Studying the Relationship of Five Personality Factors (NEO) on Emotional Intelligence and Creativity of Booshehr High School Students

1Reza Farashbandi, 2Leila Jokar, 3Marzieh Baziari

1Department of Educational Sciences and Psychology, Payamenoor University, pobox 19395 -3697, Theran, Iran.
2MA of Clinical Psychology, Islamic Azad University, Research and Science Branch, Booshehr.
3MA of Clinical Psychology, Islamic Azad University, Research and Science Branch, Booshehr.

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ABSTRACT

The purpose of this paper is to study the relationship of five personality factors (NEO) on emotional intelligence and creativity of Booshehr high school students. The population includes all the high school students of Booshehr and the sample is 50 boys and 50 girls. The tools of gathering information are the 5 factors standard questionnaire of NEO personality with /83 reliability coefficient, Seaber or Sharing emotional intelligence questionnaire with /84 reliability coefficient and Tornes creativity standard questionnaire with /80 reliability coefficient and for analyzing the data, T test and Regression analysis were used. The results showed that just the C variable (Conscience) is able to predict the emotional intelligence (p<0/03) and the other variables including A (agreeableness), E (extroversion), N (neurosis) and O (flexibility) are not able to predict the emotional intelligence. Neither of these 5 personality factors are able to predict creativity. In N factor (neurosis), girls had a higher average than boys, but in other factors, the average of boys is higher than girls. The results indicated that meaningfully, girls have a higher emotional intelligence than boys.

INTRODUCTION

MacKera and Casta described the personality based on 5 perspectives or 5 main factors including neuroticism, extroversion, openness to experiences, conformity and conscientiousness. Neuroticism is referred as the tendency to experience anxiety, stress, smarting, enmity, embarrassment, non-rational thinking, depression and low self-esteem. Extroversion is called the tendency to be positive, decisive, active, kind and be sociable. Openness to experiences includes the tendency for curiosity, acting, intellectualizing, flexibility, open minding and innovation. Conformity is the tendency for forgiveness, kindness, generosity, trusting, sympathy, obedience, dedication and loyalty. Conscientiousness includes the tendency to organizing, efficiency, faithfulness, patience, progress, reasoning and contemplation. [2]

Emotional intelligence, as a multilateral structure is consisted of comprehension, expression, recognition, application and managing emotions, in yourself and others, which is consistent with a range of variables and results related to the quality of life. These consistencies are related to the aspects between emotional characters, like the better quality of social relations and also to the aspects in the emotional intelligence characteristic like sympathy, relationships management and organizing conduct. In the field of between personal aspects of emotional intelligence, Mier, De Paulo and Salvoy studied the ability of individuals to recognize the content of emotions and the application of this capability for sympathy.

There was a hypothesis that creativity, as the mental ability for invention and innovation was existed from the beginning of humankind life and it was always valuable, and mostly was considered as the natural result of the intelligent individuals' mental performance, but it wasn't studied specifically since a century ago. Fortunately, today there are many scholars, specialists, books, magazines and tests which are exclusively about creativity. However, scientific attention to the creativity subject is new and in fact, the history of scientific studies about creativity and its constituent factors is not more than one century. First, social and psychological science scientists paid attention to the creativity subject and for the first time, a scientist named Gealfore, in 1950, started his scientific studies about the nature of the constituent factors and creative thinking function. [1]

The importance of this study is that personal factors, creativity and emotional intelligence have a substantial importance due to their functions. They help students to react appropriately in dangerous and threatening situations.
conditions to save themselves. Also, by the help of emotional intelligence, they can understand the roots of their sadness and happiness and manage it. Higher sensitivity and emotional intelligence help students to understand other individuals' needs and sympathize with them and also by controlling their feelings they can strengthen the sense of responsibility. Totally, personality factors, creativity and emotional intelligence help students to have a better learning and be happier, healthier and more successful than others. Educating personality factors, creativity and emotional intelligence could be done in a series of attempts including classroom training, extracurricular activities, supportive conditions at schools and participating students, teachers and parents in social activities. If the process of socialization and the development of personality factors, creativity and emotional intelligence are not desirable in the family environment, there's a possibility that schools could compensate these shortcomings by corrective trainings. Then, many psychologists and instructors had emphasized on the attention and development of social and emotional skills training at schools.

In this paper, we tried to study the relationship of personality factors (NEO) on emotional intelligence and creativity in high school students of Booshehr and also to investigate the meaning of personality factors, creativity and emotional intelligence and its importance and the students' needs to understand the influence of these concepts, so that Education department and the responsible institutions would be able to recognize the weaknesses and the problems and predict the necessary plans for solving the problems and barriers. It's obvious that if this issue is studied, the relations and the differences of personality factors, creativity and emotional intelligence among high school students of Booshehr would be cleared.

2. Five Personality Factors:

1-2 Neuroticism (N):

The most effective domain and criterion of personality, is the contrast of consistency or emotional stability with inconsistency or neuroticism. Clinical specialists would recognize many kinds of emotional problems like the social fear and depression, but numerous studies indicate that some individuals are susceptible to these emotional conditions who would experience other conditions. Negative feelings like fear, sadness, embarrassment, anger, the feeling of guilt and hatred consists the environment collection (N). Although N is something more than readiness for psychological problems, maybe fragile feeling would prevent consistency. Men and women with (N) grade have irrational beliefs and are less able to control their problems and are weaker to compromise with their stresses. [4]

2-2. Extroverts (E):

Extroverts are socialist, but social ability is just one of the characteristics which are proposed in the field of extroversion. Furthermore, loving people, preferring large groups and associations, bravery, being active and talkative are the characteristics of extroverts. They like sexual temptations and tend to be happy. Also, they are ecstatic, energetic and optimist. The criterions of E field are powerfully consistent with the interest to big risks in the related occupations. While showing extroverts' characteristics is easier, showing introverts' characteristics is more difficult. [3]

3-2. Flexibility (O):

As a main perspective of personality, flexibility in experience is much less recognized than E and N. Flexibility factors like active goal, applauding beauty, regarding internal feelings, preferring diversity, intellectual curiosity and independence in judgment, often played a role in personality theories and essays, but their connection in a wide field and forming a factor of personality was seldom proposed. Flexibility scale in NEQ-PI-PA test is maybe one the widest aspects of the study. Flexible individuals are more curious about the internal and the outside world and their lives are wealthy form the experience point of view. They tend to accept new and unusual believes and values and more than inflexible individuals would experience positive and negative excitements.

4-2. Agreeableness (A):

As extroversion, agreeableness is a part of personal tendencies. An agreeable person likes other people and is sympathetic and also I eager to help other people and believes that other people would help in return. In contrast, a person who is not agreeable is combative, egocentric and skeptic toward other people and is competitive than being cooperative. Many people tend to see agreeableness as an ideal social characteristic in themselves which is healthier from the point of psychology, but it must be noted that the readiness to fight for your benefits is also a privilege, so agreeableness in a fighting situation or in court is not a virtue, also critical thinking and pessimism in science, helps correct scientific analyses. None of the final poles of this factor are nor ideal for society, so they would not useful for the health of individuals. [6]
5.2. Conscientious (C):
Some of personality theories, especially psychological dynamics are regarding controlling shocks. During development, individuals learn to compromise their goals and inability to prevent shocks and temptations is a sign of high (C) among adults. Self-control means as the concept of the ability for a very active planning, organizing and doing responsibilities ideally, so the individual differences is the basis of conscientious. Conscientious people are purposeful, determined and strong. Successful people, famous musicians and athletes have a high amount of these characteristics. Deagman calls this field as the "tendency for success". [7]

3. Emotional Intelligence:
Emotional intelligence was firstly proposed by "Peen" in 1985, but it became popular by "Golman" in 1995. Oxford Dictionary defines emotion as any kind of excitement or perturbation in the mind, feelings, affection or any powerful intellectual form. Salovierand Mayer efine emotions as organized responses which are the point of conflict of the other psychological sub systems and includes physiological, cognitive and experience systems. They also consider emotional intelligence as a kind of emotional processingwhichincludesattending proper assessment of emotions, their systematic organization. Golman states that emotional intelligence is the ability to comprehend emotions and feelings and as a generalization, we can organize emotions and emotional sciences and we can provide a condition for intellectual and emotional developments. Emotional intelligence includes a series of skills, talents and non-cognitive abilities which successfully, increases the individual ability to face environmental pressures and conditions.

Creativity:
Actually, a creative person possesses a searcher and creative mind. Webster dictionary defines creativity as the synonym of some terms like exploration, invention and innovation and considers creativity word as creating. In Seelamii psychological dictionary, it is stated that "creativity is the tendency and interest for invention which exists in all individuals and in different ages potentially and has a direct consistency with cultural social environment. Some requirements are needed for the natural self- prosperity of this tendency. The fear of deviation and trying to be consistent with norms would restrict the society and little children wonder happenings and try to explore new phenomena and while they are not under a standard training, are somehow creative. Based on definitions and explanations about the nature and functions of creativity, it's obvious that creativity is a unique thinking of individuals which may be lead to the actual production of something, so it's proper to use creativity term instead of creative thinking.

Jamshidi Avanaki [1] studied the relationship between emotional intelligence and creativity on 350 male and female students of 11 district of Tehran and they understood there is a meaningful relationship between emotional intelligence and creativity.

Baar an [5] believes that some special personal characteristics could not be attributed to creative individuals. He mentions Baroon and Harington studies which they did not find anything new about the creative personality.

Roodgers questions about the personal characteristics and considered them inaccurate based on statistical point. They believe that in a number of these studies, the necessary information was not gathered in an equal condition from control and creative groups, so the observed differences were totally randomly.

Methodology:
The methodology of this study is descriptive (non-experimentally) and consistent. The population includes all the high school students of Booshehr in 91-92. For selecting sample, there are different methods in which based on the width and the distribution of population, cluster random sampling was used. For this purpose, among high schools of Booshehr,6 schools were selected randomly(3 male and 3 female schools), then of every selected school, a number of students were selected by a lottery and the questionnaire was given them to be completed. So, the sample of this study was calculated 100 students. In this study, the required data was gathered by a questionnaire including open and closed questions. The used questionnaire in consisted of 2 parts:

Five factors NEO personality Questionnaire:You are studying Personal reformed NEO-PI-R questionnaire with 5 main factors and 30 characteristics which is the representative of the individual's personality in the fields of norms and problems, such that in addition to its wide application in studying the characteristics of ordinary people, it has a wide application in the field of recognizing different kinds of Axis II psychiatric disorders. We can rely on the content validity of this questionnaire based on Torens, Abedi and the confirmation of supervisors, consultants and specialists and due to the confirmation of the internal consistencies of the questions, this test is validity evidence. In this study, the whole reliability of the questionnaire was calculated using Kronbak Alpha of /83.

Seber or Sheering Emotional Intelligence Questionnaire:This standard questionnaire is consisted of 33 questions that were standardized by Mansoori in1380. This questionnaire would assess the fifth factor of emotional intelligence including self-motivation, self-awareness, self-control, social awareness and social skills.
The components of these 33 questions have 5 alternatives including always, often, sometimes, seldom and never in which the grade would belong to the never alternative. We can rely on the content validity of this questionnaire based on Tornes, Abedi and the confirmation of supervisors, consultants and specialists and due to the confirmation of the internal consistencies of the questions, this test is validity evidence. In this study, the whole reliability of the questionnaire was calculated using Kronbach Alpha of 0.84.

Tornes Creativity Questionnaire: This scale was created by Tornes. This test would assess 4 constituent factors, i.e. fluidity, innovation, flexibility and development which are 16, 22, 11 and 11 alternatives. That is, questions 1 to 22 would assess fluidity factor, 23 to 33 development factor, 3 to 49 creativity factor and 50 to 60 would assess flexibility factor. Indeed, each one of these questions would form a sub test. Each alternative has 3 different responses of A, B and C (qualitative) with the value of changing to numerical quantities of 0, 1 and 2. There’s a possibility that in every question, A-alternative has the least and C alternative has the highest creativity. The total grades in every sub-test is the representative of the testable grade in that field and the total testable grades in 4 sub-tests shows the total grade of the individual’s creativity. The resulting grades of assessing all the 4 factors separately, and the total of grades totally, is analyzable and interpretable. The domain of total creativity of every test is between 0 to 120. We can rely on the content validity of this questionnaire based on Tornes, Abedi and the confirmation of supervisors, consultants and specialists and due to the confirmation of the internal consistencies of the questions, this test is validity evidence. In this study, the whole reliability of the questionnaire was calculated using Kronbach Alpha of 0.80.

Inferential Findings:

First Hypothesis:

How much emotional intelligence would be predicted by 5 personality factors (Extroversion E, flexibility O, agreeableness A, conscientiousness C)?

Table 1: The impact of personality factors on emotional intelligence

<table>
<thead>
<tr>
<th>Personality Factor</th>
<th>p</th>
<th>β</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0.501</td>
<td>0.669</td>
<td>0.676</td>
</tr>
<tr>
<td>C</td>
<td>0.013</td>
<td>0.250</td>
<td>2.536</td>
</tr>
<tr>
<td>E</td>
<td>0.027</td>
<td>0.128</td>
<td>1.26</td>
</tr>
<tr>
<td>N</td>
<td>0.826</td>
<td>0.088</td>
<td>0.781</td>
</tr>
<tr>
<td>O</td>
<td>0.023</td>
<td>0.023</td>
<td>0.229</td>
</tr>
</tbody>
</table>

Simultaneous regression results show that just C variable (conscientiousness) is able to predict emotional intelligence (P<0.013) and other variables including A (agreeableness), E (extroversion), N (neuroticism) and O (flexibility) are not able to predict emotional intelligence.

Second Hypothesis:

How much creativity would be predicted by by 5 personality factors (Extroversion E, flexibility O, agreeableness A, conscientiousness C)

Table 2-1: The impact of personality factors on creativity

<table>
<thead>
<tr>
<th>Personality Factor</th>
<th>p</th>
<th>β</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0.637</td>
<td>0.048</td>
<td>0.473</td>
</tr>
<tr>
<td>C</td>
<td>0.536</td>
<td>0.064</td>
<td>0.621</td>
</tr>
<tr>
<td>E</td>
<td>0.532</td>
<td>0.063</td>
<td>0.627</td>
</tr>
<tr>
<td>N</td>
<td>0.848</td>
<td>0.021</td>
<td>0.021</td>
</tr>
<tr>
<td>O</td>
<td>0.41</td>
<td>0.084</td>
<td>0.827</td>
</tr>
</tbody>
</table>

The above table which was achieved by simultaneous regression shows that none of the 5 personality factors are able to predict creativity.

Third Hypothesis:

What is the difference between boys and girls from emotional intelligence point of view?
Table 3-1: The difference of boys and girls in 5 personality factors

<table>
<thead>
<tr>
<th>Personality</th>
<th>Gender</th>
<th>Number</th>
<th>Average</th>
<th>Standard deviation</th>
<th>T</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Female</td>
<td>50</td>
<td>22/02</td>
<td>4/56</td>
<td>-157</td>
<td>0/876</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>50</td>
<td>21/86</td>
<td>5/57</td>
<td>-5/565</td>
<td>0/0001</td>
</tr>
<tr>
<td>E</td>
<td>Female</td>
<td>50</td>
<td>21/74</td>
<td>4/23</td>
<td>-4/239</td>
<td>0/0001</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>50</td>
<td>21/56</td>
<td>6/05</td>
<td>-0/858</td>
<td>0/393</td>
</tr>
<tr>
<td>O</td>
<td>Female</td>
<td>50</td>
<td>23/88</td>
<td>7/33</td>
<td>-7/385</td>
<td>0/0001</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>50</td>
<td>25</td>
<td>7/6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Female</td>
<td>50</td>
<td>19/46</td>
<td>3/77</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>50</td>
<td>28/6</td>
<td>7/89</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of T test shows that the average of N factor (neuroticism) in girls is more than boys, but in other factors, the average of boys is more than girls.

**Fourth Hypothesis:**
what is the difference between girls and boys in creativity?

Table 4-4: The difference of boys and girls in emotional intelligence

<table>
<thead>
<tr>
<th>Emotional intelligence</th>
<th>gender</th>
<th>number</th>
<th>average</th>
<th>Standard deviation</th>
<th>T</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>50</td>
<td>99/4</td>
<td>15/5</td>
<td>2785</td>
<td>0/006</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>50</td>
<td>106/6</td>
<td>9/67</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results showed that girls have a higher emotional intelligence than boys in a meaningful way. (P<0006)

**Conclusion:**

In order to study and concluding the related findings of the research questions, first the questions at the beginning of the first chapter are proposed and then the results are stated.

Studying hypothesis 1 shows that just C variable (conscientiousness) is able to predict emotional intelligence (P<013) and other variables including A (agreeableness), E (extroversion), N (neuroticism) and O (flexibility) are not able to predict emotional intelligence. Emotional intelligence has a positive connection with the quality of individuals' relationships with others, that is the quality of communicating with others in individuals with higher emotional intelligence in better than individuals with lower emotional intelligence. Furthermore, in a study by Siauchi, John Capooty, the relationship between the total grades of emotional intelligence with extroversion grades (one of the personality factors) has a positive correlation and in other words, individuals with higher emotional intelligence have more extroversion. Koleman (1995) and Barawn (1997) had considered emotional intelligence as a personal characteristic. Barawn believes that there's a close relationship between emotional intelligence and conventional characteristics of the personality. Salvo and Mayer (1997) believe that it seems that some explanations of emotional intelligence are illusive, because some cognitive perspectives were not considered and cognitive ability is mistaken with personal and ethical characteristics. Emotional intelligence shows the way of individual behavior toward life issues. In other words, emotional intelligence is a collection of personality characteristics which is effective in the destiny and the life style of an individual. These personality characteristics make an individual to use appropriate styles for living and its stages, so individuals with higher emotional intelligence are more successful in their lives.

Studying hypothesis 2 shows that none of 5 personality factors are able to predict creativity. Girls' average in creativity equals 143/92 and boys' average equals 129/78. Most of researchers who studied creativity subject, had devoted a part of their researches to describe the characteristics of innovative people and the collection of stated characteristics would be placed in a relatively wide range. Among different conclusions, there are some shared characteristics, but a number of these characteristics were achieved only in one or two researches. Totally, the results of the studies are not consistent. For example, in many studies, it was pointed to the powerful relationship between introversion and creativity. n the other hand, in some studies, extroversion was introduced as an important characteristic of an innovative personality. Stain achieved a powerful relationship between flexibility and creativity.

Vaizberg believes that we can't attribute some personality characteristics to creative people. He points to the Baron and Harington studies in which they didn't find anything new. Mansfield and boss (1980) also questioned the studies about personality characteristics and considered them statistically incorrect. They believe that in a number of these studies, the required information were not gathered in an equal condition from creative and control groups and consequently, the observed differences were completely random. But some other studies show common characteristics between creative people. Estern (1985, stated by Tornes, 1962) states that creative individuals enjoy constant efforts to solve the problems and they need to prove their personal value and their
internal feelings and stating beliefs, so they are aware of their own and other people experiences. Dalas and Gayer and Baron and Harington provided a list of personality characteristics related to creativity in which, creativity has a positive correlation with risk taking, extroversion and neuroticism and has a negative correlation with social agreeableness or conforming society. Maccary by using 5 factors personality questionnaire concluded that creative individuals are extrovert and they are experience receptive and creativity is consistent with receptiveness in a special way. It seems that 2 factors of consistency and responsibility are the representative of controlling neuroticism in Izenk scale. Furthermore, consistency has a relationship with social interest and this issue can confirm this belief that creative individuals have a tendency toward society. Girls have a higher average in N factor (neurotic) than boys, but in other factors, the average of boys is more than girls. Numerous studies were done in this field and the different results including Dr. Amir Reza Chamani study showed that girls have a higher average in factor A in comparison to boys. In another study by Jalilvand, different results showed that female students have lower grades than male students and the reason of this issue is due to using different tools in assessing the two groups. In one other study by Jalilvand and Ezheie, 1042 students of Tehran high schools in 1372-73 were studied by 16 factor Ketel questionnaire (16pf) from personality characteristics point of view and using Edwards’ personal priority test and based on it, the amount of dominance and seeking diversion was higher in girls and the amount of obedience, stability and consistency was higher in boys.

Studying hypothesis 3 shows that girls have higher emotional intelligence than boys meaningfully. (P<006) These findings are not consistent with the results of Yusefi, Parker [10] and Nooler. To justify this finding, we can say that emotional intelligence skills are learned. Entering university would provide new opportunities and experiences for boys to communicate new people and by participating in sport and art classes and also associations and group activities, they can raise their abilities in the field of emotional intelligence skills and their emotional intelligence would not have a meaningful relationship with girls’ emotional intelligence. In relation to the difference of two genders in intelligence, we can say generally that men and women function in intelligence-dependent ability tests are same. In a study on Iranian girls and boys, it was indicated that girls’ emotional intelligence is more than boys. In relation to emotional intelligence, Izenberg showed that women grades are more than men grades with a standard deviation of /5.

These findings show that women are more superior than men for comprehending emotions. In a study by Siarouchi, Chan and Capouti, this finding was repeated again, such that women grades in the general test of emotional intelligence in the scale of understanding emotions and its management is higher than men grades meaningfully. In a study on Iranian intelligent and ordinary male and female students, Yoosefi showed that emotional intelligence of intelligent and ordinary girls is higher than intelligent and ordinary boys. Jordan study [8] on 321 individuals showed that in comprehending their own and the other people emotions, women have higher grades. In a study on 400 male and female students, Jowkar and Safari showed that the general grade of girls’ emotional intelligence is higher than the general grade of boys’ emotional intelligence. Also, the studies shows that gender has a considerable influence on stating emotions and their exact recognition and in stating emotions and recognizing them, women have a better function. The ability of stating emotions in women is due to their high ability to use non-verbal behaviors to send emotional messages. For example, when a woman sends a positive emotional message for others, she uses physical-non-verbal signs (like smiling) and intimate speaking.

Studying hypothesis 4 shows that there is not a meaningful difference between boys and girls in the amount of creativity. (P<563) studies had shown different results. Some of authors like J E Meliton showed that men are more creative than women and another group found that there's not a meaningful difference between theses 2 genders. For example, Gealford and Yamamoto found in their studies that there's not any difference in their measurements between these two genders. In a study called"recognizing the role of gender in creative thinking", Tornes did not found an important difference between the related values for men and women. In a study by Javidi in 1994 on the city's students, he calculated the difference of the average of creativity grades of boys and girls and concluded that although the average of creativity grades of boys is more than girls, based on the results of independent T test computation for independent groups is not in a meaningful level statistically, so the hypothesis that the average of boys’ creativity grades is more than girls’ creativity grades would be rejected. Maybe it can be concluded that the small difference between the creativity grades of girls and boys is related to the society's cultural penetration. Presumably, the value of gender role for society is the origin of these differences. Therefore, boys have not more power of creativity than girls, so in the field of developing creativity, gender factor is not able to play an important role and further, cultural- social factors have to be considered.

References