

# Predictors of Academic Performance: Emotional Intelligence and Stream among Graduate Students

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## ABSTRACT

The present study is aimed to evaluate the predictors of Academic Performance. In this study, Emotional Intelligence and Stream are the forecasters of Academic Performance. This research was carried out on a sample of 207 students enrolled in the graduate courses of Aligarh District. A standardized scale was used to collect data which were analyzed using Product moment correlation (r), t-test, ANOVA, and Multiple Regression Analysis. The final year marks of the Graduate students were taken as the measurement of Academic Performance of the students. The results reveal that there is a significant positive correlation between Emotional Intelligence and the Academic Performance. Their gender does not much influence the students' Academic Performance, but Girls' Academic Performance is better than that of boys. Girls have higher Emotional intelligence rather than that of boys. There is no significant difference in Academic Performance and Emotional Intelligence between Arts and Social Science Students, while there exists a significant difference in Academic Performance and Emotional Intelligence between Arts and Science Students and Social Science and Science Students. It confirms that Emotional Intelligence has a great significant positive impact on Academic Performance while Stream has a minimal role in predicting Academic Performance.

**Keywords:** Academic Performance, Emotional Intelligence, Stream, Gender

In this fast growing world, everyone is facing challenges and perspiring to ameliorate his performance because it exhibits the quality and recognition. Performance is how well one has done an assigned task. Academic Performance is the academic accomplishment of the students which is measured by their outcomes. It is multifaceted construct comprising of different domains of learning like critical thinking, understanding, literacy, and numeracy. Academic performance of a student is evaluated or measured using different standardized assessment tests. A student's academic future and career mostly depends on his or her academic performance. On the extensive level, academic performance of a student also paves the path of prosperity for any country. "The responsibility of academic institutions to produce holistically developed graduates puts intensified

pressure on the school administrators to raise students' achievement levels and attain academic success. In several learning organizations, it is the students' academic excellence that is given a rightful recognition. They are named academic scholars while others distinguish them as top-performing students" (Bance & Acopio, B. 2016).

Academic performance depends on many different factors like student's cognitive abilities, emotional intelligence, socio-economic status, school environments, home environments, curriculum, and instructional materials. Different research studies have asserted that emotional intelligence of the students plays a crucial role in their academic performance. In this Era, Adolescents are facing throat cutting competition in Education. They face stress, disturbance, anxiety, and even depression.

All these occur due to an imbalance of emotions. So this study focuses on Emotional Intelligence as a predictor of Academic Performance.

It has for quite some time been a worry of many parties on components adding to academic performance among students in learning foundations, beginning from as low as pre-primary to as high as college level. The findings of various researches conducted in this field of study over a period of time uncover a range of components; students' IQ, financial status, inspiration, peer-relationship, instructor-student relationship, parental inclusion, and identity. Among every one of these elements, IQ had been generally utilized as a determinant and related to academic performance. Notwithstanding, numerous current and rising reviews are uncovering that IQ alone is not a solid indicator of students' academic performance (Craggs, 2005 as cited in Mohzan, Hassan & Halil, 2013).

Peter Salovey and John D. Mayer coined the term "Emotional Intelligence" in 1990. A standout amongst the most well-known and referred to sources is Daniel Goleman's most famous book "Emotional Intelligence: Why It Can Matter More Than IQ". In his book, Goleman (1995) claims that Intelligent Quotient contributes only 20% of a man's prosperity. This guarantee prompts numerous researchers and academicians to investigate and distinguish different components that contribute another 80% to a man's prosperity. The distributing of Goleman's first book has prompted another region of study not just in the field of Education additionally in business, human connections, profession advancement, administration, mechanical and authoritative brain science and some more. Many gatherings are captivated to know how enthusiastic insight or EQ of a student can help him or her to learn well and perform academically. "EI, considered as a source of greater well-being and happiness, focused on enhancing the positive human characteristics, experiences and outcomes (Gable & Haidt, 2005), integrated the emerging positive psychologist movements of the date. In fact, several studies confirmed the clear correlation between EI and positive psychology by exploring the overlap of numerous factors (e.g. self-regard and self-acceptance based on self-awareness, the capacity for positive social interactions based on social-awareness, realistic problem solving

and decision making and self-determination and optimism; Bar-On, 2010). These factors are known to have an impact on optimal physical and psychological health, successful performance and achievement, intelligent decision making, creativity, self-actualization and others (Bar-On, 2010 as cited in Costa & Faria, 2015)".

Literature uncovers that emotional intelligence abilities and capabilities are inevitable to perform well there is a positive relationship between emotional intelligence and academic achievement among college students. For example, Nasir and Masur (2010) confirmed that emotional intelligence considerably forecasted academic performance among the 132 students in various departments of International Islamic University, Islamabad (IIUI). Also in a previous study by Rozell, Pettijohn, and Parker (2002), they found a positive relationship between emotional intelligence and CGPA of undergraduate students of Mid-Western University.

Farooq (2003) declared that students with better emotional intelligence discovered higher academic performance than the students with low emotional intelligence after researching on 246 Pakistani youths. Adeyemo (2007) researched Nigerian university students; the results revealed essential relationships between emotional intelligence and academic self-efficacy with academic performance. Sünbül and Aslan (2008) equally stated the correlation between emotional intelligence and academic performance among 312 Education students in Konya, Turkey. Parker and others (2005) evaluated the impact of emotional intelligence on the positive transition from high school to college.

Results revealed that academically successful students had considerably higher levels of several different emotional and social capabilities. These results recommend that emotional intelligence show essential role in the successful transition from high school to college.

Dayıoğlu and Türüt-Aşık (2004) conducted a study on undergraduate students at a large public university in Turkey; the results revealed that females outshined in their studies and performed better than their male counterparts. Similarly, Hyde and Kling (2001) also found that females in higher education performed better than their male counterparts irrespective of the measure of success

used and they achieved higher grades compared to males.

## Definitions of Key Terms

### *Emotional Intelligence*

According to Salovey and Mayer (1997) “Emotional Intelligence involves the ability to perceive accurately, appraise and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth (p. 10)”.

According to Goleman (1995) “Emotional intelligence consists of five components: Knowing our emotions (self-awareness), managing them, motivating ourselves, recognizing emotions in others (empathy), and handling relationships”.

### **Academic Performance**

Academic Performance consists of two words; Academic and Performance.

The Oxford dictionary defines Academic “relating to an educational or scholarly institution or environment”.

The Collins dictionary defines Performance “Someone’s or something’s performance is how successful they are or how well they do something”. Academic Performance exhibits how much a learner has learnt out of given instructions of learning and performed in academic life.

Crow and Crow define Academic Achievement (1969) as “the extent to which a learner is profiting from instructions in a given area of learning, i.e., achievement is reflected by the extent to which skill and knowledge has been imparted to him”.

### *Variables in the present study*

- Dependent variable:** Academic Performance.
- Independent Variables:** Emotional Intelligence and Stream (Arts, Social Science and Science).

### **Objectives of the study:**

The present study is based on the following objectives:

1. To ascertain the relationship between

Emotional Intelligence and Academic Performance of Graduate Students.

2. To study the difference in Academic Performance and Emotional Intelligence in relation to their Gender.
3. To find out the difference in Emotional Intelligence based on Arts, Social Science and Science Graduate Students.
4. To find out the difference in Academic Performance based on Arts, Social Science and Science Graduate Students.
5. To assess the impact of Emotional Intelligence and Stream (Arts, Social Science and Science Graduate Students) on Academic Performance.

### **Hypotheses**

1. There will be no significant relationship between Emotional Intelligence and Academic Performance of Graduate Students.
2. There will be no significant difference in Academic Performance and Emotional Intelligence of Male and Female Students.
3. There will be no significant difference in Emotional Intelligence among Arts, Social Science and Science Graduate Students.
4. There will be no significant difference in Academic Performance among Arts, Social Science and Science Graduate Students.
5. There will be no significant impact of Emotional Intelligence and Stream (Arts, Social Science and Science Graduate Students) on Academic Performance.

### **Delimitations of study**

This study is delimited by these followings:

1. The present study is delimited to Graduate students of Aligarh District (U.P).
2. The present study is restricted to final year marks for Academic Performance of Graduate students.
3. The present study is confined to Gender (Male and Female).
4. The Present Study is restricted to Arts, Social Science and Science Graduate Students.

### Methodology and Design of the study

**Population:** In the present study, the population comprises of Graduate Students of Aligarh district, Uttar Pradesh.

**Sample:** This study was conducted on a sample of 207 Graduate students (105 Boys and 102 Girls) studying in Graduation final year in various Degree Colleges (Shri Varshney College, T=88, M=52, F=36), (Dharma Samaj College, T=82, M=53, F=29) and (Shri Tika Ram Kanya Mahavidyalaya, T= 37, F= 37) of District Aligarh, Uttar Pradesh, India. The sample was drawn on a random basis.

**Tools used:** In order to fulfil the objectives, the following tool was adopted.

Roqan Emotional Intelligence Test (2008) constructed and validated by Prof. Roquiya Zainuddin and Anjum Ahmad consists of 30 items, each item has three options. The statements fall into five dimensions of Emotional Intelligence i.e. Self-Awareness, Self-Regulation, Motivation, Empathy and Social Skills. The reliability of the tool given by the constructors using Cronbach’s alpha coefficient was 0.7. The validity was established after calculating reliability index, which indicated high validity on account of being 0.83.

The Academic Performance consists of final year marks of Graduation.

### Statistical

**Data Collection:** The investigators personally visited the colleges after getting consent from respective principals, where students were communicated and elucidated about objectives of the study. In order to acquire exact responses from the respondents, a good rapport was developed through a short talk and directions in the tool were explicated. It was ensured that neither they could have any chance to talk one another nor could glance at their responses. They were inculcated how to respond to the items of a tool well and the Emotional Intelligence test was administrated in accordance with the instruction of its manual.

**Statistical Techniques used:** In the present study, Pearson Correlation, t-test, ANOVA, and Multiple Regression Analysis have been employed for the analysis of data. Pearson Correlation is used for examining relationship between Emotional Intelligence and Academic Performance, t-test is

used to study difference in Emotional Intelligence and Academic Performance based on Gender, Anova is used to study difference in Emotional Intelligence and Academic Performance in relation to Stream, Multiple Regression Analysis is used to study the impact of Emotional Intelligence and Stream (Arts, Social Science and Science Graduate Students) on Academic Performance.

### Data analysis and Interpretation

**Table 1:** Correlation Matrix of Emotional Intelligence and Academic Performance

Variables	Academic performance	Emotional intelligence
Emotional Intelligence	.587**	1
Sig. (2 tailed)	.000	
N	207	207

\*\*Significant at 0.01 level

It is clear from the **table 1** that Emotional Intelligence shows significant positive correlation with Academic Performance ( $r=.587, p.000 < 0.01$ ). So, Null hypothesis is rejected, it means that there is a significant positive relationship between both the said groups.

**Table 2:** To study the difference in Academic Performance and Emotional Intelligence between Male and Female Students

Variables	Male (N=105)		Female (N=102)		t value	Sig.
	Mean	SD	Mean	SD		
Academic Performance	59.36	4.34	61.24	3.30	-3.49	.001*
Emotional Intelligence	65.12	4.83	69.39	4.40	-6.64	.000*

\*Significant at 0.05 level.

It is evident from the **table 2** that mean scores of male and female students were 59.36 and 61.24 respectively on Academic Performance. The t value (-3.49,  $p < 0.05$ ) obtained reveals that significant difference exists between male and female students in Academic Performance. On the basis of mean, Girls’ performance is better than that of boys. Significant difference was found in the dimension of Emotional Intelligence (t value = -6.64,  $p < 0.05$ ) with male students having a mean score of 65.12

**Table 3:** To study the difference in Emotional Intelligence based on Arts, Social Science and Science Graduate students

**Emotional Intelligence:**

Source	N	Mean	SD	Source of Variance	Sum of squares	df	Mean square	F	Sig.
Stream	Arts	70	65.97	Between Groups	519.63	2	259.82	11.03	.000*
	Social Science	69	66.28	Within Groups	4806.70	204	23.56		
	Science	68	69.49	Total	5326.33	206			
	Total	207	67.24						

\*Significant at 0.05 level

**Table 3.1:** Post Hoc Test

**Multiple Comparisons**

Dependent Variable: Emotional Intelligence

	(I) Stream	(J) Stream	Mean Differences (I-J)	SE	Sig.
Scheffe	1	2	-.304	.823	.934
		3	-3.514	.827	.000*
	2	1	.304	.823	.934
		3	-3.210	.829	.001*
	3	1	3.514	.827	.000*
		2	3.210	.829	.001*

\*Significant at 0.05 level; (1= Arts, 2= Social Science and 3= Science).

and female students with a mean score of 69.39 so female students have higher Emotional Intelligence than that of male students.

It is crystal clear from the **table 3** that F value for stream on Emotional Intelligence (F= 11.03, p< 0.05) is significant. It confirms that there exists a significant difference among Streams on Emotional Intelligence but to know exact difference, post hoc test was applied.

It is evident from the **table 3.1** that (p .934> 0.05) so there is no significant difference in Emotional Intelligence between Arts and Social Science Students while there exists a significant difference between Arts and Science Students because of (p.000< 0.05) and Social Science and Science Students because of (p.001<0.05). The mean score of Arts students on Emotional Intelligence was the lowest while the mean score of Science Students was the highest but the mean score of Social Science students was a bit higher than that of Arts Students, but the mean score of Social Science was lesser than that of Science Students.

It is confirmed by the **table 4** that F value for Stream on Academic Performance (F= 14.52, p<0.05) is significant which exhibits a significant difference among Streams on Academic Performance. The post hoc test was used to know the exact difference among Streams on Academic Performance.

It is revealed from the **table 4.1** that (p .960> 0.05) so there is no significant difference in Academic Performance between Arts and Social Science Students while there exists a significant difference between Arts and Science Students because of (p.000< 0.05) and Social Science and Science Students because of (p.000<0.05). The mean score of Social Science students on Academic Performance was the lowest while the mean score of Science Students was the highest but the mean of score Arts students was a bit higher than Social Science but the mean score of Arts was lesser than that of Science Students.

**Table 5** highlights the results of the Stepwise method of Multiple Regression analysis. It exhibits that when Independent variables, Emotional intelligence and

**Table 4:** To study the difference in Academic Performance based on Arts, Social Science and Science Graduate Students

**Academic Performance**

Source	N	Mean	SD	Source of Variance	Sum of squares	df	Mean square	F	Sig.	
Stream	Arts	70	59.40	3.62	Between Groups	403.95	2	201.97	14.52	.000*
	Social Science	69	59.22	4.72	Within Groups	2838.23	204	13.91		
	Science	68	62.28	2.49	Total	3242.18	206			
Total	207	60.29	3.97							

\*Significant at 0.05 level.

**Table 4.1:** Post Hoc Test

**Multiple Comparisons**

Dependent Variable: Academic Performance

	(I) Stream	(J) Stream	Mean Differences (I-J)	SE	Sig.
Scheffe	1	2	.183	.633	.960
		3	-2.879	.635	.000*
	2	1	-.183	.633	.960
		3	-3.062	.637	.000*
	3	1	2.879	.635	.000*
		2	3.062	.637	.000*

\*Significant at 0.05 level; (1= Arts, 2= Social Science and 3= Science).

**Table 5:** Impact of Emotional Intelligence and Stream (Arts, Social Science and Science Graduate Students) on Academic Performance

Variables	R	R <sup>2</sup>	R <sup>2</sup> Change	F	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
					B	Std. Error	Beta		
Emotional Intelligence	.587	.345	.345	107.943	.458	.044	.587	10.390	.000*
Emotional Intelligence and Stream	.603	.363	.018	58.195	.427	.045	.548	9.404	.000*
					.684	.282	.141	2.425	.016*

\*Significant at 0.05 level; Constant 30.204

Stream were added, 'F' ratio was found significant at 0.05 level for both variables. The percentage of variance explained by Emotional Intelligence alone is 34.5% and Stream contributes only 1.8% variance in Academic Performance. Emotional Intelligence together with Stream accounts for 36.3% variance in Academic Performance.

The Regression equation to predict Academic

Performance score of a student can be written as follows:

$$Y^- = .427X_1 + .684X_2 + 30.204$$

Where Y<sup>-</sup> represents predicted Academic Performance scores, X<sub>1</sub> represents raw scores on Emotional Intelligence and X<sub>2</sub> represents raw scores on Stream while 30.204 is the Constant.

## FINDINGS AND DISCUSSION

The results of the present research study exhibit the significance of Emotional Intelligence and Stream determining Academic Performance of Graduate Students. The present study confirms that there is a significant positive relationship between Emotional Intelligence and Academic Performance. Emotional Intelligence is concerned similar to the findings of Nasir and Masur (2010), Rozell, Pettijohn and Patrick (2002), Farooq (2003), Adeyemo (2007) and Sunbul and Aslan (2008). There exists a significant difference in Academic Performance and Emotional Intelligence between male and female Graduate students. It is found that girls' academic performance is a bit higher than that of boys and girls have higher emotional intelligence rather than that of boys. Dayioglu and Turut – Asik (2004) and Hyde and Kling (2001) found that Girls performed better than boys.

It confirms that there exists a significant difference among Streams on Emotional Intelligence. It is evident that there is no significant difference in Emotional Intelligence between Arts and Social Science Students while there exists a significant difference between Arts and Science Students and Social Science and Science Students. The mean score of Arts students on Emotional Intelligence was the lowest while the mean score of Science Students was the highest but the mean score of Social Science students was a bit higher than that of Arts Students, but the mean score of Social Science students was lesser than that of Science Students.

It exhibits a significant difference among Streams on Academic Performance. It reveals that there is no significant difference in Academic Performance between Arts and Social Science Students while there exists a significant difference between Arts and Science Students and Social Science and Science Students. The mean score of Social Science students on Academic Performance was the lowest while the mean score of Science Students was the highest but the mean score of Arts students was a bit higher than that of Social Science but was lesser than that of Science Students.

The percentage of variance explained by Emotional Intelligence alone is 34.5% and Stream contributes only 1.8% variance in Academic Performance. Emotional Intelligence together with Stream accounts for 36.3% variance in Academic Performance.

## Educational Implications

This present study is an effort to know the impact of Emotional Intelligence and Stream on Academic Performance of Graduate Students. The present study suggests that Emotional Intelligence plays a pivotal role in determining Academic Performance while Stream plays a minor role in Academic Performance. This study suggests that all students require emotional assistance to perform well academically and become emotionally matured ones. Emotionally matured students can not only perform well but also they may be right human beings as well as better citizens. Teachers should assist male students to improve Academic Performance and Emotional Intelligence likewise female students. Arts and Social Science students need to improve their Academic Performance and Emotional Intelligence likewise Science students.

In this fast growing World, students are perspiring to obtain high marks, high positions and high grades but most students get suffered from anxiety, stress, tension, depression, frustration, pessimism, idleness, procrastination, and negativity. In the age of information, social networking is increasing virtual friends but making alienated people after decreasing real friends. It is essential for the students to be acquainted with emotional skills to face all challenges boldly. Teachers may adopt cooperative teaching-learning styles so that all students may interact to become emotionally and socially mature.

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