Impact of Emotional Intelligence and Motivation on Academic Performance of Senior Secondary School Students

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ABSTRACT

This study investigates the impact of emotional intelligence (EI) and achievement motivation (AM) on the academic achievement (AA) of senior secondary school students in West Bengal, India. A descriptive research design was employed, utilizing stratified random sampling to select a representative sample of 400 students from classes XI and XII across urban and rural areas. Data were collected using the Mangal Emotional Intelligence Inventory (MEII) to assess EI, the Deo-Mohan Achievement Motivation Scale (n-Ach Scale) to measure AM, and students' annual examination scores to determine AA. Pearson's correlation analysis revealed weak positive correlations between EI and AM (r = 0.110 for males; r = 0.126 for females), indicating a modest association between these variables. However, the correlations between EI and AA, as well as AM and AA, were negative across all groups, ranging from -0.029 to -0.032, suggesting that higher levels of EI and AM do not necessarily correspond with improved academic performance. Additionally, t-tests comparing achievement motivation across genders showed no statistically significant differences, with observed t-values below the critical value at both 0.05 and 0.01 significance levels, supporting the null hypothesis that gender does not significantly affect achievement motivation. These findings imply that while EI and AM are related, they may not directly influence academic achievement, and that gender does not play a significant role in achievement motivation among senior secondary students.
Keywords: *Emotional intelligence, achievement motivation, academic achievement, senior secondary students, gender differences, Pearson's correlation, t-test analysis*

INTRODUCTION

In today's world, adolescents, particularly senior secondary school students, encounter numerous challenges both within their home environments and in their educational settings. Adolescence is a critical developmental period marked by rapid physical, emotional, and social changes, which profoundly impact personal growth and future success. Emotional intelligence (EI) and motivation are two key factors that influence students' ability to manage these transitions effectively. Both EI and motivation are considered crucial for students to navigate their academic journeys successfully, impacting not only their performance but also their resilience in the face of challenges (Prabha, 2023).

Emotional disturbances, poor interpersonal relationships, and lack of motivation often lead to adverse outcomes for adolescents, such as increased stress, anxiety, and a decline in academic performance. Many senior secondary students struggle with academic pressures and expectations from family and school, which can lead to low motivation and poor emotional regulation. This, in turn, significantly influences their academic performance as well as their holistic development, encompassing not only their intellectual growth but also their emotional and social well-being (Purwanti et al., 2019). Consequently, examining the intricate relationship between emotional intelligence, various motivational factors, and academic achievement among higher secondary school students holds substantial importance. Understanding how these interconnected variables contribute to students' overall personal and academic progress is crucial, as emotional intelligence and motivation are foundational elements that impact their ability to succeed academically, manage stress, build effective relationships, and develop essential life skills. This exploration can provide valuable insights for educators, policymakers, and parents, ultimately fostering environments that support and enhance the comprehensive growth of students (Kumari, 2020).

Secondary education holds a pivotal position in the educational landscape of a country, bridging primary and higher education. While primary education equips students with foundational skills, secondary education prepares them for complex societal roles and global competitiveness. In this period, emotional intelligence and motivation play critical roles in shaping students' character, resilience, and outlook. As students face increasing demands for academic achievement in a competitive environment, fostering EI and motivation can contribute to their success and well-being, equipping them with the skills necessary for higher education and future employment (Rajendran et al., 2021)

Importance of Academic Achievement

Academic accomplishment is a vital element of a student's comprehensive growth and holds substantial importance in determining their future prospects and opportunities. It is linked to various positive outcomes that impact many facets of life, including employment prospects, financial stability, and overall well-being. Students who achieve high academic performance are generally more inclined to obtain stable employment, earn greater wages, and experience a broader range of job opportunities compared to their peers with lower achievement levels. Furthermore, higher academic success is associated with improved health outcomes, lower dependency on social assistance, and reduced engagement in negative behaviors (Ranjbar et al., 2024).

In today's rapidly evolving job market, academic achievement is increasingly essential. As the demand for higher education rises, successful students are better prepared to pursue advanced educational opportunities, which are often necessary for achieving meaningful careers. Moreover, learners who achieve academic success often exhibit elevated self-confidence, reduced occurrences of anxiety and depression, and heightened social involvement. In this regard, emotional intelligence serves as a significant factor, empowering students to comprehend and regulate their emotions effectively. This emotional awareness and management contribute to enriching their educational experiences and improving their interpersonal interactions (Robbins et al., 2024)

Motivation is another vital factor that significantly affects academic achievement. Students who are internally motivated are more inclined to put forth effort and actively participate in their academic endeavors. Support from parents and caregivers also contributes positively to students' motivation and academic performance. Research shows that parental involvement can lead to better academic outcomes, improved behavior, and enhanced social skills in students.

Definitions of Achievement Motivation

Achievement motivation is a critical factor influencing academic success, defined as the drive individuals possess to reach specific standards of excellence. Irving Sarnoff describes achievement motive as the way individuals orient themselves towards objects or conditions they do not possess, highlighting the importance of valuing these aspirations. If students recognize the significance of their academic goals and feel a strong desire to attain them, they demonstrate high achievement motivation (Motlagh et al., 2011).

McDavid and Hasari characterize achievement motivation as a system guiding human activities closely related to competence, assertiveness, and the pursuit of excellence. This framework is essential in the context of senior secondary school students, who are navigating significant academic challenges.

As per Atkinson and Feather, achievement motivation appears as a hidden inclination, evident when students perceive their performance as a means to personal accomplishment. This perspective is vital as students in this age group are increasingly aware of their academic standings, which can enhance or hinder their motivation (Sharma and Pinku, 2017).

OBJECTIVES
1. To examine the differences in emotional intelligence across genders among senior secondary students.
2. To examine the variations in emotional intelligence across different localities among senior secondary students.
3. To evaluate the variations in achievement motivation between male and female higher secondary students.
4. To explore the differences in achievement motivation among senior secondary students across different localities.
5. To examine the variations in academic achievement according to gender among senior secondary students..
6. To assess the influence of geographic environment on the academic performance of senior secondary students.
7. To explore the connection between emotional intelligence and achievement motivation in relation to gender among senior secondary students.

8. To explore the relationship between emotional intelligence and achievement motivation among senior secondary students, considering their locality.
9. To examine the impact of emotional intelligence on academic achievement in relation to gender among senior secondary students.
10. To investigate the impact of emotional intelligence on academic performance among senior secondary students, considering their geographic location.
11. To examine the relationship between achievement drive and academic outcomes in relation to gender among senior secondary students.
12. To assess the connection between achievement drive and academic performance among senior secondary students in relation to their geographical location.

LITERATURE OF REVIEW

Jagannadhan (2023) conducted an extensive study to explore the impact of various socio-psychological factors on students' academic performance, with a particular emphasis on eighth through tenth graders. An investigation into the impact of the family environment on the academic performance of students at a variety of levels was the objective of the study. This was achieved by classifying the family environment into three separate levels: low, moderate, and high. Students from low-income families had an average academic score of 42.39, while those from middle-class and affluent backgrounds had scores of 48.15 and 63.38, respectively. Higher academic performance is positively correlated with a more supportive and enriching family environment, according to these findings.

A statistical analysis revealed that family conditions significantly impact academic success. An F-value of 17.23 at a 0.01 level of significance is noteworthy. This provides more evidence that students' home lives significantly impact their academic performance. The study also found that there is a robust relationship (r=0.42) between one's home environment and their academic performance. The quality of the home environment is correlated with the academic performance of the students, and this correlation exists.

When controlling for other variables, the partial correlation between family environment and academic achievement was found to be 0.179, which remains statistically significant. This suggests that even when accounting for other factors, the family environment continues to play an essential role in determining a student's academic success.

The research further investigated variations in gender concerning the correlation between the family atmosphere and academic achievement. For boys, the correlation was 0.391, while for girls, it was slightly higher at 0.450. Both values indicate a strong and positive relationship, highlighting that the influence of family environment on academic achievement is substantial for both male and female students.

Kapur (2023) carried out an extensive investigation into the diverse elements that affect students' scholastic achievement in secondary educational institutions. The study highlights that students' academic success is shaped by a multitude of elements, both internal and external to the school environment. Research focuses on many important areas, including how students' socioeconomic status affects their academic performance, how school-related factors affect students' performance, how parental involvement affects students' performance, and how classroom dynamics, like class size, affect students' academic outcomes. The study also delves into additional causes of students' low academic performance, highlighting the multifaceted nature of the elements that can help or hurt students' chances of succeeding in school.

The findings of Kapur's study suggest that addressing these various influences is critical for improving academic outcomes. For instance, understanding how poverty affects learning can inform targeted interventions that support disadvantaged students. Similarly, recognizing the importance of parental involvement can encourage schools to engage families more effectively in the educational process. Overall, Kapur's research underscores the need for a holistic approach to enhancing students' academic performance by considering the interplay of multiple factors.

Azis et al., (2023) explored the relationship between student-lecturer interactions, the performance of students, and the attributes of lecturers within the context of a financial reporting course. Employing a Framework-dependent Teaching method, the researchers utilized a survey approach to gather data. Questionnaires were distributed to students enrolled in the Advanced FAR610 (Financial Accounting and Reporting) course at the Faculty of Accountancy, University Technology MARA, Puncak Alam, Malaysia, during the March to July 2017 semester. A random sample of responses from 91 students was collected and analyzed using the SPSS.

Researchers found that students' success in financial reporting was positively and statistically correlated with instructors' levels of expertise. However, the study found that the quality of student-lecturer interactions and the overall characteristics of the lecturers did not significantly impact student performance in the course. These results emphasize the significance of instructor proficiency in

promoting student achievement, suggesting that institutions may benefit from prioritizing the recruitment and development of knowledgeable instructors.

Latha and Rani (2022) undertook an extensive investigation aimed at examining the connection between educational success and academic performance, family environment, and family adjustment among pre-adolescent students. Their research aimed to determine how the family setting influences both academic success and overall home adjustment. The results revealed that the familial atmosphere significantly influences not only the academic performance of students but also their capacity to adjust and thrive in their home environment.

According to the study, most of the students perceived their family environment as cohesive, well-structured, and oriented toward achievement. These families placed significant emphasis on moral and religious values, maintaining minimal levels of conflict. Several key dimensions of the family environment—such as attachment, structure, control, intellectual and social guidance, and the promotion of independence—were identified as critical factors that directly impacted home adjustment. Families that fostered a stable and supportive atmosphere contributed positively to both the emotional well-being and GPA of the students.

Panda (2022) conducted an exhaustive study to determine whether or not there is a relationship between scholastic success and emotional intelligence among learners in educational institutions. The study focused on a diverse sample of 765 students enrolled in Madhyamik schools, which included students from government, private, and assisted educational institutions. The aim was to understand how intellectual capacity, as measured by IQ, correlates with students' academic performance across different types of educational settings.

According to the findings of the research, there were significant differences in the academic performance of students that showed a correlation with the type of educational institution in which they were enrolled. His study highlighted that students from private schools, government schools, and assisted institutions displayed varying levels of academic performance, suggesting that factors beyond I.Q. may also influence student achievement. For instance, school resources, teaching methods, and the overall educational environment might contribute to these differences. This research underscores the importance of considering the broader educational context when examining the link between intellectual ability and academic success, particularly in a system with such diverse school classifications.

METHODOLOGY

This chapter provides an overview of the methodology employed to examine the impact of emotional intelligence and motivation on the academic performance of senior secondary school students. It elaborates on the research design, population, sample, variables, data collection methods, and tools used for the study.

Method of the Study

A descriptive research design was adopted to analyze the influence of emotional intelligence and motivation on academic performance. The survey method was utilized to collect data from senior secondary students without altering their natural environment.

Population of the Study

The population for this study comprised senior secondary school students from both rural and urban regions in West Bengal, particularly focusing on the Medinipur division.

Sample

A sample of 400 students from classes XI and XII was selected using a stratified random sampling technique. The sample included students from diverse backgrounds to ensure comprehensive representation.

Variables of the Study

The study examined the following key variables:
- **Emotional Intelligence**
- **Achievement Motivation**
- **Academic Performance**

Procedure

The researcher collaborated with school authorities to gain permission and ensured that students' responses remained confidential. Questionnaires were distributed to students with proper guidance to facilitate accurate and honest responses.

Instruments Used

1. **Deo-Mohan Achievement Motivation Scale (n-Ach Scale):** Assessed the level of achievement motivation among students.

2. **Mangal Emotional Intelligence Inventory (MEII):** Measured emotional intelligence, focusing on dimensions such as self-awareness, empathy, and interpersonal relationships.
3. **Academic Records:** Annual examination scores of classes XI and XII were used to evaluate students' academic performance.

Data Collection and Organization

Data collection was carried out through personal visits to schools. The purpose of the study was explained to students and school authorities before administering the tools. All instruments were carefully used with the 400 participants, ensuring that the data was well-organized and reliable for analysis.

This methodology ensures a structured and thorough investigation into the role of emotional intelligence and motivation in shaping the academic success of senior secondary school students.

RESULTS

Table 1: Variables And Their Relationship for Senior High School Students
Total Students = 400
Degree of freedom = 398

Objective	No. of Students	Pearson Correlation, r
EI & AM of Male	195	0.110
EI & AM of Female	205	0.126
EI & AM of Male Urban	218	0.192
EI & AM of Male Rural	182	0.008
EI & AA of Male	195	-0.029
EI & AA of Male Female	205	-0.032
EI & AA of Male Urban	218	-0.017
EI & AA of Male Rural	182	-0.012
AM & AA of Male	195	-0.029
AM & AA of Male	205	-0.032
AM & AA of Male	218	-0.017
AM & AA of Male	182	-0.012

The table 1 above summarizes the correlation analysis for the hypotheses examining the relationships among the three variables—emotional intelligence (EI), achievement motivation (AM), and academic achievement (AA)—across various categories of high secondary school students.

In this analysis, the calculated Pearson's correlation coefficients (r) for each hypothesis are compared with the corresponding critical r-values obtained from the standard correlation table. The decision to accept or reject the null hypothesis depends on whether the calculated r-value is below or above the critical r-value.

Table 2 : Comparison of Achievement Motivation Across Genders Among Higher Secondary Students

Male Senior Secondary School Students			Female Senior Secondary School Students			t-value
Mean(M1)	SD(σ1)	N1	Mean(M2)	SD(σ2)	N2	
124.354	31.505	195	128.590	30.817	205	1.359

In this analysis, with degrees of freedom calculated as 398 (N1 + N2 - 2) and a significance level of 0.05, the critical t-value from the standard table 4.5 is 1.977. The observed t-value of 1.359 is lower than the critical t-value, indicating that the result does not reach statistical significance, thereby supporting the null hypothesis. When the significance level is tightened to 0.01, the critical t-value increases to 2.611. However, the observed t-value remains below this threshold, further reinforcing the conclusion that the result is not statistically significant. Regarding achievement motivation, male senior secondary students have a mean score of 124.354 with a standard deviation of 31.505, while female students have an average score of 128.59 with a standard deviation of 30.817. This analysis, which pertains to Hypothesis 3, demonstrates no significant difference in achievement motivation between male and female students, as the calculated t-value does not exceed the critical value at either significance level. Therefore, the null hypothesis—stating no substantial variation in achievement motivation by gender—is upheld.
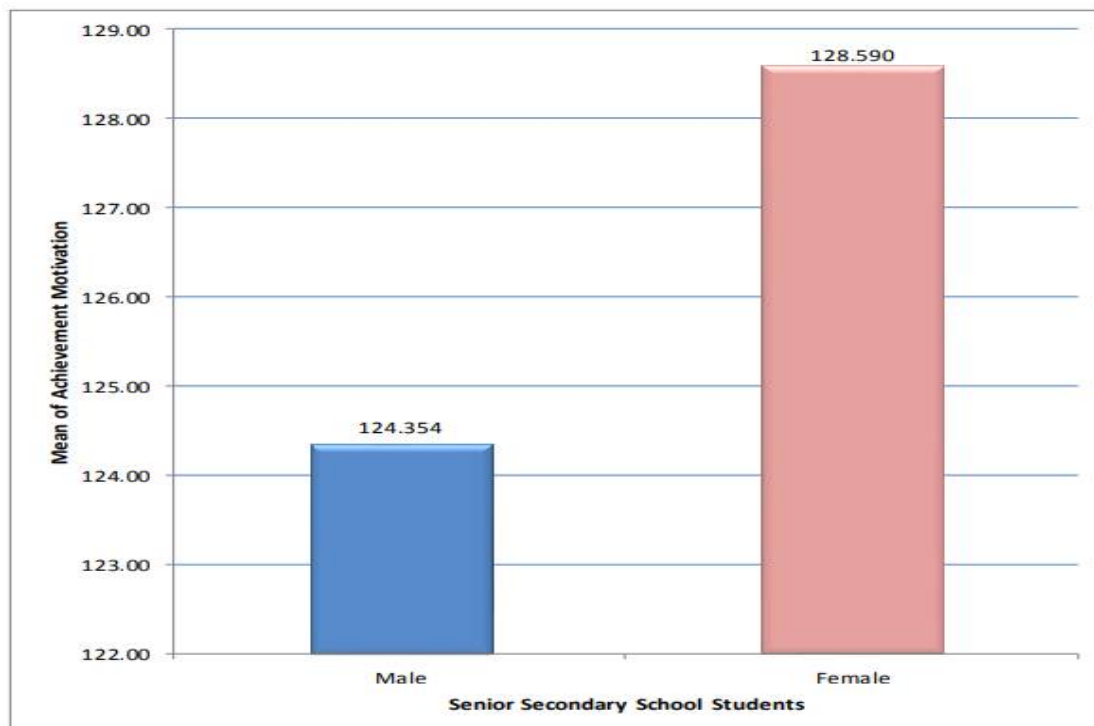
Figure 1:. The Average Level of Drive for Academic Success Among Male and Female High School Seniors

DISCUSSIONS

The analysis of the data reveals several key insights into the relationships among emotional intelligence (EI), achievement motivation (AM), and academic achievement (AA) among senior secondary school students (Bin Abdulrahman, 2023). Pearson's correlation coefficients (r) indicate weak positive correlations between EI and AM across male (r = 0.110) and female (r = 0.126) students, suggesting a modest association between these variables. Notably, urban male students exhibit a slightly stronger correlation (r = 0.192), while rural male students show a negligible correlation (r = 0.008), indicating that environmental factors may influence this relationship. However, the correlations between EI and AA, as well as AM and AA, are consistently negative across all groups, ranging from -0.029 to -0.032, implying that higher levels of EI and AM do not necessarily correspond with improved academic performance. Furthermore, the comparison of achievement motivation across genders reveals no statistically significant difference, as the observed t-value (1.359) is below the critical t-value (1.977) at a 0.05 significance level, supporting the null hypothesis that gender does not significantly affect achievement motivation. These findings suggest that while EI and AM are related, they may not directly influence academic achievement, and that gender does not play a significant role in achievement motivation among senior secondary students (Tillman, 2018).

CONCLUSIONS

The study aimed to explore the relationships among emotional intelligence (EI), achievement motivation (AM), and academic achievement (AA) among senior secondary school students. The findings indicate that while EI and AM are positively correlated, their direct influence on academic performance is minimal. Notably, the study found no significant gender differences in achievement motivation, suggesting that both male and female students possess similar levels of drive toward academic success. These results align with existing literature, which suggests that while EI and AM are related, they may not directly influence academic achievement.

In conclusion, the study underscores the complexity of factors influencing academic performance. While EI and AM are important, they do not necessarily guarantee higher academic achievement. This highlights the need for a holistic approach to education that considers various psychological and environmental factors affecting students' learning outcomes.

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