

Trait Emotional Intelligence as Predictor of Academic Achievement in Undergraduate Students

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Emotional intelligence has been linked with numerous positive outcomes in life. Consequently, it has been the focus of many theories. The present study was built upon the conceptualization of trait emotional intelligence as the self-perception of academic abilities. The main objective of the study was to investigate trait emotional intelligence as a predictor of academic achievement in the university students. A cross-sectional survey method was adopted to probe the research objectives. A sample of 150 undergraduate students (Men=79, Women=71) with the mean age of 21.06 (SD=1.39) was drawn from the two private universities of Lahore with the help of nonprobability convenient sampling strategy. Trait Emotional Intelligence Questionnaire- Short Form: The TEIQue-SF (Petrides & Furnham, 2006) was used to assess emotional intelligence and CGPA was taken into consideration for academic achievement. Pearson correlation analysis revealed significant positive relationship between sociability and academic achievement while no significant relationship shown with other subscales of trait emotional intelligence. Regression analysis revealed that only sociability proved a significant predictor of academic achievement in university students. The present research will help to extend the interaction of trait emotional intelligence with academic achievement in Pakistan's higher education system.

Keywords: trait emotional intelligence, academic achievement and university students.

Introduction

Emotions are a crucial part of human life. Emotions (rational or irrational) play a vital role in making effective judgments in life. "Somatic marker" hypothesis revealed that people whose frontal lobe is damaged are unable to feel emotions like normal people feel therefore, they struggle in effective decision making (Cacioppo & Berntson, 2005). According to Darwin's evolutionary theory, emotions aid in the survival of human species. For example, emotions associated with the feeling of love and emotions associated with guilt produce different results, therefore, human beings tend to use adopt emotions more than the negative ones (Haselton & Ketelaar, 2005). In order to differentiate between positive and negative emotions and emotional regulation, emotional intelligence has a role to play. Moreover, emotional intelligence (EI) has seen to be a predictor of success in various aspects of life i.e. personal and professional (Brackett, Rivers, & Salovey, 2011).

Despite the universal nature of the emotions, the expression of different emotions varies across cultures. For example, in collectivist cultures, interaction with the people with higher authority may be related with hesitation, or shame however, this is not the case in individualist cultures (Fessler, 2004;). Therefore, expression of EI and trait EI varies across different cultures (Gökçen, Furnham, Mavroveli & Petrides, 2014).

The present study aims to explore the relationship between trait EI and academic achievement (AA) among undergraduate from Pakistan. The present study employs on the conceptualization that there is significant difference between two forms of emotional intelligence i.e. trait-EI and ability-EI. In Pakistan, trait EI has been extensively studied however; its effectiveness in academics is still a topic of concern. There are limited studies that addressed trait-EI. Therefore, the present study aims to fill the gaps. Ultimately, the results of this study

might contribute to the success of the population of interest. Thorndike and Gardner laid the foundations of emotional intelligence as a construct. The concept of "social intelligence" i.e. the capacity of interpreting and handling relationships was given by Thorndike (1920). Gardner (1983) in his theory of multiple intelligence gave the concept of "interpersonal intelligence" and "intrapersonal intelligence". In 1990, Mayer and Salovey formulated the construct of "emotional intelligence". Mayer and Salovey model suggested that emotions make cognition adaptive, therefore, emotions and intelligence work together to achieve goals (Brackett et al., 2011). The Bar-On (1997) model of "emotional-social intelligence" suggested that interpersonal and intrapersonal skills produce effective behaviors. Goleman's model of emotional intelligence (2000) included EI in workplace performance. Emotional intelligence is a skill set and competence of the person that facilitates work performance (Goleman & Emmerling, 2003). Petrides and Furnham (2001) introduced two constructs of emotional intelligence: "ability emotional intelligence" and "trait emotional intelligence".

Petrides and Furnham (2001) noted that if emotional intelligence is measured through different approaches for example self-report methods or performance tests it produces different results. Therefore, they defined Ability EI and Trait EI as different constructs. Ability EI is related to the area of cognitive ability and Trait EI is related to personality of the individual. The Ability EI is can be measured through performance-tests and Trait EI can be measured through self-report measures. Trait EI incorporates the subjectivity of experiences hence, valid and reliable measure for trait EI is self-report.

Number of researches carried out in West analyzed the relationship between trait EI and academic achievement.

Research finding supports the role of trait EI as moderator between cognitive ability and scholastic performance (Petrides, Frederickson and Furnham, 2002). Moreover, it is seen that stress and emotional deficits can have negative impact on student's performance and students with High trait EI are less prone to be absent or get expelled from school (Petrides et al., 2002).

Shi and Wang (2009) in their research proposed that one should be mindful of the cultural differences for the construct of EI because, construct of trait EI is developed predominantly in western culture and it may not be applicable in the eastern culture. A research in China found that trait EI predicted academic achievement and students with high trait EI efficiently manage and regulate stress which leads to academic success (Song et al., 2010; Siu, 2009). The collectivistic cultures in UK (Sanchez-Ruiz, Mavroveli & Poullis, 2012) and Spain (Ferrando et al., 2010) discovered a positive relationship between trait EI and academic performance. On the contrary, studies carried out in Germany (Amelang & Steinmayr, 2006), Greece (Stamatopoulou, Kargakou, Konstantarogianni & Prezerakos, 2015) and USA (Rode et al., 2008) showed different results. Whereas, some studies revealed that there is statistically significant relationship between Trait EI and AA (Di Fabio and Palazzeschi, 2009) and it increases the mental stability of students (Ladazo, Mortan, Anderson & Barchard, 2013; Farooq, 2003).

There are limited researches carried out in Pakistan on trait EI and academic achievement. Some studies found out a significant relationship between trait EI and academic achievement (Nasir & Masrur, 2010), while, other found contrary results (Ahmad, 2010). Nasir and Masrur, (2010) found emotional intelligence as predictor of academic achievement.

Research Methodology

Research Design

The present study was a correlational research, utilizing the cross-sectional survey method. The research established associations between variables through quantitative research design.

Participants

The sample was the undergraduate students of two private universities. The sample size was 150 students ($N=150$). The age scope of sample was around 18 years to 26 years. Six different sections according to the 20 major disciplines offered at the target university were made into: technical studies (computer sciences, mathematics, statistics), business and management, literature (Urdu and English), humanities (history, philosophy and religious studies, mass communication), social sciences (psychology, sociology, education, economics, political science), and natural sciences (physics, chemistry, biological sciences, environmental sciences, geography) (ANZSRC, 2008). Selection criteria was set to be that the participant must have received CGPA score based on previous semesters, as availability of CGPA was central to the research. Convenient sampling was implemented,

as non-probability sampling was expected to be quick, simple and economical.

Instruments

The instrument used in the present research consisted of demographic sheet (age, gender, family income, background, parental education, academic year, previous education and undergraduate discipline), and Trait Emotional Intelligence Questionnaire and academic achievement was measured with the help of CGPA.

Trait Emotional Intelligence Questionnaire- Short Form: The TEIQue-SF (Petrides & Furnham, 2006) was based on the full form of the TEIQue, designed to measure emotional intelligence as a personality trait. The 30-item questionnaire utilized a Likert-style response option format It measured global trait emotional intelligence, emotionality, self-control, sociability and wellbeing (refer to Table 1) Permission to use the latest version of the TEIQue-SF (version 1.50) was taken from the author before administration of the questionnaire.

The criterion variable in the present research was academic achievement. The cumulative grade point average (CGPA) of the previous semesters was used to indicate academic achievement on the undergraduate level. The maximum possible CGPA could be 4.00. Authorization to get the CGPA to evaluate academic achievement was taken from the participants.

Procedure

The participants were approached individually or in groups around the campus. During data collection, the participants were provided with trait emotional intelligence scale, along with a demographic sheet. At that point they were requested to sign a consent form, after which they were briefed about the questionnaire booklet. They were informed about the subject, nature and the objectives behind the study. They were also guaranteed the privacy of the data shared. The students were requested to read every statement thoroughly and choose within the provided answers. The survey was completed in one setting; without any time, limit. Any question asked during the data gathering stage was replied to. Lastly, the participants were expressed gratitude for their assistance.

After data collection, substantial and dependable results were determined through statistical analysis and qualitative interpretation. The correlation between the variables was calculated. All through the process, attention is given to ethical concerns, mainly regarding privacy. Results would also not be disclosed to any other individual without the authorization of the participant.

Statistical Analysis

Data was evaluated by SPSS version 20.0 for analysis to test the study hypothesis. Descriptive statistics i.e frequency, percentages mean, and standard deviation were also considered. Required statistical analyses were conducted to uncover possible correlation and prediction among variables of the study.

Results

The main objective of the present research was to identify the relationship between Trait Emotional Intelligence (Trait EI),

and Academic Achievement (AA) and also explore the predictor of academic achievement. It was hypothesized that Trait EI will be positively correlated and predicted the academic achievement. In view of literature, it was also proposed that Trait EI scores will vary across academic disciplines.

Descriptive Statistics of the Sample

The descriptive statistics revealed that the age range of the 150 participants was 18-26 with a mean age of 21.06 (*SD* 1.39). The mean of monthly family income of the sample was in the 3rd category (*M* 3.46, *SD* 1.23) that is “Rs.50001-Rs.80000.” The CGPA had a mean score of 7.46 (*SD* 1.48), which means that the most students had CGPA in the 7th category “2.7-2.99.”

Table 1: Descriptive Statistics of Age, Family Income, CGPA, subscales of TEIQue-SF and subscales of BFI-10

Variables	<i>M</i>	<i>SD</i>
Age	21.06	1.39
Family Income	3.46	1.23
CGPA	7.46	1.48
Global Trait Emotional Intelligence	127.96	18.45
Well being	28.24	6.33
Self-Control	23.98	4.72
Emotionality	33.30	6.92
Sociability	24.57	5.12

Testing of the Hypotheses

The main objective of the study was to find the relationship between academic achievement and their trait emotional intelligence. The degree of correlation between variables was measured by either parametric or non-parametric tests, according to the normality of the data. The correlations between the domains of Trait EI and AA are depicted in the tables 5 and 6.

The first hypothesis for the present study relating to the trait EI and AA is as follows:

H1: Global trait EI, sociability, emotionality, self-control, and well-being will be positively related to academic achievement.

In order to address the first hypothesis (*H1*), the concerned variables were subjected to Pearson correlation. Results indicated that all the domains of trait emotional intelligence are significantly positively related to one another while sociability ($r=.175, N=150, p<0.01$) had a positive significant relationship with academic achievement. The correlation is significant at the 0.05 level (2-tailed).

Table 2: Relationship between domains of Trait Emotional Intelligence Questionnaire and CGPA (N=150)

	Self-Control	Emotionality	Sociability	Global Trait EI	CGPA
Well-being	.293**	.260**	.254**	.729**	.098
Self-Control	—	.261**	.131	.535**	-.091
Emotionality		—	.269**	.685**	.126
Sociability			—	.529**	.175*
Global				—	.132
Trait EI					
CGPA					—

*. $p<0.05$; **. $p<0.01$

The second hypothesis for the present study relating to the trait EI and AA is as follows:

H1: Global trait EI, sociability, emotionality, self-control, and well-being will be positively predicted to academic achievement.

After calculating correlations, regression analysis was conducted to find the contribution of trait emotional intelligence and its domains to academic achievement. The strength of the contribution was revealed by $\beta = .269, p = .039$ for sociability subscale as statistically significant. As a small sample was taken, the construct of sociability explained 22% of the variance in CGPA scores of undergraduate students.

Table 3: Multiple Regression Analysis Predicting Academic achievement for Trait Emotional Intelligence (N=150)

Predictors	Academic Achievement	
	β	<i>p</i>
Well-being	.04	.07
Self-Control	.02	.09
Emotionality	.07	.08
Sociability	.269	.03
Global	.10	.07
Trait EI		
R ²	.029	

Discussion

The main objective of the present study was to identify the relationship between Trait EI and academic achievement (AA) of undergraduate students in Pakistan. In the light of literature, it was hypothesized that Global Trait EI will be a predictor of AA. Yet conversely, the present research found that only sociability has significant positive relationship and also predicted the academic achievement however there was an insignificant correlation among the overall Global Trait EI score and AA. These results can be understood in the light of previous studies conducted across the globe.

The reported sociability, a sub-scale of Trait EI, predicted academic achievement in students at undergraduate level. A high score in this domain means that the student believes that that he or she can effectively communicate with people and are able to influence their views and feelings. They also perceive themselves as effective negotiators and can stand up for their rights when needed (Petrides, 2001). In an academic setting, perceiving oneself to be sociable be abundantly helpful. As self-efficacy might lead to confidence needed to successfully perform a task involving social skills (Pajares & Schunk, 2001). At the undergraduate level it is greatly required to interact with a variety of individuals, give presentations, work in groups and essentially be socially active. Thus, it can be interpreted that students whose social skills are not enhanced are at a disadvantage in their academic life (McIntyre, 2001). Another reason might be that students with higher social skills are more prone to be more respectable, responsible and tolerant towards their peers and teachers. Such students utilize acceptable ways of avoiding and solving conflict. They are also open to criticism and diversity in classrooms (McIntyre, 2001). It is implied that all these factors and benefits that come along side with sociability can contribute to better grades in their academics. Accordingly, as highlighted by the results sociability might be the only domain that has a vast effect on personality of the students which enables them to achieve better grades.

Currently in Pakistan, Ahmad (2010) found only a moderate advantage of trait emotional intelligence with academic achievement. Yet in another research set in Pakistan, found positive correlation between Trait EI and AA (Nasir & Masrur, 2010). This pattern is observed in the plethora of literature from various cultures. Some Western as well as Eastern, studies show that Trait EI is a predictor of academic achievement (Sanchez-Ruiz, Mavroveli & Poullis, 2012; Ferrando et al. 2010; Song et al. 2010; Siu, 2009). On the other hand, there are researches which show insignificant correlations between Trait EI and academic success across the globe (Shipley, Jackson & Segrest, 2010; Barchard, 2001; Amelang & Steinmayr, 2006). The previous researches have yielded inconclusive findings. This suggests that ability EI, personality, cognitive ability or other variables could be stronger predictors of academic successes.

Several previous studies suggested that ability EI is a predictor of academic achievement, rather than trait EI (Ladazo, Mortan, Anderson & Barchard, 2013). As trait EI has low correlations with ability EI due to underlying conceptual differences, it is insinuated that the actual ability to regulate one's emotion would prove fruitful in academic setting. The mere self-perception of emotional abilities won't provide the skills needed to achieve the desired goals. The academic challenges of university life, for example, may produce stress and anxiety. Consequently, the way a student manages stress and regulates emotions may lead to either success or failure (Ladazo, Mortan, Anderson & Barchard, 2013).

Similarly, the ability to maintain relations and foster well-being within oneself also contributes to mental health of the individual. A healthy mind is vital for performance at one's full potential and such a person will be able to produce high quality work and maintain grades. In brief, an emotionally intelligent person would have the ability to practice self-regard, stress management, and social skills that will aid in academic achievement (Farooq, 2003).

The sample of the present study was undergraduates, which focuses on a significant developmental stage of a student. These students are emerging adults, the age bracket for this stage differs across cultures, according to the value system and practices of the people. There is a prevalence of collectivistic culture in Pakistan (Ahmad, 2010). The emerging adults in this part of the world are not encouraged to be independent, as opposed to individualistic cultures where autonomy is developed in children from the very start (Taylor, Peplau, Sears, 2012). Individuals even in their adulthood are not encouraged to be independence at the same level as the individualistic cultures (Berry, Poortinga, Breugelmans, Chasiotis, Sam, 2011). Alongside interdependence in collectivistic society, expression of emotion is suppressed, and this might also be a cause of inadequate development in emotional self-perceptions. Therefore, it can be inferred that vital experiences needed to develop trait emotional intelligence are restricted in collectivistic cultures. On the other hand, people in individualistic cultures are psycho-socially mature and better able to perceive their own abilities. As a result, the

comparison of two cultures based upon the assumption of similarity would be inaccurate.

As discussed earlier, researchers have found notable differences in cultures regarding perception and expression of emotions. It has been researched in cross-cultural psychology that emotional expression varies across cultures (Berry, et.al 2011), the same maybe true for wellbeing and other constructs of Trait EI. The theory behind "independent self", and "interdependent self" are relevant to the discussion. In Pakistan interdependence is encouraged, which entails a person to consider the views of other people before forming an opinion or taking a decision (Berry, et al, 2011). Accordingly, in Pakistan's academic setting the factors more relevant to achievement could be external rather than personal. It can be implied that the familial pressure to perform, might matter more than personal depositions for academic achievement. Therefore, the personal wellbeing and other constructs in this way would be unrelated to academic achievement.

Conclusion

The results of the present research presented a revealing picture regarding students in Pakistan. A high score in sociability domain means that the student believes that he or she can effectively communicate with people and are able to influence their views and feelings. This subscale in a way not only related but also positively predicted the academic achievement in the present population. The rest of the results exhibited that trait emotional intelligence, a person's self-perception about being satisfied, motivated, adaptable, and emotionally stable in one's life, has no relation with academic achievement in Pakistan.

Recommendations and Implications

The said research reveals vital findings in an unexplored psychological construct of the Pakistani culture. The generalizability of the results could have been enhanced by involving a larger sample. In future researches, data from multiple universities ought to be utilized for more comprehensive results, possibly involving a representative national sample which may offer greater external validity of the results.

It is highly recommended that future studies should uncover the relationship between both ability EI and trait EI with academic achievement in a single study. The findings will be to identify the exact nature of emotional intelligence in Pakistani culture. Personality, motivation, intelligence quotient, and other variables should be explored as well, to observe the predictive powers of the said variables in a relation to academic achievement. This will aid in improving the educational structure for ensuring academic performance. It is recommended that empirical studies be conducted to establish causal relationships, as the present study was limited in its correlational approach.

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