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THE EMOTIONAL INTELLIGENCE AND THE CREATIVITY OF SMART STUDENTS OF KARAJ PROVINCE, IRAN

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ABSTRACT

The purpose of this study was to compare the emotional intelligence and the creativity of the students according to their gender, thus the study has carried out among the smart students of Alborz Province. The statistical population of this study consist all intelligent schools for boys and girls at the junior high school in each 4 sections of Karaj city; which totally includes 6 schools and 35 classes and 1009 students. The sample size was calculated using the Cochran formula and it generally includes 277 smart students. The selection of boys and girls students has done using the cluster-random sampling method. Data has been gathered using the two emotional intelligent questionnaire of Baron with the alpha coefficient of 0.93 and the correlation coefficient of 0.88 for the odd and even questions and the creative test of form “A” (verbal) of Torrance test. The reliability of creativity index of this test has been calculated as 21 using the Kuder Richardson test and its level of significance have been calculated a number between 0.89 and 0.94 at the 99% level of significance. The collected data have been investigated using the sample t-test of independent groups. The results showed that both variables of emotional intelligence and creativity are significantly higher in male smart students than the average of female smart students.

Keywords: *Smart Students, Creativity, Emotional Intelligence*

INTRODUCTION

Intelligence is of those cases that have been highly considered by psychologists and, during the age of psychology, it has always been tried to study the nature of intelligence, its types, and its variability and so on. When we talk about the intelligence, features such as fast learning, immediate and accurate calculations and new solutions come to mind.

Pioneers of education have pointed out to some skills and abilities of smart students that help them to be compatible in the era of information and the spread of science and technology. These features are as follows: 1. the ability to communicate efficiently with others, 2. Becoming master at science, math, technology and foreign languages, 3. Cooperation with different cultural groups, 4. the ability of doing educational projects, 5. Take responsibility of decisions and self-motivation, 6. The commitment to ethical, familial and social issues (Brockman *et al.*, 2009)

Currently, psychologists believed reasoning and understanding verbal and numerical relationships as the core of intelligence and called creativity as a factor that a person can use in a non-conventional but useful way to get adapted to new circumstances and situations. Another factor that has been the subject of many studies and research is emotional intelligence (Pirkhaefi, 2010). It is said that emotional intelligence is something within each of us that is somewhat intangible. The emotional intelligence determines how to control our behavior, how to deal with our social issues and how to make decisions which lead to positive results (Mayer *et al.*, 2000). In the past, there has been this belief that emotions are the source of violence and this feature is in contrast with the excellent thinking processes, such as intelligence; but today, psychologists by introducing the emotional intelligence has tried to clarify that intelligence and emotions are not in contrast with each other (Hashemi, 2011).

Nowadays, the models of human performance are debating that besides the abilities of analysis and reasoning, the ability of social communications is effective on the performance of human as well and some evidence shows that there are different mechanisms in brain for the cognitive and emotional abilities related to the social interactions, while the intelligence tests measure only the cognitive abilities (Jeune *et al.*, 2009).

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The emotional intelligence is associated with the self-understanding and the understanding of others, communication with others, adaptability and compliance with the environment which is necessary to succeed and meet the social demands and is considered as a tactical ability of the person; while the cognitive intelligence has strategic and long-term capabilities. Emotional intelligence makes it possible to anticipate of success, for it shows that how a person immediately use his knowledge in different situations. In other words, the emotional intelligence refers to the differences of people in perception, processing, adjustment and applying of emotional information (Moura and Olivier, 2008).

Mayer and Salovey (1997) believed that emotional intelligence includes a set of integrated skills for accurate perception, assessment and expressing emotions, accessing or creating emotions to facilitate thinking, the ability to understand emotions and emotional knowledge and the ability to emotions regulation for the emotional and intellectual growth. This cognitive structure includes 4 components of assessment and expressing self-emotion, assessment and identifying others' emotions, self-regulation of emotion and the use of emotion to facilitate the performance. Many studies showed that several important variables such as mental health and self-efficacy and creativity can be effective on emotional intelligence. Creativity is also a process where efforts should be made to flourish potential abilities and the presence of ability and motivation is necessary to get prepared and achieving objectives. If someone has a good emotional perception, they can take advantage of changes in mood and the perception of emotions, and to use such perception to manage and cope with excitement (Mayer, 1999).

Investigating the concept of creativity showed that the behavioral elements forming a creative personality are in accordance with the features needed for intelligent people in the present society. Rogers (1977) stated that creativity is one of the more interesting and most fruitful interactions of human mind that a few studies have been done on in comparison with other mental abilities (Quoted from Hosseini, 2008).

Stated that it seemed the relationship between emotional intelligence and emotional creativity is coincident with the relationship between cognitive intelligence and creativity. Experimental researches support this hypothesis that cognitive intelligence and creativity are separate structures. From one perspective, creativity includes a combination of analytical and practical intelligence, while it is different and independent from intelligence because of not being limited to functioning and cognitive or mental behavior and the association with a combination of motivation condition, personality factors, the environmental circumstances, chances and even products (Sternberg and Ahara, 2010). Currently, psychologists believed reasoning and understanding verbal and numerical relationships as the core of intelligence and called creativity as a factor that a person can use in a non-conventional but useful way to get adapted to new circumstances and situations (Pirkhaefi, 2011).

It seems that there is an overlap between the characteristics of intelligent people and the characteristics of those who not only use their cognitive intelligent, but also have a high creativity and emotional intelligence. Thus, some attributes of creative people have been reported as follows: the high motivation for progress, high curiosity, and high interest in the work order, perseverance, critically thinking, high motivation and wide knowledge. Stain believed that, "Moreover, some of the above characteristics of clever people overlap the definitions of emotional intelligence such as: assertive strength, flexibility, the strength of influencing others, sensitivity to social issues" (Seif, 2007).

Creativity and innovation are of those features that not only require an intelligent more than the average, but they require high motivation. It is said that having the intelligent more than the average is necessary for creative work, but it is not adequate. For creativity in addition to having at least 120 IQ, motivation and special talent are needed. According to psychologists, intelligence is a convergent skill that is directed to achieve solution or an individual answer, while creativity is a divergent skill that requires different, uncommon and exquisite responses. Creativity requires that the person engage in divergent thinking and to solve a problem, relinquish their mind from the ordinary solutions to achieve new types of solutions and answers (Sharifi, 2011).

Considering the mentioned subjects, it seems that there is an overlap between the characteristics of successful people and the characteristics of those who not only use their cognitive intelligent, but also have a high creativity and emotional intelligence. Thus, some attributes of creative people have been

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reported as follows: the high motivation for progress, high curiosity, and high interest in the work order, perseverance, critically thinking, high motivation and wide knowledge (Seif, quoted from Stain, 2004). Moreover, some of the characteristics of these people overlap the definitions of emotional intelligence such as: assertive strength, flexibility, the strength of influencing others, sensitivity to social issues.

In this regard, during the studying of characteristics of successful people, some points have been mentioned that are mostly personality traits. Some of these attributes have been stated by experts such as McClelland, Muller, Duke, Whig field and Ackles: they prefer working on relatively hard task and avoid of getting involved in activities which are very hard or very easy, they like competition and to achieve the success they will compete, they follow clear objectives to receive feedback for the results of their performance, they feel responsible to fulfill their duty and show perseverance and attempt to achieve their objectives (Hoffman, 2006).

Research Background

Many researchers have been conducted about the intelligent, creativity and their relation and many views have been provided as well. Mackinnon, by conducting a study, found that creative participants mostly have intelligence higher than the average and some have a higher intelligence. But their intelligence doesn't have a similar relationship with their creativity. Mackinnon said that if we set the minimum IQ score between 115 and 120, being more intelligent doesn't necessarily mean that you are more creative. It means that it is not true to say that the person who is more intelligent, necessarily has higher creativity (Brockman *et al.*, 2009).

Torrance had the same opinion. He believed that from a point, the importance of intelligence becomes less, and the differentiation of converged and divergent thinking increases. The point or threshold is equal to the IQ level of 120. From this point of intelligence onwards, if the person has the intelligence and creativity, it will emerge. Thus, intelligence and creativity may have correlation at the IQ level lower than 120 but they do not have correlation at IQ level of 120 and higher.

Baron and Harrington have also shown that creative people that provide different ideas to solve issues have an IQ higher than normal.

Haghighi (2003) investigated the issue in his study that whether there are any differences between the nine combination groups of intelligence and creativity in terms of diagnostic features?

To answer this question, he selected students randomly among 4,500 students. Abedi creativity test and Raven intelligence test were taken. Then, by dividing students into three categories of high, low and average scores in terms of intelligence and creativity, nine groups have been achieved, respectively. Afterwards, the 16 personality factor test of Cattell was implemented. The results suggested that in the nine groups there are significant differences in terms of low intelligence - intelligent, passionate - stable, pragmatic - fundamentalist, restraint – not restraint, resting – anxious.

In this regard, Besharat *et al.*, (2011) reported the level of emotional intelligence of girl students more than the level of emotional intelligence of boy students and showed that the academic achievement of female students defines 67 percent of variance of emotional intelligence and the academic achievement of male students defines 59% of the variance of emotional intelligence. Sajjadi (2010) showed in his study that there is not a significant difference between girls and boys in terms of the total score of emotional intelligence. The differences of emotional intelligence debate in terms of gender have attracted the attention of many researchers. Findings showed that the level of emotional intelligence is higher in girls than boys. Mayer and Saloay (2004) found in a research that intelligent students earn higher grades than ordinary students in terms of emotional intelligence components such as perceptual emotions, acceptance, understanding and the control of emotions and also they have a better performance in terms of creativity.

Bowers (2011) showed that, among high school students, when the level of intelligence is high, the correlation of intelligence and creativity is significant in determining the academic achievement.

Kumar (2013) showed in a research that there is not a significant difference between the students with high intelligent and low creativity and the ones with low intelligence and high creativity in their academic achievement. This shows that the high level of creativity in academic performance can compensate for low IQ.

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In a study that Lyons and Schneider (2010) conducted, they concluded that high emotional intelligence leads to the high performance and better competition in the face of stressful tasks; or according to the studies of Jeune *et al.*, (2007), it is stated that after the control of mental abilities, emotional intelligence has effect on the academic performance of students of Shanghai University.

Studies showed that the ability to express emotions, empathy and creativity are more in women and girls than men and boys and also their attention to the emotions of others is more in interpersonal relationships. Some studies stated that the emotional intelligence of women is higher than men but on the other hand some other studies stated that there is not a difference between the emotional intelligence of men and women. Authentic texts mostly emphasized on the difference of emotional intelligence in men and women and stated that women and girls have frequently higher emotional intelligence than men and boys. Researchers have investigated the relation of creativity and academic performance. For instance, Bowers (2005) showed that, among high school students, the correlation of intelligence and creativity is significant in determining the academic achievement. Also in the study of Kumar (2007) showed that there is not a significant difference between the students with high intelligent and low creativity and the ones with low intelligence and high creativity in their academic achievement. This shows that the high level of creativity in academic performance can compensate for low IQ.

MATERIALS AND METHODS

Methods

Generally, the main objective of this research was to compare the emotional intelligence and creativity between the intelligent girls and boys students of Karaj province. Thus, the present study is correlational type so the variables of cognitive intelligence and creativity of a sample were measured simultaneously and their relationship was investigated.

Statistical Population and Sample

The sample of this study included all daily schools for intelligent boys and girls at the junior high school in each 4 sections of Karaj province; that in total, it made 6 schools and 35 classes and 1009 students.

Statistical Sample and Sampling Method

Sample size estimation was performed using Cochran formula. Thus, the estimated sample size using the mentioned formula included: 150 intelligent boys and 127 intelligent girls which in total it made 277 intelligent students. The selection of intelligent boys and girls students from public schools has done using the random-cluster sampling method. Thus, all 4 sections of Karaj province have been included in the sample and in each district a high school for intelligent boys and another for intelligent girls have been selected.

Data Gathering Tool

In the present study, two instruments were used to measure the variables:

1. Baron Emotional Intelligence Test

Using the EQ-I questionnaire, that have been developed by Baron, included 133 questions that 117 questions were according to the 5 combination factors, 15 questions were positive impression and 8 questions were negative impression. The responses are of Likert method type (never, rarely, sometimes, often, and always). The questionnaire used in Iran, had 90 questions that measures the emotional intelligence in 5 subscales of intrapersonal skills, interpersonal skills, adaptability, stress management and general mood. The 5 combined factors are composed of 15 subscales that are as follows: intrapersonal relations scale (which included subscales of emotional self-awareness, self-esteem, assertiveness, independence and prosperity), interpersonal relations scale (which included subscales of empathy, social commitment and interpersonal relationships), adaptability scale (Reality testing, flexibility and problem-solving), stress management scale (The ability to handle stress and control momentum) and general mood scale (happiness, optimism).

For grading the questionnaire, the 5 degree scale of Likert must be used. For completely false options 1, false options 2, partially true options 3, right options 4 and absolutely true options 5 will be given. The reliability of the test was evaluated using the internal consistency method and calculating Cronbach's

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alpha. The Cronbach's alpha value is 0.93 which is considered as an acceptable figure for reliability. The correlation coefficient has also been calculated 0.88 in the Bisection method and in evaluating the odd and even questions of the questionnaire.

2. Creative Thinking Test of Torrance (Verbal)

One of the most famous tests of measuring creativity is the Torrance Test, containing 60 questions. The test is appropriate for elementary school age and older (to high school). The test evaluates four cognitive processes of creativity that these processes include fluidity, flexibility, and innovation. The reliability of creativity index in this test has been calculated 21 using the Kouder Richardson test and its level of significance have been calculated a number between 0.89 and 0.94 at the 99% level of significance. The calculated reliability in another research has shown a rate higher than 0.90 (Torrance, 1998). Khaefi (1993) validated the Iranian form of the Torrance test. He calculated the validity of each subscales of form B as follows: fluidity 0.78, expansion 0.91, flexibility 0.81, innovation 0.74 and the test reliability 0.80.

RESULTS AND DISCUSSION

Data in this research were analyzed at two descriptive and inferential levels. At the descriptive level, data were summarized using descriptive tables.

The Intelligent Boy Students

The calculated mean in emotional intelligence variable is 335.92 which are at a high level. Lowest score was 278 and the highest score was 363. The obtained value of tilt and skewness in this variable showed the normality of distribution.

The Intelligent Girl Students

The calculated mean in emotional intelligence variable is 283.57 which are at the average level. Lowest score was 260 and the highest score was 352. The obtained value of tilt and skewness in this variable showed the normality of distribution.

The scores range in the creativity variable was between 60 and 180.

The Intelligent Boy Students

The calculated mean in creativity variable is 144.64 which are at a high level. Lowest score was 130 and the highest score was 160. The obtained value of tilt and skewness in this variable showed the normality of distribution.

The Intelligent Girl Students

The calculated mean in creativity variable is 283.57 which are at a level higher than the average. Lowest score was 106 and the highest score was 165. The obtained value of tilt and skewness in these variables showed the normality of distribution.

To investigate the significance of difference between the scores of emotional intelligence and creativity in two groups, t- test of independent groups was used which results are reported in the followings.

Table 1: Descriptive measures of emotional intelligence and creativity

Intelligence	Gender	Mean	Standard deviation	Tilt	Skewness	Lowest Score	Highest Score
Emotional Intelligence	Boy	335.92	23.79	-0.19	0.40	278	363
	Girl	283.57	19.75	0.31	0.62	260	352
Creativity	Boy	144.64	8.09	-0.14	-0.47	130	160
	Girl	131.84	14.36	0.53	0.22	106	165

The scores range of emotional intelligence was between 90 and 450.

The First Hypothesis

There is difference in emotional intelligence of intelligent students according to their gender. The mean scores of emotional intelligence of intelligent female students were 283.57 and the mean scores of emotional intelligence of intelligent male students were 335.92. T-test investigated the level of

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significance of this difference. The obtained T value was -12.18 which is significant at $P \leq 0.01$ level; and the difference of emotional intelligent scores of intelligent boys and girls was significant. Considering that the mean value of scores of boys is higher than the mean value of score of intelligent girls (the difference is 52.35), it can be said that intelligent male students have higher emotional intelligence than intelligent female students.

Table 2: Independent Groups t-Test (The significant difference of emotional intelligence in terms of gender)

Groups	Mean	Means' Difference	Degree of freedom	of T value	Significance level
Girl	283.57	-52.35	275	-12.18	0.0001
Boy	335.92				

The Second Hypothesis

There is a difference between the creativity of intelligent students according to their gender. The mean scores of creativity of intelligent female students were 131.84 and the mean scores of creativity of intelligent male students were 335.92. T-test investigated the level of significance of this difference. The obtained T value was -3.08 which is significant at $P \leq 0.05$ level; and the difference of creativity scores of intelligent boys and girls was significant. Considering that the mean value of scores of boys is higher than the mean value of score of intelligent girls (the difference is 12.80), it can be said that intelligent male students have higher creativity than intelligent female students.

Table 3: Independent sample t-test (significant sex differences in emotional intelligence)

Groups	Mean	Means' Difference	Degree of freedom	of T value	Significance level
Girl	131.84	-12.80	275	-3.08	0.04
Boy	144.64				

In the first hypothesis, the results suggested that intelligent male students have higher emotional intelligence than intelligent female students.

The results of this study were inconsistent with the results of Sarny (2000), Petrides *et al.*, (2000), Molaei (2011). But it was consistent with the result of study of Javadi and Ezhei (2007).

The results of studies of Javadi and Ezhei (2007) showed that intelligent female students have higher emotional intelligent than male students. In some aspects of emotional intelligence such as social trends and making friends, intelligent girls are better. In other cases, especially in the general score of emotional intelligence, there is no difference between the two groups.

The results of researches showed that girls deal better with problems than boys when faced with social problems. They are happier and more optimistic and this helps them to establish stronger interpersonal relationships (Crick, 2002). Baron (2000) showed that women are stronger in interpersonal relationships, empathy and social responsibility. Researches showed that empathy and emotional expression are higher in women than men (Molaei, 2011).

But emotional intelligence is not limited to these features. In empowerment view, in studying of emotional intelligence, emotional intelligence is defined as a kind of intelligence that includes emotion. Mayer *et al.*, (2000) developed a modified model of emotional intelligence that investigates the emotional intelligence as an operation in two cognitive and emotional systems. According to empowerment model of Mayer *et al.*, (2000), processing information about one's emotions and others in emotional intelligence is important (Galakar, 2004) and high cognitive abilities can help improve emotional intelligence. Considering the differences between boys and girls in some certain cognitive skills such as thinking, cognitive development, intelligence and so on, the possibility of existing major differences in the dimensions of emotional intelligence between two genders is predictable.

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In the second hypothesis, the results suggested that intelligent male students have higher creativity than intelligent female students.

These results showed inconsistency with the results of studies of Manafi (2003), Osanloo *et al.*, (2006) and Khosravani and Gilani (2007). But they were consistent and coordinated with the results of studies of Agha (2008) and Shabani (2001). Many researchers believed that creativity is a God-given gift which is equally divided between men and women; but the attitude of the society towards girls and boys, their different social roles, and different areas for the creativity to being flourished had caused that despite the same talent, their creativity develop in different ways (Hosseini, 2008).

Some hypotheses insisted on the existence of some features because of their essentiality in the emergence of creativity. Harington (1981) said that creative people have certain traits in terms of characteristic. Sternberg (1985) believed that the interest in risking, denying restrictions and barriers to the ability to exploit the environment to create something new and unique, a lot of questions and assumptions and curiosity are necessary for creativity. Therefore, in determining individual differences about creativity, such traits cannot be overlooked. Perhaps the differences between girls and boys are related to some areas of personality and even social areas. The interaction of some personality traits with environmental factors can lead to different conditions in two genders. Experts believed that some obstacles such as fear of failure, leaving uncertainties, habits, lack of confidence, no social acceptance, the need to comply (Hosseini, 2008) and customs (Kerfs, 2003) are effective on the reduction of creativity. Therefore, various elements are involved in the development of creative differences between boys and girls that shows the need for more research in this regard.

Recommendations

Regarding to the results of this study, it is suggested:

- Our educational system has always considered the students' general intelligence, but intelligence does not guarantee success in the long term and for the ultimate success the emotional aspects, personality and life skills of adolescents must be considered.
- It is essential to design an educational program to increase the emotional intelligence of students and being implemented at different levels of education.
- Using practical capacities of teachers in order to increase the emotional intelligence of students during the teaching and the interaction of teachers and students.
- The impact of environmental factors on creativity and emotional intelligence is very high. It is better to pay attention to the improvement of these characteristics in all kinds of students by providing positive feedback and preparing the successful experiences areas.
- Using creative and student oriented teaching methods can enhance the self-concept of students in addition to its positive impact on the creativity of students, because using such methods would have a lot of successful piece of experiences for students.
- Designing curriculum in a way that the contents and the methods lead to the promotion of creativity of students, not the death of their creativity.

While doing researches in the following areas is recommended:

- Due to conflicting findings about the effect of gender on emotional intelligence, the need for more in-depth studies based on qualitative methods to explore the essential elements of this influence and the possible mediator variable is recommended in order to identify the personality and social infrastructures affecting these features.
- Investigating different familial, individual, and institutional features affecting the emotional intelligence and creativity in terms of path analysis models and structural equations.

REFERENCES

- Agha Soltan A (2008).** The study of creativity of engineering curriculum of department of technology education in college. *International Conference Engineering Education*.
- Baron R (2000).** Emotional and social intelligence: Insights from the Emotional Quotient Inventory (EQ-I). In: *Handbook of Emotional Intelligence*, Baron R and Parker DA (San Francisco: Jossey-Bass).

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- Besharati MA (2010).** Analysis of emotional intelligence, Defense mechanism and general intelligence. *Journal of Modern Psychology* 2(3) 22-35.
- Bowers J (2005).** Interactive effects on ninth-grade achievement of Creativity and IQ. *Journal of Educational Measurement* 6(3).
- Brockman Micheal S and Russell ST (2009).** Academic success: Building partnership for youth. Bolton 6.
- Butler-Bowdon T (2009).** *50 Psychology Classics* (London: Boston).
- Crick AT (2002).** Emotional intelligence, Social competence, and success in high school students, MSC thesis, Western Kentucky University, Bowling Green.
- Galakar G (2004).** *Intelligent Child Education*, translated by Mehdizadeh M, Rezvani Mashhad (Astan Quds Razavi Publication).
- Haghighi J (2003).** Comparison of the nine compositions of intelligence and creativity in terms of personality traits. *Journal of Education and Psychology* (1 and 2).
- Harrington H (1981).** *Promoting Mental Health* (World health organization).
- Hashemi S (2011).** Relationship between emotional intelligence and creativity in students of art, literature and science. *New Ideas of Educational Psychology*, Alzahra University 5(2) 79-102.
- Hoffman (2006).** Too much intelligence? Integrating social emotional and Practical intelligence. In: *The Handbook of Emotional Intelligence: Theory, Development, Assessment and Application at Home, School, and in the Work Place*, edited by Baron R and Parker JDA (San Francisco: Jossey-Bass) 136-168.
- Hosseini A (2008).** *The Nature of Creativity and its Fostering Methods* (Astan Quds Razavi Publication).
- Khosravani S and Gilani B (2007).** Creativity and 5 Factors of Personality. *Journal of Psychology* 2(37) 65-83.
- Javadi Hakim M and Ezhei J (2007).** Relationship between quality of attachment and emotional intelligence in intelligent and ordinary students. *Journal of Psychology* (30).
- Jeune Song et al., (2009).** The differential effects of general mental ability and emotional intelligence on academic performance and social interaction. *Intelligence*.
- Kerfs A (2003).** *Fostering Creativity in Children*, translated by Nourani M (Tehran: Shamiz Publication).
- Kumar Palaniappan A (2007).** *Academic Achievement of Groups based on Creativity and Intelligence Formed*. Linkoping University (Electronic Press).
- Manafi F (2003).** Review and identify obstacles affecting the creativity of managers of physical education of universities throughout the country, MA thesis, Tehran University.
- Mayer JD, Salovey P and Caruso DR (2000).** Emotional intelligence as zeitgeist. As personality and ability as a mental. In: *The Handbook of Emotional Intelligence: Theory, Development, Assessment and Application at Home School, and in the Work Place*, edited by Baron R and Parker JDA (San Francisco: Jossey-Bass) 92-117.
- Mayer JD and Salovey P (1997).** What is emotional intelligence? In: *Emotional Development and Emotional Intelligence: Implications for Educators*, edited by Sluyter P and Salovey D (New York: Basic Books) 3 - 31.
- Mayer JD and Salovey P (1990).** Emotional intelligence. Imagination. *Cognition and Personality* 9 185 to 211.
- Mayer JD, Salovey P and Caruso DR (2000).** *Emotional intelligence as zeitgeist. as personality and as a mental ability*. In: *The Handbook of Emotional Intelligence: Theory, Development, Assessment, and Application at Home School, and in the Work Place*, Bar-on R and Parker JDA (San Francisco: Jossey-Bass) 92- 117.
- Moura M and Olivier L (2008).** Trait emotional intelligence and the cognitive Appraisal of Stressful events: An exploratory study. *Personality and Individual Differences* 44(7) 1445-1453.
- Mosha et al., (2014).** Trait emotional intelligence and the cognitive appraisal of stressful events: An exploratory study. *Personality and Individual Differences* 44(7) 1445-1453.
- Molaei E (2011).** Gender differences and emotional intelligence in students of Medical Sciences of Golestan. *Scientific Journal of Faculty of Nursing and Midwifery*, Gorgan (2) 30-34.

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- Osanloo P, Assadi H, Goodarzi M and Kazemnezhad A (2006).** The relationship of individual characteristics of managers of Physical Education Organization (PEO) and the Ministry of Science with innovation and the management of their conflicts. *Journal of Motion* (30).
- Petrides KV, Norah Frederickson and Adrian Farham (2004).** The role of trait emotional intelligence and Deviant behavior in academic performance at school. *Personality and Individual Differences* **36**(2) 277 - 293.
- Pirkhaefi A (2010).** Comparison of creativity and intelligence of students in different fields of study. *Journal of Educational Fresh Ideas* **9** 18-27.
- Pirkhaefi et al., (2011).** Self efficacy, risk-taking behavior and mental health as predictors of personal growth initiative among university undergraduates. *Journal of Research in Educational Psychology* **4**(12).
- Rogrs (1977).** Together again: Emotion and intelligence reconciled. In: *Emotional Intelligence: Knowns and Unknowns*, edited by Matthews G, Zeidner M and Oberts RD (New York, Oxford University) 49-71.
- Sarny (2000).** Relationship of Emotional Intelligence and Self - efficacy to work Attitudes among Secondary School Teachers in Southwestern, Nigeria. *Journal of Medwell* **4** 540-547.
- Sarny (2000).** Emotional competence: A developmental perspective. In: *The Handbook of Emotional Intelligence: Theory, Development, Assessment and Plication at Home, School, and in the Work Place*, edited by Bar-on R and Parker JDA (San Francisco: Jossey-Bass) 68-91.
- Seif A (2007).** *Educational Psychology*, fifth edition (Tehran: Agah Publication).
- Shabani Varaki B (2001).** The image of features of creative students in researches, Journal of Humanities, University of Sistan and Baluchestan. *Journal of Education* 27-30.
- Sharifi HP (2011).** *The Theory and Application of Intelligence and Personality Tests*, sixth edition (Tehran: Sokhan Publication).
- Sternberg RA (2010).** Three facet mode of creativity. *The Nature of Creativity* (Cambridge unit press).
- Vanrvy et al., (2005).** Emotional intelligence and emotional creativity. *Journal of Personality* **75** 199-235.