International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

# A Structural Analysis of Emotional Intelligence and Its Impact on Student Academic Performance

**Dr. Beedassy Satyen Singh[1], Mr. Olugbenga Olatunde Shokunbi[2], Dr. Serigha Brown Seriyai[3]**

[1,2,3]Subject Matter Expert, Kazian School of Management, State- Mumbai, India

**Abstract**

The present study examines the relationship between Emotional Intelligence (EI) and Academic Performance among students. Using a sample of 90 students, the study explores whether differences in emotional intelligence significantly influence academic outcomes. Data were analyzed using descriptive statistics and an independent samples t-test. The findings suggest that students with higher emotional intelligence demonstrate significantly better academic performance compared to those with lower emotional intelligence. This study provides insight into emotional intelligence, academic stress, and gender differences for future reference.

**Keywords:** Emotional Intelligence; Academic Performance; Student Achievement; Self-Regulation; Motivation; Emotional Awareness; Learning Outcomes; Educational Psychology; Student Development.

## 1. INTRODUCTION

"Precise knowledge is the only true knowledge, and he who does not teach exactly, does not teach at all".....**Henry Ward Beecher**

Emotional Intelligence (EI) refers to an individual's ability to recognize, understand, manage, and regulate one's own emotions as well as those of others. In recent years, emotional intelligence has gained significant attention in the field of education due to its strong influence on students' learning behavior, motivation, interpersonal relationships, and overall academic success. Unlike traditional intelligence, which primarily focuses on cognitive abilities such as memory and reasoning, emotional intelligence emphasizes emotional awareness, self-control, empathy, and social skills, all of which play a crucial role in shaping students' academic experiences. Academic performance is not solely determined by intellectual ability or subject knowledge. Factors such as stress management, self-motivation, classroom engagement, and effective communication significantly contribute to students' achievement levels. Emotional intelligence enables students to cope with academic pressure, handle examination anxiety, maintain focus, and develop positive attitudes toward learning. Students with higher emotional intelligence tend to show better adaptability, improved problem-solving skills, and stronger relationships with peers and teachers, which positively influence their academic outcomes.

Furthermore, emotional intelligence supports the development of essential life skills such as resilience, teamwork, leadership, and decision-making. These competencies help students navigate academic

challenges and maintain emotional balance during stressful academic situations. Research studies have consistently highlighted that emotionally intelligent students demonstrate higher levels of self-discipline, goal orientation, and persistence, which directly contribute to improved academic performance. In the modern educational environment, where students face increasing academic competition and psychological stress, the importance of emotional intelligence has become more prominent. Integrating emotional intelligence development into educational practices can enhance students' academic achievement while also promoting mental well-being and holistic personality development. Therefore, understanding the relationship between emotional intelligence and academic performance is essential for educators, policymakers, and researchers to design effective learning strategies and supportive educational frameworks.

### 1.1. Emotional Intelligence

The idea of emotional strength in the 1950s introduced firstly by Abraham Maslow. The phrase emotional intelligence appears to have first been used in papers by Michael Beldoch in 1964 and B. Leuner in 1966, both of which were published in the psycho-therapeutic journal Practice of Child Psychology and Child Psychiatry and were titled 'Emotional Intelligence and Emancipation'. The word "EQ" (Emotional Quotient) was originally used in a piece by Keith Beasley that appeared in the British Mensa magazine in 1987. The most common definition of emotional intelligence is the capacity to recognize, use, comprehend, regulate, and control emotions. People with high emotional intelligence are able to identify their own emotions as well as those of others, use emotional information to direct their behaviour and thinking, differentiate between various emotions and assign the proper labels to each one, and modify their emotions to fit their environment. Although the phrase was originally used in 1964, it became well-known because to science journalist Daniel Goleman's best-selling book 'Emotional Intelligence', which was published in 1995. Emotional Intelligence, according to Goldman, is a collection of abilities and traits that influence leadership success.

Emotions can be positive or negative, but its feeling provides us with vital and potentially profitable information every minute of the day. Emotional Intelligence is defined as "the ability to monitor one's own and other people's emotions, to discriminate between different emotions and label them appropriately, and to use emotional information to guide thinking and behavior" (Salovey Mayer, 1990) [10].

The capacity to understand, manage, and assess emotions is referred to as emotional intelligence. While some academics contend that emotional intelligence may be developed and increased, others contend that it is an innate quality. The following are indications of emotional intelligence:

- The ability to understand and express other people's feelings.
- Understanding one's own talents and limitations.
- Confidence in oneself and acceptance of oneself.
- The ability to overlook mistakes.
- The ability to adapt to change and a strong sense of curiosity, especially about others.
- The ability to remain emotionally in check when faced with challenging situations.

The skill to identify and articulate your own emotions while considering the emotions of others is called emotional intelligence (EI). Emotional intelligence is generally said to include at least three skills: emotional awareness, or the ability to identify and name one's own emotions; the ability to harness those emotions and apply them to tasks like thinking and problem-solving; and emotional regulation, which is the ability to manage emotions, which includes both regulating one's own emotions when necessary and

helping others to do the same. Emotional intelligence is the ability to determine, examine and analyze your emotions, and realize how your emotions are impacting people around you.

It also involves your perception of others; how other people are feeling or expressing their emotions in a particular situation and allows you to meditate for a healthy relationship. Daniel focuses on Emotional Intelligence as a wide array of competencies and skills that drive leadership performance and consists of five areas:

- **Self-awareness:** It is an important trait of Emotional Intelligence. People with high Emotional Intelligence are usually more self-aware. These people understand their own strengths and weaknesses, and their impact on others.
- **Self-regulation:** People having high Emotional Intelligence do not allow themselves to become pugnacious or petulant by others. They do not even make decisions in a hurry or careless manner but rather follow a more pragmatic way.
- **Motivation:** Highly emotionally intelligent people are more self-motivated and are not amenable to other people.
- **Empathy:** This trait shows a helping nature to other people's concerns.
- **Social skills:** People with high emotional intelligence can build trustable relationships with others. They do not possess a prevaricate behavior, rather they are shown a venerated attitude by other people in their community/society.

### 1.2. Impact of Emotional Intelligence on Academic Performance

Currently, the concept of Emotional Intelligence is having a considerable impact on every person's thoughts, relations, and emotions, and a very significant influence on their decision-making. Some of the studies are, Influence of Emotional Intelligence on Student's Academic Achievements; aim was to investigate a student's Emotional Intelligence level and using the dimensional approach, to what extent Emotional Intelligence influences students' academic achievements. Another study explored the relationship between Emotional Intelligence and creativity in the academic achievement of second-period high school students. This was a descriptive-correlational study. Results indicated a significant correlation between Emotional Intelligence and academic achievement. There was also a significant and positive relationship between creativity and academic achievement. Additionally, no gender difference was found considering their academic achievement.

### 1.3. Operational definitions of the key terms

The operational definitions of the key terms used in the present study are:

#### 1.3.1. Emotional Intelligence

"Emotional Intelligence refers to the ability to monitor one's own as well as other people's emotions, to discriminate between different emotions and label them appropriately, and to use emotional information to guide thinking and behavior" (Salovey Mayer, 1990) [10, 12].

## 2. Review of literature

A review of related literature is one of the major steps in any research study. Scientific investigation starts with a review of the literature related to the study. It allows the researcher to acquaint oneself with the current knowledge in the area where one proposes to do research.

**Riyanti, Riyanti et al., (2024)** Quantum computing is a technology that has great potential to revolutionize various scientific disciplines with its extraordinary computing capabilities. Multiple fields,

such as cryptography, optimization, and complex simulation, have begun to explore quantum computing applications. However, a deep understanding of how these technologies can be used effectively in cross-disciplinary informatics still needs to be improved. Purpose. This research aims to develop a theoretical framework that explains the role of quantum computing in advancing interdisciplinary informatics. The main focus is to identify potential applications and challenges faced in applying this technology in various fields and evaluate its impact on the development of science and technology. This research uses a qualitative approach, a literature review, and theoretical analysis methods. Data were collected from various academic sources, including journals, books, and conferences relevant to quantum computing and interdisciplinary informatics. Analysis was conducted to identify patterns, themes, and relationships between quantum computing and cross-disciplinary applications. The research results show that quantum computing has the potential to solve complex computational problems in various fields, including cryptography, optimization, and physical simulation. Quantum computing can provide more efficient and faster solutions than classical computing. However, the research also identified several significant challenges, such as the need for quantum-specific algorithms and sophisticated technological infrastructure. Quantum computing is essential in advancing interdisciplinary informatics by providing superior computing capabilities. The theoretical framework developed in this research can be used to further study and develop quantum computing applications in various fields. The identified challenges require special attention to ensure effective and efficient implementation of this technology.

**Roy, Partha & Mahato, Mukul. (2024)** Emotional Intelligence is a significant characteristic of any human being. Which can play a role to improve the academic achievement among students of general degree colleges in North 24 Parganas and Howrah district of West Bengal. The aim of the was to identify the male & female relations respect to emotional intelligence, rural & urban relations respect to emotional intelligence and relationship between emotional intelligence and its impacts on academic achievement. The present study was Normative Survey research. For collect the data researcher used Emotional Intelligence Scale (EIS) was developed by Shailendra Singh (2004) edited and modified by Roy & Mahato, 2023 from 100 general degree college students West Bengal (North 24 Parganas & Howrah). The 100 sample distributed as 53 male and 47 female, who had been selected purposely. The researcher used Mean & Standard Deviation (S.D.) as Descriptive Statistics, Scatterplot, Pearson's Product-Moment Correlation (r) and Independent 't'-test as Inferential Statistics applied to analyze the data. The result showed that, there is significant difference between college students male & female, there is a significant difference between college students in rural & urban areas and the emotional intelligence as independent variables is negatively correlated with academic achievement, which mean EI is not significantly related to academic achievement.

**Pashchenko, Oleksandr et al., (2024**) This article explores the impact of emotional intelligence (EI) on academic achievement, highlighting the essential role that EI plays in educational settings. It begins with a comprehensive definition of emotional intelligence and its key components, followed by a review of the relationship between EI and academic performance. The article synthesizes empirical evidence demonstrating how emotional intelligence influences learning outcomes, motivation, and resilience among students. Additionally, it discusses effective strategies for enhancing EI in educational environments, including training programs and the role of educators. Challenges in measuring and implementing EI are also addressed, culminating in a conclusion that emphasizes the importance of integrating emotional intelligence into educational frameworks to foster academic success. The findings underscore the significance of emotional skills in navigating the complexities of academic life and

promote the inclusion of EI training in curricula.

**Banat, Bassam & Rimawi, Omar. (2018)** The present study is aimed at identifying the impact of emotional intelligence on academic achievement among students at the Al-Quds University. Emotional intelligence was evaluated using a 33-item scale as an index introduced by Schutte et al. (1998). The test was administrated to three hundred and seventy stratifiedly selected full-time undergraduate students at Al-Quds University. The data was statistically analyzed using the Statistical Package for Social Sciences (SPSS). The findings revealed that the students at Al-Quds University indicated a high level of emotional intelligence. Of the students surveyed, 75.2% revealed being emotionally intelligent. The results demonstrated statistically significant differences in the emotional intelligence scores among the students according to their gender, religion and place of residency. Emotional intelligence emerged as a significant predictor of academic achievement. The implications of the findings and directions for future empirical research are discussed briefly. Key words: Emotional intelligence, Al-Quds University, academic achievement.

## 3. Material and method

### Objectives

The aim of this study is to Study the relationship between Academic Stress and Emotional Intelligence among Undergraduate College Students**;**

- To find out the relationship between emotional intelligence and academic stress.
- To find the gender influence on emotional intelligence and academic Stress.
- To assess the level of emotional intelligence among students.
- To examine the academic performance of students.
- To analyze the impact of emotional intelligence on academic performance.
- Hypotheses:
- H0: There is no significant difference in emotional intelligence among undergraduate college students based on their gender.
- H1: There is a significant difference in academic performance between students with high and low emotional intelligence.
- H2: There is no significant difference in academic stress among undergraduate college students based on their gender.
- H3: There is no significant relationship between emotional intelligence and the academic stress of undergraduate college students.

## 4. Sample

The target population in the present study was all the undergraduate college students of Mumbai. A sample of 90 students was taken up by using a random sampling technique for the purpose.

### 4.1 Research Design

In the present investigation, a correlational design with a quantitative approach was used. Emotional Intelligence, Academic Stress, and Gender were the variables under study.

### 4.2 Tools Used

- Emotional Intelligence Scale (standardized questionnaire)
- Academic performance measured using students' previous examination scores

### 4.3 Statistical Techniques

#### 4.3.1 Descriptive Statistics

Descriptive statistics such as frequency, percentage, mean, and standard deviation were employed to summarize and describe the demographic characteristics of the respondents and to understand the distribution of emotional intelligence and academic performance scores.

#### 4.3.2 Independent Samples t-test

An independent samples t-test was used to examine whether there was a significant difference in academic performance between students with high emotional intelligence and those with low emotional intelligence. This test helped determine the impact of emotional intelligence on students' academic performance.

### 4.4 Procedure

A Pilot study was conducted before the main study, the purpose of the pilot study was to rectify the shortcomings in the survey and the data collection process. This pilot study enables the main study to have maximum control over minimizing the possible biases and conflicts. It also helps to identify possible sources of non-sampling errors, which might occur in the process of communication, establishing a good rapport with the subjects, purpose of investigation, clarification of statements, etc. It can empirically determine, the time factor for responding to the questionnaire, and we can get acquainted with the time factor because time is one of the important aspects of research work. Thus, the time schedule for the main study could be drawn with precision and accuracy. The pilot study was done mainly to find out the reliability of the research tools used in the study. This ensures that the data to be collected for investigation is free from errors and worthy enough to use for testing the set of hypotheses with much confidence.

### 4.5 Data Analysis

To analyze the collected data the following descriptive and inferential statistics were used:

- Descriptive statistics: Mean and standard deviation.
- Inferential statistics: Pearson's Product moment correlation was used to find out the relationship between emotional intelligence and academic stress.
- t-test was used to determine the significance of the difference between means and standard deviation of gender groups in their emotional intelligence and academic stress.

## 5. Result

**Table 1 Gender-wise Distribution of Students. (N=300)**

| Gender | Frequency | Percentage |
|---|---|---|
| Male | 42 | 46.7 % |
| Female | 48 | 53.33 % |
| **Total** | 90 | 100 % |

**Figure 1 Gender-wise Distribution of Students**

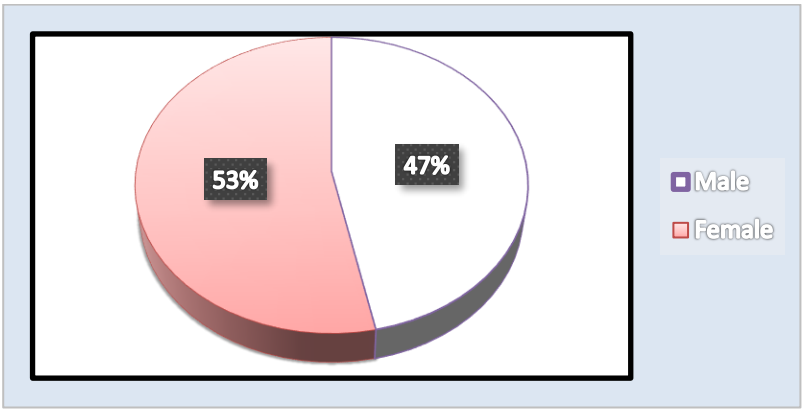


**Table 1** Presents the gender-wise distribution of the students included in the study. Out of the total sample of 90 students, 42 students (46.7%) were male and 48 students (53.3%) were female. This indicates that female students constituted a slightly higher proportion of the sample compared to male students. The distribution reflects a fairly balanced representation of both genders, ensuring that the findings of the study are not biased toward a single gender group.

**Table 2 Age-wise Distribution of Students**

| Age Group (Years) | Frequency | Percentage (%) |
|---|---|---|
| 18–19 | 28 | 31.1 % |
| 20–21 | 40 | 44.444.4 % |
| 22–23 | 22 | 24.5 % |
| **Total** | 90 | 100 % |

Table – 2 shows the age-wise distribution of the students selected for the study. Among the 90 respondents, the majority of students belonged to the 20–21 years age group, accounting for 40 students (44.4%). This was followed by the 18–19 years age group with 28 students (31.1%), while 22 students (24.5%) fell within the 22–23 years age group. The distribution indicates that most participants were in their early twenties, which is a typical age range for students pursuing higher education, thereby making the sample appropriate for examining academic performance and emotional intelligence.

**Figure 2: Age-wise Distribution of Students**

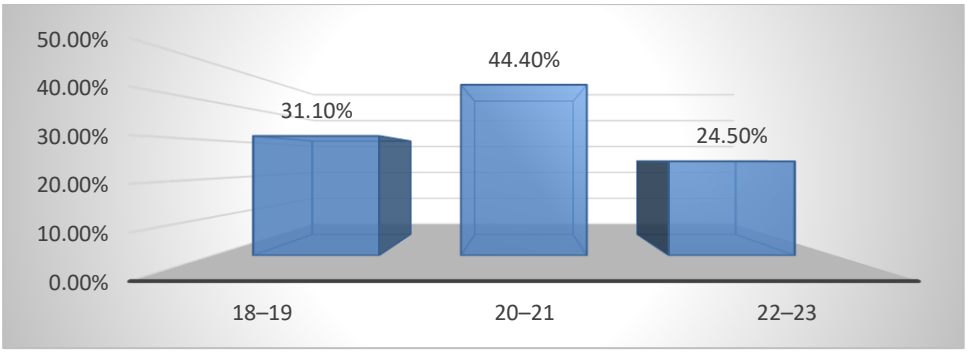

**Table 3 Independent Samples t-test Showing Difference in Academic Performance**

| Group | N | Mean Score | Standard Deviation | t-value | p-value |
|---|---|---|---|---|---|
| High Emotional Intelligence | 45 | 76.84 | 8.12 | 4.62 | 0.000 |
| Low Emotional Intelligence | 45 | 69.26 | 7.45 | | |

Level of Significance: 0.05

Table 3 presents the results of the independent samples t-test conducted to examine the difference in academic performance between students with high and low emotional intelligence. The mean academic score of students with high emotional intelligence was 76.84 with a standard deviation of 8.12, whereas students with low emotional intelligence had a lower mean score of 69.26 and a standard deviation of 7.45. The calculated t-value of 4.62 with a p-value of 0.000 is significant at the 0.05 level of significance. This indicates a statistically significant difference in academic performance between the two groups. Hence, the null hypothesis is rejected, and it can be concluded that emotional intelligence has a significant impact on students' academic performance, with students possessing higher emotional intelligence achieving better academic results.

**Conclusion**

The study concludes that emotional intelligence plays a vital role in enhancing students' academic performance. Developing emotional intelligence skills such as self-awareness, emotional regulation, and empathy can positively influence students' learning outcomes. Educational institutions should consider incorporating emotional intelligence training into their curriculum to promote holistic student development.

Emotional intelligence represents a critical yet historically underappreciated factor in student academic performance. The evidence clearly demonstrates that emotional competencies including self-awareness, emotion regulation, motivation, empathy, and social skills significantly influence educational outcomes across all levels of schooling. These effects operate through multiple mechanisms: stress management that preserves cognitive resources, interpersonal relationships that facilitate collaborative learning and support, motivational processes that sustain effort, and adaptive behaviors that optimize learning approaches.

The educational implications are substantial. Schools and universities cannot afford to focus exclusively on cognitive development while neglecting emotional competencies that enable students to access and apply their intellectual abilities effectively. Integration of social-emotional learning into curricula, investment in teacher emotional competency development, and creation of emotionally supportive learning environments represent evidence-based strategies for improving both student wellbeing and academic achievement.

However, implementation requires careful attention to measurement challenges, cultural contexts, and individual differences that moderate emotional intelligence effects. Educational approaches should balance emotional and academic development rather than viewing them as competing priorities, recognizing that emotional competencies serve academic learning rather than distracting from it. As research continues clarifying the complex relationships between emotional intelligence and academic performance, educational practices should evolve based on emerging evidence.

Ultimately, preparing students for success requires cultivating both minds and hearts. Emotional intelligence provides essential skills not only for academic achievement but for lifelong learning,

professional success, and personal fulfillment. Educational institutions that recognize and develop these competencies alongside traditional academic content serve students more completely, equipping them with the full range of capabilities needed to thrive in increasingly complex and demanding environments. The integration of emotional intelligence into educational theory and practice represents not a departure from academic excellence but rather a more complete and effective path toward achieving it.

**Compliance with ethical standards**

**Acknowledgments**

I am extremely grateful to the college authorities from where data was collected, because without such permission I might not be able to complete this project. Further, I am thankful to all the students' participant for their support and cooperation.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

**References**

1. Afolabi, O. A., Ogunmwonyi, E., & Okediji, A. (2009. Influence of emotional intelligence and need for achievement on interpersonal relations and academic achievement of undergraduates. Educational Research Quarterly, 33(2), 15–29.
2. Al-Qadri, A. H., & Zhao, W. (2021). Emotional intelligence and students' academic achievement. Problems of Education in the 21st Century, 79(3), 360–380.
3. Aldrup, K. (2022). Is empathy the key to effective teaching? A systematic review of its association with teacher–student interactions and student outcomes. Educational Psychology Review, 34(3), 1177–1216.
4. Banat, B., & Rimawi, O. (2018. The impact of emotional intelligence on academic achievement: A case study of Al-Quds University students.
5. Brittain, K. (2020). Leader academy: A layered approach to learning leadership. Currents in Pharmacy Teaching and Learning, 12(3), 326–330.
6. Casino-García, A. M. (2021). Emotional intelligence profiles and self-esteem/self-concept: An analysis of relationships in gifted students. International Journal of Environmental Research and Public Health, 18(3), 1–23.
7. Hsieh, Y. H. (2020). The effects of a mindfulness curriculum on the emotional regulation and interpersonal relationships of fifth-grade children. Bulletin of Educational Psychology, 52(1), 25–50.
8. Pashchenko, O., Medvedovska, T., Terkhanova, O., Baidak, A., & Danyliuk, Y. (2024). The impact of emotional intelligence on academic achievement. PrOsvita, 57–70.
9. Riyanti, R., Akbar, N., & Hilmiyati, F. (2024). Emotional intelligence and its impacts on educational psychology: Developing a new model for student assessment. Journal of Social Science Utilizing Technology, 2(2), 216–227.
10. Roy, P., & Mahato, M. (2024). Emotional intelligence and its impacts on academic achievement of general degree college students. International Journal for Multidisciplinary Research, 6(4), 1–7.
11. Salovey, P., Mayer, J. D. (1990). Emotional intelligence. Imagination, Cognition and Personality, 9(3), 185–211. [10,12]