

Emotional Intelligence And Academic Achievement

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ABSTRACT

The ability of self-control of emotions is an important matter. A high emotional intelligence helps maintain a state of harmony in oneself and be more confident in dealing with the challenges of living and learning in educational institutions. High emotional intelligence can contribute to pupils' learning process. This study sought to determine the following: (1) levels of the dimensions of emotional intelligence self-awareness, self-management, motivation, empathy and social skills; (2) relationship between the emotional intelligence and academic achievement; (3) relationship of emotional intelligence and academic achievement considering grade level. A total of twenty-eight Grades 4 and 5 pupils of Baluarte Elementary School are subjects of the study. Data gathering utilized a researcher-made questionnaire designed to gather data for the demographics and objectives of the study. General Average from the first and second grading grades as the basis, was collected from the teacher of the respective grade levels. After ascertaining validity and reliability, results are reported as follows: Emotional intelligence is described as Average with a mean of 3.13. Among the dimensions of emotional intelligence, the pupils scored High in the dimensions empathy and social skills. Over-all, emotional intelligence is not considered predictive to academic achievement among children.

Keywords: Emotional intelligence, Academic performance, Self-awareness, Self-regulation, Motivation, Empathy, Social skills, Grade level

INTRODUCTION

There are skills important to academic achievement for achieving better employment and greater personal, academic and social welfare. In the teaching profession, teachers must not only focus to the academic achievement of the pupils but they should also be sensitive to their pupils' feelings. Learners also have their own emotions because they too, are human beings. Emotional intelligence can help teachers monitor their learners.

An increased interest in research in the area of emotional intelligence has led to a quest for a strong empirical case connecting the measurement of social and emotional learning programs that teach emotional intelligence to improved school behavior and academic performance. Recent brain research has defined emotional intelligence as a measurable connection in the human brain between responses to emotions and their influence on one's actions (Bradberry and Greaves, 2005).

The measure of a learner's intellect is not only based on cognitive intelligence but in emotional intelligence as well. Doing actions is based on the emotions that are felt. In the academic field, learners also use these feelings and emotions toward their actions in their respective academic life. The learner also acts humanly; may also feels happy, sad, excited and other emotions. These emotions can help the learner's academic performance in a positive or negative way.

With the rapid development in this century's challenging times, school students and the general public, face the wave of globalization and secularism as well as various challenges (Azizi et al., 2012).

CASEL (2006), in its implementation guide for evidence-based social and emotional learning programs, suggested that excellent programs are characterized by two levels. The first level establishes safe, caring, well-managed learning environments that lead to greater student attachment to school, less risky behavior on the part of students, and better academic performance. The second level supports positive student development and greater academic success through instruction in a range of social and emotional competencies.

Zins et al. (2000) argued in a review of the research that social and emotional learning may be the enabling component that fosters academic success. Research suggests that the "missing piece" in promoting academic achievement is educational programming that integrates social emotional learning into the curriculum of the school (Elias et al., 2002). Quality programs have been linked to improved academic performance through the development of student

emotional intelligence competencies (Elias and Arnold, 2006).

Emotional Intelligence has five (5) dimensions: self-awareness, self-management, motivation, empathy and social skills. These emotions are all about handling self-emotions and the emotion of others. Self-awareness is the ability to recognize and interpret feelings, while handling emotions is the ability to take responsibility for one's action. Motivation is the setting of the short and long term goals; it is also a drive for strong efforts toward achievement. Empathy is the ability to recognize and understand other people's feelings and emotions. Lastly, the social skills consist of the ability of having leadership and the collaboration of one's self towards others.

This research is limited to Grade 4 and 5 pupils enrolled at Baluarte Elementary School during SY 2012-2013. It is also limited to the use of Grade Point Average of the pupils from First Grading to Second Grading of S.Y. 2012-2013 as a reflection of their academic achievement. In determining the pupils' emotional intelligence, a researcher-made questionnaire modified from Paul Bennett in a Likert scale flow was used. Pupils' level of emotional intelligence has been determined to find out if it has a relationship towards the pupils' academic achievement.

FRAMEWORK

This study was anchored on theory of Emotional Intelligence by Daniel Goleman (1998). There are five dimensions of the Emotional Intelligence: (1) self-awareness, (2) self-management, (3) motivation, (4) empathy, and (5) social skills. Knowing emotions and self-awareness are the skills to comprehend a feeling when it occurs within the self. Managing emotions involves self-regulation that is the ability to control emotions appropriately. Recognizing emotions in others includes the skill to understand and recognize the social signals in others. Last, social skills involve handling relationships with others.

Self-Awareness is very important in pupils' academic achievement since it recognizes and interprets feelings. According to the study of Azizi et al (2012), Self-awareness is to inform themselves of interest to identify feelings and how it affects performance. This self-awareness is the key to sensitize a person of strength and weakness. This self-awareness allows one to obtain self-confidence. Malecki (2002) agreed that emotional health is fundamental to effective learning. Understanding how students learns is the most critical element of a learner's success. Student with self-awareness and intrinsically motivated will definitely

have very high level of academic performance.

Self-management also plays a big role in the pupils' academic achievement; contribution of emotional management to academic performance is also supported by research done by Hastings (2000). The results suggest that better educational outcomes might be achieved by targeting skills relating to emotional management and problem-focused coping.

Motivation is also believed to be a factor for pupils' improved performance in school. The finding supported in the study of Fatum (2008) clearly shows motivation and empathy were predictive of academic achievement. Empathy also helps the pupils develop a keen sense awareness towards others which can help his/her understanding.

Lastly, having good social skills helps the pupil develop good communication. This finding is supported by Hayward (2011), who proposed that emotional intelligence enables the students to develop good interpersonal relationship and to have social support which also help students to perform well in their examination.

In terms of academic achievement, teachers assess pupils' early academic skills, which include basic literacy (e.g., being able to recognize letters, phonemic awareness) and numeracy abilities (e.g., knowledge of numbers and understanding the order of numbers) that position a child to learn from formal instruction. Learning-enhancing behaviors include attending to classroom activities, following classroom rules, working cooperatively in groups, and persisting at academic tasks. Socio-emotional competence encompasses a broad range of skills and abilities, including being able to identify and express emotions, engage in adequate self-regulation, and develop positive relations with peers and teachers.

There are other factors contributing to pupils' academic achievement. In the study of Habibullah & Ashraf (2013), it was found that better socio-economic condition, habit of taking breakfast, better condition of school, and regular attendance were significantly associated with better school performance. Socio-economic, psychosocial, school and home environment and student's own factors, affected their academic achievement. In addition, academic achievement is strongly associated with pupils' cognitive abilities, which capture most of the variation in the individual specific cognitive outcome measures. Working memory, visual spatial skills, and learning together stood out as the best combination to predict academic performance (Bangirana et al., 2013).

Figure 1 shows the interplay of independent and dependent variables. The independent variables of the study are the pupils' Emotional Intelligence which is categorized under five dimensions: self-awareness, self-regulation, motivation, empathy and social skills. The dependent variable of this study is the pupils' academic performance. This study aims to relate the Baluarte Elementary School's Grade 4 and 5 pupils' emotional intelligence to their academic achievement.

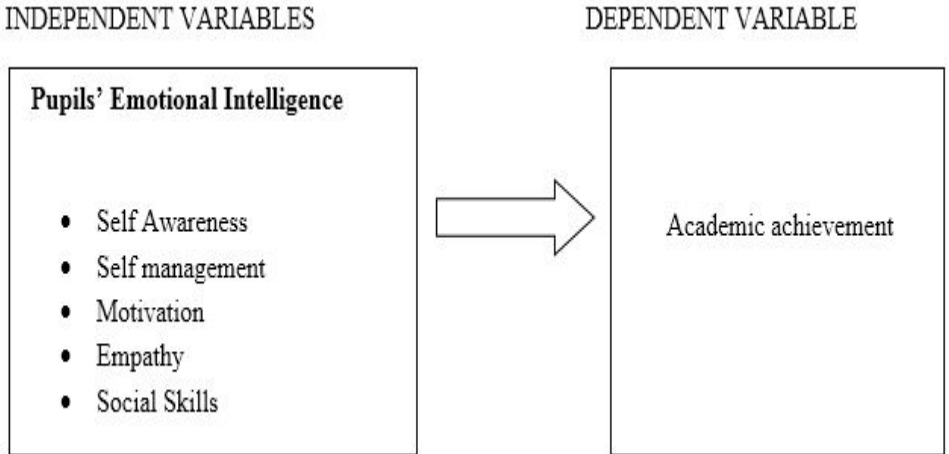


Figure 1. The Schema of the study showing the relationship between the independent and dependent variables

OBJECTIVES OF THE STUDY

The study sought to determine the following objectives: (1) to describe the pupils' emotional intelligence in terms of their (a) self-awareness, (b) self-management, (c) motivation, (d) empathy and (e) social skills; (2) to identify the relationship between pupils' emotional intelligence and academic achievement; and (3) to determine the relationship between emotional intelligence and academic achievement considering grade level.

METHODOLOGY

This study used the quantitative (descriptive) method of research attempted to describe the relationship between the Emotional Intelligence and Academic achievement of the Grades 4 and 5 pupils of Baluarte Elementary School. Each dimension of emotional intelligence: self-awareness, self-management, motivation, empathy and social skills of the pupils were considered to relate to their academic achievement. This study also conducted to determine the relationship of emotional intelligence to academic achievement considering grade level.

Validity of Instrument. The researcher made use of a questionnaire anchored on Bennett (2013) in a Likert scale flow. Rigorous review of the questionnaire were done by experts from the XU Guidance Office. The questionnaire has been modified to contextualize the pupils. The questionnaire was also pilot tested to 10 pupils and the reliability index is 0.7. Therefore the instrument is reliable.

The school is located at Barangay Baluarte, Lumbia Southwest District of Cagayan de Oro City. There are a total of 28 respondents, 13 from Grade 4 and 15 from Grade 5.

In terms of statistics, correlation was used to determine the relationship between emotional intelligence and academic achievement. Regression was used to determine the relationship of emotional intelligence and academic achievement considering grade level.

RESULTS AND DISCUSSION

This section presents the discussion of the results following the flow of the objectives of the study.

The description of the pupils' level of emotional intelligence

Table 1 displays that pupils have Average level of emotional intelligence. The standard deviation indicates that there is less variation in their emotional intelligences. Among the dimensions of emotional intelligence, pupils have High levels in empathy and social skills. By empathy, this means that they listen to views of their peers, acknowledge their feelings and take into account the input received from others when making a decision. Social skills mean that they are able to seek mutual understanding, collaborate, share information, resources and maintain personal friendships among classmates.

Table 1. Pupils' level of emotional intelligence (n=28)

Dimensions of Emotional Intelligence	Mean	Description
Self-awareness	2.67	Average
Self-management	2.97	Average
Motivation	3.17	Average
Empathy	3.34	High
Social skills	3.49	High

Mean = 3.13 Average Standard deviation 0.15

Results show that the Overall Emotional Intelligence of the pupils is Average. This results implies there are things that pupils need to progress such as perceiving one's emotions, to access and generate emotions so as to assist thought, and also, to understand emotions of others and emotional knowledge, as well as to reflectively regulate emotions that would promote emotional and intellectual growth. Pupils have an average abilities on recognizing and controlling "one's own feelings" (Self-awareness) as well as knowing "his strengths and weaknesses." They are not entirely in control of themselves when angry. They have limited capabilities of keeping one's self from disruptive emotions and impulses in check. (Rissanen, 2010).

Mayer and Salovey (2004) supported the theory of Goleman (1995) on emotional intelligence. Knowing one's emotions involves self-awareness in recognizing a feeling as it happens. Managing emotions refers to the ability to handle feelings, to self-soothe, and to deal with negative emotions. Individuals who demonstrate this skill bounce back much more quickly from life's difficulties. Motivating oneself involves utilizing emotions to pay attention, to delay gratification, and to achieve mastery. Recognizing emotions in others, an ability often labeled as empathy, builds emotional self-awareness. Recognizing others' emotions is the first step to good relationships with others and includes active listening to others and an ability to understand another's perspective and feelings. Handling relationships, the final step in this theoretical approach involves managing emotions in others. This emotional intelligence ability is often referred to as social competence. Goleman (1995) suggested that emotional intelligence programs that focus on enabling children to recognize, name, and navigate emotions, improve children's academic achievement.

Results also show that pupils have High Empathy and Social skills. Izard (2001) found that individuals with higher scores for emotional intelligence had higher scores for social skills, empathic perspective taking, and self-monitoring; and displayed more cooperative responses toward partners.

The relationship between emotional intelligence and academic achievement

Table 2 displays the correlation coefficients of the dimensions of emotional intelligence and academic achievement. Self-awareness and social skills resulted to a positive correlation coefficients of (0.20) and (0.03) respectively. The T values of these two are 1.03 and 0.22 and both are not significant. On the other hand, self-management, empathy and social skills resulted to a negative correlation coefficients (-0.20), (-.10) and (-0.04) respectively. The T values of these three are 1.06, 0.54 and 0.22 and all are not significant. Thus, in this study, in no way is emotional intelligence related to the academic achievement of the pupils.

Table 2. Correlation Coefficient Between Dimensions of Emotional Intelligence and Academic Achievement (n=28)

Dimension	r value	Test of Significance of r
Self-awareness	0.20	T= 1.03 ns
Self-management	-0.20	T= 1.06 ns
Motivation	0.03	T= 0.13 ns
Empathy	-0.10	T= 0.54 ns
Social Skills	-0.04	T= 0.22ns
Over all	0.0046	T= 0.02 ns

Legend: ns – not significant
 * Significant
 ** Highly significant

Results also show that emotional intelligence had no significant relationship to academic achievement. This result is supported by the study of Bradeberry (2005), settled the insignificant relationship between the self-concept among primary level pupils to their academics. Maroveli and Sanchez-Ruiz (2010) also investigated the relationship between trait emotional intelligence and academic achievement wherein the pupils did not show improvements in their academic performance. Several theoretical perspectives have been proposed to explain the association between emotion and cognition. In this study, emotional

intelligence can be understood as the ability to identify, understand, and assess the emotions of oneself and others to achieve one's cognitive objectives and promote overall individual growth. In fact, Goleman (2008) established the importance of emotional intelligence as a basic requirement for the effective use of one's IQ, that is, one's cognitive skills and knowledge. He made the connection between children's feelings and thinking more explicit by pointing out how the brain's emotional and executive areas are interconnected. However, Maroveli and Sanchez-Ruiz (2010) investigated the relationship between trait emotional intelligence and academic achievement wherein the pupils did not show improvements in their academic performance.

On the other hand, this result is contradicted by the study of Fatum (2008) which supports the relationship of emotional intelligence and academic achievement. For self-management, results also contradicts the study conducted by Zins et al. (2004), which states that there is actually a significant relationship between self-management and academic achievement. For motivation, pupils' aspect of self-motivation stands to be a guide on how they decide through their academic achievement. It shows pupils' self-efficacy beliefs and academic goals. Probably, pupils show minimal capability to manage and perform orderly in class with the consideration of their set academic goals.

For empathy and social skills, the ability of pupils to be aware on others emotion does not affect nor influence their school performance as a whole. However, their capacity to recognize emotions that are being experienced by another person creates a lessened connection to their academic achievement. Malecki and Elliott (2002) continued investigating the relationship between social behaviors and academic achievement and concluded that prosocial skills positively predict future academic achievement. Hastings et al. (2000), in a study measuring the development of concern for others in young children, supported the conclusion that prosocial skills predict future academic achievement.

With these results, everyone in the school should be involved in integrating emotional intelligence and reflecting on it formally and informally to allow students to process the information and utilize the skills learned in their daily lives. Parents should receive a short training on emotional intelligence as well to ensure the continuity of applying the values of the Self-Science program at home to promote emotional intelligence. (Salman-Nasser, 2014).

In terms of education management, research on emotional intelligence seems to indicate that emotional intelligence can be modified through implementing school programs that aim to develop students' self-awareness and well-being.

Through the development of oneself, individuals learn to understand their inner selves and to respond to others in a positive manner. If the application of programs that enhance the development of emotional intelligence. Results of the study of Ogundokun and Adeyemo (2010) showed that emotional intelligence is strongly and positively correlated with academic achievement. Thus, a student who has the ability to regulate his/her feelings can manage stress or fear during an exam, thus increasing his/her chances for success; a student with interpersonal skills will not hesitate to ask the teacher or a peer for help.

Lastly, Durlak et al. (2011) noted that schools that care about teacher student relationships, encourage cooperative learning, foster student well-being, and provide a safe learning environment are more likely to attain better school performance and accomplish individual growth. In fact, children who are well regulated emotionally may be better able than other children to elicit behavior from others that promotes learning and more likely to be perceived by their teachers as attentive and cognitively advanced (Garner, 2010).

The relationship between emotional intelligence and academic achievement considering grade level

Table 3 shows the correlation coefficients of the dimensions of emotional intelligence and academic achievement considering grade level. For both Grades 4 and 5, self-awareness and social skills resulted to positive correlation coefficients. Also, for both grades 4 and 5, self-management resulted to negative correlation coefficients. However, for Grade 4, motivation and empathy resulted to positive correlation coefficients while for Grade 5, motivation and empathy resulted to negative correlation coefficients.

Lee and Oxford (2008) also noted that with pupils who are continually learning, motivation and attitude toward acquiring knowledge are essential if the pupil is to achieve success. The level of emotional awareness varies from person to person, as individuals differ in personalities, wants, needs, and ways of accepting and showing emotions. A person who is emotionally mature is more aware of self and environment and more skilled at integrating emotions.

Table 3. Correlation Coefficient Between Dimensions of Emotional Intelligence and Academic Achievement considering Grade Level

Dimensions of Emotional Intelligence	Grade 4		Grade 5	
	r value	Test of Significance of r	r value	Test of Significance of r
Self-awareness	0.02	0.07 ns	0.22	0.80 ns
Self-management	-0.17	0.58 ns	-0.08	0.28 ns
Motivation	0.13	0.45 ns	-0.05	0.18 ns
Empathy	0.20	0.69 ns	-0.48	0.97 ns
Social Skills	0.09	0.31 ns	0.15	0.54 ns
Over all	0.06	0.18 ns	-0.12	0.44 ns

Moreover, Hayward (2011) observed that older children score higher with regard to empathy, social responsibilities and interpersonal relationships than their younger counterparts. In fact, Goleman (1995), methodically laid out his case for Emotional intelligence by presenting information on changes in human behavior over time, with reference to studies in the field of developmental psychology. Goleman (1995) noted that these emotional intelligence skills can be taught to students just as academics are taught in schools, not only to assist in academic achievement while in school, but also to prepare for the possible problems one might encounter later in life. The results from schools that have adopted Emotional intelligence programs and taught students “skills like empathy, self-awareness, and how to manage distressing emotions” indicated that the exposure to the Emotional intelligence programs helped students become better learners.

According to Mayer and Salovey (1997), Emotional intelligence is a conceptual framework that can exert influence upon emotional abilities. Scholars have agreed that there is a strong relationship between Emotional intelligence and success in school, but this success requires a good IQ and the motivation of a person toward success (Greenleaf, 2003). Emotional intelligence serves as a context for understanding the relation between emotion and cognition (Mayer et al., 2004). The skill of understanding inner thoughts, motives, and behaviors of self and others, and of acting on the basis of that information, may take time but can be taught (Goleman, 1995).

Emotion is an important factor in students' learning. Factors such as motivation, memory, organization, cognitive process, and anxiety are controlled by the learner's emotions (Greenleaf, 2003). When the emotional state of a learner is positive, the organization of cognitive memory can be stimulated, and the learner will grow intellectually. Conversely, negative emotions hinder learners from connecting their learning to the task at hand and from creating meaning and relevance (Greenleaf, 2003).

Bong (2004) noted that a student's motivation to learn whether it is intrinsic or extrinsic often plays a driving force behind initiation to learn, endurance to withstand difficulty, the lowering of anxiety, and self-encouragement. Flattery (2007) purported that learning involves coping with related emotions and learning contexts. Pupils who are emotionally ready to deal with whatever the learning context may be are also ready to deal with challenges presented by the environment.

The no significant results of the variables, specifically on the pupils' dimensions of emotional intelligence and academic achievement, can be attributed to their progressing developmental stage. Although their respective home environment as supported by the school has provided opportunities for empathic learning and improved social skills as shown in the High results of these two dimensions of emotional intelligence, the level of support is not enough or significant to have caused them to perform better.

CONCLUSION

Looking through the lenses of the Emotional Intelligence Theory of Goleman, the dimensions self-awareness, self-management, motivation, empathy and social skills in this context, contributes to pupils' academic achievement. This theory of Goleman on emotional intelligence as predictive of academic achievement is not established in this study. From the results presented earlier, it can be implied that the dimensions of emotional intelligence self-awareness, self-management, motivation, empathy and social skills of the pupils are still developing in their elementary grades until they reach the age of maturity. Supporting the Mayer and Salovey (2004) model, the study indicated the importance of developing emotional intelligence abilities in elementary school children. Moreover, in this study it was not able to establish the predictive ability of emotional intelligence to children's academic performance.

RECOMMENDATIONS

Given the results of the study, the following suggestions are considered:

1. Pupils will be more aware on how they would respond and deal with their emotions in different situations.
2. Parents may see that their support and guidance can help build the confidence of the children and that they may perform positively in their academic life.
3. Teachers may gain better insights on the true nature of the pupils and the effects of emotional intelligence to learning.
4. School Administrator may maximize the data for planning of school improvement programs.
5. For future research direction, first, association between emotional competence and school performance in grade school children compared to preschool children.

LITERATURE CITED

Azizi et al. (2012). The impact of emotional intelligence element on academic achievement stated. University Teknologi Malaysia.

Bangirana et al. (2013). The association between cognition and academic performance in ugandan children surviving malaria with neurological involvement. PLoS One, 8(2), e55653. doi:<http://dx.doi.org/10.1371/journal.pone.0055653>

Bennett, P. (2013). Emotional Intelligence Self-Perception Retrieved from <http://www.scribd.com/doc/55516779/Emotional-Intelligence-Self-Perception-BEF-Paul-Bennett>

Bong, M. (2004). Academic motivation in self-efficacy, task value, achievement goal orientations, and attributional beliefs; *The Journal of Educational Research*; 97(6), p. 287.

- Bradberry, T., and Greaves, J. (2005). *The emotional intelligence quick book: Everything you need to know to put your EQ to work*. New York: Simon & Schuster.
- Chandran, A., and Nair, B. P. (2015). Family climate as a predictor of emotional intelligence in adolescents. *Journal of the Indian Academy of Applied Psychology*, 41(1), 167-173. Retrieved from <https://search.proquest.com/docview/1671122442?accountid=31223>
- Collaborative for Academic, Social and Emotional Learning (CASEL). (2006). *Sustainable Schoolwide Social and Emotional Learning (SEL)*. Chicago, IL: CASEL.
- Durlak, J.A., Weissberg, R.P., Dymnicki, A.B., Taylor, R.D., and Schellinger, K. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, 82, 405-432
- Elias, M. J., and Arnold, J. (Eds.). (2006). *The educator's guide to emotional intelligence and academic achievement*. Thousand Oaks, CA: Corwin Press.
- Elias, M. J., Wang, M. C., Weissberg, R. P., Zins, J. E., and Walberg, H. J. (2002). The other side of the report card: Student success depends on more than test scores. *American School Boards Journal*, 189, 28-31.
- Fatum, B.A. (2008). The relationship between emotional intelligence and academic achievement in elementary-school children (Order No. 3345150). Available from ProQuest Education Journals. (304839754). Retrieved from <http://search.proquest.com/docview/304839754?accountid=31223>
- Flattery, B. (2007). *Language, culture, and pedagogy: An overview of English in South Korea*.

- Garner, P.W. (2010). Emotional competence and its influences on teaching and learning. *Educational Psychology Review*, 22(3), 297-321. doi:<http://dx.doi.org/10.1007/s10648-010-9129-4>
- Goleman, Daniel. (1995). *Emotional intelligence*. New York: Bantam Books
- Goleman, D. (2008). Introduction. In L. Lantieri, *Building emotional intelligence: Techniques for cultivating inner strength in children* (pp. 1-4). Boulder, CO: Sounds True.
- Greenleaf, R.K. (2003). Motion and emotion in student learning. *The Education Digest*, 69(1), 37.
- Habibullah, S., and Ashraf, J. (2013). Factors affecting academic performance of primary school children. *Pakistan Journal of Medical Research*, 52(2), 47-52. Retrieved from <https://search.proquest.com/docview/1448795155?accountid=31223>
- Hastings, P.D., Zahn-Waxler, C., Robinson, J., Usher, B., and Bridges, D. (2000). The development of concern for others in children with behavior problems. *Developmental Psychology*, 36, 531-546.
- Hayward, A.M. (2011). A comparison of social-emotional and academic achievement levels for 4th and 5th grade students in accelerated and traditional programs (Order No. 3434685). Available from ProQuest Education Journals. (847391621). Retrieved from <http://search.proquest.com/docview/847391621?accountid=31223>
- Izard, C., Fine, S., Schultz, D., Mostow, A., and Ackerman, B. (2001). Emotion knowledge as a predictor of social behavior and academic competence in children at risk. *Psychological Science*, 12, 18-23.
- Lee, K.R., and Oxford, R. (2008). Understanding EFL learners' strategy use and strategy awareness. *The Asian EFL Journal Quarterly*, 10(1).

- Malecki, C.K., and Elliott, S.N. (2002). Children's social behaviors as predictors of academic achievement: A longitudinal analysis. *School Psychology Quarterly*, 17,1-23.
- Mayer, J. D., Salovey, P., and Caruso, D. (2000). Emotional intelligence as Zeitgeist, as personality, and as a mental ability. In R. Bar-On & J.D.A. Parker (Eds.). *The handbook of emotional intelligence*. New York: Jossey-Bass.
- Mayer, J. D., Caruso, D. R., and 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. D., and Salovey, P. (2004). What is emotional intelligence? In P. Salovey, M.A. Brackett, & J.D. Mayer (Eds.), *Emotional intelligence: Key Readings on the Mayer AndSalovey model* (pp. 29-59). Port Chester, NY: Dude Publishing.
- Ogundokim, M. O., and Adeyemo, D. A. (2010). Emotional intelligence and academic achievement: The moderating influence of age, intrinsic and extrinsic motivation. *The African Symposium*, 10(2), 127-141
- Rissanen, C. (2010). Factors that account for children's variability in social skills: Temperament and emotional intelligence (Order No. 3426815). Available from ProQuest Education Journals. (763491329). Retrieved from <http://search.proquest.com/docview/763491329?accountid=31223>
- Salman-Nasser, Z. (2014). Improving students' emotional intelligence and Academic Achievements: The Self-Science Program. *International Journal of Arts & Sciences*,7(6), 1-38. Retrieved from <https://search.proquest.com/docview/1646125612?accountid=31223>
- Wootton, C. A., and Roets, H. E. (2013). Emotional intelligence in learners with attention deficit disorder. *Perspectives in Education*, 31(2), 33-41,142. Retrieved from <https://search.proquest.com/docview/1566320880?accountid=31223>

Zins, J. E., Elias, M. J., Greenberg, M. T., and Weissberg, R. P. (2004). Promotion of social and emotional competence in children. In K.M. Minke& G.C. Bear (Eds.), Preventing school problems - Promoting school success: Strategies and programs that work (pp. 71-79). Bethesda, MD: National Association of School Psychologists