

# **The Study of Intelligence Dimensions (Emotional, Spiritual, and Cultural) Impact on the Empowerment of Students in the College of Agriculture and Natural Resources of Tehran, Iran**

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**Abstract** – Researches have shown that intelligence can affect empowerment and with the increase of intelligence, empowerment also increases. The purpose of this research is studying of intelligence dimensions (emotional, spiritual, and cultural) impact on the empowerment of students in the college of Agriculture and Natural Resources of Tehran, Iran University. This research is practical and the variables are non-experimental. Data collecting method in this study was done in a survey way. Due to the time limit, The results showed that the three dimensions intelligence explained the 76 percent of the student's empowerment variance.

**Keywords** – Emotional Intelligence, Spiritual Intelligence, Cultural Intelligence, Student's Empowerment.

## **I. INTRODUCTION**

Universities and higher education institutions which train and educate experts, are the most prominent institutions that consider as the engine of progress and development in the world [1]

Higher education system has a pivotal role in national development process and balancing between various aspects of development in country. The correct investment in this section plays an important role in building facilities for the next generations and also in scientific development [23]. In fact, the higher education system, through training and educating of capable human resources in any society can play an important role in its development. Students are the most important inputs in higher education systems, which should be trained within the university system and university should try to improve their capabilities.

Many researchers emphasized the effectiveness of intelligence role on learning and empowerment [7]. Developing various aspects of intelligence between students is one of the improvement strategies in student's empowerment. Intelligence and its dimensions including spiritual intelligence, emotional intelligence and cultural intelligence, can affect students empowerment. Somehow each of these dimensions affect the performance and abilities differently.

Since students are important class of society, studying

and checking their mental health have always been considered [2]. Many social problems like youth violence, might be because of emotional intelligence absence. People who are better able to recognize others emotions, are more successful in their job and social life [31]. Emotional intelligence is the most evolution form of human considering in workplace and people with high emotional intelligence, are efficient, productive and useful [27]. Emotional intelligence means awareness of emotions, and using them to make the right decisions in life and also it means empowerment to withstand trauma and inhibition of mental disturbances. Emotional intelligence increase self-confidence and inner control. [20],[18]. believe that emotional intelligence refer to the empowerment of people in emotional information processing and recognition.

Emotional intelligence explains why people with average IQ are more successful than those with high IQ. Emotional intelligence is a kind of empowerment that helps people to use their skills and emotions in an efficient way.

Therefore Emotional Intelligence should be developed in people [10]. In order to reach high education skills, in addition to general recognition empowerment, students should improve in various aspects like emotional and spiritual control, in other words, students can't learn efficiently without achieving emotional intelligence components[27].

Among those who first used emotional intelligence term, Daniel Goleman is the one whom his name tied most with emotional intelligence [14]

[18], [32] have described emotional intelligence as the main factor of success in life. Emotional intelligence has been recognized as an effective factor in successful life, education and job [32], [18]. Emotional intelligence increase anger management and also emotions management [12]. Strengthen personality characteristics and enhancing emotional intelligence can increase student's happiness [16]. EI is an adventitious feature[17], which can be developed by education.

[26] research (2007) in studying relationship showed

that there is a significant relation between emotional intelligence and academic achievement among students, and of course this research also illustrated that there is no difference in total score of emotional intelligence between males and females. Research findings of [17] about relationship between emotional intelligence and library anxiety among Boushehr students showed that there is a significant inverse relationship between them. Regarding to the findings of this research, it seems that considering emotional intelligence for reducing students anxiety in libraries, is very useful. [29] Concluded that there is a positive correlation between emotional intelligence and entrepreneurship, hence students with good entrepreneurship situation have higher emotional intelligence. [33] showed that emotional intelligence is a skill which can be learned and improved, and people with positive feelings and happier experiences are more satisfied. In another research [11] illustrated people with high emotional intelligence, have better stress management skills. In fact, emotional intelligence has a significant and positive relationship with optimism, positive mood, empathy and satisfaction.

In another research which is done by [3], it has been concluded that there is a significant relationship between emotional intelligence and employee's performance.

Another dimension of intelligence that can be developed, is social intelligence. Thorndik in 1920 introduced the concept of social intelligence and defined it as an empowerment to understand others and the empowerment to communicate with them [21]. Spiritual intelligence can be defined as having paranormal empowerment and capacity to invest everyday activities, events and relationships and also spiritual intelligence can be defined as the empowerment to involve in enhanced spiritual conditions and also involving in behaviors such as forgiveness, sympathy, modesty and so on [8].

Spirituality is one of the human beings essential needs, many experts believe that Spirituality contains the highest levels of growth in cognitive, moral and emotional fields. Spiritual intelligence has a basic role in people's believe and it can also improve people's mental health. Happiness in mental health, physical health, efficiency and social participation are the most important components of [30].

According to king's (2008) theory, spiritual intelligence is a set of mental capacities that has four components; critical thinking, creating personal meaning, transcendental consciousness and developing state of consciousness.

Define spiritual intelligence as an experienced empowerment that help people to gain more knowledge and perception and also it prepares conditions for evolution in life[9].

Results of the research which was done by [16] indicated that there is a positive relationship between spiritual intelligence and mental health ( such as holistic and ethical dimension, empowerment to cope and deal with problems, and self-awareness and love ). [30] in a research that studied relationship between spiritual intelligence and happiness among students, indicated that there is a significant relationship between them, this means

that, with the increase of spiritual intelligence, the happiness also increase. According to [13], seven elements of spiritual intelligence can improve spiritual intelligence model, in order to affect and also enhance human excellence. Results of the [15] research indicated that spiritual intelligence can decrease stressors, this process leads to a better performance.

The third dimension of intelligence is cultural intelligence, it means individual cap empowerment in other words a person with a high cultural intelligence can behave better and more effective than others against people with different cultural backgrounds [5]. Nowadays This dimension of intelligence is a key to success in international communication in which rather than ignoring and tolerating differences, understand it. A person with a high cultural intelligence has more empowerment to learn better in different situations and also this person enjoys from dealing with various cultures. He can also control and manage intercultural differences. This management through the creation of high empowerment to understand, will lead to cultural barriers reduction [4].

Cultural intelligence has a significant correlation with students social interactions, except knowledge component of cultural intelligence, other components have significant correlation with student's social interactions[3398]

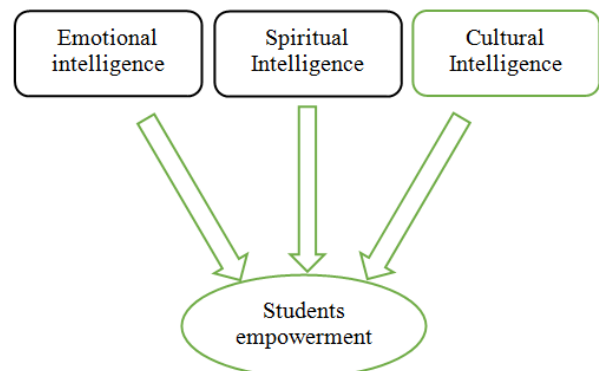


Fig. 1. Research's framework

## II. METHODOLOGY

This research is practical and the variables are non-experimental. Data collecting method in this study was done in a survey way. Due to the time limit, this research was done as a single cross-section study in winter 1395 (2016).

The study population consist all the students at the college of Agriculture and Natural Resources (N=3312), and the sample size (345) was estimated by the Cochran's formula. For sampling the stratified proportional method was used (Table 1).

Table 1: Study population and Sample size

Sample size	Total number of students	Period
145	1393	Undergraduate
144	1386	Master
56	533	Ph.D
345	3313	Total

### III. RESEARCH PLAN

In order to collect any data and information to analyze, a three part questionnaire was made. The first part included Individual characteristics, study time per week, work with internet time and so on. The second part of the questionnaire included the three dimension intelligence. B.1- spiritual intelligence questionnaire was designed by Siberia *Shrink* (Mansouri, 2001), this questionnaire consist of 2 sections. In the first part, each question indicate a situation of life. Participants should put their selves in that situation and then select an option. In the second part, at the beginning of each question, there is an emotional story and this time, participants should choose their options based on this story. This part consists 11 Items, B.2-questionnaire related to cultural intelligence was designed by Ang and [5].

This questionnaire also consist of 11 items. B.3) questionnaire related to spiritual intelligence was designed by Dagmar Dasha Nasel (2005), this part consist of 11 items. C) Questionnaire related to empowerment is obtained from (Spreitzer, 1995). this questionnaire contains 18 items, and it should be noted that all the questionnaires were modified based on environmental characteristics. Validity of the questionnaire was determined by science Committee of Agricultural extension and education Department and also science committee of management and agricultural development Department. And reliability of the questionnaire was determined through Cronbach's alpha. (Table 2 )

Table 2: Cronbach's alpha coefficients for the variables

Variable	Items	Alpha coefficients
Emotional Intelligence	11	0.772
Cultural Intelligence	11	0.759
Spiritual Intelligence	11	0.839
Empowerment	18	0.857

### Analytical findings : Prioritize items related to the empowerment of students

Table 4: Items prioritization related to students' sense of empowerment

Priority	Variable	Mean	Standard deviation	Coefficient of variation
1	I am sure that my colleagues are absolutely honest with me	3.26	1.058	0.325
2	my work is within my skill and my ability	2.38	0.81	0.34
3	my work activities are meaningful to me	2.22	0.788	0.355
4	I have a lot of control over my work activities	2.89	1.072	0.371
5	My opinions are considered by my colleagues	2.66	0.998	0.375
6	I am sure that my colleagues give me the important information	2.72	1.042	0.383
7	I am accurate about my job stuff	1.85	0.738	0.399
8	my colleagues notice my achievement	2.83	1.136	0.401
9	I am very effective in my job	2.74	1.101	0.402
10	I am sure that my colleagues have their words	2.78	1.118	0.402
11	My job is very important	1.69	0.702	0.415
12	I can decide how to do my work	1.9	0.814	0.428
13	I am pretty dominant on my skills	2.36	1.015	0.43
14	I am free on my workplace	2.19	0.961	0.439
15	I trust my abilities about the job	1.87	0.83	0.444
16	I am sure that I can finish my work correctly	1.85	0.822	0.444
17	The goal of my job is very meaningful	1.88	0.849	0.452
18	I can use may innovative sense in my job	1.99	0.908	0.456

Students sense of empowerment Measurement model using confirmatory factor analysis

### IV. Finding

#### The Descriptive Findings

Descriptive findings showed that the average age of students was 24.7 with a 3.11 standard deviation and it was at the range of 18-35. The average working hours with internet per week, was 6.14 hours with a 3.41 standard deviation and school study time was 15 hours per week with a 14.21 standard deviation. And non-school study was 4.21 hours per week with 4.21 standard deviation.

Table 3: Gender and occupation situation

Variable			Percentage
Gender	Male	204	59
	Female	141	41
Occupation	Job	Full time	28 8.3
		Part time	80 23.21
	unemployed	227 65.89	
	No answer	10 2.89	

Results indicated in Table 3 show that 59 percent of the respondents were male and 41 percent of them were woman.

Prioritization of students Capabilities variables showed that, variables such as: "I am sure that my colleagues are absolutely honest with me"," my work is within my skill and my empowerment"," my work activities are meaningful to me "," I have a lot of control over my work activities", have high priorities.

Figure 2 shows t values related to students empowerment; which represents an appropriate variable and fitness indices also confirmed data fitness.

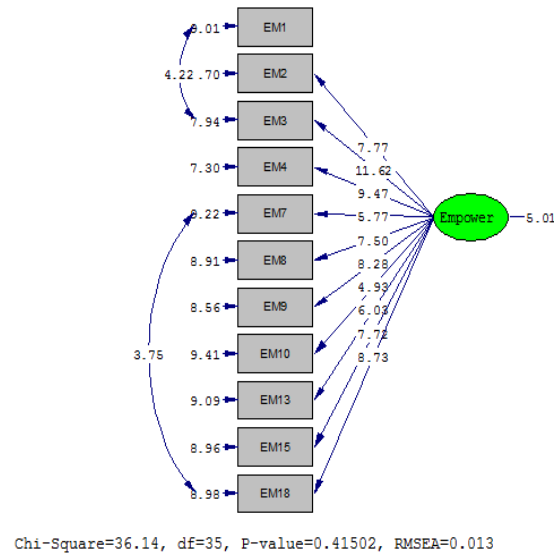


Fig. 2. t values related to students ability

**Intelligence impact on students empowerment in the college of Agriculture and Natural Resources, Tehran university**

In this research in order to study the effect of intelligence components on students empowerment, structural equation modelling was used in the form of path analysis, therefore intelligence components ( emotional intelligence (EQ), cultural intelligence (CQ), spiritual

intelligence (SQ)) and students empowerment were reduced to 5 components by LISREL software, Coefficient of variation and confirmatory factor analysis. These components are:

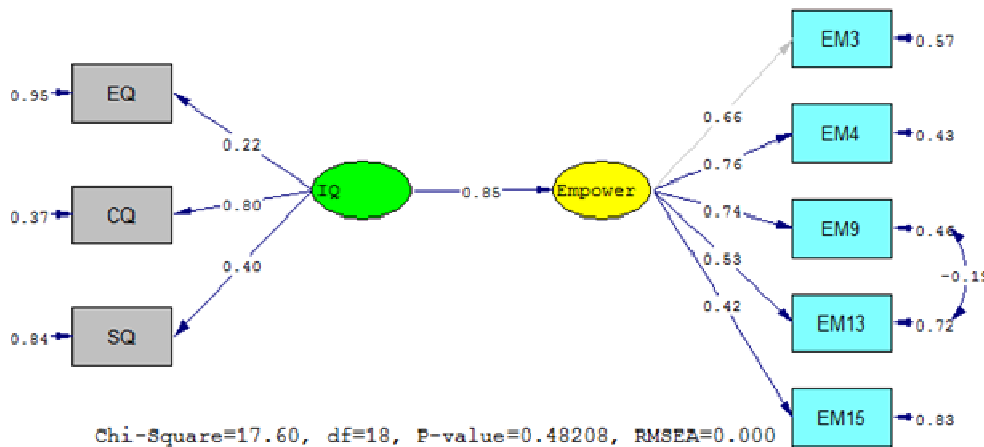


Fig. 3. Standardized factor loadings model

There are several fitness indices to assess the structural equation model. In this research, based on the recommendation of many statisticians, follow indices were used:

Chi square ( $X^2$ ) and its significance level (p), Goodness of Fitness Index (GFI), Non-Normed Fit Index (NNFI), Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), Root Mean Square Residual (RMR), Adjusted Goodnes of Fit Index (AGFI).

The amount of each of them for the above model was;  $X^2= 17.6.59$  ,  $p=0.48208$ , considering that chi square is not

significant, the model fitness is acceptable. As RMSEA=0 , the model has a good fitness, if the RMSEA was over 0.1 the fitness wasn't acceptable (Hooman, 2005). For indices like CFI, IFI, AGFI, GFI, and NNFI values over 0.9 is acceptable and for RMR this value is under 0.1 (Arbuckle,1999. Baumgartner & Homburg Shook, Ketchen,2005. Hult & Kacmar,1995). The value of these indices in the model was; CFI=0.98, IFI=0.98,GFI=0.98, NNFI=0.97, RMR=0.038, AGFI=0.93.

Therefore we can say that based on the above indices, the model has a good and high fitness. The results

presented in figure 3, show standardized factor loading that are in an acceptable range. In the table 4 it is shown that standardized path coefficient between empowerment and intelligence is 0.85, this value means relationship between intelligence and empowerment is high and strong, this relationship is also significant even at 1 % error level ( $t=5.96$ ). The determination coefficient ( $R^2$ ) of empowerment is 0.76, it means that 76 percent of the empowerment variance among students is explained by intelligence components (EQ, CQ and SQ). thus it can be

concluded that intelligence has a positive and significant impact on students empowerment, so the research's main hypothesis is confirmed. Figure 4 shows significant structural equation modelling mode. Regarding to it, we can say that among different components of intelligence, cultural intelligence has more effect on empowerment rather than other components, after that spiritual intelligence and then emotional intelligence eventually located.

Table 5- structural model results

dependent variable	independent variable	Path coefficient	Standard error	t	R <sup>2</sup>
empowerment	intelligence	0.85	0.17	5.96**	0.76
Significance at 1 % error level **					

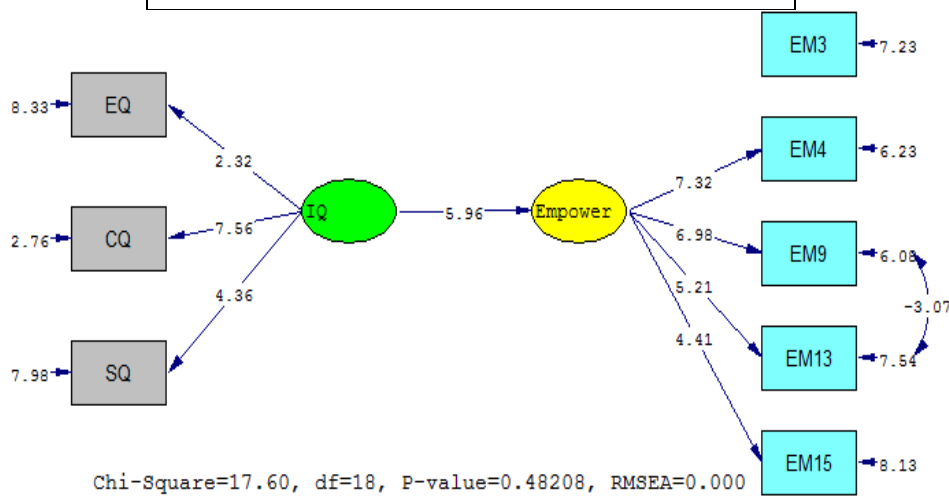


Fig. 4. Structural equation model at the significant model

#### IV. CONCLUSION

Considering the important role of agriculture on food security and sustainable development and also considering vital role of agriculture graduates, student's empowerment has a key role in this process. Based on the findings of this study, 76 percent of the empowerment variance among students is explained by intelligence components (EQ, CQ and SQ). Thus it can be concluded that intelligence has a positive and significant impact on student's empowerment, so considering intelligence and improving it has an important role on empowerment.

It is recommended that by Extracurricular training and also on-school educating, try to improve students intelligence. And of course based on the findings, follow

#### V. RECOMMENDATIONS ARE SUGGESTED

Assessment of student's intelligence and planning to enhance it. Student's participation on teaching and farming visits, and also communicating with farmers to solve their problems.

Creating an environment in which students can easily interact with staff and manager.  
Creating student networks in order to do research projects.

#### REFERENCES

- [1] Alizade, N., Sedighi, N. Pezeshki raad, GH. Farasat khaah, M.(2015) The role of effective components on higher education system in Agriculture in iran.
- [2] Abbaszadeh M, Mokhtari M. Emotional Intelligence Construct a Missing Link in Explanation of Social Physique Anxiety . jas. 2014; 25 (3) :103-118
- [3] Altındağ, E. & Kösedacı, Y. (2015). The Relationship Between Emotional Intelligence of Managers, Innovative Corporate Culture and Employee Performance. Proceedings of the 4th International Conference on Leadership, Technology, Innovation and Business Management. *Volume 210*, Pages 270–282.
- [4] Bahadori khosroshahi, J., Hashemi nosrat abad, T., Mashinchi abbasi, N., (2012). Emotional intelligence and Personality characteristics correlation with happiness among students.
- [5] Earley, P.C., & Ang, S. 2003. Cultural intelligence: Individual interactions across cultures. Palo Alto: Stanford University Press.
- [6] Early, C., Mosakowski, E. (2004). Cultural intelligence. Harvard Business review.
- [7] Eleni Papageorgiou , Constantinos Christou, George Spanoudis, Andreas Demetriou (2016). Augmenting intelligence: Developmental limits to learning-based cognitive change *Intelligence* 56 (2016) 16–27.
- [8] Emmons, R. A. (2000). Is spirituality intelligence? Motivation, cognition, and the psychology of ultimate concern. *The International Journal for the Psychology of Religion*, 10(1), 3-26
- [9] Gain, M. and Purohit, P.(2006): Spiritual intelligence: Acontemporary concern with rigard to living status of the senior citizens journal of the Indian Academy of Applied psychology.



- 32 (3), 227- 233.
- [10] Ghaderi, M. Nasiri, M. Aienne haydari, A. Pachang, M. Adarvishi, S. (2014). Studying Relationship between emotional intelligence Education progress among students of Jiroft City. *The journal of Medical Education and Development*.
- [11] Greven, C, Chamorro-Premuzic T, Arteche A, Furnham A. A hierarchical integration of dispositional determinants of general health in students: The Big Five, trait Emotional Intelligence and humour style. *Journal of Personality and Individual Differences*. 2008; 44:1562-73.
- [12] Naghdi Hadi, Nastaran Adibrad, Rahmatollah Nouranipour, (2010). The effectiveness of the emotional intelligence training on the aggressiveness among adolescent boys. *Behbood Journal* 2010; 14(3): 211-218.
- [13] Hanefar, S. B., Siraj, S. & Sa'ari, C. Z. (2015). The Application of Content Analysis toward the Development of Spiritual Intelligence Model for Human Excellence (SIMHE). *Contemporary Issues in Management and Social Science Research*. Volume 172, 27 January 2015, Pages 603-610
- [14] Hein, S. (2004). Short definition of emotional intelligence. *Emotional Intelligence Homepage*.
- [15] Kaur, D., Sambasivan, M., & Kumar, N. (2013). Effect of spiritual intelligence, emotional intelligence, psychological ownership and burnout on caring behavior of nurses: A cross-sectional study. *Journal of Clinical Nursing*, 22, 3192-3202.
- [16] Khodabakhshi Sh, rahimikia A, jafari H. Identifying the relationship between spiritual quotient and mental health in the students of Lorestan university of medical sciences. *Yafteh*. 2014; 16 (1) :58-65
- [17] Khosravi, A. Basirian Jahromi, R. Seyyed hossieni Sh, Motamed, N. (2012) Investigation the Relationship between Emotional Intelligence and Library Anxiety among Students of Bushehr University of Medical Sciences and Persian Gulf University. *Journal of Academic Librarianship and Information Research* , Vol,46 No. 60, Summer 2012, PP.31-50.
- [18] Mirderikvandi, R.(2011). Emotional Intelligence, reviews and approaches from Religion and Psychology eyesight. *Ravanshenasi-va- Din*, Vol.4. No.3.
- [19] Nelis, D., Quoidbach, J., Hansenne, M. & Mikolajczak, M. (2009). Intelligence: (How) is it possible? *Personality and Individual Differences*, 27: 36- 41.
- [20] Petrides, K. V., Frederickson, N., & Furnham, A. (2004). The role of trait emotional intelligence in academic performance and deviant behavior at school. *Personality and Individual Differences*, 36, 277-293.
- [21] Poon, Teng fatt, J. (2002). Emotional intelligence for human resource managers. *Management Research News*. Vol. 25, No. 11. 57-74.
- [22] mong lifelong learning, emotional intelligence and life satisfaction for adults 55 years of age or older. *Doctoral Dissertation, University of Missouri*. 2007; 324.
- [23] Sabeti, M., Sepehr, M.H. Ahmadi, F.The Role of Higher Education in National Development. *Journal of Iranian Social Development Studies* 2014 (autumn), Vol. 6, No.4
- [24] Salim bahrami H, ahmadi H, zabihi F, Alizadeh M. A Study of Cultural Intelligence among Students of IAU at the East of Mazandaran University. 3. 2014; 5 (14) :87-102  
URL <http://ssyj.baboliau.ac.ir/article-1-131-en.html>
- [25] Salovey, P., Bedell, B.J, Detweiler, J.B. & Mayer, J.D. (2000). Current directions in emotional intelligence research. *Handbook of emotions*, Newyork: Conition and Personality, 9, 185-211
- [26] Samari AA , Tahmasbi F.(2007) The study of correlation between emotional intelligence and academic achievement among university students (Text in Persian), *Journal of Fundamentals of Mental Health*. Vol9(35-36)
- [27] Samouei R, Kamali F, Alavi M, Yazdi M. Comparison of management capabilities of health services management students and Medical Students based on indicators of emotional intelligence in Isfahan University of medical sciences. *Iranian Journal of Medical Education*. 2011; 10 (5) :1209-1215.  
URL <http://ijme.mui.ac.ir/article-1-1624-fa.html>
- [28] Toolabi Zeinab, Kheyri, Alireza, Saeed Samadi, The Relationship between Cultural Intelligence and Social Interactionso (Text in Persian). *Journal of Psychology* . Pages 286-296
- [29] Kamalian, A.R., Fazel,A.(2011)The study of correlation between emotional intelligence and Student's Entrepreneurship (University of Sistan and Baluchestan ), Vol 4(11), , pP 127-146.
- [30] Yaghobi, A.,(2010). The study of correlation between emotional intelligence and Happiness among Bu-Ali Sina University students. *Research in education: Vol 4 (9); PP 85-95*
- [31] Zahiroddin A, Dibajnia P, Gheidar Z. Evaluation of emotional intelligence among students of 4th grade in different medical majors in Shahid Beheshti University of Medical Sciences. *Pejouhandeh* 2010;15(5): 204-7.
- [32] Zampetakis L, Beldekos P, Moustakis V (2009), "Day-to-day Entrepreneurship within Organizations: The Role of Trait Emotional Intelligence and Perceived Organizational Support", *European Management Journal* 27, PP: 165- 175.
- [33] Reinsch EJ(2007). The relationship among lifelong learning, emotional intelligence and life satisfaction for adults 55 years of age or older. *Doctoral Dissertation, University of Missouri.*; 324.