

Personality Traits and Academic Achievements of Undergraduate Students: The Mediating Role of Emotional Intelligence

Sabila Naseer and Rabbia Mussarat

Govt. Queen Mary College

Farah Malik

University of the Punjab

This research investigated the mediating role of emotional intelligence between personality traits and academic achievements among undergraduate students in Pakistan. A sample was comprised of 150 undergraduate college students (boys = 74, girls = 76) having age range 18-24 as boys ($M = 21.09$, $SD = 1.41$) and girls ($M = 20.18$, $SD = .71$). The data was collected from Queen Mary College, Lahore, and Govt. G.C. University Lahore by using a convenient sampling technique. Big Five Inventory (John & Srivastava, 1999), Trait Emotional Intelligence Questionnaire-Short Form (Petrides & Furnham, 2003), and student's Cumulative Grade Point Average (CGPA) were used as measures. Mediated hierarchical regression revealed that after controlling the effects of emotional intelligence (the Mediator) the personality traits (extroversion, agreeableness, and openness) not significantly predict academic achievements which indicate full mediation. Implications of the findings were discussed for family/home; educational settings, policy makers' counselors, and clinical psychologists' guidance in the context of Pakistani culture.

Keyword. Personality Traits, Emotional Intelligence, Academic achievements

Education is the key to the economic advancement of any state. Every government is taking numerous steps to improve their education system and are willing to allocate a large proportion of their annual budget for education because they are convinced that having

Sabila Naseer, Rabbia Mussarat, and Farah Malik, Department of Applied Psychology, Govt. Queen Mary College, Lahore, Pakistan.

Farah Malik, is now at Institute of Applied Psychology University of the Punjab, Quaid-i-Azam Campus, Lahore, Pakistan.

Correspondence concerning this article should be addressed to Sabila Naseer, Department of Applied Psychology, Govt. Queen Mary College, Lahore, Pakistan. Email: sabilanaseerpu@gmail.com

more educated will create higher economic growth and social justice by improving the quality of living of the lower and middle-income groups (Chen & Lai, 2015). During the last decade practically as per the psychological needs of students, emotional intelligence has received an intense amount of attention in research with other variables (as personality, self-esteem, etc.) (Serrat, 2017).

Numerous factors contribute to influencing the motivational level, academic behaviour, and educational achievements of the students (Ali, Naseer & Nadeem, 2021; Asif & Ghazal, 2022; Naseer & Rafique, 2021). Personality and emotional intelligence are also those significant contributors (Mohammadi & Asgari, 2016). The findings of different studies indicated that personality and emotional intelligence have a positive association with academic achievements (Castillo, Salguero, Fernández-Berrocal, & Balluerka, 2013; Todres, Tsimtsiou, Stephenson, & Jones, 2010).

Emotional abilities and personality traits enable a person to have better social skills, longer relationships, and competency to resolve conflicts and accomplish the high achievements of life (Qualter et al., 2012; Rafati, Sharif & Zeighami, 2004). Academic Achievement is also one of the life endeavours. It comprises the ability and performance of students. It can be related to one's multiple abilities. An individual's personality and emotions play a significant role to boost these abilities. An individual's personality is a combination of numerous abilities and strengths (Gardner, 1983). Cattell (1957) organized list of 161 traits of personality named "clusters" (Cattell, 1946, 1957). The most popular model of personality is presented by John, (1990) which was based upon five dimensions as extraversion, conscientiousness, agreeableness, neuroticism, and openness to experience (John, 1990). Like personality traits, emotional intelligence (EI) is also very important in attaining the educational goals of life. Emotional intelligence is an ability to understand, differentiate, use and direct our own and others' feelings and emotions. The emotional intelligence quotient has found a consistent predictor of academic achievement and appreciable scholastic performance as compared to universal intelligence (Mayer & Salovey, 1993; Salovey & Mayer, 1990). Numerous pathologies as fears, anger, and worries have been evoked among the students having low emotional intelligence. These can be replaced by feelings of hope, courage, motivation, commitment, hard work, and willing cooperation so that they can excel more and show outstanding performance (Shusma & Noorjehan, 2014).

Salovey and Mayer presented three models of emotional intelligence (Mayer & Salovey 1993). The ability model deals with

the perception of one's feelings and others in a more accurate way (Salovey & Mayer, 1990). The mixed model is the mixture of both emotional abilities and personality capabilities (Goleman, 1995). The third model is trait emotional intelligence which is formally defined as a pattern of emotional self-perceptions located at the lower levels of personality hierarchies. Emotional Intelligence deals with people's self-perceptions and an emotional capacity to attain one's life goal (Petrides & Furnham, 2000). Personality and its different traits are correlated with this model and in its various dimensions.

Emotions are the most significant element of one's personality, so their importance and vitality in human welfare, comfort, and success cannot be ignored. A healthy and nourished personality causes healthy, positive, and satisfactory emotions. Similarly, healthy, satisfied, and strong emotions provide clarity in handling life situations (Mayer, et al. 1997). Conflicted and disturbed personalities, as well as unsatisfied emotions, leave a negative impact on one's personal and social life, which leads to the declined social as well as academic success of an individual. Additionally, several psychological problems are also related to unhealthy emotions. So it is important to identify the healthy nourishment of a child's personality which leads towards healthy emotions in contributing to academic socialization (Katherine, 2007; Mayer & Salovey, 1997).

Different studies have been conducted in Pakistan and many other countries to find out the relationship between personality traits, emotional intelligence, and students' life success. A well-developed personality is correlated to better academic performance (Kolachina, 2014; O'Connor & Paunonen, 2007; Vitulica & Zupancicb, 2010). Poropat (2009) also supported that the three personality traits agreeableness, conscientiousness, and openness are significantly associated with the academic performance of the students. Especially conscientiousness and academic performance have a significant correlation with each other. While neuroticism has a negative relationship with educational performance (Ahadi & Narimani, 2009).

Zafar (2005) explored the significant relationship between self-efficacy and emotional intelligence in university teachers. In students it was also examined that five factors of personality and emotional intelligence are the significant predictors of physical education and academic achievements, of social success of students (Tok & Morali, 2009; Var Der Zee, Thijs & Schakel, 2002). Noor and Hanafi (2017) found that the academic achievement of the participants was shaped by their levels of emotional intelligence and gender. Chen and Lai (2015) investigated the relationships between personality traits, emotional intelligence, and academic achievements among university

students and found that extraversion, agreeableness, conscientiousness, and openness were positively correlated with emotional intelligence while neuroticism was found negatively associated with emotional intelligence. However, emotional intelligence was insignificantly associated with academic achievement. Aslam (2009) found through his research in a cross-sectional sample of 80 students that emotional intelligence is found to be significantly increasing with the years of education. Ahmad (2010) found that intelligence and the big five personality dimension are overlapping each other significantly.

To sum up, personality traits play a vital role in maximizing emotional intelligence which has a major role in predicting academic performance and achievements, and so far it is proved by different researches that different traits of personality (extroversion, agreeableness, conscientiousness openness), are associated positively and (neuroticism) negatively with the emotional intelligence as well as academic and life success. So, based on previous studies personality has also been explored as the significant predictor of emotional intelligence and scholastic success so with this idea the present study has discovered the mediating role of emotional intelligence between personality traits and academic achievements.

Based on previous literature and trait, the emotional intelligence model depicts the mediating role of emotional intelligence between personality traits and academic achievements.

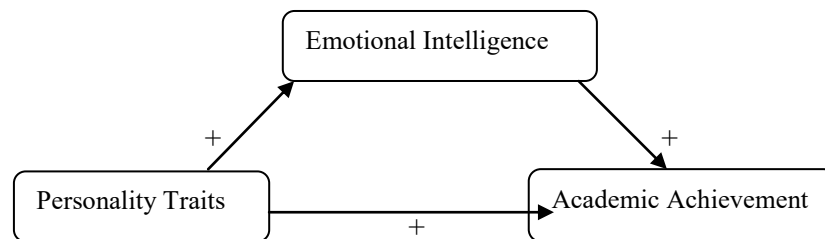


Figure 1. Emotional Intelligence Model depicting the mediating role of emotional intelligence between personality traits and academic achievements.

The research was conducted to highlight the importance of emotional intelligence and personality traits in the academic achievements of the students. It can be a contribution to a perspective that would provide valuable insight for understanding the emotional problems in their academic achievements. Numerous studies have been conducted to seek the relationship and predictors of study variables (Bunyaan, Tan & Loo, 2015; Chen & Lai, 2015; Judge & Arora, 2017; Kolachina, 2014; Noor & Hanafi, 2017; Mohammadi &

Asgari, 2016; Upadhyaya, 2013; Yelkikalan, Gungor, Kiray, & Cetin, 2014). But in the current study emotional intelligence has been highlighted as a mediator between personality traits and academic achievements of the students in the Pakistani context to seek its importance in students' life success.

The main objective of the present research was to measure the mediating role of emotional intelligence between personality traits and academic achievements of undergraduate students.

Hypothesis

H: Emotional intelligence is likely to mediate the relationship between the personality traits and academic achievements of undergraduate students.

Method

Sample

The sample was comprised of 150 undergraduate college students from the institutions of Queen Mary College Lahore and G. C. University, Lahore, BS (Hons) semester-V (male = 74 & female = 76) with a mean age of range of males 21 years ($SD = 1.41$) and of females 20 years ($SD = .71$) by using convenient sampling strategy. A correlation research design was used in this study. The students with physical disabilities were excluded. The personal information sheet indicated that the majority of the students have middle socio-economic status as the majority have 31000-60000 family monthly income which falls in the middle category. Fifty six percent of the students' fathers have government jobs and 44% have other nature of jobs (retired, business, private). Fourteen percent of the students have 0-2 siblings, 61% have 3-5 numbers of siblings and 25% of the students have 6-9 siblings. Sixty percent of students live in a nuclear family and 40% had a joint family system. The students of 92% have mothers' housewives and 8% have working mothers.

Assessment Measures

Demographic Information Sheet. Personal information of the students was collected by the self-constructed sheet which included queries gender, age, education, parents' occupation, parents' monthly income, number of siblings and family system, etc.

Big Five Inventory (BFI) (John & Srivastava, 1999). The Big Five Inventory has contained 44 items having big five traits of personality that include extraversion having 8-40, agreeableness 9-45,

conscientiousness 9-45, neuroticism 8-40, and openness which has a range of scores 10-50. Some of the statements as 2, 6, 8, 9, 12, 18, 21, 23, 24, 27, 31, 34, 35, 37, 41 and 43 are scored reversely. It's a five-point Likert scale ("absolutely opposed" to "absolutely in agreement") rated for each choice. The Cronbach's alpha (α) reliability coefficient of big five inventory is 0.83. In the current study, Cronbach's alpha coefficient of Extroversion has .76, Agreeableness .86, Conscientiousness .79, Neuroticism .35, and openness has .65 reliability respectively.

Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF, Petrides & Furnham, 2003). TEIQue-SF was a short form 30-item questionnaire designed to measure global trait emotional intelligence (trait EI). Items are responded to on a 7-point Likert scale ("Completely Disagree" to "Completely Agree"). Reliability for TEIQue-SF was determined as 0.71 and 0.76. Some of the items are scored reversely as included 2, 4, 5, 7, 8, 10, 12, 13, 14, 16, 18, 22, 25, 26 and 28. In the current study, the Cronbach's alpha coefficient TEIQue-SF has .73 reliability respectively.

Academic Achievements. Academic achievements were measured by university cumulative grade point average (GPA) of the 4th semester. GPA was obtained from college/university office and students.

Procedure

For the collection of data, formal permission was imperative from the concerned authors for the scales and the department of Applied Psychology. Permission letter was signed by the supervisor as well as permission from the concerned authority of colleges and universities. A consent form was presented to the participants to seek their understanding and voluntary participation in the study. Only those students included who were willing. The anonymity of the participants and confidentiality of the data was maintained. They were requested to write their academic grades point averages (GPAs) of their previous semester-IV. To cross-check the academic results, the college database was also utilized. No compensation was offered in return for participation in the study.

Results

The research aimed to investigate the mediating effect of emotional intelligence between personality traits and academic achievement.

Table 1

Correlation of Demographics, Personality Traits, Emotional Intelligence and Academic Achievement (N=150)

V	1	2	3	4	5	6	7	8	9	M	SD
1. Age	1	-.12	-.23**	-.06	-.08	-.18*	.04	-.27**	.02	20.40	1.05
2. Gender	-	1	.09	-.35**	.08	-.20*	-.21**	.04	-.59**	1.50	.50
3. Ex	-	-	1	.11	.15	.15	.22**	.27**	.25**	62.58	6.80
4. Ag	-	-	-	1	.20*	.27**	.29**	.16*	.24**	53.45	5.97
5. Co	-	-	-	-	1	.13	.16	.03	.10	63.49	7.45
6. Ne	-	-	-	-	-	1	.28**	-.17*	.04	65.26	6.30
7. Op	-	-	-	-	-	-	1	.19*	.23**	69.42	6.59
8. EI	-	-	-	-	-	-	-	1	.23**	55.13	3.60
9. AA	-	-	-	-	-	-	-	-	1	2.76	.36

Note. V = Variable, Gender = (male=1, female=2), Ex =Extroversion, Ag=Agreeableness, Co = Conscientiousness, Ne = Neuroticism, Op = Openness, EI = Emotional Intelligence, AA = Academic Achievement.

df=150. * $p < .05$. ** $p < .01$.

Findings indicated (Table 1) that extroversion, agreeableness, and openness have a positive relationship with emotional intelligence and academic achievement. Neuroticism has a negative relationship with emotional intelligence and additionally, emotional intelligence has a positive relationship with the academic achievement of the students.

Table 2

Hierarchical Multiple Regression (Mediation) Analysis of Personality Traits, and Emotional Intelligence as Predictors of Academic Achievement

Predictors	Emotional Intelligence (M)		Academic Achievement (DV)		
	Direct Effect		Direct Effect	Indirect Effect	Total Effect
	ΔR^2	β	ΔR^2	β	β
	.10***		.11***	.11***	.32***
Extroversion		.24**		.26**	.39**
Agreeableness		.19*		.15*	.29*
Openness		.19*		.15*	.29*
EI				.17*	
Total R^2					.32***
n					150

Note. EI= Emotional Intelligence. M= mediator, DV= Dependent Variable.

* $p < .05$. ** $p < .01$. *** $p < .001$.

In Table 2 Analysis 1 revealed that 11% variance has explained by model as $F(3, 146) = 6.36, p < .001$. Extroversion, agreeableness, and openness significantly predicted the academic achievement of the students. Results of Analysis 2 reveal that Extroversion, agreeableness, and openness accounted for 10 % of the variance in the

emotional intelligence of the students as $F(3,146) = 5.59, p < .001$. Extroversion, agreeableness, and openness are significant predictors of students' emotional intelligence. The results of the Analysis 3 shows that a 15% variance in academic achievement is explained by emotional intelligence as $F(5, 144) = 5.05, p < .001$. After controlling the effects of emotional intelligence (the Mediator) extroversion, agreeableness and openness do not significantly predict academic achievement which indicates full mediation.

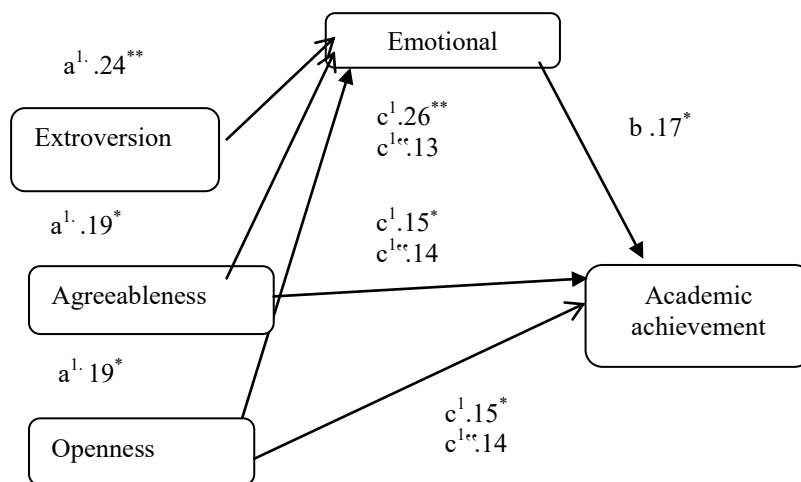


Figure 1. Model depicting the mediating role of Emotional Intelligence between Personality Traits (Extroversion, Agreeableness, and Openness) and academic achievement.

Discussion

The findings of the current study showed that the scores of academic achievement of undergraduate students were shaped by their levels of emotional intelligence and personality traits. In the recent past, the studies have reported that the affective component has a significant contribution to an individual's adjustment and educational accomplishments and the way students endure and execute following the awaited projects (Chew, Zain & Hassan, 2013; Extremera & Fernandez-Berrocal, 2009; Fatima, Shah & Kiani, 2011; Jaeger & Eagan, 2007; Nasir, 2012). In emotional intelligence, several competencies are bubbled. Emotional competence is one of a learned ability based on emotional intelligence which has a wonderful impact on all sorts of student tasks (Goleman, 1998). A close association has

been found between school achievements personality and emotional intelligence in recent researches. The patterns of relationship observed between personality traits, academic adjustment and emotional intelligence of the students are positive (Ahadi & Narimani 2009; Ogundokun, 2007; Premuzic & Furnham, 2003b; Schutte, Malouff, Hall, Haggerty; Tok & Morali, 2009; Tiwari, 2011). The current findings are in line with the previous outcomes. Another group of studies, in contrast, have reported no relationship between emotional intelligence and academic achievement (Sutarso, Baggett, Sutarso & Tapia, 1996; Suleman, Hussain, Syed, Parveen, Lodhi & Mahmood, 2019).

A study by Ogundokun and Adeyemo (2010) showed that emotional intelligence has a significant correlation with personality, academic achievement, and adjustment of students. The findings of the present research are consistent with the earlier ones (Ahmad, 2010; Connor & Paunonen, 2007) who reported a significant relationship between emotional intelligence, personality traits, and academic achievement. These results are explained assuming that emotional intelligence competencies, such as the ability to regulate one's feelings, problem-solving, intrapersonal, and interpersonal skills are highly germane to academic success and adjustment. It is evident based on results that high scores in personality factors as extroversion, agreeableness, openness, and neuroticism are also associated with a high score on emotional intelligence. It also supports the findings that a person has high capabilities, self-confidence, talent, and personality skills also emotionally strong as proposed by previous studies (Ahmad, 2010; Bar-On, 1997; Zafar, 2005). Based on these findings in the current study mediating effect of emotional intelligence has been explored between personality and academic performance of the undergraduate students and found the full mediating role of emotional intelligence. This means both are interlinked with each other and very crucial for the academic achievement of the students. Future research may focus on the ways and means of instilling the students with emotional intelligence not only for academic success but also for their all-around development and growth in all walks of life.

Finally, it can be concluded that the results of the current study somewhat correlated with the previous research findings which were conducted in foreign countries as well as in Pakistan except a few.

Limitations/Suggestion/Recommendations for Future Research

In future study cross-sectional research or longitudinal research, design can be used to seek the stability of study variables with

increasing age and academic grades. Future researchers also need to work on multiple semester students or by looking at the students of initial semesters in which the students need emotional intelligence, stability, and high personality traits for adjustment in the new environment and educational achievements.

Implications of the Findings

The study would be valuable for academic institutions to capitalize on emotional intelligence to reduce emotional issues and to overcome the constraints in grooming healthy personalities and emotions which have a significant contribution in life.

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