

Relationship between Emotional Intelligence and Creativity of Secondary School Students

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Abstract:

The main objective of this study was to evaluate the students' emotional intelligence and creativity to reach the target in addition to theoretical studies and literature review; data were collected by using two standard questionnaires about emotional intelligence and creativity. Reliability of them was obtained respectively 0.71 and 0.85. The study sample consisted of all public high school students in Zanjan city's District 2, which of their number were 11,149 subjects. From above population, 360 subjects were selected as sample by using multi-stage cluster sampling. Research methods in terms of purpose were practical and method of data collection was descriptive - correlational. Descriptive and inferential statistics were used for analyzing the data which have shown that in general students are higher than the average in terms of intelligence and creativity supposedly located society. Also, a significant relationship was found between emotional intelligence and creativity of the students so that the equation can predict the extent that these variables also showed creativity.

Key words: emotional intelligence, creativity, high school students

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Introduction

Twentieth century was era of intelligence, cognitive science, cognitive psychology and behavioral science, and intelligence quotient or IQ is good measure to assess interpersonal skills (interpersonal intelligence) was used. But after many years of using these tests in the field of science and technology, the question is whether cognitive intelligence (general intelligence) predictor of success in life and career issues or not? Research shows that career success and 80% to 20% to IQ depends on who else is referred to as emotional intelligence (Goleman, 1995). Martinez (1997) Emotional intelligence as a set of non-cognitive skills, ability and capacity knows that the person's capacity to withstand external pressures and demands of their resistance (Martinez, 1997). It also includes a person's capacity to accept reality, emotional intelligence, flexibility and ability to solve emotional problems, ability to cope with stress and shocks are used.

Goleman (1998) believed that emotional intelligence is the capacity of human knowledge of self and others, and helps determine person's motivation and control own emotions and relationships with others on the basis of its foundation (Khaef Elahi, 2002). Research on creativity and its constituent elements, by social scientists began more than a century ago, but the main motivation for the research was developed in 1950 by Guilford. Guilford creativity with divergent thinking (achieving new approach for solving problems) vs. convergent thinking (achieving the correct answer) considered synonymous (Shahraray and MadaniPoor, 1996: 39).

Kuntz (1988) has defined creativity as ability to have power and realization of new ideas (Sam Khanian, 2002). The urgent need for creativity is in all human societies. Creativity is an essential key to progress and prevent the attachment of a dynamic society. Creativity is hilarious passage into the future. Creativity belongs to the whole members of society and the

main requirement of the human psyche and spirit and all they could to encourage own and others and provide practical and spiritual development of human talents. It is a necessity in all areas of life and its importance in childhood and adolescence is much higher. Since the formation of human existence in this period will be dumped. Humans are evolving creative force in the thoughts of their key development and can be combined with a lively society spirit, endeavor and prosperity of human society blown into place and the civil society to lead the scientific and spiritual.

Creativity was virtually unknown until 1950, and only handfuls of research have been made about mental ability, intelligence and creative thinking. For example, Francis Galton (1895) first book "Hereditary Genius" wrote to assess the ability of the intelligence and ingenuity of the human family and prominent people will be studied.

Also in 1921, Terman conducted psychometric studies on perspicacious children and stated in general intelligent people have high character development and physical superiority. Also Catherine Cox studied on genius children's minds and found that some genius kids had labeled retarded and stupid (Saeidian, 2009).

Hernsin and Murray (1994) in normal or bell-shaped curve challenging book stated about the genetic basis of intelligence that traditionally have defined new start. This book, instead of genetic intelligence support for the issue, prompted protests from many educators, researchers and journalists to return. This means that the traditional view of intelligence is likely to be limited and one-sided. So this concept was expanded that may exist other routes for the intelligence and success in life (Akbarzadeh, 2003).

Identifying strengths and weaknesses in teaching emotional intelligence and how they relate to the creativity of students, managers and senior planners and higher levels of education taken helps steps to strengthen strengths and

identifying strengths, optimum use of opportunities to take. One of the factors contributing of creative people to enjoy there is emotional intelligence.

Many believe that the introduction of such character that is inherent some people are born with this ability if psychologists have long recognized that the potential size of memory is common to mankind that can be used with certain principles and techniques to create new attitudes and habits by avoiding the factors that has the potential to strangle and the continuous application of plant breeding. On the other hand, if we accept that nation's greatest asset is its human resources and creative thinker and stake education and training human resources in creative and inventive so several practical steps should be taken in this context because today's students as adults will be effective in the future, so it makes sense to seem to be that any studies have been done in the area of reliable information available to teachers and educational planners placed. With regard to the above, this study has sought the relationship between emotional intelligence and creativity of secondary school students to study in order to put them through the scientific applications and proposals. So in a scientific answer to this question is that, in the population studied level of students' emotional Intelligence how to be creative and this variable has what kind of relationship with students' creativity?

Theories of Creativity

According to Freud (1959) origins of creativity, includes the conflicts in the unconscious mind (Id). The subconscious mind sooner or later finds a solution to this conflict. To Freud as a person tries to meet physiological needs, through the creation of efforts to overcome these conflicts, in other words, in this view, creativity is a mechanism of tension assuming. In this regard, Freud believes that if the solution selected by the criteria of

"self" is not consistent with observed behavior cannot be creative and neuroticism appear in person in this case. Thus, according to Freud, creative person who is able to control the 'institution' and lower the subconscious mind is allowed to pass. The creative person is sick or does not have this capability (Pirkhaefi, 1997).

Modenik (1962) argues that creative thinking is the formation of association of new and useful compounds which meet the requirements of a particular title. The new elements are dissimilar from each other; the process will be more creative. Modenik based on the theory of association provides three methods for creative problem solving. 1 accident: new combination randomly occurring by chance. 2 similarity and congruence: This mode is similar elements results in new compounds .3. Mediation: a new combination is achieved through the common elements (Hosseini, 1999).

Gestalt theory, creativity or creative thinking or pattern reconstruction Gestalt, creative thinking usually begins with a problematic situation in which a person is incomplete in some way the problem as a whole considers. Then create problem of dynamic forces and stresses within the lines to pressure in mind. Someone follows up on the lines, which is a solution to the coordination of returns. He through this process, i.e. the overall pattern and wield an innate desire discipline on its own satisfies (Pirkhaefi, 1997).

According to the theory of Guilford (1950) differ in the sensitivity of the issue. For example, Guilford says scientists consider that they intend to complete a report.

In his opinion, if only one of them can see the problem reported, that only he who is able to reflect more about the results of the chance to the question from creative. However, according to another scientist that he was not able to see it, no luck on the creative thought in his mind. Guilford is also assumed that individuals differ in the ease of generating ideas. In his opinion, those who are capable of great ideas in the

limited time offer those terms are subjective, i.e. the fluid is more likely to produce meaningful ideas. However Guilford emphasizes creative thinking can only be expressed in terms of a new issue and should be dealt with mental flexibility and innovation exist (Khan Zadeh, 1979).

Torrance knows creative based around three core skills, motivation and ability. Torrance believes that despite the fact that the individual may have a high motivation to do things, but about the nature of creativity and social attitudes can sometimes be also called the community perception of the ability of motivation and performance creativity, or the gap destroy the relationship between them. On the other hand, someone who has a high level of ability and creative skills, which provided the opportunity for him to resurrect the creative motivation for him, it's the achievements of the creative. The person who has the ability and motivation is creative and innovative skills to achieve creative achievement (Torrance, 1961).

Almost from about 1950 onwards psychologists found that intelligence and creativity of an item and feel the need to be creative and began to gradually extensive research on this. Guilford practical model is proposed in the early 1950s. The model was postulated in the number of cognitive operations that involve convergent thinking and divergent thinking was. He has an extensive background in the design phase of the cause. Guilford's plan had large impact on the ongoing research project on creativity.

Roe (1953) detailed the first scholarly research on the characteristics of creative people out. Torrance (1959), Getzel and Jackson (1962), Baron (1963), Taylor (1963) also carried out extensive research predominantly creativity. Torrance particularly broad and deep research in the field of education, creativity and innovation are at school (Saeidian, 2009). Barron (1987), knows creative cognitive process of the creation of an

idea, concept, product or discovery of novel (Shahraray and Madani-Pour, 1996: 39).

Barzman (1987), creative cognitive process of the creation of an idea, concept, product or discovery of novel knows (Shahraray and Madani Pour, 1996: 39) Creativity as justice, democracy and freedom for people of different meanings but a common factor in all, creativity is that creativity is always paying attention to new factors that creativity is present in there and act as a total cultural heritage, but what is new is the combination of these factors, the new model (Farnodian, 1991).

Hnri.po.an (1948) states that creativity means of detection, discrimination, insight, receive understand and select (Saatchi, 1991: 26). Creativity is the ability to combine ideas in a unique way and creating continuity between ideas (Zarei, 1994: 60). Creativity involves the use of mental abilities to create a new idea or concept (Rezayian, 1995: 131). Creativity is the ability to visualize, predict and generate ideas (Khaki, 1996: 27).

According to Robert Merton, creative people are deviant behavior. It means accept cultural goals but for whatever reason they reject the means of achieving and if they cannot compete against each other to achieve cultural preference in new ways (ways abnormal / illegal / unlawful) may be used to achieve those goals.

Theory of Emotional Intelligence

Emotional intelligence means ability that individual can maintain his motivation and perseverance in the face of adversity, in critical condition, and control the impulse itself, and survive his cool, delaying prosperity, moods his its own and to prevent confusion due to distort the power of his thought, empathy with others and have hope. In summary emotional intelligence is a set of attributes that is important in the fate of individuals (Aghayar and Sharifi Daramadi, 2006).

Meyers Elias says emotional intelligence is the set of abilities and helps others in personal or professional life and not establishes a friendly relationship. Some psychologists' emotional intelligence engine fuel success or a Social Radar to communicate constructively and effectively with others they know. Studies show that more than 50 percent of success is dependent on emotional intelligence (Aghayar and Sharifi daramadi, 2006).

Goleman has made similar comments. He believes that cognitive intelligence is at best only 20% of the causes of success and 80% of success is dependent on many factors; the most important part emotional intelligence and emotional intelligence are the facilitators of success (Goleman, 1995).

Mayer& Salovey (1997) involves emotional intelligence ability to identify others' true emotions and affections. Appropriate responses to them, as well as inspire, inform, regulate and control their emotional responses. In terms of purely emotional intelligence or emotional control, but both mentioned, namely when expressing emotion, and when the act is problematic and troublesome (Akbarzadeh, 2003).

Salvi and Meyer (1990), the initial model of emotional intelligence involves three areas of evaluation and expression of emotion, regulation of emotion understands themselves and others.

Bar (1997) emotional intelligence as set of skills, talents and no cognitive abilities knows that person's ability to succeed in coping with environmental demands and pressures to increase. Thus, emotional intelligence is a factor in determining one's success in life is directly influenced by the individual's mental health. Other important determinants of emotional intelligence (the ability to succeed in coping with environmental demands), including preparation of bio medical, intelligence and cognitive talents reality and environmental constraints interact. Bar five components of intrapersonal, interpersonal,

adaptability, stress management and general mood emotional intelligence specified for the test is to measure it (Rajaei, 2010). From the perspective of Gardner (1983), about the nature of human intelligence, the capacity to question, why and finally live the spirituality, art, poetry, philosophy, and religion is manifested. But there is no doubt that intelligence is seen (Rajaei, 2010).

The research questions are :

- 1- What is level of emotional intelligence and creativity of secondary school students in Zanjan's district?
- 2- Is the relationship between emotional intelligence and creativity of secondary school students in Zanjan's district?
- 3- Is emotional intelligence can predict a student's creativity ?

Method

Research methods in terms of purpose were practical and method of data collection was descriptive – correlational in which correlation or change a relationship in the studied population is considered. Statistical population consisted of all public high school students who enrolled in District 2 of Zanjan city in 2012-2014 academic year that according to statistics provided by the Department of Education of the province in 5711 were boys and 5438 were girls, and a total of 11,149 people. Of the population, by using Cochran's formula of 360 were determined as sample.

For example, the distribution of multi-stage cluster sampling method was used. This means that the public school district of Zanjan in high school courses based on the gender (girls and boys) and training (theoretical and technical) and then divided randomly comments of the four school (the girls and the boys) and the technical team from each school were chosen gender. Data were collected using two standard

questionnaires used to measure emotional intelligence and creativity, emotional intelligence questionnaire Travis, Bradbery and Jane Graves (2004), and a standard questionnaire to measure students' creativity Torrance (1979) was used. This study was approved because of standardized narrative devices and also tried a few other expert advisors seem to be involved. To assess the reliability of the instruments used in this study, Cronbach's alpha reliability of the questionnaire that spiritual intelligence and creativity questionnaire, 0.85 and 0.89 respectively. To investigate the research questions in addition to descriptive statistics, inferential statistics indices including the one-sample t test, Pearson correlation and simple regression were used.

Results

The analysis of the first question; what is level of emotional intelligence and creativity of secondary school students in Zanjan's district?

Table (1) one-sample t test was performed to Emotional Intelligence and Creativity

Variables	Number	Mean	Hypothetical mean	Mean difference	standard deviation	df	t	Sig.
Emotional Intelligence	360	94.49	84	12.41	10.91	359	21.58	0.00
Creativity	360	73.89	60	13.89	13.40	359	19.66	0.00

The data table shows the t-test, one-sample df of 359 and mean difference of 12.41 for Emotional Intelligence and 13.89 for creativity in the area of .01 is significant at a confidence of 99% between the observed and theoretical differences exist and students in terms of emotional intelligence and creativity are higher than assumption.

The analysis of the second question; is the relationship between emotional intelligence and creativity of secondary school students in Zanjan's district?

Table 2. Calculate the correlation coefficient for the variable of emotional intelligence and creativity

Pearson correlation coefficient		Emotional Intelligence	creativity
Emotional Intelligence	Pearson correlation coefficient	1	0.289(*)
	Sig. Number	0 360	0.000 360

Based on the above data we see that the Pearson correlation coefficient 0.289 is significant at the 0.01. The top 99 percent can be said with certainty that the "emotional intelligence" and "creativity" students there. It should be noted, according to the sign of the correlation coefficient is positive correlation between the two variables is direct and multiplier means to increase the amount of "emotional intelligence" students, "creative", they also increased.

The analysis of the third question: is emotional intelligence can predict a student's creativity?

Table 3 Regression analysis to predict creativity through emotional intelligence

model	Sum of square	df	Mean-square	F	Sig.
Regression	3561.442	1	3561.442	32.524	0.000
Residual	39201.889	358	109.502		
Total	42763.331	359			

Table (4) Univariate regression output for predicting creativity through emotional intelligence

Model	Non-Standardized coefficients B	Std. Error	Standardized coefficients Beta	t	Sig.
(Constant)	79.051		0.289	25.548	0.000
creativity	.235			5.703	0.000

According to data from the above table we see that not standardized regression coefficient equal to 0.235 Emotional Intelligence and standardized regression coefficient is equal to 0.289. The above analysis can be found in the following equations:

Non-standard regression equation

$$\text{Creativity of students} = 79.05 + 235 (\text{Emotional Intelligence})$$

Standard regression equation

$$\text{Creativity of students} = 0.289 (\text{Emotional Intelligence})$$

The creativity of students is function of their emotional intelligence. So as to increase the emotional intelligence of students increased their creativity based on the above equations.

Discussion and conclusions

Overall, the results showed that students in terms of emotional intelligence and creativity higher than assumed (the test) are a function of emotional intelligence and creativity of their students. The relationship between emotional intelligence and creativity are obtained. Moreover, emotional intelligence is the ability to predict the need for creativity .

Comparing these findings with other findings indicate that people with high emotional intelligence, more power to cope with new issues every day, professional development and career (Soberg, 2001) and leadership (Wong and Lau, 2002) have high extroversion and emotional intelligence, resilience, agreeableness, competence (Salkofsaki et al, 2003), coordinating the different emotions and can identify them (Plato, 2003) correlated. Since the Bar (1997) know Emotional intelligence as a set of skills, talents and abilities that non-cognitive ability to successfully deal with the pressures and

demands of the environment increases, so emotional intelligence is factors which determine person's success in life.

This finding is consistent with research findings Kiani (2007) who found that teaching emotional intelligence and creativity in education increases the academic achievement of student. According of Amraam (2009) it can be concluded that by increasing the understanding of issues increases creativity because creativity occurs when people understand the issues surrounding .The results of the analysis questions can be proposed Tips for the education system and the authorities there.

The correlation between emotional intelligence and creativity, students will be offered at educational planners and stakeholders in developing curriculum, fostering more about the students Emotional Intelligence and to enhance students' creativity through the Emotional Intelligence program more practical to consider.

Any attempt or effort to enhance intelligence and creativity, with an emphasis on the following categories may be affecting the quality of the education system.

- Understand the concept of emotional intelligence and creativity for teachers and students in the field of training necessary to enable them to be considered.
- To increase the accuracy and validity of research findings related to Emotional Intelligence and creativity to all aspects of variable pay.
- Pathology of creative education in the school curriculum of every school and every grade performed separately.

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