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AN ACTION RESEARCH STUDY ON EMOTIONAL INTELLIGENCE IN A RURAL APPALACHIAN HIGH SCHOOL

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Abstract This article presents the findings from an action research project that attempted to determine if the emotional intelligence of a group of students in a rural Appalachian high school could be significantly increased over a two week period when participating in five emotional intelligence instructional lessons. The results found that the five lessons did change these students' emotional intelligence scores but the change was not statistically significant.

Keywords: Emotional Intelligence, Instruction, Self-Science, Six Seconds

Introduction

Emotional intelligence (EI) can be traced to Thorndike's (1920) and Kelly's (1955) social intelligence, Wechsler's (1940) non-intellectual intelligence, and Gardner's (1983) two subtypes of personal intelligence: intrapersonal and interpersonal intelligence. EI is the awareness and the ability to manage one's emotions under varying stimuli and circumstances and to efficiently and positively act upon the situation (Kobe, Reiter-Palmon, & Rickers, 2001). Our emotions not only affect our ability to think, perform, and act but how we address our emotional responses to conflicting stimuli defines who we are as individuals or how others perceive us (Mayer, Salovey & Caruso, 2000). An individual with high EI are more likely to successfully manage extrinsic stressors, as a person with a high EI will most likely possess the ability and discipline to assess situations and develop positive emotional responses rather than being impulsive and/or reacting negatively (Kobe et al., 2001).

Literature Review

There has been an increased interest among researchers to examine the role that personality plays in academic performance and socio-emotional adjustment at school (Mavroveli & Sanchez-Ruiz, 2011), as past research has shown that “EI can predict success at home, at work, and at school, as well as or better than IQ” (Goleman, 1995 found in Barchard, 2003, p. 840). According to Goleman (1995), the EI of children is lower than adults and thus could negatively impact their level of achievement academically and socially. The literature supports the general premise that EI plays some role in the overall success of an individual’s future success in areas that depend on social competency and personal interaction.

Researchers of EI have included variables (e.g. persistence, optimism, decision-making) based upon emotion and feelings, and participant reactions both verbally and nonverbally on all of the EI instruments (Barchard, 2003). “Openness (Intellect) and Conscientiousness, have been related to scholastic achievement...Conscientiousness effects on academic achievement are similar to that of intelligence” (Mavroveli & Sanchez-Ruiz, 2011, p. 113). There are four recognized EI models: 1) the personality model (Noftle & Robins, 2007; Grehan, Flanagan, & Malgady, 2011); 2) the competency model (Goleman, 1995); 3) the trait-based model (Bar-On, 2000); and 4) the ability model (Mayer, Caruso, & Salovey, 1997).

Methodology

Design and Purpose. This action research study used a pre/posttest emotional intelligence assessment as well as a teacher researcher created demographic and interest survey. The purpose of the research was to answer the following questions:

1. Is it possible to impact student emotional intelligence level or emotional quotient (EQ) over the course of two weeks?
2. What is the effect that Emotional Intelligence instruction has on student emotional intelligence (EI) level or emotional quotient (EQ)?

Context. Central Appalachian Kentucky along the Virginia border was the backdrop for the study. The area has a long history of employment in the primary sector (e.g. coal mining and timber products) and nearly 20% of the population works directly in those occupations. Thirty-three percent of school-age children live in poverty between the years of 2008 and 2012 (Kentucky Kids Count, 2014) and over 30% of the local population 25 or older do not have a high school diploma or its equivalent and less than 12% have a bachelor’s degree or higher. Over 50% of household incomes are generated through Social Security and Supplemental Security Income. The 2015 per capita income for the geographic area was \$17,242 which is just slightly higher than the individual federal poverty guideline amount of \$11,770. However, this description did not pertain to all of these participants, as 27% of the

participants reported their families' incomes to be between \$25,000 - \$35,000 while 55% reported their families' incomes to be between \$25,000 - \$75,000.

Participants. The 24 high school students (18 females and 6 males) were enrolled in an elective social studies class ranged from 9th to 12th grade students. The students' ages ranged from fourteen to eighteen. Ninety-five percent of the participants were Caucasian. Seventy-seven percent of the participants lived with at least one biological parent and half of them had lived in the same house for ten years or more. Additionally nearly one-third of the participants lived in a family of 5 or more.

The data responses from the demographic and interest survey provided a better understanding of the participants. The positive ideas, as seen below, showed that these students felt education was important, they planned schooling past high school, and they used technology for social networking:

- 95% of the participants planned on pursuing post-secondary education of some sort;
- 95% stated they participated in social networking (e.g. Facebook, Twitter, Instagram, and Snapchat, etc.)
- 91% had internet access;
- 86% responded that education was important to them;
- 86% had a smart phone;
- 77% planned to attend college; and
- 76% said they had a working computer at home.

However, there were also negative ideas reported which included the following:

- 76% responded that they spent too much time using technology;
- 76% reported they did not have a part-time job;
- 73% responded that they check text messages, emails, and social networks before they do anything else;
- 50% responded that they did their best in their classes or that they had a GPA 3.0 or higher.
- 49% answered that they used technology as a defense mechanism to block negative situations;
- 45% reported missing more than eleven days of school each year;
- 41% reported they lost sleep to use technology;
- 41% reported being tardy to school six times or more; and

- 23% responded that they neglected household chores to spend more time using technology.

Because students spend so much time on and with technology and use it to block negative situations, this may suggest that the participants lack acceptable emotional intelligence skills to cope with uncomfortable social situations. Additionally, attendance and work ethic appear to be a concern.

Instrumentation. Both surveys were completed using paper and pencil. On day one, the demographic information and an interest survey were given together as one survey and most of the findings were discussed under participant's session above.

On day two, the participants were given the EQ Self-Assessment (n.d.) pretest which measures the emotional intelligence level and was used to establish a baseline emotional quotient. The EQ Self-Assessment, which was developed by Attitude Words in Australia and had no reliability or validity scores available, has 20 items that uses a 5-point Likert scale from strongly agree to strongly disagree.

The 20-item statements were modified so they were appropriate for the classroom instead of the work place and used vocabulary that the participants could understand. For example, the original assessment asked the following questions:

1. If a co-worker or supervisor gets angry with me, I react by getting angry.
2. It is important to have time to socialize with co-workers.
3. If I bump into a co-worker away from work, I am often at a loss as to what to talk about outside of work.

The researcher modified the questions as follows:

1. If a peer or teacher gets angry with me I react by getting angry.
2. It is important to have time to socialize with peers.
3. If I bump into a peer away from school, I am often at a loss as to what to talk about outside of school.

The same EQ Self-Assessment survey was given to the students for the pretest. This allowed the researcher to determine if the 5 EI Lessons below had any impact.

Intervention: EI Lessons. The intervention consisted of a series of five lessons from the Self-Science Curriculum found at www.eqtoolbox.org. The Self-Science Curriculum is part of the Six Seconds emotional intelligence system that was developed based upon the work of

Mayer, Salovey, and Caruso as well as Goleman (Sei-yv assessors manual, 2012). The 5 lessons were presented over a two week period and focused on the EI components: self-awareness, self-regulation, motivation, empathy, and social skills.

The teacher researcher chose the Self-Science lessons because of their availability. During the search for existing resources and EI instructional activities, it was found that free emotional intelligence/social emotional learning (SEL) instructional activities were limited. The following 5 lessons were presented in the following order:

Lesson 1. The Empty Your Wallet, Pockets, or Purse (www.eqtoolbox.org) lesson focused on student's self-awareness. The online lesson plan provided the necessary directions to prepare the activity and directed the teacher researcher sequentially. All of the remaining lessons were presented from their respective online lesson plan. This lesson had students describe how their possessions describe who they are. Small groups were determined by having the participants number off 1-4, with all the "1: students in a group, all the "2" students in a group and so on. In their group, participants shared what they carried in their wallet, pockets and/or purse and why they carried these items. It was also determined by the group what these items told others about themselves. Additionally, the participants were also asked to visualize what they would have in their possession in five years as a part of goal setting.

Procedure:

1. Students were divided into groups of 4 or 5.
2. Students were asked to take personal items (i.e. cell phone, wallet) from their pockets, purse, and/or backpack to share with their group peers. Additionally, they were asked to describe each item and tell why they had it with them. (Participants were told that they did not have to share everything that they had in their possession.) Some items students chose to share were keys, lanyards, wallets, combs, brushes, cosmetics, change, money, papers, chewing gum, hard candy, pens, pencils, and nail clippers.
3. During the process of listening to other group members describe their items the participants were to complete notes on a graphic organizer.
4. Once every group member had completed their descriptions of their items, each group member was to determine what each of the other group members' habits, likes, dislikes, fears, and aspirations were based upon the items shared.
5. Once each participant had profiled the other group members they were allowed to ask clarifying question for greater details.
6. The culminating activity was for each participant to write a letter to the researcher describing what their items told the group about them. They were to also write about what they thought they would have in their wallet, purse, or backpack in a year and also five years.

7. Finally, the researcher led a whole group discussion. Some questions asked were:
 - a. Did you feel exposed when you shared your personal items?
 - b. Were there items that you did not feel comfortable sharing?
 - c. Did you learn anything about yourself from your personal items?
 - d. Did you learn anything about your group members from their personal items?
 - e. What will be in your pocket/purse/backpack when you are the person you want to be?
 - f. What will you have to do to accomplish this goal?

Lesson 2. The Naming Your Feelings (www.eqtoolbox.org) instructional activity focused on having students examine their individual and group vocabulary by describing feelings. The activity also promoted the concept that individuals can change their feelings if they are self-aware of their feelings. This lesson also involved Mayer, Caruso, and Salovey's (1997) areas of emotional thought and understanding which are paramount in self-regulation, empathy, and social skill development.

Procedure:

1. Prior to the participants entering the classroom the teacher-researcher projected on the projection screen in the front of the classroom a "feelings continuum": Angry-Upset-Sad-Calm-Indifferent-Bored-Happy-Excited.
2. The initial class discussion question presented to the participants as the session began was "How are you feeling today?" When students responded without detail (i.e. "fine") a discussion was held about why we answer that way even when there are things bothering us.
3. Next, have the participants indicate where their feelings are on the "feelings continuum" on their paper. Have them add any word they believe better describes their present feelings.
4. Then have the participants set a goal of how they would like to be feeling in an hour and at the end of the day. The participants were asked to discuss how they could accomplish these goals.
5. The following guiding questions were asked:
 - a. What did we just do? (Becoming aware of our feelings and thinking emotionally to set goals).
 - b. Are feelings easy or hard to discuss? What makes them hard to talk about?
 - c. How do you know when you are feeling a feeling? Can you stop or change your feelings? Can you increase your feelings?
 - d. What are some lessons you have learned from today?
 - e. Where else could you use what you have learned today?

6. Finally, the culminating activity was to have the participants individually list all of the feeling words they could think of and list them on their paper. Once adequate time had elapsed the feeling words were written on the board. The collection of feeling words was discussed and the participants were asked how writing the words down made them evaluate their feelings.

Lesson 3. The third lesson, *Watch Your Words* (www.eqtoolbox.org), focused on the impact the words we say have on others. It focused on “killer statements” that individuals have a tendency to say and not realize the effect that these statements have on those around them. Part of the exercise is to do a cost/benefit analysis of what we say and the establishment of ground rules in different groups and social settings. The objectives of this lesson were self-awareness and self-regulation, which correlate with Mayer et al. (1997) areas of emotional perception, understanding, and management.

Procedure:

1. Once the participants were seated and the session had begun the teacher-researcher defined what a killer word or statement was. Participants were then told, “Everybody stand up. When I say ‘Go’, all of you say or shout the killer statements you have held in until now. Use all of the killer gestures, sounds, and words you want. You can talk to your neighbors, the air, the whole group, your chair, or whatever feels most comfortable to you.” Remind the participants that they are in a classroom and to refrain from profanity and the use of racially/ethnically derogatory statements.
2. Once the participants shared their killer words the participants were instructed to sit and discuss the following:
 - a. What were your feelings as you were saying your killer statements and making your gestures? What or how did you feel after you made them?
 - b. Are killer statements put-downs, or insults? Explain.
 - c. How does it make you feel when someone directs a killer statement at you? How does it make you feel when you direct a killer statement at someone else?
 - d. Why do you think people make killer statements? Why do you?
 - e. Have the participants make a T-chart with the heading of the left column “Negative” and the right column “Positive”. Have students create a list of all the words and phrases that they and others use as “put-downs” or to negatively judge them and place those words in the left column of their paper. Then have the students use the right column to list words that are positive and used to praise and respect others.
 - f. Once they have completed their lists students answered the following:
 1. How long is each list?

2. Which group is more in use?
 3. Is there anything good about using the negative words and phrases?
 4. Which ones particularly get to you?
 5. How often do you hear them in this class? In school? Out of school?
 6. If no one in this class made any killer statements or put-downs for the rest of the week, what would happen? What would you personally get out of such a truce? What would you or the class lose?
 7. What would happen if everyone stopped making killer statements? What would be some of the benefits of that? What are some costs to that?
 8. Is it important to perceive and understand the social setting when determining the way we are expected to interact?
- g. The participants were then asked to complete a reflection on what they had learned about themselves, their peers, and how they could better manage their emotions.

Lesson 4. The fourth lesson, *Trust Thermometer* (www.eqtoolbox.org) is like a rating scale – it provides a quick check for individuals and the group and then leads to a group discussion. The objective of this lesson was self-awareness and correlates with Mayer et al. (1997) areas of emotional perception and emotional understanding. The rating is based upon the individual participants perception of their level of trust they possessed based upon the question. It was not a scientific rating scale or one with a rubric; just their individual judgment. The participants were asked to consider their level of trust in different social settings. After examining their individual levels of trust, the participants were asked to reflect on what shaped their level of trust. Next, the whole group discussion focused on several areas, from how the students chose to participate in the activity to why some people are more trusting than others and to specific questions about how to increase trust in people. This activity took an abstract concept and made it visible. Trust is generally developed over time.

Procedure:

1. Instructed the participants move all of the desks, chairs, tables, etc. out of the center of the room to one of the adjacent walls giving the participants as much room to move forward as possible.
2. The participants were instructed to line-up along a wall that gave them the greatest room to move forward.
3. The participants were instructed for each statement that they heard to take zero steps for a situation they did not have trust, one step for some trust, two steps for average trust, three for a high level of trust, and four steps for complete trust. These were also written on the board so students could use for a quick reference.
4. Read the following scenarios to the participants:

- a. Your best friend asks to borrow \$5. Do you think you will get the money back?
 - b. Your best friend asks to borrow \$50. Do you think you will get the money back?
 - c. You are at lunch in the cafeteria.
 - d. Your best friend wants to blindfold you and take you someplace in school. Would you go?
 - e. Your best friend wants to blindfold you and take you someplace in the car. Would you go?
 - f. A club from school wants to blindfold you and take you someplace in school. Would you go?
 - g. A club from school wants to blindfold you and take you in a bus. Would you go?
 - h. Some friend asks you who you want to ask on a date. Would you tell them?
 - i. Because of your skills, your teachers want you to go to a math/music/chess or similar competition. Would you go?
 - j. Your coach wants you to try out for another sport. Would you do it?
5. The participants were to reflect on each of the following questions:
- a. What happened for you in this activity?
 - b. What were some of your thoughts, feelings, and actions?
 - c. In what ways was this activity an accurate depiction of your level of trust?
 - d. How were you influenced by your peers?
 - e. What are the effects of competition at our school? How does competition affect trust?
 - f. What is it that your best friend does, or allows you to do, that makes you so comfortable with him/her?
6. After completing the reflection on each of the questions in number five facilitated whole group discussion on their reflective responses. Participants could visualize their level of perceived trust and compare that level to their fellow participants.
7. Teaching how to assess trust:
- a. Check your body: When you think of a person or situation, what is happening with your body? Are you fidgeting, tense, in pain, etc.?
 - b. Check your heart: How do you feel emotionally? Are you happy and excited?

- c. Check your mind: What do you think rationally? Given what you think, is trust reasonable?
- d. Check your intuition: If you had to decide this second without thinking, would you trust?
- e. If you answered “yes” to all four situations then it is most likely you trust or can trust this individual or situation. If you answered “no” to any of the situations then you may need to examine the person/situation and proceed with caution.

Lesson 5. The fifth and final lesson, *Celebrate New Goals* (www.eqtoolbox.org), caused the participants to consider the characteristics of someone that they considered to be a great influence on society. The activity required the participants to consider actions, morals, behaviors, and the impacts of actions. The students examined if change is caused externally or internally. The objectives of this lesson were self-awareness, self-regulation, and empathy that correlate with Mayer et al. (1997) areas of perceiving emotions, understanding emotions, and emotions facilitating thought.

Procedure:

1. Each participant or small group was to identify a person who in their opinion is a positive role model and identify one of his/her key attributes that the participants would like to emulate.
2. In the small group the participants were asked to make a list of actions and/or behaviors that demonstrate that attribute.
3. Each participant or group was instructed to make a pledge to try out the action that they selected for at least one day. The pledge can be between the participants and the researcher or between participants. It should include the actions each person will take, the expected results (internal and external), and a date on which the parties will communicate their progress and findings.
4. The researcher encouraged the participants to check off the actions every day that they perform them. They are also allowed to add to their list of actions and even new attributes.
5. Discussion questions when we came back from the weekend were (can be any appointed time in the future) :
 - a. Which comes first, internal changes or external changes?
 - b. Who is responsible for each kind of change?
 - c. How do you decide if you meant to change or if you were pushed to change?
 - d. Does changing yourself change other people?

Data Analysis. At the end of two weeks, after the 5 lessons were completed, students repeated the EQ Self-Assessment. The pre/posttest were compared utilizing the Wilcoxon

Matched-Pair Signed-Rank test (PROPHET StatGuide, n.d.) to determine if the EI instructional component (5 lessons) may have had a statistically significant impact on student individual EQ

Results and Discussion

To answer research question 1, Is it possible to impact student EI levels or EQ over the course of two weeks, the Wilcoxon Matched Pairs *t*-test was used to determine if there was an impact from the 5 EL lessons. As seen in Table 1, there was a change in mean scores from a pretest score of 26.5 to posttest 27.3. As there is a mean difference we can show that in only 2 weeks, one's EI scores can be impacted through EL lessons.

To answer research question 2, "What is the effect that EI instruction has on student EI levels on their EQ scores", again the Wilcoxon Matched Parted *t*-test was used and reported in Table 1. There was a difference in the mean scores but the Wilcoxon ($W(19) = 83, p > .05$, two-tailed test) suggested that the change was not a statistically significant. Additionally, upon closer examination of these scores the results show that these five EI lessons did changed EQ scores as positively, negatively or not at all. As seen in the Table 1, 11 students EI scores increased, 8 students' scores went down, and 5 students' EQ scores stayed the same.

Table 1: EQ Self-Assessment Scores and Wilcoxon Analysis

| Pair | Pre-Test | Post-Test | Difference | Absolute Difference | Rank |
|------|----------|-----------|------------|---------------------|------|
| 1 | 31 | 38 | 7 | 7 | 11 |
| 2 | 28 | 28 | 0 | | |
| 3 | 16 | 10 | -6 | 6 | 6.5 |
| 4 | 42 | 20 | -22 | 22 | 19 |
| 5 | 21 | 21 | 0 | | |
| 6 | 31 | 37 | 6 | 6 | 6.5 |
| 7 | 9 | 15 | 6 | 6 | 6.5 |
| 8 | 48 | 41 | -7 | 7 | 11 |
| 9 | 36 | 33 | -3 | 3 | 2.5 |
| 10 | 22 | 2 | -20 | 20 | 17.5 |
| 11 | 19 | 31 | 12 | 12 | 13.5 |
| 12 | 28 | 28 | 0 | | |
| 13 | 6 | 6 | 0 | | |
| 14 | 16 | 10 | -6 | 6 | 6.5 |
| 15 | 34 | 37 | 3 | 3 | 2.5 |
| 16 | 40 | 28 | -12 | 12 | 13.5 |
| 17 | 38 | 54 | 16 | 16 | 16 |

| | | | | | |
|-----------|----|----|----|----|------|
| 18 | 35 | 55 | 20 | 20 | 17.5 |
| 19 | 14 | 8 | -6 | 6 | 6.5 |
| 20 | 44 | 45 | 1 | 1 | 1 |
| 21 | 14 | 20 | 6 | 6 | 6.5 |
| 22 | 5 | 12 | 7 | 7 | 11 |
| 23 | 53 | 53 | 0 | | |
| 24 | 7 | 20 | 13 | 13 | 15 |

Total (n = 24; Wilcoxon Matched Pairs Rank n = 19)

W = 83, z = -0.483, p (z) = 0.629

Wobt = 83 > 54 Wcrit (Two-tailed test)

Pre-test = 26.54; Post-test = 27.17

St. Dev. Pre-test = 13.98, St. Dev. Post-test = 15.66

The literature suggests that if EI matters (Goleman, 1997) and can be improved through EI instruction, then it is likely that higher emotional intelligence will lead to more positive behaviors and self-awareness (Durlak et al., 2011; Goleman, 2000; Mayer, Caruso, & Salovey, 1997). Additionally, Elias and colleagues (1997) stated that emotions can either positively or negatively affect children's intellectual development, motivation, evolution of their work ethic, and their eventual academic and work success. Therefore, it is important that schools help students develop both cognitively and emotionally (Durlak et al, 2011; Goleman, 2000).

Thus, the teacher-researcher sought to help these students build their emotional levels by including 5 EI lessons into the curriculum. The pretest showed that these 9th-12th grade students had very low emotional levels on the pretest, as the highest EQ score recorded was a 53 out of a possible 100. And even when the mean increased from pretest to posttest, the highest posttest score was 55 out of a possible 100, which is still low.

The results of the pre/posttest showed that 11 (46%) of the student participants' scores from pretest to posttest increased. The data also showed the 8 (33%) of the student participants' scores decreased while 5 (21%) of the student participants showed no change in their scores. The data suggests that these 5 EI lessons taught over a period of 2 week did have a positive impact on 11 students in increasing EQ scores. However, the data also showed that one-third of the participants' posttest scores decreased. This is not surprising because as students become more aware of EI and its impact on themselves and others, individuals may evaluate themselves either more optimistically or more critically.

It is important to help these students build their EI (Goleman, 1997) and these lessons did make a difference and provided a visible way for these students to understand self-

awareness, self-regulation, motivation, empathy, and social skills. However, learning to apply these lessons takes time and until one has time to internalize and use the knowledge learned, it appears that students are getting worse instead of better (Goleman, 2000).

Limitations

There are several limitations that must be kept in mind as this discussion is read. First, this was an action research study and thus the findings are not necessarily comparable to other populations. Second, the study was conducted with a convenience sample and not randomization. Third, the assessment instrument lacked valid and reliable psychometrics but was deemed sufficient by the teacher-researcher for this project. Fifth, the study used self-reported data using a 5-point Likert scale. Sixth only 5 EL lessons were conducted over the course of 2 weeks. Finally, this was a small number of participants from the Appalachian Kentucky where there is a historic, generational poverty.

Conclusion and Recommendations

If this study was to be replicated, it is recommended that the study be conducted over a longer time span, as two weeks was not enough time for these students to really build a strong understanding of EI. Additionally, the participants needed more time for both applications of the lessons as well as reflection of emotional intelligence techniques in order to build better self-awareness, self-regulation, motivation, empathy, and social skills. Furthermore, it is recommended that a reliable and valid assessment instrument be used, preferably an online instrument with included data analysis. Finally, discussions need to occur with students so they do not stress when their scores go down, as this is part of the learning process.

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References

- Barchard, K. (2003). Does emotional intelligence assist in the prediction of academic success? *Educational and Psychological Measurement* 63(5), 840-858.
- Bar-On, R. (2000). Emotional and social intelligence: Insights from the Emotional Quotient Inventory (EQ-i). In R. Bar-On & J.D.A. Parker (Eds.), *Handbook of Emotional Intelligence* (pp. 363-388). San Francisco: Jossey-Bass.
- Durlak, J., Weissberg, R., Dymnicki, A., Taylor, R. & Schellinger, K. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, 82(1), 405-432.
- Elias, M., Zins, J., Weissberg, R., Frey, K., Greenberg, M., Haynes, N., et al. (1997). *Promoting social and emotional learning: Guidelines for educators*. Alexandria, VA: Association for Supervision and Curriculum Development.
- EQ Self Assessment for Managers (n.d.). Retrieved from <http://www.attitudeworks.com.au>
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York City, NY: Basic Books.
- Goleman, D. (1995). *Emotional Intelligence: Why it can matter more than IQ*. New York: Bantam Books
- Goleman, D. (1997). *Emotional Intelligence: Why it can matter more than IQ*. New York City, NY: Bantam Books.
- Goleman, D. (2000). *Working with Emotional Intelligence*. New York City, NY: Bantam Books.
- Grehan, P. M., Flanagan, R., & Malgady, R. G. (2011). Successful Graduate Students: The Roles of Personality Traits and Emotional Intelligence. *Psychology in the Schools*, 48(4), 317-331. doi:10.1002/pits.20556
- Kelly, G. (1955). *A theory of personality: The psychology of personal constructs*. New York City, NY: Norton.
- Kobe, L., Reiter-Palmon, R., & Rickers, J. (2001). Self-reported leadership experiences in relation to inventoried social and emotional intelligence. *Current Psychology*, 20(2), 154-163.
- Mavroveli, S. & Sanchez-Ruiz, M. (2011). Trait emotional intelligence influences on academic achievement and school behavior. *British Journal of Educational Psychology*, 81(1), 112-134.
- Mayer, J., Caruso, D., & Salovey, P. (1997). Adults are better at emotional intelligence than adolescents. Emotional Intelligence Meets Traditional Standards for an Intelligence. Unpublished Manuscript. Published in 1999 in *Intelligence*, 27, 267-298.
- Mayer, J., Caruso, D., & Salovey, P. (2000). Selecting a measure of emotional intelligence: The case for ability scales. In R. Bar-On & J. D. A. Parker (Eds.). *Handbook of emotional intelligence* (pp. 320-342). San Francisco: Jossey-Bass.
- Noftle, E. E., & Robins, R. W. (2007). Personality predictors of academic outcomes: Big Five correlates of GPA and SAT scores. *Journal of Personality and Social Psychology*, 93(1), 116-130.
- PROPHET StatGuide: Two-sample paired (Wilcoxon) signed rank test. (n.d.). Retrieved September 10, 2014, from http://www.basic.northwestern.edu/statguidefiles/srank_paired.html (2012).
- Sei-yv assessors manual*. (Vol. 2, updated 1/23/2012, pp. 1-66). Six Seconds the Emotional Intelligence Network: retrieved from: www.6seconds.org/tools.
- Thorndike, E. (1920). Intelligence and its use. *Harper's Magazine*, 140(1), 227-235.
- Wechsler, D. (1940). Non-intellective factors in general intelligence. *Psychological Bulletin*, 37(1), 444-445.