td>
<td>• Non Verbal</td>
</tr>
<tr>
<td>Regulates emotion</td>
<td>Involves others</td>
</tr>
<tr>
<td></td>
<td>• Non-verbal perception</td>
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<tr>
<td></td>
<td>• Empathy</td>
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<td>Utilization of emotion</td>
<td>Flexible planning</td>
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<td>Creative thinking</td>
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<td>Redirected attention</td>
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<td>Motivation</td>
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Goleman (1995) expanded on the thoughts of Salovey’s work and defined emotional intelligence as comprising five emotional and social intelligence skills:

- Knowing one’s emotions,
- Managing one’s emotions,
- Motivating one’s self,
- Recognizing emotions in others, and
- Handling relationships.

Each person differs in the
abilities in each of the 4 domains and "lapses in emotional skills can be remedied and improved upon" (Goleman, 1995, p. 44).

The use of the term EQ to refer to emotional intelligence was first used by BarOn in 1988, in BarOn's doctoral dissertation at the University of South Africa, long before the term had gained widespread use in the field (Goleman, 2001). BarOn (2006) used the term "emotional quotient" (EQ) to describe the approach toward evaluating general intelligence. BarOn's (2007) definition of emotional intelligence is "a cross-section of interrelated emotional and social competencies, skills and facilitators that determine how well we understand and express ourselves, understand others and relate with them, and cope with daily demands, challenges and pressures" (para. 1).

Six Seconds (2012), an emotional intelligence network, used the Mayer and Salovey (1997) definition of emotional intelligence as "the ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth" (p. 5). In essence, Six Seconds (2012) defined emotional intelligence as "the capacity to blend thinking and feeling to make optimal decisions" (p. 5).

The TalentSmart Company defines emotional intelligence in an online article, "About Emotional Intelligence" (2013), as "the ability to manage behaviors, navigate complex social situations, and make personal decisions that achieve successful results". Emotional intelligence is divided into four core skills: self-awareness, self-
management, social-awareness, and relationship management. These four skills fall under two broader competencies: personal competence and social competence.

The most basic EQ skill is self-awareness. Self-awareness is the ability to perceive one's own emotions. Once an individual has developed an awareness of his or her own emotions, he or she can then begin to manage his or her emotional response, which is in the domain of self-management. Social-awareness is the third domain. Being socially-aware of the emotions of others can help one understand what others might be thinking and feeling. Finally, an emotionally intelligent person can build relationships with others by communicating clearly, managing potential conflicts, and facilitating positive change, which is the fourth domain, relationship management (Robertson, 2007).

Bradberry and Greaves (2009) share a similar emotional intelligence construct. In the Bradberry and Greaves (2009) construct, emotional intelligence is composed of awareness of emotions in one's self and others, and the ability to manage one's emotions and the emotions of others, which is the relationship management domain. This is the same construct that is used by the TalentSmart Company, from which the Emotional Intelligence Appraisal-Me Edition is published. The four core emotional intelligence domains are all intertwined.

Self-awareness is the foundation for the other three domains. A person without self-awareness would be poor at managing his or her emotions. Self-awareness also plays a "crucial role in empathy or sensing how someone else sees a situation. If a person is perpetually oblivious to his own feelings he will be tuned out
to how other people feel” (p. 30). Social-awareness is closely intertwined with managing how others feel, in other words managing relationships (Boyatzis et al., 2002).

Berry (2009) stated that listening is a very crucial component in mentoring and coaching in schools. By listening, a teacher can gain valuable insight into what is going on in the lives of the students. Bressert (2012) used the words of Gardner in an article that “your EQ is the level of your ability to understand other people, what motivates them and how to work cooperatively with them” (p. 31).

Maxwell (2002) wrote about emotional intelligence when he indicated in his book, *Your Roadmap for Success*, the importance of relationships in working with others. Relationships are vital to the successful outcomes that are sought by any leader. The role of relationships is what leads to success in whatever endeavor one is pursuing. This is related to the relationship management domain of the emotional intelligence construct that is being implemented in the “Heart of Teaching” training module.

Without relationships there would not be success. Strong relationships between educators and students have an impact on academic achievement (Boyatzis et al., 2002). When students do not have relationships with their teachers there is little reason to connect and achieve academically. School connectedness is defined “as the belief by students that adults in the school care about their learning as well as about them as individuals” (Cox et al., 2012, p. 48).
In addition to examining what emotional intelligence is, it is important to understand what emotional intelligence is not. Goleman (1998) illustrated some misconceptions about emotional intelligence. Emotional intelligence is not “merely being nice” (p.6). It is rather about being blunt about truths. It is also not about giving “free reign to one’s emotions” (p. 6). Rather, it means “managing feelings and making appropriate decisions based on these emotions” (p. 7), and finally, emotional intelligence is not “fixed genetically, nor does it only develop during early childhood” (p. 7). Emotional intelligence is largely learned and continues to develop as we go through life.

After examining all of the various definitions of emotional intelligence, the researcher for this project concluded that all the definitions include some form of self-awareness, self-management, social-awareness, and management of relationships. The “Heart of Teaching” incorporated these 4 domains as part of the training process.

The “Heart of Teaching” definition of emotional intelligence is being aware of and managing one’s own emotions to make a positive outcome for self and others. Farther, it is the understanding of how one’s own emotions trigger the emotions in others as well as understanding and reacting positively to the emotions in and from other people.

**Emotional Intelligence Training and Development**

Developing and utilizing emotional intelligence is an integral component to the educational process. By focusing on emotional intelligence, or EQ, along with IQ is a key to the total success of our students. Lantieri and Nambiar (2012) stated that
the highest estimate of how much IQ accounts for how a person performs in his or her career is about 25%, with low end estimates that range from four to ten percent.

Roberstson (2007) discussed the research of Sternberg in an article titled “Got EQ?” in which she stated IQ accounted for 4 to 10% of real-world success.

The “Heart of Teaching” training module was constructed with a focus on the 4 common domains of self-awareness, self-management, social-awareness, and relationship management. The Emotional Intelligence Appraisal-Me Edition was administered to participants and provided a report indicating the EQ scores in the 4 domains as well as an overall EQ for each participant. Strategies were developed by the researcher to assist each participant with improving his or her emotional intelligence.

*The 7 Habits of Highly Effective People* (Covey, 1989) is full of strategies for becoming emotionally intelligent. Each of the 7 habits is related to the emotional intelligence construct of the “Heart of Teaching” training module. These habits include lessons in self-awareness, self-management, social-awareness, and relationship management. Some of the important lessons from this work include:

Seeking first to understand and then be understood (habit 5), which develops a person in the domain of relationship management, by utilizing listening and empathy skills;

synergizing, which develops a person in the domain of social-awareness by being aware of the power of teamwork and achieving goals; and

sharpening the saw (habit 7), which is a lesson that develops one in the self-management domain, by re-energizing oneself.
The "Heart of Teaching" training module equips educational professionals with emotional intelligence strategies that enable relationships to be fostered between the school staff and students. Hughes, Wu, Oi-man Kwok, and Johnson (2011) stated that the provision of a relationship with one's teacher characterized by high levels of support and low levels of conflict predicts improved academic performance.

The Brain and Emotional Intelligence

Emotional intelligence begins with one's primary senses in the spinal cord and travels to the frontal lobe of the brain, which is located behind the forehead, where rational thinking takes place. Before these senses travel to the front of the brain, they must pass through the limbic system of the brain, which is located between the spinal column and the front of the brain. The limbic system is where emotions are experienced. Emotional intelligence requires a communication between front of the brain, which houses the rational system, and the limbic, or emotional centers of the brain. This process of one's senses traveling though pathways in the brain, going from the spinal cord to the frontal lobe, while passing through the limbic system, ensures that one experiences emotions before he or she has a chance to reason (Bradberry & Greaves, 2009).

The neural systems that are responsible for intellect and emotions are separate intimately interwoven connections. There is an emotional regulatory circuitry that runs from the amygdala, which is located in the limbic system, or middle part of the brain, to the prefrontal area of the brain (Boyatzis et al, 2002). The brain circuitry that interweaves thought and feeling provides a neural basis of primal leadership.
Boyatzis et al. (2002) wrote that the business culture erroneously places a great value on intellect devoid of emotions but our emotions are more powerful than our intellect. It is in times of emergency that our emotional centers, or the limbic brain, commandeer the rest of the brain.

In an earlier article, Goleman (2000) stated that there were two distinct areas of the brain that controlled our cognitive intelligence and emotional intelligence. Cognitive intelligence, which includes behaviors such as verbal abilities, spatial/logical, and reasoning are located in the area of the brain called the neo-cortex, whereas the area of the brain that controls the emotional abilities is located in the limbic region of the brain and functions in a circuitous manner.

**Emotional Intelligence in Other Industries**

The business sector has been using emotional intelligence trainings to choose and train leaders and staffs. According to TalentSmart (2013), a company that focuses on emotional intelligence improvement, many companies, such as the Hallmark Company, found that sales staff who developed and improved their emotional intelligence was 25% more productive than their lower EQ counterparts. Other corporations have seen improvements in staff productivity as well. AT&T staff who participated in an emotional intelligence training saw an increase of 20% in productivity as compared to the staff that did not participate in the emotional intelligence training.

Given the success that is seen in the business industry, it is thought that the same results can be seen in the educational industry. Using good emotional
intelligence (EQ) skills such as self-awareness, self-management, social-awareness, relationships, and empathy, may help educators better understand the needs of their students and thus make emotionally intelligent decisions that will help build connections with students to enable and empower each student to achieve academic success. Empathy in this case will be defined as the capacity to know how another person feels. Empathy builds on self-awareness; the more open people are to their emotions, the more skilled they will be in reading other emotions.

Segal (1997) quoted Goleman in his book *Raising Your Emotional Intelligence* as saying that empathy is the fundamental people skill in emotional intelligence. Empathy is the ability to understand the point of view from the other side. Too often in school disciplinary models, students are sent to the office or given a disciplinary consequence without being understood or heard.

There are multiple tests that will identify the emotional quotient for any individual. There are also multiple tools developed to specifically measure emotional intelligence (EQ) such as the Social Competency Inventory (SCI), the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), and the Emotional Intelligence Appraisal-Me Edition. While the particular instrument used to measure EI may vary, “it is important to pay particular attention to the psychometric properties of each instrument to ensure that the measure adopted has both reliability and validity and will truly strengthen a learning and development program” (Sadri, 2011, p. 84).

There are programs that will help improve the EQ of an individual. Participants in the “Heart of Teaching” training module were administered the
Emotional Intelligence Appraisal-Me Edition which gave scores in each of the 4 domains as well as strategies to improve on individual weaknesses. Sadri (2011) stated that there are training programs that can improve the EQ of an employee. Training programs that enhance EQ need to focus on assessing the priority level of each of the EI competencies for the particular training group (Sadri, 2011).

Section II

Statement of Problem

IQ accounts for as little as 4% of the variance in job performance (Cherniss, 2000). Of the research done in the workplace, the average correlation between IQ and success is around 6% (Deutschendorf, 2007, p. 199). Educator success and the success of the education profession today depend on the ability to read other people's signals and react appropriately to them. Therefore, each educational professional “must develop the mature emotional intelligence skills required to better understand, empathize and negotiate with other people” (Bressert, 2012, para. 1).

The cost of students not succeeding academically is extremely high. When students do not succeed in school they are more likely to face a future that includes unemployment, lower earnings, and increased health problems (Barnhart et al., 2004). Emotional intelligence has been touted as a panacea for the business sector, medical profession, engineering, and legal profession. The concept “also provides the medium by which educational reform can and finally will reach its full potential across all levels of schooling” (Matthews, Roberts, & Zeidner, 2001, p. 7).
In addition to the typical teaching activities such as lesson planning, teachers need to focus on the emotions of their students. There are some teachers who believe that the lesson plan is more important than any feelings of the students. The attitude, as it was stated, should be followed regardless of the emotions of the students. This attitude of strict lesson plan adherence leads to problems within the class, such as disruptive behaviors (Alnabhan, 2008).

An example of a teacher not using empathy can be seen in the story of “Chris”. Chris is a sophomore student at a school in Kentucky. He was having a bad day and slammed his book closed, irritating the classroom teacher. A heated exchange erupted between Chris and the teacher after the teacher yelled at Chris to get engaged in the lesson. The teacher sent him out of the classroom and referred him to the office for some discipline. The administrator, using emotional intelligence skills (empathy) gave Chris a chance to explain his point of view. Chris explained that his parents were getting a divorce and he could not handle the splitting up of his family. The administrator realized that Chris was dealing with a family situation. In the story of Chris, the teacher could have better handled the situation by using EQ skills while keeping Chris in class.

There are many situations in our schools where students would have been better served if teachers would have used strong EQ skills. The needs of the students would have been better served. These problems existed because our teachers were not adequately trained in the use or effectiveness of these EQ skills. But this is a
human resource problem and can be resolved with training and awareness being created for the staff.

Students like Chris need to have a teacher who utilized good emotional intelligence skills, such as empathy. Students also need to know that their teacher likes them and is interested in their success. Building a positive relationship with students like Chris is vital to the success of students. Middleton and Petitt (2010) indicated that there was a disconnect between teachers and students in many schools. The authors further stated that only half of the students responding to a survey in 2008 indicated that they felt teachers cared about them.

Educational professionals may demonstrate that they care for students through the positive use of emotional intelligence. Educators need to understand the needs of all of the students with whom they work on a regular basis in the classroom. Teachers need to know what is going on in the lives of their students, know how to demonstrate a caring attitude, and need to use empathy to better understand the struggles that students face.

If the feelings and emotional needs of young students were being addressed in the classroom, the students become more cooperative and respectful in class. There are multiple needs of students, and by meeting the emotional needs of the students, along with the intellectual needs, there tends to be more cooperation and respect from the students in class. This leads to a positive relationship between the instructor and the learner, which leads to further student success (Alnabhan, 2008). Components,
such as the development of social-awareness and relationship management, from the training module addressed the feelings and emotional needs of the students.

Outstanding teachers are those that show a caring for students. They have no problem adjusting to giving incompletes, communicating missing assignments, and changing their habits. Parents and students are concerned with the attitude and heart of the teacher (Hill & Nave, 2009). Knowledge of the subject is significant as long as the teacher does not develop or have the attitude that they are at school to teach a subject and if the students want to learn they can and if they do not want to that is fine too. Loving students is the highest standard a teacher or principal can have (Hill & Nave, 2009).

White (1999) stated the importance for teachers to model good emotional intelligence behaviors, such as empathy, for students was because children and adolescents copy what they observe and develop a repertoire of such feelings. Students do not learn alone by cognitive approaches. This is an important reason for teachers to be aware and regulate their emotional intelligence within the classroom.

The incorporation of emotional intelligence attributes in the classroom by the teacher is an important component of student success. An emotionally intelligent teacher must utilize the skills that help foster a positive relationship and meet the emotional needs of the students. A teacher with low frustration tolerance, impulsiveness, anger control problems, abusiveness, loss of self-control, and unpredictable behavior is not going to be successful in the classroom. Teachers must be able to tolerate and deal with the stress that comes with teaching (Alnabhan, 2008).
The purpose of this study was to assess and improve the emotional intelligence skills of teachers and school personnel on the academic achievement of all students. Participants volunteered to participate in an emotional intelligence training in which their EQs were assessed and sessions were conducted for the teachers to learn, discuss, and improve their EQ.

Research Questions

The following research questions were considered and examined throughout this project:

1) What relationship exists between a teacher's emotional intelligence and the academic outcomes of his or her students?

2) Can a teacher/school staff improve his or her emotional intelligence using “the heart of teaching” emotional intelligence training module, which used the Emotional Intelligence Appraisal-Me Edition appraisal of EQ?

Hypotheses

1) If an educational professional completes the “Heart of Teaching” training module then the participant will see a decrease in the number of their students who make a final grade of D or F.

2) If an educational professional completes the “Heart of Teaching” training module then the participant will see an improvement on the overall EQ.
Section III

The Capstone Project

The capstone project was a training module titled The Heart of Teaching, in which participants assessed their individual emotional quotients and then developed and improved their emotional intelligence skills by participating in a training module that was facilitated by the researcher.

The training module consisted of three parts. First, participants were introduced to emotional intelligence concept. This phase of the training was intended to assess and determine a baseline EQ score for the participants and thus began the process of developing and enhancing the emotional intelligence skills of the participants that would lead to an improvement in the academic outcomes of their students. This module was based on the constructs of the models of emotional intelligence that Mayer and Salovey (1990), Bradberry and Greaves (2009), and Goleman (2002) which involved emotional self-awareness, self-management, social-awareness, and relationships.

This training module had an emphasis for the participants on emotions in self and emotions in others. The Emotional Intelligence Appraisal-Me Edition was used during this part of the training to assess and provide data for each participant in these two main areas (personal competence and social competence), along with the subdomains that included self-awareness, self-management, social awareness, and relationship management.
The “Heart of Teaching” training module began with the acquisition of the initial EQ score of each participant by completing the Emotional Intelligence Appraisal-Me Edition. Participant scores on the initial assessment were discovered and strategies that were designed based on the individual scores were shared. Once the baseline score was established, the participants completed a series of training sessions in which strategies to develop emotionally intelligent behaviors were provided.

The first one hour session included an overview of the 4 domains of emotional intelligence and strategies illustrated in the blog titled “21 strategies to improve emotional intelligence” (Nikitina, 2013). These strategies included:

- Trust you intuition
- Realize you are not your emotions
- Be aware of your EQ and willing to improve
- Put yourself in their place.
- Humility
- Self-evaluate
- Keep emotions under control
- Apologize
- Engage in small talk. Find connections.
- Unwind
- Talk about your feelings
• Don't be a victim of karma
• Breathe deeply
• Listen
• Love yourself
• Forgive
• Sarcasm is a defense mechanism
• Recognize non-verbal cues
• Know your hot buttons
• Be empathic
• Choose arguments carefully (Nikitina, 2013)

The second one hour training session began with an overview of the 4 domains of emotional intelligence: self-awareness, self-management, social-awareness, and relationship management. The participants were given strategies to improve their emotional intelligence. In this session, there was an opportunity for the participants to discuss events in which they had experienced good and bad emotionally intelligent responses.

The third one hour training session involved participants discussing positive and negative experiences with using emotional intelligence. Working With Emotional Intelligence (Goleman, 1998) was incorporated into this training. Strategies were shared from this book on what emotionally intelligent people do on a regular basis. These strategies, which fit into each of the 4 domains, included:
• Know which emotions they are feeling and why
• Realize the links between their feelings and what they think, do and say
• Recognize how their feelings affect their performance
• Have a guiding awareness of their values and goals
• Have self-control: Managing disruptive emotions and impulses effectively
• Have trustworthiness: Displaying honesty and integrity
• Are conscientiousness: Dependability and responsibility in fulfilling obligations
• Have adaptability: Flexibility in handling change and challenges
• Know innovation: Being open to novel ideas, approaches, and new information
• Are results oriented, with a high drive to meet their objectives and standards.
• Set challenging goals and take calculated risks
• Pursue information to reduce uncertainty and find ways to do better.
• Learn how to improve their performance.
• Readily make sacrifices to meet larger organizational goal.
• Find a sense of purpose in the larger missions.
• Use the group’s core values in making decisions and clarifying choices.
• Actively seek out opportunities to fulfill the group’s mission.
• Are attentive to emotional cues and listen well.
• Show sensitivity and understand others’ perspectives.

• Help out based on understanding other people’s needs and feelings.

• Acknowledge and reward people’s strengths and accomplishments.

• Offer useful feedback and identify people’s needs for future growth.

• Mentor, give timely coaching, and offer assignments that challenge and foster a person’s skills.

• Are skilled at winning people over.

• Fine-tune presentations to appeal to the listener.

• Use complex strategies like indirect influence to build consensus and support.

• Orchestrates dramatic events to effectively make a point.

• Are effective in give-and-take, registering emotional cues in attuning their message.

• Deal with difficult issues straightforwardly.

• Listen well, seek mutual understanding, and welcome sharing of information fully.

• Foster open communication and stay receptive to bad news as well as good.

• Handle difficult people and tense situations with diplomacy and tact.

• Spot potential conflicts, bring disagreements into the open, and help deescalate.
- Encourage debate and open discussion.
- Orchestrate win-win solutions.
- Articulate and arouse enthusiasm for a shared vision and mission.
- Step forward to lead as needed, regardless of position.
- Guide the performance of others while holding them accountable.
- Lead by example.
- Cultivate and maintain extensive informal networks.
- Seek out relationships that are mutually beneficial.
- Build rapport and keep others in the loop.
- Make and maintain personal friendships among work associates.
- Balance a focus on task with attention to relationships.
- Collaborate, sharing plans, information and resources.
- Promote a friendly, cooperative climate.
- Spot and nurture opportunities for collaboration. (Goleman, 1998, pp. 54-211)

The fourth one hour training session involved the participants completing the post assessment using the Emotional Intelligence Appraisal-Me Edition. Participants also completed a survey detailing their improvement from this training.

Participants and Setting

Participants in this project were employees of Letcher County Central High School in Whitesburg, Kentucky. Letcher County, Kentucky is located in a rural
setting, in the central region of the Appalachian Mountains. The school has 918 students enrolled in grades 9-12. According to statistics Letcher County Central High School had 18 of 918 students who were classified as “homeless” (Boggs, 2012).

According to the Kentucky Labor Market Information website (2012), the unemployment rate for Letcher County, Kentucky in November, 2012 was 13.3 percent. This was the third highest rate of unemployment among all 120 counties at that time in the state of Kentucky. Letcher County, Kentucky lags behind the state in percentage of people below the poverty level between the years 2007-2011. Letcher County has a poverty rate of 26% (state and county, 2013). The criminal.com website (2013) stated that Letcher County, Kentucky had the 22nd highest violent crime rate in the state of Kentucky, with a rate of 678.3 incidents per 100,000 people being committed in the year 2007.

**The Emotional Intelligence Appraisal-Me Edition**

The Emotional Intelligence Appraisal-Me Edition (2012) is a 28 question assessment. There were six questions that assessed self-awareness, nine questions that assessed self-management, five questions that assessed social awareness, and eight questions that assessed relationship management. In comparison to other instruments, this test was quicker to use than the other instruments, such as the MSCEIT, which has 141 questions.

The Emotional Intelligence Appraisal-Me Edition is a reliable and valid test. According to the Talent Smart website (2012), the test has a reliability of 0.79 to 0.92 and has been determined to be valid. Bradberry and Su (2006) indicated that research
has shown that the subdomains of the Emotional Intelligence Appraisal-Me Edition had yielded a Cronbach reliability of between .85 and .91.

The 28 questions on the Emotional Intelligence Appraisal-Me Edition are used to yield an EQ. The researcher chose this test among other tests after reviewing a number of tests. The number of items on this test, along with its reliability made it a quick and accurate assessment, whereas other tests required additional test items and lengthy times to complete for the participants. Bradberry and Su (2006) stated that in their research many participants in their emotional intelligence research project complained about the length of the time it took to complete the MSCEIT.

Choi, Kluemper, and Sauley (2010) found that after much research on reliability and validity of emotional intelligence measures, there is strong evidence that emotional intelligence predicts important life and work outcomes even after controlling for personality traits and general mental ability.

**Rationale**

The importance of this project was to equip participants with the skills necessary to understand and meet the needs of their students through the positive use of emotional intelligence. Teachers were able to assess their emotional intelligence and see how it effects the academic achievement of their students who are not motivated at a higher level on Maslow’s Hierarchy of Needs and thus not achieving the academic success that they could if the teacher would understand their needs. Students at Letcher County Central High School come to school on a daily basis from backgrounds where their physiological needs are being unmet.
Description of Educational Institution Participating in the Project

The Letcher County Public Schools is situated in rural Kentucky in the Appalachian Mountain region. The school district has a high rate of poverty. According to the Annie E. Casey Foundation, Letcher County had a child poverty rate of 34.9% in 2011, whereas the state of Kentucky has a poverty rate of 27.2%. The five year average child poverty rate for Letcher County, Kentucky was 34.3%, whereas the five year average for the state of Kentucky was 25.1%.

In addition, a high percentage of students in Letcher County receive a free or reduced lunch. According to demographical data reported to the researcher (Boggs, 2012), approximately 67% of students attending this school qualified for a free or reduced lunch. There were 532 of 918 students who qualified for a free lunch, based on the federal guidelines. Of the 532 students who qualified for the free lunch program, 428 were direct certified due to their family receiving food stamps or being homeless. 104 additional students were qualified for the free lunch program based on their family incomes. 82 students attending Letcher County Central High School qualified for a reduced lunch price, based on income guidelines.

Letcher County Central High School students are graduating at a rate that is less than the rest of the state. The graduation rate in 2012 for Letcher County Central High School was 77.3%. The average for the state of Kentucky in 2012 was 78.8% (Averaged freshman graduation, 2013).

Letcher County Central High School had 37% of its students scoring proficient in math on the 2011 Kentucky Core Content Test compared to 73%
proficient for the state of Kentucky, 61% of students scoring proficient in reading compared to 70% of their counterparts throughout the state, 39% proficient in science compared to 64% of their counterparts in Kentucky, 24% scoring proficient in social studies compared to 60% scoring proficient in the state, and 35% scoring proficient in writing compared to 45% scoring proficient in the state on the same test. The composite ACT score for Letcher County Central High School was 18.1 in 2011. The state average composite in 2011 was 19.6 (Boggs, 2012).

There are a large number of students in Letcher County who are either homeless or are in an out of home setting. There were 18 students who attended Letcher County Central High School who were classified as homeless. According to school statistics (Boggs, 2012), 67% of the students attending Letcher County Central High School qualify for a free or reduced lunch, based on the federal poverty guidelines.

**Impact of this study**

The major goal of this study was for participants to improve their emotional intelligences, which it is hypothesized would lead to students achieving at a higher rate as determined by improved grades. Data on grade reports for each participant’s students was gathered at the beginning of the study and at the end of the study to determine if any effect was noted from the emotional intelligence training.

The researcher found that participants who had higher levels of emotional intelligence had lower percentages of students who received a final grade of d or f in the 2011-2012 academic year at Letcher County Central High School.
Involvement and Collaboration

The researcher was the primary investigator responsible for the completion of this project. The investigator/researcher worked with administrative staff, teachers, and other school personnel during the process of this study. The researcher developed the training module and then presented it to the school administration and staff. The participants incorporated the strategies that were outlined in the training and then utilized those strategies in their classroom with their students. The researcher provided and collected all the materials in completing this project.

The researcher used materials from various sources, including the Talent Smart Company and other materials to complete this training module.

Participants

The participants in this project worked with students at Letcher County Central High School on a daily basis. The participant list included the school principal, teachers, and other support staff. There were 21 participants in this project. There was a variety of ages, genders and experiences of participants in this project. There were eight male participants and thirteen female participants in the project. The ages and levels of experience of the participants varied from first year teachers to teachers nearing retirement. There was a wide age range among the participants. The youngest participant was 25 years old and the oldest participant was 78 years old.
Table 2

Participant Information

Demographics

<table>
<thead>
<tr>
<th>Number of participants:</th>
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</tr>
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<tbody>
<tr>
<td>Number of male participants:</td>
<td>9</td>
</tr>
<tr>
<td>Number of female participants:</td>
<td>12</td>
</tr>
</tbody>
</table>

Age of Participants:

- 20-30 years of age: 6
- 31-40 years of age: 2
- 41-50 years of age: 8
- 51 years of age and older: 5

Number of years of experience of participants in education field:

- <5 years of experience: 8
- 6-10 years of experience: 2
- 11-15 years of experience: 1
- 16-20 years of experience: 3
- 21-25 years of experience: 6
- >25 years of experience: 1

Procedure and Methodology

This project included the development of a training module that helped participants and other school employees enhance and develop emotional intelligence
skills that were used to help them assess and improve their emotional intelligences and thus seek to cause an increase of academic achievement for their students, and in particular the at risk students they work with on a daily basis.

This project was cleared to be implemented by the Morehead State University Institutional Review Board in September 2012. The project was initially implemented in the fall of 2012.

Participants completed the training module in a six month time frame, which included a series of trainings on improving emotional intelligence. The training began in October 2012 and concluded in March 2013. Each participant acquired an initial EQ score using the Emotional Intelligence Appraisal-Me Edition. The participants then began the process of improving their emotional intelligence skills through follow up training sessions that were led by the researcher and included strategies and characteristics of what emotionally effective people do.

Each participant had specific strategies that they were able to utilize in order to improve their specific EQ needs based on their individual results on the Emotional Intelligence Appraisal-Me Edition. Participants were asked to focus on one domain to focus on improvement, in accordance with a recommendation of Bradberry and Greaves (2009). Participants also used their individual results from the emotional intelligence appraisal to set personal goals for improvement of their EQ. The researcher will also lead/facilitate the participants through a series of trainings that enabled each participant to develop and utilize the skills that had been learned.
Data was collected at the beginning of the project to determine the baseline levels of EQ of each participant. Data on grades from the previous year were gathered on the participants' students in this study. Surveys were also used to gather information about emotional intelligence indicators from participants.

At the conclusion of the project, each participant was re-assessed using the same Emotional Intelligence Appraisal-Me Edition. An analysis of scores was completed to determine if the training module had an effect on the participants. Grade reports for each participant's students were analyzed to determine any effects from the training.

A further analysis was conducted to see if any relationship existed between the participant EQ and student achievement.

The project began with the researcher reviewing various literature reviews regarding the importance of emotional intelligence in the business world. The researcher began exploring the possibility of creating a training module that would allow participants in the educational sector to become aware of their own emotional intelligences and how emotional intelligence plays a role in our everyday interactions with the people they come in contact with, in particular their students. Much of the literature reviews were completed in March 2012.

The components of this particular training module were developed during the summer of 2012. The researcher incorporated the works of Mayer and Salovey (1990), Maslow, Goleman (1995), Bradberry and Greaves (2009), and others to compile a training module that improved the emotional intelligences of participants.
The Talent Smart Company was chosen as the provider of the assessment instrument that was used to measure the emotional intelligences of the participants. This assessment was chosen because of its brief nature and the reliability and validity of the instrument.

Participants were recruited for the study at the beginning of the 2012-2013 school year. Participants were volunteers who all consented to being assessed and participate in the “Heart of Teaching”.

The participants began the training module in October 2012, once all the assessments were purchased. The participants completed an assessment using the Emotional Intelligence Appraisal-Me Edition, produced by the Talent Smart Company in order to set a baseline emotional intelligence score.

Participants also participated in a series of group meetings to discuss their individual emotional intelligence improvements and to discuss strategies that are effective when exhibiting good emotional intelligence skills. These sessions were three one hour sessions that was led by the researcher. There were two one hour sessions after school and one one hour session that occurred during the school day. These sessions occurred in November 2012, January 2013, and March 2013.

The completion of the training module occurred in March 2013. The participants were given a post assessment using the same Emotional Intelligence Appraisal-Me Edition. The researcher shared follow up guidelines for each participant since emotional intelligence improvement is an ongoing task.
The researcher gathered data during the initial phase of the training module. Data on student grades was gathered and analyzed to determine if any relationship existed between high EQ and student achievement, as had been reported in the literature reviews regarding success in the business sector related to employees with high EQ.

**Budget**

The cost of developing the training module was minimal. Buying the materials that were used as part of the module cost $420. This was for the cost of tests. The researcher spent $250 on books for reading and module development.

The costs for this project were funded by the investigator’s private savings and an agreement by Letcher County Central High School, the targeted audience, to pay for 50% of the costs of the appraisal/assessments, which equaled the sum of $210.

**Evaluation Plan**

The project was evaluated at the conclusion of the implementation of training by data collected from the survey, pre-assessment, and post-assessment results from all participants to see if there was improvement in the overall EQ of participants. A further analysis was conducted to see if there was a relationship that existed between participant EQ and student grades. Data was collected from grade reports recorded by the participants. Data was analyzed from the previous school year to see if any effect was made by the training. The data indicated that there was an improvement in the EQ of participants. There was a negative correlation (-.38) or an increase in
achievement data listed above of any of the students then this project will be deemed a success

**Consequence Analysis**

The advantages of this project were that participants became aware of their own emotional intelligences which led the participants to have an effect on their students by using their emotional intelligence skills that had been acquired previously or developed as a part of this project with their students.

One of the first steps for improving emotional intelligence was that individuals had to become aware of their own emotional intelligence and how their emotional intelligence/EQ impacts others around them (Lynn, 2008).

The participants in this project signed an agreement and consent to participate and were willing to determine their levels of emotional intelligence and were willing to improve their emotional intelligence in order for the project to be deemed a success.

**Intended Audience**

The intended audience for this project was teachers, administrators, educational support staff, students, educational researchers, and others interested in how using emotional intelligence and how improving emotional intelligence can improve the academic achievement for their students and make a difference in their daily lives. The findings of this project were shared with colleagues, district administrators, the Talent Smart Company, and other educational leaders in a variety of venues. The ambition was that this training module and concept would become an
increasing part of the professional development needs of schools across the region and state.

This training module was a benefit to the participants at Letcher County Central High School. Participants were able to become aware of their own emotional intelligences and understand how their emotional intelligences affected the people they interacted with, in particular their students. Participants were able to improve their emotional intelligences. The data indicates that participants, in particular teachers, who had higher emotional intelligence scores had students with lower percentages of final grades of D or F in the 2011-2012 school year.

Chart of Results

According to the score reporting system listed within the Emotional Intelligence Appraisal-Me Edition that the participants used to assess their individual emotional quotients, scores on the Emotional Intelligence Appraisal come from a “normed” sample. That means participants’ scores were based on a comparison to the global population to discover where they fall in each skill area (Emotional Intelligence Appraisal, 2013).

The scores are categorized into a scale ranging from 0 to 100. The interpretation for the score report is as follows:

Respondents who score in the range of 90 to 100 for their overall emotional quotient are reported to have scores that are much higher than average and indicate a noteworthy strength. Those respondents who have scores in this
range seize every opportunity to use these emotionally intelligent behaviors to maximize their success. These respondents are highly competent in this skill.

Respondents who score in the range of 80-89 are said to have a score that is above average. There are few situations where the respondents do not behave in an emotionally intelligent manner.

Respondents who score in the range of 70-79 are aware of some of the behaviors for which they scored but there are some behaviors that are holding these respondents back. The report says that many people start here and see improvements in their emotional intelligence once they are made aware.

Those respondents who score in the range of 60-69 have some emotionally intelligent behaviors but not usually. This is a skill area that does not come naturally to the respondent. With some work these people will see an improvement in their credibility.

Scores that fall in the range of 59 and below indicates an area for concern. The bad news is that the emotionally intelligent behaviors are limiting the effectiveness of the respondent. By being aware of this score and doing something about it can help the respondent see improvements in their emotionally intelligent behaviors. (Emotional Intelligence Appraisal, 2013, p.3)

**Participant Results**

At the onset of the “Heart of Teaching” training module, participants were given an initial assessment of their EQs. The initial average EQ of the group of
participants in this study was an EQ of 77, which is similar to average score of 78 reported by Bradberry and Greaves (2009) which was for all participants who had taken the Emotional Intelligence Appraisal-Mc Edition.

The scores of the participants in this study were reported on a self-report presented to each participant after the completion of the initial assessment. The researcher recorded each participant’s scores for initial overall EQ along with the 4 domains of self-awareness, self-management, social-awareness, and relationship management from the appraisal reports (Table 3). The gender, age, and years of experience in the education profession were also reviewed. The age ranges used to report participants scores was as follows in years: 20-30, 31-40, 41-50, and over 51. The years of experience was reported in conglomerates of less than 5 years of experience, 6-15 years of experience, 16-25 years of experience, and over 25 years of experience.

Of the participants who had an initial overall EQ score of 69 or below, there were 5 participants (Table 3) who had a score in this range. Of the 5 scoring in this range, 2 were female participants and 3 were male participants, with 4 of the 5 in this range having more than 15 years of experience in the education profession and 1 participant with less than 5 years of experience in the education profession. 4 of the 5 participants scoring in this range were over the age of 40.

There were 7 participants who had an initial overall EQ score in the range of 70-79 (Table 3). 3 of the participants in this EQ range were males while 4 were females. Of the 7 participants scoring in this EQ range, 4 had less than 5 years of
experience in the education profession, 2 had between 6 and 15 years of experience, and one had more than 15 years of experience in the education profession. 4 of the 7 participants scoring in this range were in the age range of 20-30 years of age, while the other 3 participants were over 40.
Table 3

Initial Assessment Results

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<th>Participant Number</th>
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<th>Initial Social-Awareness</th>
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There were 9 participants who had an initial overall EQ in the range of 80-100 (Table 3). Of these 9 participants, 4 were male participants and 5 were female participants. The experiences of the participants in this range of EQ scores included 4 with less than 5 years of experience in the education profession, 3 had between 6 and 15 years of experience in the education profession, and 2 of the participants had more than 15 years of experience in the education profession. 6 of the 9 participants scoring in this range were in the age range of 41 and older.

On the initial assessment, participants scored the highest on the self-awareness domain and lowest in the self-management and relationship management domains (Table 3). The average scores for the participants in the 4 domains were 80 in self-awareness, 75 in self-management, 78 in social-awareness, and 75 in relationship management.

In addition to the reporting for the initial overall EQ scores for the participants in this study, the 4 domains of self-awareness, self-management, social-awareness, and relationship management were reported in the same categories of gender, age, and years of experience in the education profession.

The range of scores for all participants in the four domains on the Emotional Intelligence Appraisal-Me Edition initial assessment were as follows (Table 3): 60-98 in the self-awareness domain, 57-93 in the self-management domain, 58-100 in the social-awareness domain, and 53-95 in the relationship domain.

Gender, age, and participant years of experience were also tabulated by the researcher. Female participants had an initial range of scores in the four domains as
follows: 63-98 in the self-awareness, 63-87 in the self-management domain, 61-100 in the social-awareness domain, and 59-93 in the relationship management domain. Male participants had a range of scores in the four domains as follows: 60-91 in the self-awareness domain, 57-93 in the self-management domain, 58-95 in the social-awareness domain, and 56-95 in the relationship management domain.

Participants who were in the age group of 20-30 years had an initial range of scores in the four domains as follows: 66-88 in the self-awareness domain, 67-83 in the self-management domain, 67-95 in the social-awareness domain, and 69-91 in the relationship management domain. Participants in the age group of 31-40 years of age had a range of scores in the four domains as follows: 78-85 in the self-awareness domain, 77-81 in the self-management domain, 87-91 in the social-awareness domain, and 83-87 in the relationship management domain. Participants in the age group of 41-50 had a range of scores as follows: 60-98 in the self-awareness domain, 57-93 in the self-management domain, 53-95 in the social-awareness domain, and 60-94 in the relationship management domain.

The average scores for the four domains on the initial Emotional Intelligence Appraisal-Me Edition were as follows (Table 3): 80 in the self-awareness domain, 75 in the self-management domain, 78 in the social-awareness domain, and 75 in the relationship management domain. Female participants had an average score in the four domains as follows: 82 in the self-awareness domain, 73 in the self-management domain, 80 in the social-awareness domain, and 75 in the relationship management domain. Male participants had an average score in the 4 domains as follows: 76 in
the self-awareness domain, 77 in the self-management domain, 76 in the social-awareness domain, and 74 in the relationship management domain.

When tabulating the initial average scores on the Emotional Intelligence Appraisal-Me Edition for the different age groups of participants, the following average scores were reported for the 20-30 year old age group in the following domains: 76 in the self-awareness domain, 72 in the self-management domain, 78 in the social-awareness domain, and 76 in the relationship management domain. The average scores were reported in the 4 domains for the 31-40 year old age group as follows: 82 in the self-awareness domain, 79 in the self-management domain, 89 in the social-awareness domain, and 85 in the relationship management domain. The average score in the four domains for the 41-50 year old age group as follows: 84 in the self-awareness domain, 78 in the self-management domain, 81 in the social-awareness domain, and 74 in the relationship management domain. The scores were reported for the 51 years and above age group on the 4 domains as follows: 77 in the self-awareness domain, 72 in the self-management domain, 70 in the social-awareness domain, and 68 in the relationship management domain.

The initial average scores based on the years of experience were examined based on the following scale representing years of experience in the education profession: less than five years, 6-15 years, and more than 15 years of experience. Participants with less than five years of experience in the education profession had average scores in the four domains as follows: 80 in the self-awareness domain, 75 in the self-management domain, 82 in the social-awareness domain, and 78 in the
relationship management domain. Participants with 6 to 15 years of experience in the education profession had the following averages in the four domains: 84 in the self-awareness domain, 79 in the self-management domain, 76 in the social-awareness domain, and 79 in the relationship management domain.

Participants with 16 to 25 years of experience in the education profession were combined with the 25 years and more experience in the education profession group due to only one participant having more than 25 years of experience in the education profession and to protect the confidentiality of the participants. The average scores on the 4 domains for this group were as follows: 77 in the self-awareness domain, 72 in the self-management domain, 73 in the social-awareness domain, and 68 in the relationship management domain.

Student grade data was collected for each participant who had reported grades in the 2011-2012 school year. 17 of the 21 participants had reported grades in the 2011-2012 school year. The other four participants either were not employed by the school in the 2011-2012 school year or had other duties that did not involve the assignment of student grades. Student grades were used along with each corresponding participant’s EQ score to determine if any correlations existed between EQ and student achievement. The grades of D and F were selected to represent poor academic achievement in this study.

The range of EQ scores as reported for each participant on the Emotional Intelligence Appraisal-Me Edition initial assessment for the 17 participants who reported grades in the 2011-2012 school year was 62 to 94 (Table 3). The average
EQ of this group of participants was 81. The range of percentages of students making a D or F in the 2011-2012 school year was 0 to 33 percent. The average percentage of students who made a D or a F was 16 percent for this group of participants.

Participant overall EQ on the initial assessment and the percentage of students making a final grade of D or F in 2011-2012 (Table 4) was reported by the researcher. The grades of D or F were determined to be used in this study based on the findings of the information provided by the Center for Disease Control (2008), in which poor academic performance, determined by students making a grade of D or F, had long lasting consequences such as higher incidences of mental illness in adulthood, dropping out of school, lower future earnings, as well as increasing the risk for engaging in unhealthy behaviors, such as increased risk of using alcohol, sexual activeness, and carrying a weapon.

There were 17 of the 21 participants in this training who had reported final grades for students in the 2011-2012 school year. The EQs of the participants ranged from 62 to 94. These EQ scores are based on the initial assessment on the Emotional Intelligence Appraisal-Me Edition that was administered at the beginning of the training. The range of percentages of students making a final grade of D or F was 0 to 37%.
Table 4
Participant EQ and Student Achievement

<table>
<thead>
<tr>
<th>Participant Number</th>
<th>Overall EQ on initial assessment</th>
<th>Percent of students making D or F in 2011-2012 as a final grade</th>
</tr>
</thead>
<tbody>
<tr>
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<td>3</td>
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<tr>
<td>Averages</td>
<td>81</td>
<td>16</td>
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</table>
At the conclusion of this training module, the participants were given a post assessment using the Emotional Intelligence Appraisal-Me Edition. The average EQ for the participants on the post assessment was 83 (Table 5). The post assessment scores of the participants in this study were again reported. The researcher recorded each participant’s post assessment scores for overall EQ, along with the four domains of self-awareness, self-management, social-awareness, and relationship management from the appraisal reports (Table 5). The gender, age, and years of experience in the education profession were also reviewed. The age ranges used to report participants’ scores was as follows in years: 20-30, 31-40, 41-50, and over 51. The years of experience was reported in conglomerates of less than 5 years of experience, 6-15 years of experience, 16-25 years of experience, and over 25 years of experience.

There was one participant who scored in the range of 69 and below on the post assessment. In order to protect the confidentiality of the participant, the demographical data of that participant was not revealed.

There were six participants who had a post assessment overall EQ score in the range of 70-79 (Table 5). Four of the participants in this EQ range were males while two were females. Of the participants scoring in this EQ range, two had less than five years of experience in the education profession and the other four had more than 15 years of experience in the education profession. Two of the six participants scoring in this range were in the age range of 20-30 years of age, while four were in the age range of 40 participants were over 40.
There were 14 participants who scored in the post assessment overall EQ range of 80-100 (Table 5). Of the 14 participant scoring in this EQ range, five were males and nine were females. Seven of the 14 had less than five years of experience in the education profession, four participants had between 6-15 years of experience, and three of the participants had between 16 and 25 years of experience.

The four domains of self-awareness, self-management, social-awareness, and relationship management were reported in the categories of gender, age, and years of experience in the education profession (Table 5). The range of scores for all participants in the four domains on the Emotional Intelligence Appraisal-Me Edition post assessment were as follows (Table 5): 66-100 in the self-awareness domain, 63-99 in the self-management domain, 61-100 in the social-awareness domain, and 57-97 in the relationship management domain.

Participant scores for gender, age, and participant years of experience were also tabulated by the researcher for the post assessment scores. Female participants had a range of scores in the four domains as follows: 75-100 in the self-awareness, 69-99 in the self-management domain, 61-100 in the social-awareness domain, and 57-97 in the relationship management domain. Male participants had a range of scores in the four domains as follows: 66-91 in the self-awareness domain, 73-95 in the self-management domain, 64-90 in the social-awareness domain, and 67-95 in the relationship management domain.

Participant scores on the post assessment were reported according to age groups. The range of scores in the four domains among those participants who were
in the 20-30 years age group were as follows: 66-100 in the self-awareness domain, 71-99 in the self-management domain, 70-100 in the social-awareness domain, and 67-97 in the relationship management domain. Participants in the age range of 31-40 had a range of scores as follows: 97-9 in the self-awareness domain, 87-93 in the self-management domain, 87-100 in the social-awareness domain, and 87-93 in the relationship management domain.

Participants in the 41-50 age range had a range of scores in the four domains as follows: 72-91 in the self-awareness domain, 63-95 in the self-management domain, 61-90 in the social-awareness domain, and 57-87 in the relationship management domain. Participants in the age range of 50 and above years had a range of scores in the 4 domains as follows: 78-91 in the self-awareness domain, 69-89 in the self-management domain, 67-100 in the social-awareness domain, and 57-87 in the relationship management. On the post assessment, the participants scored the highest on the self-awareness domain, with an average score of 85 and the lowest on the self-management domain and social-awareness domain, with average scores of 82 respectively.

The average scores for participants on the post assessment in the four domains were (Table 5): 85 in self-awareness, 82 in self-management, 82 in social-awareness, and 83 in relationship management domain. The researcher also reported the average scores for the subgroups of participants by gender, age, and years of experience.

On the post assessment, female participants had an average score in the four domains as follows: 88 in the self-awareness domain, 81 in the self-management
domain, 84 in the social-awareness domain, and 83 in the relationship management domain. The average male scores on the four domains on the post assessment were as follows: 81 in the self-awareness domain, 85 in the self-management domain, 78 in the social-awareness domain, and 83 in the relationship management domain.

The researcher calculated the average scores on the four domains for the various age groups on the post assessment. The average scores for the 20-30 year old age group on the post assessment were as follows: 84 in the self-awareness domain, 83 in the self-management domain, 82 in the social-awareness domain, and 86 in the relationship management domain. The average scores in the 4 domains for the 31-40 year old age group were as follows: 98 in the self-awareness domain, 90 in the self-management domain, 94 in the social-management domain, and 90 in the relationship management domain.

In the 41-50 year old age group, the average scores for the four domains were: 84 in the self-awareness domain, 82 in the self-management domain, 78 in the social-awareness domain, and 82 in the relationship management domain. In the 50 and over age group, the average score for the 4 domains was: 83 in the self-awareness domain, 80 in the self-management domain, 82 in the social-competence domain, and 77 in the relationship management domain.

The data for participants' years of experience in the education profession were recorded in the four domains. For participants with less than five years of experience in the education profession, the averages are as follows: 84 in the self-awareness domain, 83 in the self-management domain, 84 in the social-awareness domain, and
87 in the relationship management domain. For participants with 6-15 years of experience in the education profession, the average scores in the 4 domains are: 92 in the self-awareness domain, 91 in the self-management domain, 93 in the social-awareness domain, and 88 in the relationship domain. Participants with 16 years of experience and more had an average score on the four domains as follows: 82 in the self-awareness domain, 77 in the self-management domain, 74 in the social-awareness domain, and 76 in the relationship management domain.
Table 5

Post Assessment Results

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<th>Participant Number</th>
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Table 5 Continued

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<th>Participant Number</th>
<th>Post Self-Awareness</th>
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<th>Post Personal Competence</th>
<th>Post Social-Awareness</th>
<th>Post Relationship Management</th>
<th>Post Social Competence</th>
<th>Post Overall EQ</th>
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</table>
There was a nine question survey (Table 6) that was distributed to 21 participants with 19 participants returning surveys. The survey was used to gather information about teacher perceptions of emotional intelligence as a skill to improve student grades. Results (Table 6) from the survey that was administered to the participants at the conclusion of the training were as follows:

- 2 of the 19 respondents had emotional intelligence training before they began the “Heart of Teaching” training. There were 7 of 19 respondents who indicated that they knew what emotional intelligence was before this training occurred.
- 7 of 19 respondents indicated that they knew what emotional intelligence was prior to the beginning of this training module.
- 19 of 19 respondents indicated that they now know what emotional intelligence is.
- 19 of 19 respondents indicated that they knew what the EQ was.
- 17 of 19 respondents indicated that they improved their emotional intelligence during this training.
- 5 of 19 respondents indicated that they knew the needs of all their students.
- 19 of 19 respondents indicated that “often” their emotional intelligence has an impact on the achievement outcomes of their students. There were 0 of 19 respondents who indicated “never”, “sometimes”, or “not sure” to this survey item.
- 19 of 19 respondents indicated that they could continue to improve their emotional intelligence.

Table 6

Survey

The Heart of Teaching: Using Emotional Intelligence to Improve Student Achievement Survey

(Please circle the appropriate response under each statement or question)

1. I have had emotional intelligence training prior to participating in this training.
   - Yes
   - No

2. Prior to this training, I could define emotional intelligence.
   - Yes
   - No

3. I can now define emotional intelligence.
   - Yes
   - No

4. Emotional intelligence training is important for school personnel to know and practice.
   - Yes
   - No

5. I know my EQ.
   - Yes
   - No

6. I improved my EQ during this project.
   - Yes
   - No

7. I know the needs of all my students.
   - Yes
   - No
Table 6 Continued

<table>
<thead>
<tr>
<th>The Heart of Teaching: Using Emotional Intelligence to Improve Student Achievement Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. My emotional intelligence has an impact on the achievement outcomes of all my students.</td>
</tr>
<tr>
<td>Never</td>
</tr>
<tr>
<td>9. I can continue to improve my emotional intelligence.</td>
</tr>
<tr>
<td>Yes</td>
</tr>
</tbody>
</table>

Only 37% of participants who responded to the survey indicated that they knew what emotional intelligence was before participating in the training while 89% of participants indicated that they had not participated in an emotional intelligence training before participating in the “Heart of Teaching” training module. 100% of the survey respondents indicated that their emotional intelligence “often” has an impact on the achievement outcomes (grades, attendance, behavior). There were 0 respondents who responded to this question with a response of “never”, “sometimes”, or “not sure”. 100% of the respondents to the survey indicated that they could continue to improve their emotional intelligence.
### Table 7
Initial Assessment versus Post Assessment

<table>
<thead>
<tr>
<th>Participant Number</th>
<th>Overall EQ</th>
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</table>
Table 7 Continued

<table>
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<th>Participant Number</th>
<th>Overall EQ</th>
<th>Initial Assessment</th>
<th>Post Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>72</td>
<td>72</td>
<td>72</td>
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<td>18</td>
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<tr>
<td>21</td>
<td>85</td>
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<td></td>
</tr>
<tr>
<td>Averages</td>
<td>77</td>
<td></td>
<td>83</td>
</tr>
</tbody>
</table>
Limitations

This study was a training module that lasted for sixth months. Bradberry and Greaves (2009) stated that most individuals can improve their emotional intelligence within six months of focused efforts on improvement. This project is an ongoing process of continuous improvement for each of the participants. The researcher would like to see if there are any changes in the EQ of participants at later intervals of time in the future to see if there is continued growth.

The participants each completed an appraisal of their emotional intelligence at the beginning of the project and then at the conclusion of the project. According to Choi, Kluemper, and Sauley (2010), researchers have expressed concerns about socially desirable responding when using self-reporting assessments, such as the one used in this project. Sjoberg and Engleberg (2004) found that self-reporting emotional intelligence testing is affected more by socially desirable responding in a high stakes situation. In this project, all the participants were volunteers and the test results remained confidential and were not used in any way as an evaluative tool for the researcher or any other person.

The researcher for this project also served as one of the building administrators for the participants in this study. The researcher is employed as an Assistant Principal at Letcher County Central High School. Each participant was individually administered the emotional intelligence appraisal.
All of the participants for this study volunteered to participate in the project and reserved the right at any time to withdraw from the study. Participant information was kept confidential and not disclosed at any time during the study.
Section IV

Analysis of Data

Research question 1 asked what relationship exists between teacher EQ and academic outcomes for his or her students. A paired t test was conducted to compare the participants’ (n=17) initial overall EQs and the percentage of students (n=17) who made a final grade in 2011-2012 of D or F. There was an extremely significant difference in the scores for participants’ EQ (M=76.29, SD=8.60) and percentage of students making a D or F (M=16.50, SD=10.94) conditions; t(14.5625)=15, p= <0.0001. These results suggest that a relationship exists between participant EQ and student achievement. Specifically, the results indicate that participants with higher EQs have lower percentages of students who make Ds or Fs as final grades.

Table 8

Group Statistics

<table>
<thead>
<tr>
<th>Group</th>
<th>Initial Overall EQ</th>
<th>Percentage of Students Making a D or F as a final grade in 2011-2012</th>
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<tbody>
<tr>
<td>Mean</td>
<td>76.29</td>
<td>16.50</td>
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<tr>
<td>SD</td>
<td>8.60</td>
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<tr>
<td>SEM</td>
<td>2.09</td>
<td>2.73</td>
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<tr>
<td>N</td>
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</tbody>
</table>

For this study, there was a negative correlation of -0.38 between the participant EQ and the percentage of students making a D or F as a final grade in the
2011-2012 school year. There was one anomaly, or outlier, that was observed (Table 9). The scores indicated that this particular respondent was greater than two standard deviations above the mean score (Table 8) for the group on the initial assessment. This participant had an EQ of 94 on the initial assessment and 29% of students making a grade of D or F in 2011-2012. Bradberry and Greaves (2009) reported that "just 20% of low performers are high in EQ" (p. 21).

The researcher analyzed the data with the outlier participant data included and excluded. By removing that EQ score, along with the percentage of students making a D or F as a final grade in 2011-2012 for that participant, yielded a negative correlation of -0.70 between participant EQ and percentage of students making a D or F as a final grade in 2011-2012.

The trend established on the scatter graph (Table 9) indicated that as EQ decreased the percentage of students making a D or an F as a final grade in 2011-2012 increased. This finding further suggests, along with the correlation, that there is a strong relationship between teacher EQ and student grades.
Research question 2 asked if a teacher/school staff can improve their emotional intelligence using the “Heart of Teaching” emotional intelligence training module, which used the Emotional Intelligence Appraisal-Me Edition to assess participant EQ. The average EQ of participants increased on the post assessment by 6 points. The initial assessment included an overall average EQ of 77 whereas the post assessment saw participants have an average of 83. 16 of 21 participants saw an increase on their overall EQ.

There were increases in the four domains on the post assessment. In the self-awareness domain, participants saw an increase of 5 points. The initial assessment
had an average score in this domain of 80 while the post assessment results had an average of 85 in the self-awareness domain. The self-management domain had an average on the initial assessment of 75 while the post assessment had an average of 82. The personal competency average on the initial assessment was 77 while the post assessment yielded a score of 82.

In the social-awareness domain, the initial assessment yielded a score of 78 while the post assessment yielded a score of 84. The relationship management domain had an initial assessment score of 75 while the post assessment saw an increase to 82. The social competency score for participants on the initial assessment was 77 and the post assessment score was 82.

There were five participants who did not improve their overall EQ on the post assessment. 15 of 21 participants saw an improvement in their overall EQ on the post assessment. One participant saw no change in the initial assessment and the post assessment.

Conclusions

Emotional intelligence training is a concept that is found predominantly in sectors other than education. With the information provided here regarding the relationship that exists outside the education profession, this is a concept that can assist educational professionals meet the needs of all students.

The “Heart of Teaching” was a module that trained participants on improving emotional intelligence. Participants were provided with an initial assessment of their EQ and a post assessment of their EQ using the Emotional Intelligence Appraisal-Me
There were improvements made for 16 of 21 participants on overall EQ. The averages for the group of participants also saw overall improvements in the 4 domains of emotional intelligence.

The analysis of data also showed a negative correlation existed between participant EQ and percentage of students making a D or F. The lower the EQ score the more probable that the percentage of students making a D or F as a final grade in the 2011-2012 school increased.

The findings from this project indicated that the benefits of providing educational professionals, including teachers, administrators, and others who work with students on a regular basis, was significant. At the conclusion of the training, a vast majority of participants were able to improve their emotional intelligences. In addition, the data suggested that the higher the participant EQ predicted a likelihood that the percentage of students making a grade higher than a D or an F would decrease.
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