

International Conference on Education and Educational Psychology (ICEEPSY 2011)

The study of relation between emotional intelligence and students' academic achievement of High Schools in Tehran city

Azita Joibari^a, Niloufar Mohammadtaheri^{b*}

^a Ph.d scholar ,Department of Education, Roudehen Branch, Islamic Azad University, Roudehen, Iran. The member of young researchers club, Islamic Azad University, Roudehen Branch, Iran

E-mail : ajoibari@gmail.com

Tel : 00989127368168

Address : No.16, Asef St, Zaferanieh Alley, Tehran, 0098, Iran

^b Ph.d scholar ,Department of Education, Roudehen Branch, Islamic Azad University, Roudehen, Iran.

E-mail : nmohammadtaheri@yahoo.com

Tel : 00989121962346

Address : No.15, motaghed St, Kord Alley, Resalat Avenue, Tehran, 0098, Iran

Abstract

The purpose of present study is to investigate the relations between components of emotional intelligence and students' academic achievement of High schools in Tehran city .The research method was descriptive .The samples included about 380 subjects, 180 girls and 200 boys students. Collected data were analyzed by using of T- student Test and Pearson Correlation. Results showed that there is significant correlation between main components of emotional intelligence including self-motivation, self-awareness, self-regulation, social consciousness, social skills and students' academic achievement. Also there is meaningful difference between male and female students' emotional intelligence.

© 2011 Published by Elsevier Ltd. Open access under [CC BY-NC-ND license](#).

Selection and/or peer-review under responsibility of Dr Zafer Bekirogullari.

Key Words: Emotional Intelligence ;Academic Achievement ;Student

1. Introduction

During the last few years, psychologists have been trying to find answers to questions such as, “Who will be successful in education?” Why some people despite having high intelligence coefficient in education and the post-education processes, they experience huge failures? “How is the role of intelligence co efficiency in the success of the students especially the academic one?” Other than intelligence co efficiency are there other factors effective in academic success? “Scientists have done researches that tremendously have changed the traditional view of Intelligence Quotient (IQ)¹ and its effects on humans' lives.

* Corresponding author. Tel.: 00989121962346; fax: +982282275997.

E-mail address: nmohammadtaheri@yahoo.com.

¹Intelligence Quotient

Based on a research conducted during the decade of 1940's on 95% of Harvard University students who are now in their middle ages, it was proven that the most intelligent students in those years compared to the average students were not more successful and even as far as income and competence are concerned, they were at a lower status. Also, they have not had much success in life and reactions with people around them. Karen Arnold² the professor at Boston University who has conducted a lot of studies on intelligent students believes, through finding out individuals' intelligence quotient, it is only possible to discover dutiful people meaning those who know how to get good grades in the educational system, but the individuals' intelligence does not give any information as to how they act in the ups and downs of their lives because academic intelligence and to lent does not bring to individuals any skills to cope the disasters in the academic environment, life and taking advantage of desired opportunities (Noori, 2003).

Teaching emotional intelligence or seven intelligence including

- 1- Vocal intelligence: Spoken
- 2- Logical intelligence: Mathematics
- 3- Space intelligence: Visual
- 4- Movement intelligence: Physical
- 5- Musical intelligence
- 6- Interpersonal intelligences
- 7- Interpersonal intelligence

These instructions are very important in school and they can guarantee individuals' success both in short and long term. When a child suffers from chronic anxiety or anger, he/she considers them to be imposed thoughts and can not release himself or herself from problems that bother him or her. Therefore, when mind is too busy with these academic thoughts, there will be less possibility for learning new things. The researches indicate that successful schools are those that create an appropriate relation among the students, between the students and the teachers, students and other personnel at the school. In such schools, the teacher tries to create desired relation and interaction among the students. The educational programs including emotional skills help the students to manage their feelings and emotions and they reinforce their self-esteem and they will also cause them to get better grads in the standard cognition teaching.

Kluemper³ (2008) introduces the tools for measuring emotional intelligence and believes that based on the standard measurement of emotional intelligence, it is possible to increase the validity and the precision of using emotional intelligence during school years.

By encouraging children to nurture all of their talents and capabilities that will practically lead them towards achieving success or helping them carry out their tasks, schools will turn into centers for nurturing life skills. The most important service that education can do to help the growth of a child is to lead him/her in the best direction and it seems that in our country's educational system, this goal has been ignored and less time is being spent on classification of children and more time is being spent and more time is allocated on showing their natural capabilities and talents; this is happening while there are countless ways for achieving success. There are also many capabilities which play their roles in achieving success. In this direction, teachers and parents should keep in mind that cognition intelligence IQ by itself is not effective in the students' educational progress; there are, however, other factors such as emotional intelligence, adaptation with the educational environment and gender that are influential in their academic progress which should be paid attention too.

2. Review Of Literature

Many experts (Gardner⁴, 2000; Goleman, 1998; Barr-on & Parker⁵, 2000; Javadi, 2004) have done a lot of studies and researches about emotional intelligence and have presented its results in popular articles and magazines in the forms of reports about the activities done in the field of emotional intelligence. This matter incites the importance of emotional intelligence in today's world. On the other hand, the existence of different people interested in this subject has lead to the emergence of different functional definitions for emotional intelligence variety of measuring tools and claims based on the importance of this subject. The concepts of emotional intelligence as a very important one

² - Karen Arnold

³ - Kluemper, D.H

⁴ - Gardner

⁵ - Goleman

in the academic community (Mayer, Salovey; Salovey and Mayer, 1990) and also in non-academic community (Goleman 1995 and 1998) have been paid attention to. (Ciarrochi, Forgas & Mayer⁶ 2001) quoted by Noori and Nasiri (2004), Many experts (Gardner, 2000; Goleman, 1998; Bar-on and parker, 2000, Brobery & Giouz quoted by Ganji 2005) have given different definitions in connected with emotional intelligence which we will study the most important ones:

- Emotional intelligence is a combination of interpersonal intelligence and interpersonal intelligence (Gardner, 2000).
- Goleman (1998) considers emotional intelligence to be a general structure than can be the reason for the individuals' success in different aspects of life. Goleman states that those individuals who, somehow, control their emotions and interact with other people more effectively; they have a more meaningful life. Also happy people have more talent in getting information and are enjoying life more than those who are worried.

Bribery quoting Ganji (2005) refers to the main components of emotional intelligence under the title of self-awareness, self-control and self motivation.

Bradbury⁷ et al., (2006) defines emotional intelligence as ability, talent, recognition skill, assessment and self control of emotions in the interaction with others.

Barr-on and parker (2000) have considered emotional intelligence as a kind of intelligence that is resulted from emotions and reflections and it means reaching the general structure of emotional, personal and social capabilities which are necessary in order to cope with the demands, tolerance and adaptation to the environment (quoted from Hajloo, 2004).

In the studies conducted about the history of the emotional intelligence, it is said that the philosophical analysis of the relation between thought and emotion in the west's culture goes back to 2000 years ago (Mayer, 2001) till the decade of 1990's, research about social intelligence has been subjected to change and different outlooks have come into existence (Barr-on, 2000). The concept of emotional intelligence has its roots in the theories of intelligence that go back to the twentieth century. Sorandik⁸, for the very first time considered social ability as an important part of intelligence. Gardner, also, in his mind talked about interpersonal intelligence which is the ability of understanding something else. (Hakim Javadi Vazhehe, 2004). On the other hand, Mary and Salovey (1990) were the first who officially used emotional intelligence as a block of the social intelligence. At first' this view considered the emotional intelligence have three components:

- 1- Assessment and expression of emotions in himself / herself or others
- 2- Regulation of emotions in himself/herself and others.
- 3- The application of emotions for facilitating thoughts Mayer's researches (2001 quoted by Noori and Nasiri 2004) are about measures that in have been done in the field of psychology since 1990 and it includes 5 periods.
 - 1) The years of 1900 to 1969
 - 2) From 1970 to 1989 during which the focus of psychology was on were effective
 - 3) From 1990 to 1993 during which the emergence of EI (emotional intelligence) was studied as a subject
 - 4) From 1994 to 1997 during which this concept became common
 - 5) The present time which was the time of beginning and defining researches in this field

Taking into account the impact of emotional intelligence on the success of individuals, different experts and researchers (Shamoradloo, 2004; Javid, 2002; Barr-on, 1997; Goleman, 1998; Mayer and carsoy 2002 quoted by Ebrahimi, 2004; Dahshiri, 2003; Barr-on and parker, 2000; and Kesler, 1943 quoted by Nikobin, 2004; Goleman, 1998; Petrides and Furunham⁹, 2002; Akhoondi, 1997, presented several views which we will point out the most important ones.

- Barr-on (2000) in his emotional pattern does not only student the interpersonal relations with himself and others. He also considers factors such as compromise, dealing with anxiety and public attitude as the ones that form emotional intelligence and considers emotional intelligence as a form of intelligence that are formed from thoughts and emotions and it means studying the general structure of personal and social emotional ability which will have an impact on the ability or the talent of confronting the environmental demands and pressure.

⁶ - Ciarrochi & forgas & Mayer

⁷ - Barr- on & Parker

⁸ - Sorandik

⁹ - Petrides & Furunham

He also states that emotional intelligence and skills grows and changes over the years and they can be improved by teaching improvement programs such as therapeutic clinics (Brron and Parker, 2000)

- Vexler (1943) in his report about emotional intelligence writes”, I have tried to show that in addition to intelligence factors, special non-intelligence factors exist too which can clarify the behavior of intelligent people.” He sought to compare the cognitive and non-cognitive aspects of public intelligence. His attempt can be realized by his use of small test for the regulation of pictures and understanding which form two major segments of his test. Understanding (Vexter quoted by Nikoobin, 2004).

The level of emotional intelligence from the inheritance point of view is not permanent and it does not only form during childhood. Contrary to the public intelligence that has very little changes after adolescence, emotional intelligence up to a very high degree will be learned and during life will take shape by learning experiences. The individual's merit in emotional intelligence is growing.

The researches that analyze the level of emotional intelligence during life indicate that people will become more able in their abilities and find more skills in the management of their emotions. The analyses of Mayer and Salovey on hundreds of adults and adolescents have indicated that adults are better than others in emotional intelligence skills. Mayer states that emotional intelligence is accompanied with the increase in age and experience from childhood to adulthood (Goleman). Emotions and emotional experiences for will provide information for individuals and their environment as such that they will interact and conform together. All types of emotional experiences from pure and fundamental feelings to emotions concentrated on complicated feelings are the result of intellectual meanings (Kennedy¹⁰, Eileen¹¹ and Watson¹², 1993). In addition to emotional intelligence and cognitive intelligence, social tolerance is also important in the job successes and academic progress. Social tolerance has a positive correlation with academic progress (Khalatbari, quoted by Akhoondi, 1997). Although, learning social skills starts from home, from the time children arrive at school, they come in contact with places for the emergence of different emotions. Schools face teaching challenges and also improvement and the creation of emotional skills in children. These challenges through adding information to the standards of educational programs and the creation of conditions at school encourage development and operation of emotional skills (Chiarrochi, Forgas and Mayer 2001 quoted by Noori and Nasiri 2004). Mayer and Salovey¹³ (2008) that literary support of emotional intelligence will cause its successful application in different areas.

John Dewy had deep thoughts about the classroom activities and he believed classroom, is a place where students have to learn democracy.

There are skills that are needed to save it and social and emotional conditions are needed to Transfer it (the same source). Barr-on (2000) believes that having done a effective efforts to take care of the students' emotional and social needs can result in the improvement of their academic performance. Today's academic system is based on the grades of the students' general intelligence from kindergarten to university. The supporters of the traditional view are still trying to maintain this trend. Facing this view, many researchers, teachers and parents have claimed that such tests for the evaluation of the students are defective. Recently, a new view about learning and intelligence has made trainers/ coaches and planners to preview their educational methods which are the same multi aspect view. Teaching social and emotional skills at school is very and long terms (Elias & Tobias¹⁴, 1996).

Many experts (Dabrawskim¹⁵, 2001; Peterson¹⁶ and Cangelosi¹⁷, 1998; Goleman, 1995; Duke and Nbwiki¹⁸, 2000; Erickson, 1994; Mehrabian, 2002 have conducted several researches in connection wit the effect of emotional intelligence on people's personal academic progress and some of them are as follows:

Dabrawskim (2001), based on a research he conducted on 39 intelligent adolescents reached the conclusion that emotional intelligence does not help these individuals to have social and academic successes.

Peterson (1998) by conducting studies on 175 high school students by using Barr-on's emotional intelligence questionnaire found out that students who have high emotional intelligence at school, home, in having relations with their friends and at work compared to those who have lower emotional intelligence do experience failure.

¹⁰ -Kennedy

¹¹ - Eileen

¹² - Watson

¹³ - Mayer & Salovey

¹⁴ - Elias & Tobias

¹⁵ - Dabrawskim

¹⁶ - Peterson & Cangelosi

¹⁷ - Cangelosi

¹⁸ - Duck, M & Nbwiki,s

In a test that Nbwiki and Duck (1989) conducted in a pool of 1101 children, those individual, who had higher talent in the comprehension of non-verbal emotions of others were among the most popular students at school and emotionally speaking, they were more stable (quoted by Parsa, 2003).

Watkin¹⁹ (2000) in his research about the effect of emotional intelligence on occupational progress realized that the application of emotional intelligence will result in the progress and the improvement of job related decision making process and emotional intelligence has also direct effect on the rate of efficiency and the success of individuals.

Vernon et al., (2008) during extensive studies conducted on the individuals' behavior according to the emotional intelligence models do confirm a significant effect on the students' academic progress.

Salovay et al/. (2002) studied the relation between emotional intelligence and confronting stress among the students and realized that there is a significant positive relation among understanding the emotional intelligence and interpersonal performance and psychological performance.

Based on the top facts and the confirmation of the importance and the necessity of the research over the emotional intelligence and its relation with the high school students' academic performance, the current research is to determine the main components of emotional intelligence and the determination of the rate of difference in the emotional intelligence between male and female students and the determination of emotional intelligence at different levels of high school.

3. Method of Research

This research is descriptive and of predictive type. The statistical pool of the research includes male and female students in senior high level in public schools in the city of Tehran during the academic year of 2007-2008. The total number of the students was 355800, 20090 of them were boys and 155710 of them were girls. The statistical samples were selected based on Gorjesy and Morgan chart, 384 individuals were selected. The sampling method is relative classification and simple random. The measuring tool in this research was standard Cyber Sharing emotional intelligence questionnaire which has 33 گویه having 5 emotional intelligence components based on Likert standards. The score of 5 is given to A and the score of 1 is given to choice number 5 (Mansoori, 2001). Cyber or Sharing questionnaire has been confirmed.

4. Findings of the Research

First question: what are the main components of emotional intelligence? To answer this question, the researches' fundamental theories were precisely studied both in Iran and overseas and because of the standard measuring tools that were the main components of emotional intelligence and were confirmed in different statistical pools. In the current research, the main components of emotional research have been classified based on Cyber Sharing including self motivation, self awareness, self control, social awareness and social skills.

Second Question: Is there a correlation between the students' emotional intelligence and their academic progress? To answer this question, the total score of the questionnaire was selected as the emotional intelligence score and the students' GPA at the end of academic year (2007-2008) as selected as their academic progress score and Pearson's coefficient correlation was presented in the following chart:

Table 1: coefficient correlation of emotional intelligence and academic achievement

Coefficient Correlation	Significant Level
0.883	0.00

T t test as shown in the following chart was used to make sure that the coefficient correlation was significant.

Table 2: T test to analyze the significance in the correlation between emotional intelligence and academic achievement

T chart	Freedom level	Observed T	P
2.33	379	3.89	0.01

¹⁹ - Watkin, c

Based on the data in the top chart, first the coefficient correlation between the scores of emotional intelligence and academic progress were calculated which was ($r=0.881$). The significance of the co efficiency was analyzed using the t test which has a positive correlation of 99% accuracy.

Third question: Is there a difference between girl's and boys' emotional intelligence?

To answer this question, first, we calculated the mean score of the boy's girls' emotional intelligence separately and then we used the t parametric test for the significant change between the means which is explained as follows:

Table 3: descriptive statistics of high school students' academic achievement

Examines	N	Minimum	Maximum	Scope	Mode	Average	Mean	Standard deviation	variance
Boys	200	72	143	71	108	105	104.18	11.476	13.703
Girls	180	75	124	49	101	102	101.42	10.669	113.82
Total	380	72	143	71	—	102	102.87	11.172	124.84

Taking into account the data of the top chart, it is argued that the boys emotional intelligence mean (104.18) with the standard deviation of (11.476) compared to the girls' emotional intelligence with the mean of (101.42) and the standard deviation of (113.821) to be more. On the other hand, the scope of changes in the male students' emotional intelligence (71) was more than the scope of female students' emotional intelligence (49) and the male students' grade distribution was between 72 and 143 and for female students it was between 75 and 124. These data indicate that compared to female students, the male students' emotional intelligence was higher.

To determine the significance of this change, the t test as described in the following chart was used:

Calculated T	Freedom level	T chart	P
2.42	379	2.33	0.05

Taking into account the data in the top chart with the accuracy of 95%, we can argue that there is a difference between the means of male and female students' emotional intelligence.

5. Discussion and Conclusion

In response to the first question of the main component of intelligence which included self-motivation, self-awareness, self-control, social awareness and social skills, this finding conforms with the classification of Mayer, Salovey (1990), Ganji (2005), Goleman (1998) and Renon (2008). In response to the second question, the current research's finding indicated that with an accuracy of 99%, we can conclude that there is a positive correlation between emotional intelligence and academic progress. The findings of the current research is harmonious with the researches conducted by Amanda swart quoted by Barr-on, 1997; Richardson and Ivaz quoted by Dehshiri, 2003; Peterson, 1998; Zare, quoted from Dahshiri, 1993; Mansoori, 2001; watkin, 2000.

Based on the researches that have been conducted about emotional intelligence and academic progress, we can point out the following information. More than 100 years have passed since cognitive tests have been used and yet only 20% of the occupational success can be predicted by taking advantage of intelligence quotient (IQ): Emotional skills can have long term effect on the academic success (Elias et al quoted from bar-on 1997).

The finding of the current research in answering the 3rd question indicates that with an accuracy of 95%, it can be argued that there is significant difference between the means of boys and girls emotional intelligence.

The researchers Barr-on (2000) and Yong (2003) claim that there is no difference between the emotional intelligence of both genders. Also, the influence of gender on the scores of emotional intelligence indicated that there is no significant difference in the total score of boys and girls emotional intelligence. The findings of the current research do not conform to Zare's research.

Mansoori's research (2001) indicated that the total score of the test for both genders were different; therefore his claim conforms to the findings of the research.

Javid (2002) claims that girls have a higher emotional intelligence than boys. However, the new research considers the difference in the total score to be in the boys' favor.

Based on the findings of the current research and its comparison with the findings of other researchers, the board of education authorities are recommended:

- 1) Since emotional intelligence has a considerable effect on the students' academic progress, its main components include self-motivation, self-awareness, self-control, social awareness and social skills in the students' curriculum so that they can learn these skills and use them in their daily lives.
- 2) Based on the first recommendation, it seems that offering educational programs such as training workshops in teaching the components of emotional intelligence to be necessary and the teachers should be asked to teach them to the students in a group among other teaching materials.
- 3) In teaching these concepts, female students should be paid attention to more than male students. On the other hand the other researchers are recommended to conduct this research in other statistics pools and other educational periods (elementary, intermediate schools and universities and they should, specially, compare the difference in the means of boys and girls emotional intelligence.

References

- Akhoondi, A.(1997). The Analysis of the connection between comprehended social support with social of the students in the city of Tehran.
- Bar-on, R.(1997).Bar-on Emotional Quotient(EQ-IQ).Technical manual Toronto, Canada.
- Bar-on, R.(2000).Emotional and social intelligence:Insights from the Emotional Quotient Inventory (EQ-IQ).In R.B.Bar-on & J.D.A.
- Bar-on.R & parker, J.(2000).Handbook of emotional intelligence tossey Bass.
- Bradberry, Travis. Greaves, Jean. .(2005).Emotional Intelligence, skills and tests. Translated by Mehdi Ganji.Tehran, Savalan.
- Bradberry, Travis and Greaves,jean.(2009)."Emotional Intelligence".san Francisco: publishers group west.(ISBN:9780974320625).
- Dabrowski, K.(2001).Theory of levelc of emotoional development .Ocean side, Ny: Dabor science publications.
- Elias, M.J & tobias, S.E.(1997).Social problem solving interventions in the schools.New york:Gul ford.
- Dahshiri, gholamreza. (2003). Mannerism Questionnaire Emotional Interest Bar-on (I-EQ) for the assessment of different aspects of the intelligence of the University of Tehran students. Tehran, M.A. Thesis, Psychology, University of Allameh Tabatabaee.
- Ebrahimi, Bahman and Jooyandeh, Mohsen.(2004).Emotional intelligence at work, Tehran, Bahman Danesh publications.
- Gardner, H.(2000).Multiple intelligene : the theory in practice New york: Basic books.
- Goleman.D.(1995).Emotional intelligenc.Newyork: Bantum Books.
- Golman, D.(1998).What is your EI? An inventory on Emotional Abilities. Retrieved at 18/9/2006. <http://inst.sanatfe.ccl.fl.us/mweher/liaoemo.html>.
- Hajloo, M.(2004).The Relation Between Emotional Intelligence and methods of coping with stress in school principals. The city of Tehran, M.A. thesis, Azad University, Roodehen branch.
- Javid, Mahnaz .(2002).The Analysis of the validity and Reliability of the scale of emotional intelligence in adolescents. M.A. Thesis. University of Allameh Tabatabaee.
- Javadi, Hakim. Vazhehi, J.(2004). The Analysis of the correlation between Attachment and Emotional Intelligence in Smart Students and the Normal ones. Scientific Research psychology Magazine, 8th year, No., 2, Iranian Society and psychology periodicals.
- Kennedy, M. Eileen, j. Watson, c.(1999).Expressing emotion .newyork & London.
- Kennedy , M. Eileen, J. Watson, c.(1999). Expressing emotion .newyork & London Guil ful press.
- Klumper,D,H.(2008).Trait emotional intelligence: the impact of core-self evaluations and social desirability.personality and individual differences,44(6),1402-1412.lak.
- Mansoori, Behzad. (2001). Mannerism of Emotional Intelligence cyber or Sharing among M.A. students at the University of Tehran M.A. Thesis, University of Allameh Tabatabaee.
- Mayer, J, D & salovey, P.(1990).The intelligence of emotional intelligence.
- Mayer, J, D.Salovey,p.&Caruso,D,R.(2008).Emotional Intelligence:New ability or electric traits,American psychologist,63,6,503-517.

- Nikoobin, F.(2004).The Relation between. Emotional Intelligence with success and failure of the students. M.A. Thesis. Islamic Azad University, Roudehen branch.
- Noori Emamzadehee, Asghar and Nassiri, Habibollah .(2004). Emotional Intelligence in Daily Life, Esfehan Nashr Neveshteh.
- Noori Emamamzadehee, Asghar.(2003).The comparison of the effect of scientific intelligence (IQ) and emotional Intelligence (EQ) on Personality. Educational periodicals, No., 18.
- Parsa, Nasrin .(2003). Emotional Intelligence; Tehran, Roshd.
- Peterson, M.L & cangelosi ,B,R.(1998).peer teaching assertive commwiication stragles for the work place.
- Petrides, K, V; & Furunham, M, E.(2002).the role of trait EI in academic performance and deviant behavior at school.<http://www.ioe.ac.school/phd/k pevides/ reprins /PAID> (20/10/2006).
- Salovay, P . stroud, R & woolery, E.(2002).pereiued EI. Stress reactivity and sysptoms reports.Retrieved from: <http://www.taylor & francies.Meta press.com>.
- Shamradloo, Mehran .(2004). The comparison of the role of Emotional Intelligence and cognition Intelligence in the Prediction of Academic Progress of Tehran University Students, M.A. Thesis, Educational Psychology, college of psychology and educational sciences. University of Shahid Beheshti.
- Vernon,P.A.,Petrides,K.V.,Bratko.D.,&Schermer,J.A.(2008).A behavioral genetic study of trait emotional intelligence.Emotin,8,635-642.
- Watkin, c.(2000).Developing Emotional intelligence.International Journal of selection and Assessment.
- Yong, L.(2003).The yong EQ Inventory norms and technical manual.