Observing Some Influences of Emotional Intelligence in the Teaching Environment

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Abstract

The current research presents some differences between bachelor and master students, grouped by level of emotional intelligence based on Petrides' model of emotional intelligence. Taking into account that almost everything that people do is based on education, career and personal life, this research is developed in the teaching environment. The purpose of this paper is to observe if there is any difference between the levels of emotional intelligence, including the factors of Trait Model, on students' and on teachers' sample.

Key words: Emotional intelligence, trait model, Petrides, education
J.E.L. classification: I20, I23, O30

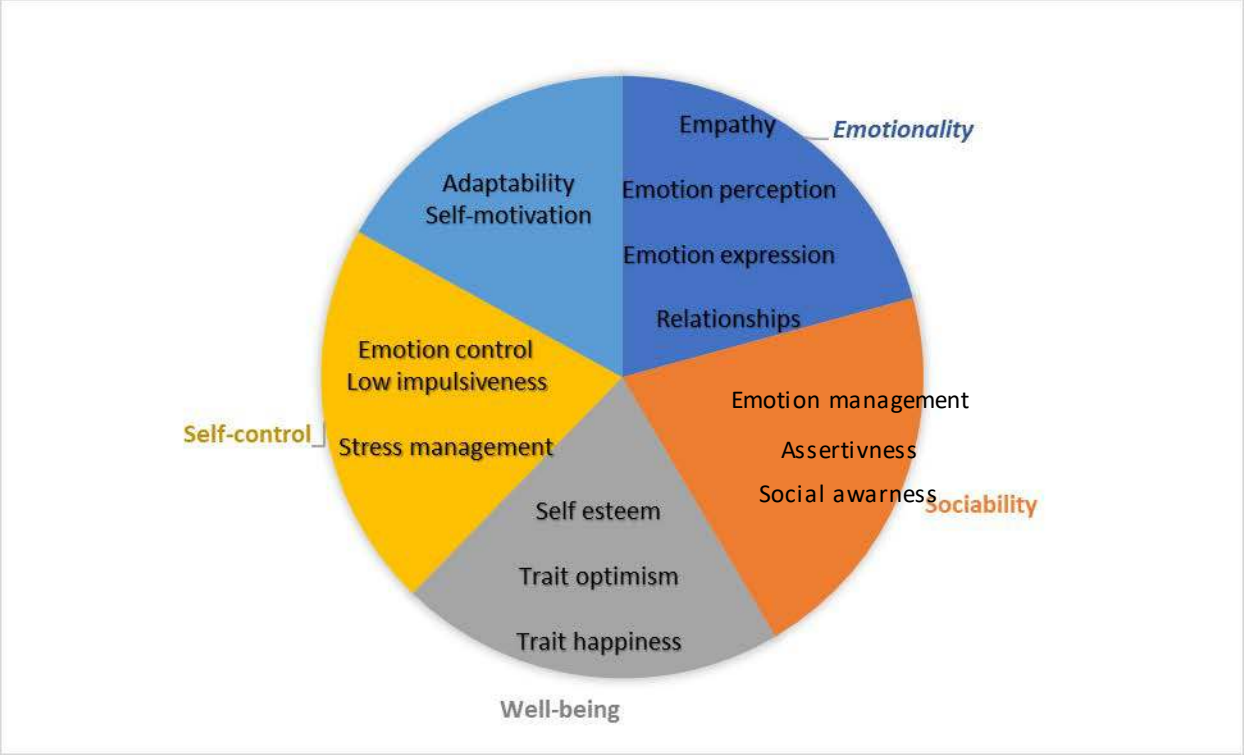
1. Introduction

Over the past decades emotional intelligence has proven to be one of the most important factors in one's characterization. It defines one's way of interacting with the others around them, understanding their emotions and others emotions and, not last, it helps them manage emotions.

This paper aims to present some important differences between the students involved in the research. The most important aspects that the authors follow are the facets and factors of emotional intelligence from Petrides' Model.

Emotional intelligence is defined as "a constellation of emotional self-perceptions located at the lower levels of personality hierarchies and measured via the trait emotional intelligence questionnaire" (Petrides, Pita, & Kokkinaki, 2007). Petrides is one of the researchers interested in emotional intelligence and the one who developed Trait Emotional Intelligence model over several years of research (2001, 2004, 2007, 2009). This model presents emotional intelligence as being composed of 15 facets (adaptability, assertiveness, emotion perception, emotion expression, emotion management, emotion regulation, impulse control, relationships, self-esteem, self-motivation, social awareness, stress management, empathy, happiness and optimism) and 4 factors (emotionality, sociability, well-being and self-control) (Petrides, 2009).

Figure no. 1. Components/Facets and features of the trait model



Source: www.psychometriclab.com

This model of emotional intelligence is well structured and thought so that researchers from all over the world can easily use it.

2. Theoretical background

For a better understanding of this concept through trait emotional intelligence model, in Table 1 the authors presented the facets and factors of this model.

Table no. 1. Facets and Factors of Trait Emotional Intelligence Model

Facets	High scorers perceive themselves as…
Adaptability	…flexible person, confident when adapting to new conditions.
Assertiveness	…forthright, direct, and willing to stand up for their rights.
Emotion perception (self and others)	…understand their own and other people's feelings.
Emotion expression	…able to express their feelings to others.
Emotion management (others)	…able to influence other people's feelings.
Emotion regulation	…able to control their emotions.
Impulse control	…analyze the situation before acting
Relationships	…able to have fulfilling personal relationships.
Self-esteem	…positive, successful and self-confident.
Self-motivation	…perseverance, involvement and unlikely to avoid adversity.
Social awareness	… good negotiators, influential with excellent social skills.
Stress management	…able to cope with pressure and capable of regulating stress.
Trait empathy	… seeing the world through the eyes of others.
Trait happiness	…cheerful and satisfied with their lives, enjoying today rather than yesterday o looking forward for tomorrow.
Trait optimism	…confident and willing to see the positive aspects of life.

Factors	People are described as…
Emotionality	…perceiving their emotions and other people's emotions, easily describing their feelings.
Sociability	…very good listeners, trustful, good with social interaction.
Well-being	…being satisfied with their overall experience in life starting from the past and including their future expectations.
Self-control	…are very good in managing their wished, needs, impulses and they can easily control their stress level.

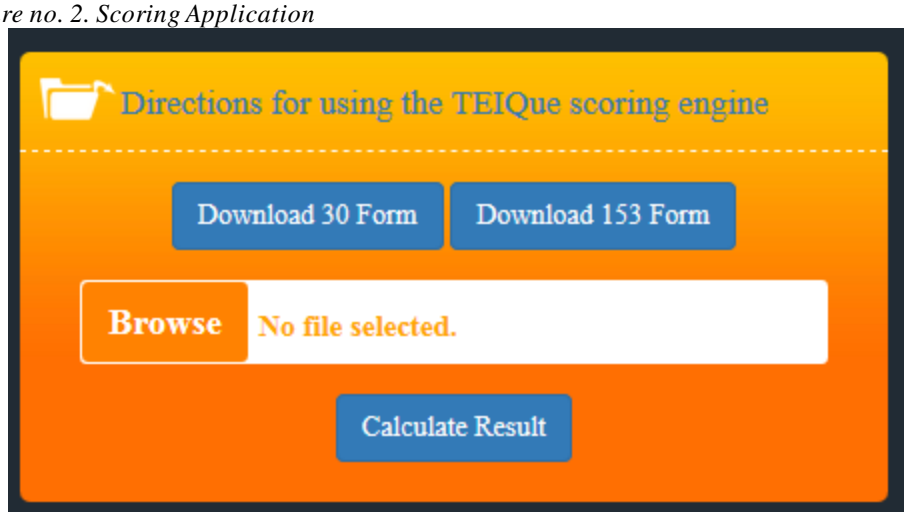
Source: www.psychometriclab.com

The trait emotional intelligence model continues with a unique test and application developed for it in order to score the levels of emotional intelligence and easily interpret them.

3. Data and Methods

In Petrides' model the measurement method is known as the TEIQue test. It consists of 153 statements and its purpose is to calculate the scores for each facet and also, the total score (level) of emotional intelligence. The answers fall on a scale of 1 to 7, where 1 represents *I do not agree at all*, and 7 represent *I totally agree*. The method of obtaining these scores is through the online application provided by the Psychometric Laboratory in London. This application allows import of the data and easily exports the scores.

Figure no. 2. Scoring Application



Source: http://www.psychometriclab.com/Home/Default/14

With such a complex tool, we've conducted a quantitative research using an online survey. The sample consisted of students and teachers from four leading universities in Bucharest (University of Bucharest-UB, Polytechnic University of Bucharest-UPB, University of Medicine and Pharmacy Carol Davila in Bucharest-UMFCD and Bucharest University of Economic Studies-ASE).

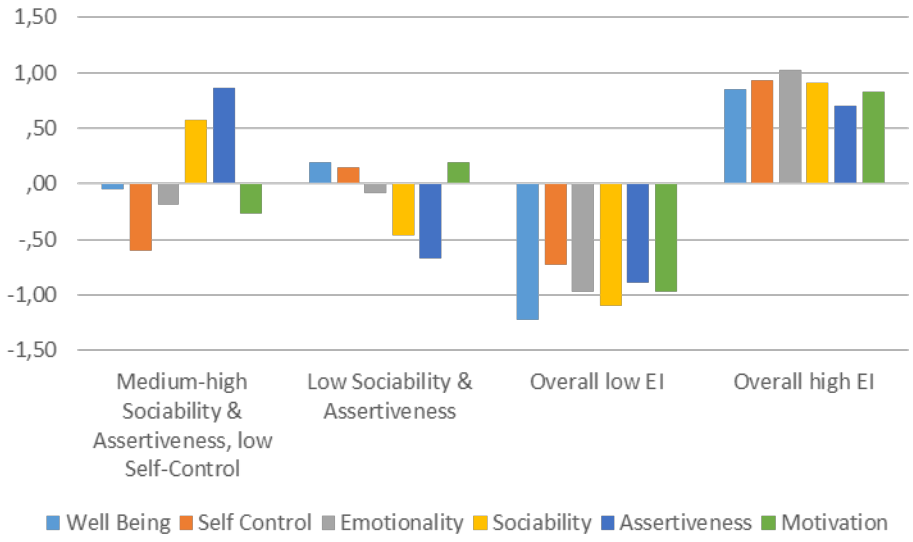
The questionnaire was sent to students/teachers (1,000 questionnaires for students and 200 for teachers) through E-mail and LinkedIn or through flyers that had a QR code which could have been scanned in order to open the online survey. The response rate was 43%, and at the end of the research period, only 595 questionnaires (521 students and 74 teachers) were available for processing.

The analysis is based on the four factors (Emotionality, Sociability, Well-being and Self-control), plus the two facets that are not included in any of them (Assertiveness and Self-motivation). In order to ascertain the impact of various socio-economic and demographic characteristics on levels of emotional intelligence (EI), the respondents were grouped into clusters with the help of K-Means Clustering. Given that the collected data only has positive values, we standardized the variables so as to obtain distance from the mean. This also greatly contributed to the ease of interpretation for the results.

The four clusters obtained are presented in the figure below. Due to standardization, we can easily interpret the results in terms of below or above average, as the mean value for each variable is represented by zero. The length of the bars represents distance from the variable mean, namely how far and in which direction are the members of one cluster from the mean value of each variable considered. Thus, we obtained the following four clusters:

- Cluster A: students with sociability and assertiveness levels higher than the mean, but lower self-control. The other variables are very close to the mean.
- Cluster B: students with low scores on sociability and assertiveness and average on all other variables.
- Cluster C: students with scores below the mean for each of the variables considered, thus with an overall low emotional intelligence level.
- Cluster D: students with high overall emotional intelligence (higher than average scores).

Figure no. 2. Clusters resulted from the sample



Source: authors' computation

Subsequently, we tested for significant (at 0.05 level) differences between the four groups. The analysis was performed in SPSS™.

4. Results

This section will begin by highlighting the differences between socio-economic and demographic characteristics of respondent students. To this aim, Table 2 presents only the significant differences obtained in the analysis. For each variable there are one or more categories and beneath each category there is a line which indicates the existence of a significant difference (significant diff.), as well as level of significance (0.05). The letter shows a significantly lower value for the respective cluster compared to the cluster in which box the letter appears. The total line contains the number of students in each cluster.

Analyzing Table 2 we can sketch the profile of each cluster. Cluster D (High overall EI) stands out as the most distinctive group and it comprises older, graduate students, who are above 21 years old and currently enrolled in Master's studies. They declare to a higher extent that they are in the top 5% of their class and are also more satisfied with the teaching process. About half of them are employed (significantly more than their counterparts in clusters A and C) and they are less likely to be single. Being employed also explains their significantly higher income level (about 2000 lei on average), since the significance disappears when controlling for employment status. Combining education with a job, coupled with a bigger age than the rest of the group is probably also a good explanation for their higher EI scores as well as their greater satisfaction level.

Table no. 2. Significant differences between clusters for socio-economic and demographic variables

		Cluster							
		(A)		(B)		(C)		(D)	
Level of studies	Bachelor's	86	76%	96	69%	96	79%	90	62%
	significant diff. (0.05)					**D**			
	Master's	26	23%	39	28%	25	21%	52	36%
	significant diff. (0.05)							**C**	
	Total	113	100%	139	100%	121	100%	146	100%
Place in student ranking	Top 5%	22	19%	23	16%	14	12%	40	27%
	significant diff. (0.05)							**C**	
	Total	114	100%	140	100%	121	100%	146	100%
Year of study	Year 2 (Bachelors')	43	38%	31	22%	35	29%	29	20%
	significant diff. (0.05)	**B D**							
	Total	114	100%	140	100%	121	100%	146	100%
Age group	18-21	66	58%	72	51%	73	60%	62	42%
	significant diff. (0.05)					**D**			
	Total	114	100%	140	100%	121	100%	146	100%
Marital status	Single	41	36%	59	42%	67	55%	51	35%
	significant diff. (0.05)					**A D**			
	Total	114	100%	140	100%	121	100%	146	100%
Highest education attained	High school	85	75%	94	67%	94	78%	91	62%
	significant diff. (0.05)					**D**			
	Bachelors'	28	25%	46	33%	26	21%	53	36%
	significant diff. (0.05)							**C**	
	Total	114	100%	140	100%	121	100%	146	100%
Are you employed?	No	80	70%	91	65%	87	72%	78	53%
	significant diff. (0.05)	**D**				**D**			
	Yes	34	30%	49	35%	34	28%	68	47%
	significant diff. (0.05)							**A C**	
	Total	114	100%	140	100%	121	100%	146	100%

		Cluster			
		(A)	(B)	(C)	(D)
Income	Mean score	1.393	1.500	1.348	2.039
	Standard deviation	1.135	1.252	1.210	1.549
	significant diff. (0.05)				**A C**
On a scale from 1 (lowest) to 7 (highest), what is your satisfaction level regarding the teaching process?	Mean score	4,25	4,61	3,73	4,93
	Standard deviation	1,50	1,39	1,54	1,42
	significant diff. (0.05)	*C*	*C*		*A C*

Source: authors' computation

As could be expected, Cluster C lies at the opposite end. Students with an overall low EI level are mostly high school graduates enrolled in Bachelor's studies, aged up to 21 years and least likely to perceive themselves in the top 5% of their class. They have characteristics specific to their age group, most of them being single (55%) and unemployed (72%), which is also reflected in their income level (lowest of all groups). In contrast with the previous cluster, students belonging to this one are least satisfied with the education process. It is possible that their expectations are higher, since they have not yet entered the labour market to be able to correlate theory with practice. Also, being younger, they may be focused on different aspects of their lives, since this is the group with the least percentage of self-perceived belonging to the top 5% of their class.

It is important to mention that even by splitting the entire sample into two groups (above and below average) the differences between the groups were significant. However, we opted for a more detailed grouping because we were interested in seeing how various combinations of the six

variables are impacted by different characteristics. Thus, groups A and B are more nuanced versions of groups C and D.

What stands out in group A is the relatively high levels of sociability and assertiveness of second year undergraduate students, almost 4 out of 10 of them being in this group. On the other hand, they seem to have a lower level of self-control and a slight tendency towards demotivation. As in the case of group C, students in this cluster are also mostly unemployed (70%), thus have approximately the same income, but unlike their counterparts in group C, they are less frequently single. Also, their satisfaction level regarding the education process is significantly higher.

Less assertive and less sociable than students in groups A and D, students in group B are mostly single (2 out of 5) and quite likely to be employed (35%). This accounts for their higher income in comparison with students in group C. in fact, group B seems to be somewhere in between groups A and D, both of which have in common high levels of assertiveness and sociability. It might be, that these two characteristics can be compensated for by self-control and motivation, which students in group A have problems with.

However, it is well worth analyzing the non-significant results as well (not shown) as they also provide insight into the matter of students' emotional intelligence profiles. We also tested for differences between genders, universities (as proxies for specialties), settlement and perception regarding the influence of the emotional intelligence of the teacher on satisfaction level with respect to the teaching process. None of these variables yielded any significant result, which indicates that these factors do not impact emotional intelligence of the respondents in out sample.

5. Conclusions

It is very important to mention that the students with high scores of emotional intelligence are the most successful ones from a professional and personal perspective and they are also very satisfied with the teaching environment that they are part of. On the other hand, students with lower levels of emotional intelligence are younger and less satisfied of the teaching environment, even if they've just graduated high school and they are enrolled in the bachelor program.

Another aspect that needs to be carefully observed is that students with low scores in assertiveness and sociability are mostly single and mostly unemployed and students that have high levels of assertiveness and sociability find it mostly difficult to success in self-control and are more demotivated.

The limitations of this study are strictly related to the number of students involved from each year of study. On a more balanced sample, the results may differ.

6. References

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