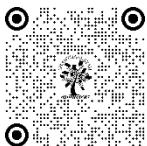# EMOTIONAL INTELLIGENCE AS A PREDICTOR OF ACADEMIC ACHIEVEMENT ACROSS BOARD AND GENDER OF HIGHER SECONDARY SCHOOL STUDENTS

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ABSTRACT

Emotional intelligence cultivates essential abilities such as emotional regulation, personal goal setting, optimism, self-awareness, flexibility, adaptability, and problem-solving in both personal and interpersonal contexts. These competencies play a pivotal role in fostering holistic development and enhancing academic performance. The present study examines the relationship between academic achievement and emotional intelligence, with a specific focus on the influence of the school board (CBSE vs. State Board) and gender. Data were collected using the Dr. S.K. Mangal and Shubhra Mangal Emotional Intelligence Inventory, a standardized tool consisting of 100 items. The sample comprised 160 students (80 males and 80 females) randomly selected from two CBSE and two State Board higher secondary schools in Mandsaur District, Madhya Pradesh. For statistical analysis, Pearson Correlation Coefficient and Multiple Linear Regression Analysis were employed to determine the significance of the relationship between emotional intelligence and academic achievement across the identified variables. The Pearson correlation results indicated a moderate positive correlation between emotional intelligence and academic achievement, with CBSE higher secondary students exhibiting a stronger positive correlation compared to their State Board counterparts. Additionally, male students demonstrated a higher correlation between emotional intelligence and academic performance than female students. Multiple Regression Analysis further revealed that emotional intelligence significantly influences academic achievement, with school board type (CBSE or State) and gender serving as contributing factors. The findings suggest that emotional intelligence plays a crucial role in shaping academic success, with CBSE students and male participants displaying relatively stronger relationships between these variables. This study underscores the importance of emotional intelligence in preparing students for future challenges, fostering holistic development, self-reflection, and adaptive learning strategies. It highlights the need for integrating innovative teaching methodologies that enhance emotional growth and, consequently, academic performance.

Keywords: Emotional Intelligence, Academic Achievement, School Board, Gender, Holistic Development

1. INTRODUCTION

Academic achievement is a crucial aspect of a student's growth, as it cultivates the necessary skill set and knowledge essential for personal and professional success. With the introduction of holistic development in the National Education Policy (NEP) 2020, the parameters for academic excellence have undergone a transformative shift. It is no longer limited to mere academic scores but encompasses a comprehensive development framework, including physical, mental, social, emotional, spiritual, intellectual, aesthetic, moral, and academic dimensions. The fundamental objective of education is to nurture well-rounded individuals who are resilient, adaptable, and equipped with the competencies required for sustainable development and the demands of the 21st-century skill set.

According to Annamaria Di Fabio "Emotional intelligence is an emerging construct for applied research and possible interventions, both in scholastic, academic and educational contexts, organizational contexts, as well as at an individual level in terms of people's well-being and life." (Pg. xi). According to Annamaria Di Fabio (2012) emotional intelligence encompasses essential competencies such as emotional regulation, stress management, goal setting, self-motivation, self-awareness, adaptability, and problem-solving skills, all of which contribute to overall success Therefore, emotional intelligence is a crucial factor in enhancing academic performance, as it influences various aspects of an individual's personal and educational growth. Recognizing its importance, the researcher has chosen this topic to explore the relationship between emotional intelligence and factors such as gender and the type of school board, aiming to provide deeper insights into its role in academic achievement.

1.1. OBJECTIVE OF THE STUDY

The study is based on the following objectives:

1) To study correlation between Academic Achievement and Emotional Intelligence of Higher Secondary School Students with respect to board of the school.
2) To study correlation between Academic Achievement and Emotional Intelligence of Higher Secondary School Students with respect to gender.
3) To establish a Regression Equation for predicting the Academic Achievement as criteria for Emotional Intelligence of Higher Secondary School Students.

1.2. HYPOTHESIS OF THE STUDY

The study is based on the following hypothesis:

1) There is no significant relationship between Academic Achievement and Emotional Intelligence of Higher Secondary School Students with respect to board of the school.
2) There is no significant relationship between Academic Achievement and Emotional Intelligence of Higher Secondary School Students with respect to gender.
3) Emotional intelligence is not the significant predictors of the Academic Achievement of the Higher Secondary Students with controlled factors gender and board of school.

1.3. DELIMITATION OF THE STUDY

1) The present study is limited to District Mandsaur, Madhya Pradesh.
2) The study is confined to the Higher Secondary School students.
3) The study has been conducted on the sample size of 160 students including boys and girls.
4) The study is confined to two CBSE and two State Board Schools of Mandsaur district, Madhya Pradesh.

2. REVIEW OF RELATED LITERATURE

Keshari (2023) analyzed the role of EI in academic success, concluding that teaching emotional and social skills in schools positively impacts both short-term and long-term academic achievements. The study also emphasized that academic success without EI does not ensure future professional success.

Dev, Kapil, and Kuldeep (2022) investigated gender differences in EI and academic achievement among senior secondary school students. Using an Emotional Intelligence Inventory, they found that boys performed better than girls in both EI and academic achievement, with significant variations across different factors.

Choudhary (2020) studied higher secondary school students in Burdwan Town using a five-point Likert scale. The research revealed a positive correlation between emotional intelligence and academic achievements, reinforcing the importance of EI in student success.

Malli Pillabi (2018) analyzed the impact of EI and self-esteem on academic achievement among Class XII students in Assam. The study concluded that students with high EI and self-esteem demonstrated better academic performance across different streams.

Raino (2017) explored the relationship between study habits, self-concept, and EI among 300 private school students in New Delhi. The study found significant relationships between study habits, self-concept, and EI but no significant correlation concerning gender and locality.

Yadav (2017) examined 800 senior secondary students' academic achievement in relation to EI, creativity, and family relationships. Using multiple psychological inventories, the study found that students with high EI, creativity, and supportive family relationships achieved higher academic success.

Singh (2011) studied 'Study of achievement motivation in relation to academic achievement of students.' The study represented in the article focussed on achievement motivation and academic performance of the students. The study revealed that students with high academic motivation are more likely to have levels of academic achievement and have lower dropout rates.

3. METHODOLOGY- THE METHOD USED IN THE STUDY IS QUANTITATIVE DESCRIPTIVE SURVEY METHOD.

Variables: The variables used are:

Dependent Variable- Academic Achievement

Independent variable- Emotional Intelligence, Board of School, Gender

Sample: For the present study, the population comprised students studying in Central Board of Secondary Education (CBSE) and State Board (Madhya Pradesh) of Higher Secondary Schools of Mandsaur district, Madhya Pradesh. A total of 160 samples were collected from two CBSE and two State Board schools. The sample included 80 students (40 male and 40 female) from CBSE schools and 80 students (40 male and 40 female) from two State Board schools.

3.1. TOOL USED FOR THE STUDY

In the present study the investigator has used Emotional intelligence Inventory by Dr S K Mangal and Shubhra Mangal which is based on the following 4 dimensions- intra personal awareness (knowing your own emotions), inter personal awareness (knowing others emotions), intra personal management (managing your own emotions) and inter personal management (managing others emotions). It of consists of 100 statements designed in Hindi and English for the students of age group 16 + years of school, college and university.

Statistical Tests Used: Pearson Correlation, Multiple Linear Regression

4. ANALYSIS AND INTERPRETATION OF RESULT:

1) Analysis of Correlation between Academic Achievement and Emotional Intelligence with respect to board of the school.

Objective 1. To study correlation between Academic Achievement and Emotional Intelligence of Higher Secondary School Students with respect to board of the school.

Hypothesis 1 There is no significant relationship between Academic Achievement and Emotional Intelligence of Higher Secondary School Students with respect to board of the school.

Table 1 Correlation Between Academic Achievement and Emotional Intelligence with respect to Board of School

Variables	Emotional Intelligence			
Academic Achievement	Group	Category	R	Significance Level
	Board	CBSE	0.325	<0.0001*
		STATE	0.270	0.0005*
	Overall EI		0.295	0.0001*

*Significant at 0.05 level

Interpretation

Table 1 represents the correlation between academic achievement and emotional intelligence with respect to the school board. The correlation coefficient (r) for CBSE is 0.325 with a p-value<0.0001, indicating a moderate positive correlation between emotional intelligence and academic achievement among higher secondary school students of CBSE, which is statistically significant. This suggests that as emotional intelligence increases, academic achievement also increases for CBSE students.

Similarly, the correlation coefficient (r) for State Board students is 0.270 with a p-value of 0.0005, also indicating a moderate positive correlation at a statistically significant level. This suggests that an increase in emotional intelligence is associated with an increase in academic achievement for State Board students as well.

When considering the overall school board (combining both CBSE and State Board), the correlation coefficient (r) is 0.295 with a p-value < 0.0001, confirming a moderate positive correlation between emotional intelligence and academic achievement at a statistically significant level. This indicates that, regardless of the school board, higher emotional intelligence is associated with better academic achievement. Furthermore, the correlation between emotional intelligence and academic achievement is stronger for CBSE students than for State Board students, as reflected in the higher correlation coefficient for CBSE. Hence, the stated Hypothesis 1, there is no significant relationship between Academic Achievement and Emotional Intelligence of Higher Secondary School Students with respect to board of the school is rejected.

2) Analysis of Correlation between Academic Achievement and Emotional Intelligence with respect to gender.

Objective 2. To study correlation between Academic Achievement and Emotional Intelligence of Higher Secondary School Students with respect to gender.

Hypothesis 2. There is no significant relationship between Academic Achievement and Emotional Intelligence of Higher Secondary School Students with respect to gender.

Table 2 Correlation Between Academic Achievement and Emotional Intelligence with respect to Gender

Variable	Emotional Intelligence			
Academic Achievement	Group	Category	r	Significance Level
	Gender	Female	0.255	0.001*
		Male	0.314	<0.0001*
	Overall EI		0.295	0.0001*

*Significant at 0.05 level

Interpretation

Table 2 represents the correlation between academic achievement and emotional intelligence with respect to gender. The correlation coefficient (r) for females is 0.255with a p-value of 0.001, indicating a moderate positive correlation between emotional intelligence and academic achievement among female higher secondary school students, which is statistically significant. This suggests that as emotional intelligence increases, academic achievement also increases for females.

For males, the correlation coefficient (r) is 0.314 with a p-value < 0.0001, also indicating a moderate positive correlation between emotional intelligence and academic achievement at a statistically significant level. This suggests that higher emotional intelligence is associated with better academic achievement in male students.

When considering overall gender (combining both males and females), the correlation coefficient (r) is 0.295 with a p-value of 0.0001, confirming a moderate positive correlation between emotional intelligence and academic achievement at a statistically significant level. This indicates that, regardless of gender, students with higher emotional intelligence tend to have better academic achievement. Additionally, the correlation between emotional intelligence and academic achievement is stronger for males than for females, as reflected in the higher correlation coefficient for males.

Hence, Hypothesis 2, there is no significant relationship between Academic Achievement and Emotional Intelligence of Higher Secondary School Students with respect to gender is rejected.

3) Multiple Linear Regression Analysis

Objective 3. To establish a Regression Equation for predicting the Academic Achievement as criteria for Emotional Intelligence of Higher Secondary School Students.

Hypothesis 3. Emotional intelligence is not the significant predictors of the Academic Achievement of the Higher Secondary Students with controlled factors gender and board of school.

Table 3 Multiple Linear Regression Analysis of Academic Achievement on Independent Variables

Variables	Unstandardized Coefficient	SE of B	Standardized Coefficient β	t-value	p-value
Constant	47.411	6.35		7.45	< 0.001*
EI (X1)	0.185	0.049	.249	3.74	< 0.001*
Gender(X2)	4.223	1.48	5.687	2.84	0.004*
Board (X3)	9.723	1.482	13.09	6.55	< 0.001*

*Significant at 0.05 level

Interpretation

The Multiple Regression (R) value is 0.55. The multiple regression coefficient measures the correlation between the observed and predicted value of the dependent variable. The value 0.55 indicates a moderately positive relationship between the dependent variable (Academic achievement) and independent variables (EI, gender and board). This suggests that academic achievement has a relatively moderate positive relationship with the independent variables.

R Square (R^2) value is 0.31 which means that 31 % of variance in the dependent variable can be explained by this model and rest 69 % of the variation of the dependent variable (Academic achievement) can likely be explained by some other factors which are not included in this regression model.

F-value is 23.5, indicating that the overall regression model is a good fit for the data and the relationship between the variables is satisfied significantly, suggesting that at least some of the independent variable has a significant relationship with the dependent variable (academic achievement). The p value is <0.001 which shows that the model is highly statistically significant.

The Intercept (B_0) value is 43.1, it is the predicted value of the dependent variable academic achievement statistically significant with p < 0.001.

Based on the values of unstandardized coefficients for independent variables:

1) Emotional Intelligence X1(B1= 0.185, p = <0.001) indicates a significant positive effect of emotional intelligence with academic achievement , indicating for every unit increase in emotional intelligence , academic achievement will increase by 0.185 units.

2) Gender X2(B2 =4.223, p = 0.004) has a positive and significant relation with academic achievement indicating that females (codes as 1) have a higher academic achievement score than male(coded 0) by 4.223 units.

3) Board X3(B3 =9.723, p = <0.001) has a highly positive and significant relation with academic achievement, indicating CBSE board (coded 1) has a highly improved academic achievement score than State Board (coded 0) by 9.723 units.

The Multiple Linear Regression Equation for this Model is:

Y = BO + B1.X1 + B2.X2 + B3.X3

Where, Y is the dependent variable – Academic Achievement,

BO is the Intercept Constant,

B1, B2, B3 are Unstandardized coefficients and

 X1, X2, X3 are independent variables -Emotional Intelligence, Gender and Board of School.

Using values of coefficient the equation will be:

Y= 43.1 + 0.185 . Emotional Intelligence+ 4.223¬ .Gender+9.723 . Board

Thus a predicted academic achievement of a specific student profile can be calculated using this regression equation.

Based on standardized coefficient Board of School (13.09) is the most important factor to extract academic achievement score, followed by Gender (5.687) and then Emotional Intelligence (.249).

Hence, the stated Hypothesis 3, Emotional intelligence is not the significant predictors of the Academic Achievement of the Higher Secondary Students with controlled factors gender and board of school is rejected.

5. FINDINGS AND DISCUSSION

The statistical analysis of the scores obtained provided valuable insights into the effectiveness of emotional intelligence on academic achievement with respect to board of school and gender. The Pearson correlation conducted between emotional intelligence and academic achievement with respect to board of school and gender shows a moderate positive correlation with Higher Secondary students of CBSE School representing stronger positive correlation than their counterpart State board and Male showing higher correlation than Female.

The positive correlation indicates that higher emotional intelligence is associated with higher academic performance. So measures should be taken to foster emotional growth which will strengthen individuals with a positive attitude leading to holistic development and enhanced academic performance. The difference in the correlation strength of CBSE and State Board is due to the difference in the curriculum, availability of teaching resources, approach and exposure to technology and learning , differences in teaching strategies, differences in problem solving, critical thinking, emotional strength and academic expectations. Male shows a stronger correlation due to the conventional and constant gender based difference between boys and girls which still persists in our society impacting focus, performance, emotional regulations, coping mechanism and stress management between male and female.

The multiple linear regression conducted effectively explains variation in dependent variable Academic Achievement under the influence of independent variable Emotional Intelligence and controlled factors Board of School (CBSE & State) and Gender (Male& Female) suggesting a relatively stronger relationship.

The positive relationship of Emotional Intelligence with Academic Achievement indicating students with higher Emotional Intelligence tends to perform better. Female scored higher than Male due to the difference in the study habit, cognitive abilities, individual differences, uniqueness and family mind-set which can be included in the regression in order to get deep insight into it. CBSE students tend to score higher than state board due to the difference in institutional approach which significantly improves academic performance of the students.

6. EDUCATIONAL IMPLICATIONS

- This study will contribute to the holistic development of students, fostering their overall growth and well-being.
- It will enhance students' understanding of the pivotal role emotional intelligence plays in academic success.
- The research will enable students to identify their weaknesses, challenges, and obstacles in the learning process, aligning with the demands of modern education.
- It will equip students with essential 21st-century skills, ensuring future readiness and promoting sustainable development.
- The findings will assist educators in integrating teaching strategies that nurture emotional intelligence, bridge gender disparities, and enhance academic performance.
- This study may introduce students to life skills-based education, fostering self-reflection, critical thinking, and awareness and management of interpersonal and intrapersonal emotions.

7. CONCLUSION

On the basis of the findings of the study conducted, it can be concluded that Emotional Intelligence have a positive relationship with Academic Achievement. Given that such teaching strategies should be integrated in the educational curriculum that promotes interpersonal and intrapersonal management and awareness, eradicate gender biasness and enhance academic performance. Such approach will equip students with skills needed for future readiness and sustainable development.

CONFLICT OF INTERESTS

None.

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