



A Study Of The Effect Of Emotional Intelligence And Motivation On Academic Achievement Of Senior Secondary School Students

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Citation: Mr. Somenath Maity et al (2024). A Study Of The Effect Of Emotional Intelligence And Motivation On Academic Achievement Of Senior Secondary School Students, *Educational Administration: Theory and Practice*, 30(7), 1289 - 1296

Doi: 10.53555/kuey.v30i7.9551

ARTICLE INFO

ABSTRACT

In today's dynamic educational environment, adolescents face various pressures both at home and in their social spheres. This period is characterized by significant physical, emotional, and social changes that can profoundly influence their academic performance. The present study aims to examine the effects of emotional intelligence and motivation on the academic achievement of senior secondary school students. It seeks to explore the interrelationships and interdependencies between these variables, providing insight into how they collectively impact students' performance.

The research is grounded in a comprehensive review of existing literature, which highlights the significance of emotional intelligence and motivation in the academic context. This literature review serves as a foundation for the current study, emphasizing previously established findings and encouraging further exploration in this area.

Following the literature review, the methodological aspects of the study are outlined, including the research design, objectives, and hypotheses. The study employs a descriptive research method using a stratified random sampling technique, focusing on a sample of 400 senior secondary students from the Medinipur division in the southern part of West Bengal. Before data collection, the purpose and procedures were communicated to school principals, and written permission was obtained. Confidentiality was assured to both the school authorities and students.

To assess emotional intelligence and achievement motivation, validated tools such as the Mangal Emotional Intelligence Inventory and the Deo-Mohan Achievement Motivation Scale were employed. Academic achievement was measured through students' marks in the annual examinations of classes XI and XII.

Data analysis involved calculating descriptive statistics and employing correlation coefficients to examine relationships between variables. Additionally, stepwise multiple regression analysis and t-tests were conducted to identify significant differences among the two demographic variables: male and female, and urban and rural students.

The findings of the study are critically analyzed, discussing the implications for educators and parents. The results may enhance teachers' understanding of their students' emotional and motivational profiles, fostering a supportive learning environment. Moreover, the insights gained can assist parents in guiding their children effectively, ultimately promoting their academic success.

Future research can expand on these findings by exploring additional psychological variables, such as personality traits and mental health, across broader geographical regions and educational levels, including undergraduate studies.

Keywords: Adolescents, Emotional Intelligence, Achievement Motivation, Academic Achievement, Senior Secondary School Students, Educational Environment.

1. INTRODUCTION

The 21st-century world is rapidly evolving, with the modern era's advancements in technology opening up diverse fields that require individuals equipped with specialized knowledge and adaptable skills. In this context, education has become a critical foundation for both personal and national development.[1] It plays an instrumental role in shaping the futures of young individuals, providing them with the abilities and understanding needed to contribute effectively and meaningfully to society. For senior secondary students, education not only serves as a pathway to professional success but also forms the basis for lifelong learning and personal growth.

In recent years, the scope of education has significantly broadened, moving beyond the traditional emphasis solely on academic achievement to encompass a wider range of important factors, such as emotional intelligence and motivation.[2] These elements are now widely recognized as crucial contributors not only to a student's academic success but also to their overall well-being and personal development. Emotional intelligence involves a comprehensive set of abilities, including the capacity to identify, comprehend, and regulate one's own emotions effectively. It also includes demonstrating empathy and having an insightful understanding of the emotions, needs, and perspectives of others, which is becoming increasingly vital for students as they confront a variety of academic and interpersonal challenges.[3]

The importance of emotional intelligence lies in its role in helping students manage stress, communicate effectively, and build strong relationships, which are essential skills for thriving in today's demanding educational landscape. On the other hand, motivation plays a similarly pivotal role by driving students to establish meaningful academic and personal goals, stay determined when facing setbacks, and sustain a positive and focused approach to their studies. Motivation encompasses intrinsic and extrinsic factors that encourage students to invest effort and remain engaged in their learning process.

When combined, emotional intelligence and motivation create a comprehensive support system that empowers students to achieve their academic potential. This combination fosters essential qualities such as resilience, which enables students to recover from difficulties; self-regulation, which allows them to manage impulses and maintain discipline; and goal-directed behavior, which ensures a clear and focused path toward achieving academic and personal milestones. As education continues to evolve, integrating these aspects can significantly enhance students' abilities to excel both academically and in life, contributing to their holistic development and long-term success.[4]

The word "education" originates from the Latin terms *educatum*, *educere*, and *educare*, which imply the act of drawing out or nurturing inherent potentials. Education, thus, is not merely a transfer of knowledge but a dynamic process that seeks to draw out and develop the latent abilities within each student. Through this process, students cultivate their intrinsic capabilities, adapt to their environment, and prepare for a future that demands emotional, cognitive, and social intelligence. For senior secondary students, a strong foundation in emotional intelligence and motivation is crucial for academic success, as it enables them to handle the pressures of their studies, set and achieve goals, and thrive in a competitive educational environment.

This study seeks to explore the impact of emotional intelligence and motivational elements on the academic achievements of senior secondary school students. By examining how these factors influence students' academic journeys, the research aims to highlight the importance of nurturing both cognitive and emotional skills for optimal educational outcomes. Through this lens, education is seen as a process of holistic development, encompassing intellectual growth and the cultivation of essential life skills. This approach recognizes that academic achievement is not solely the result of intellectual ability but also of the motivation and emotional resilience that empower students to reach their full potential.

Academic Achievement

Academic achievement serves as a fundamental measure of a student's success and future prospects within the contemporary education system. It signifies the degree to which learners have absorbed crucial knowledge, honed relevant skills, and developed essential competencies needed for continued educational growth and eventual professional endeavors. [5] Considered a primary goal of the educational process, academic achievement significantly influences career aspirations and personal growth (Lent et al., 2000). (Crow et al., 1969) describes academic achievement as "the extent to which a learner is profiting from instructions in a given area of learning," where achievement showcases the skills and knowledge a student has attained.

It is essential to have a solid understanding of emotional intelligence (EI) and motivation in order to comprehend the academic success of senior secondary school students. The capacity of students to handle academic pressures, set goals that are realistic, and develop resilience is influenced by their level of emotional intelligence (EI), which is defined as the ability to recognize, comprehend, and regulate one's own emotions as well as the feelings of others. Meanwhile, motivation—including both intrinsic motivation (driven by

personal satisfaction and interest) and extrinsic motivation (inspired by external rewards or pressures)—serves as a driving force behind students' engagement and persistence in their academic endeavors.[6]

Achievement Motivation

In today's highly competitive environment, the aspiration for outstanding achievement is widespread, particularly among senior secondary school students preparing for crucial academic transitions. Society increasingly expects individuals to exceed standards, as superior performance is a cornerstone for both personal growth and national advancement. A thriving democratic society relies on leveraging the potential of its youth to achieve economic development, technological innovation, and cultural enrichment. Educated and knowledgeable citizens are invaluable assets, embodying democratic values that safeguard fundamental human rights.[7]

Parents from all socio-economic backgrounds invest heavily in their children's education, reflecting a collective understanding that a technologically advanced era demands well-prepared individuals. [8]From an early age, students are encouraged to cultivate realistic aspirations that encompass their educational journeys and prospects. In this context, achievement motivation emerges as a critical intrinsic driver that influences students' actions, planning, and emotional engagement with their academic pursuits.

OBJECTIVE

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.

2. LITERATUREREVIEW

Robbins et al. (2024) conducted an extensive meta-analysis that explored 109 preliminary studies focused on the factors influencing the GPA of university students. Their research revealed a significant and positive relationship between students' belief in their own capabilities, or self-efficacy, and their academic outcomes. Self-efficacy, defined as an individual's confidence in their ability to accomplish tasks and navigate challenges, emerged as a pivotal determinant of academic achievement, particularly in a collegiate context. The study emphasized the critical role self-efficacy plays in shaping academic success, showing that students with strong self-belief in their intellectual capabilities are more likely to persist through academic difficulties and achieve higher levels of educational success.

Furthermore, Robbins et al. found that self-efficacy perceptions explained a larger proportion of variance in college retention rates and academic performance than traditional cognitive measures, such as standardized test scores and prior high school academic records. This shift from focusing on cognitive assessments to incorporating non-cognitive factors like self-efficacy marks a crucial development in understanding the nuances of academic achievement. The study underscored that while standardized tests and previous academic performance provide useful insights into a student's potential, they do not fully capture the personal beliefs and motivational forces that drive sustained academic effort. Robbins et al. proposed that academic self-efficacy is a more powerful predictor of both student retention and intellectual success because it integrates not only cognitive abilities but also emotional and motivational aspects of learning. Their

findings suggest that enhancing self-efficacy through targeted interventions, such as mentoring, counseling, or skill development programs, may be more effective in improving academic outcomes than relying solely on conventional academic metrics. This meta-analysis carries important implications for educators and policymakers, advocating for a more holistic approach to fostering academic achievement that includes a focus on students' self-beliefs, emotional resilience, and cognitive skills.[9]

Afolayan, Donald, Onasoga, Babafemi, and Juan (2024) conducted a study with the purpose of determining whether or not there is a correlation between the academic performance of students and their individual levels of emotional intelligence. Information was gathered from individuals who agreed to take part in the investigation by the researchers through the use of a descriptive survey methodology. With this approach, a comprehensive analysis of the various factors that may contribute to educational outcomes was able to be conducted, which resulted in the provision of insights into how emotional intelligence influences the performance of students in an academic environment.[10]

Ranjbar, Khademi, and Areshtanab (2024) researched to investigate the relationship between EI and GPA. There is a significant connection between these two factors, as demonstrated by their findings, which demonstrated as much. A lack of distribution bias was found in their findings, which suggested that the observed relationship was present in an identical manner throughout the entire sample. Based on the findings of the study, it was discovered that there is a significant correlation between emotional intelligence and academic success among students from Iran. Nevertheless, the researchers acknowledged that several contextual factors could potentially have an effect on this association within the scope of the study of which they were conducting. As a consequence of this, they emphasized the significance of conducting additional research to delve deeper into the complexities of emotional intelligence and the effects that it has on academic performance. They suggested that additional research could provide useful insights into the particular factors that influence this relationship, and they recommended continuing this line of inquiry.[11]

Diseth (2023) conducted a comprehensive investigation comparing the educational achievement and intelligence levels of ninth and eleventh-grade students, with a particular focus on gender differences among pupils. The purpose of his research was to determine whether or not there is a correlation between intelligence and academic achievement for students of both genders who were enrolled in these grade levels.[12]

The findings revealed some intriguing patterns. Within the group of eleventh-grade students, there was no noteworthy correlation detected between the academic success of high-achieving individuals of exceptional intellect, regardless of gender. This indicates that, among students classified as superior intellectuals, both boys and girls demonstrated comparable levels of academic achievement, suggesting that intelligence alone may not be a decisive factor influencing their educational success at this level.

However, the study also highlighted that at different levels of intelligence, girls outperformed boys in terms of academic achievement. This finding points to a potential advantage that girls may have in academic settings, particularly as they progress through school. Diseth's research raises important questions about the dynamics of gender and academic performance, suggesting that while intelligence is an important factor, other elements—such as motivation, social support, and educational engagement—may play a more significant role in determining academic success for boys and girls differently.

Brew et al. (2021) carried out an in-depth review study on the academic outcomes of Senior High School students, concentrating on the different factors that influence their success. The study explored how these factors negatively affect students' academic outcomes and emphasized the need for strategic interventions to minimize their impact to improve academic success. According to the study's findings, truancy was identified as a major factor that significantly hampers academic performance. The researchers highlighted that truancy not only leads to poor academic results but can also increase the probability of students completely leaving school.[13]

In addition to truancy, the study identified several other critical factors influencing students' academic achievement. These include the educational attainment and income levels of parents, the availability and accessibility of textbooks, the presence of well-equipped libraries and practical laboratories, the provision of nutritious meals, and the quality of teachers. The findings demonstrated that students who benefit from these positive factors tend to perform better academically compared to their peers who may be equally intelligent but lack access to these supportive elements.

3 METHODOLOGY

This chapter outlines the methodology adopted to investigate the influence of emotional intelligence and motivation on the academic performance of senior secondary students. It includes the research design,

population, sample, variables, data collection methods, and tools employed.

Method of the Study

A descriptive research design was chosen to explore relationships between variables (emotional intelligence, motivation, and academic performance) without manipulating the environment. The survey method facilitated data collection from senior secondary students.

Population of the Study

The study targeted senior secondary students from both rural and urban areas of West Bengal, focusing on the Medinipur division.

Sample

A representative sample of 400 students from classes XI and XII was selected due to resource constraints, ensuring diverse demographic coverage.

Variables of the Study

1. Emotional Intelligence
2. Achievement Motivation
3. Academic Achievement

Procedure

The researcher coordinated with school authorities, obtained formal consent, and ensured confidentiality. Questionnaires were distributed, and students were guided to ensure thoughtful and honest responses.

Instruments Used

1. n-Ach Scale (Deo-Mohan Achievement Motivation Scale): Assessed students' motivation levels.
2. Mangal Emotional Intelligence Inventory (MEII): Measured emotional intelligence, focusing on intrapersonal and interpersonal components.
3. Academic Achievement Records: Annual examination scores served as indicators of academic performance.

Data Collection and Organization

Data collection involved personal visits to schools. The researcher explained the study's purpose and administered all three tools to 400 students, ensuring a smooth process.

This methodology ensures a robust analysis of how emotional intelligence and motivation affect academic outcomes.

4.RESULTS

Table 1: Analysis Of The Difference Between Variables Used By Senior Secondary School Students
Total Students = 400 Degree of freedom = 398

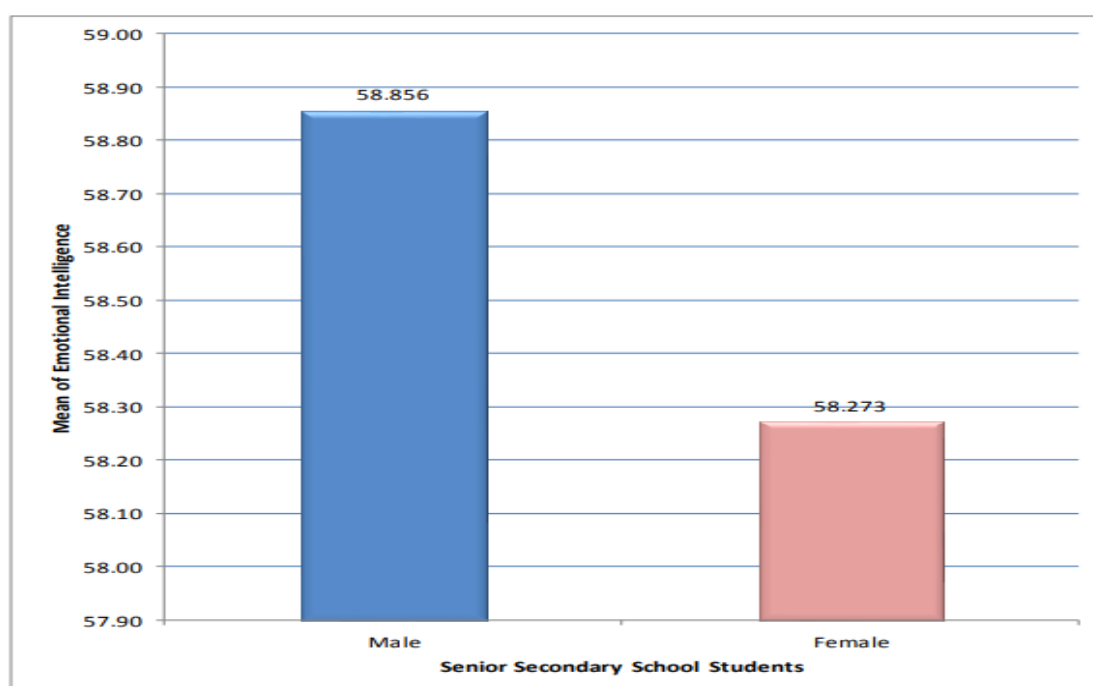
Hypothesis No.	Objective	No. of Students	Mean	Standard Deviation
H1	EI Male	195	58.86	9.20
	EI Female	205	58.27	9.17
H2	EI Urban	218	56.95	9.72
	EI Rural	182	60.48	8.11
H3	AM Male	195	124.35	31.50
	AM Female	205	128.59	30.82
H4	AM Urban	218	123.33	27.56
	AM Rural	182	130.35	34.73
H5	AA Male	195	64.56	17.04
	AA Male	205	65.55	15.26
H6	AA Male	218	66.94	14.55
	AA Male	182	62.82	17.64

The table 1 that can be found above provides a summary of the mean and variability for the first six hypotheses. It also illustrates the differences that exist between pairs of three important variables, which are academic achievement (AA), achievement motivation (AM), and emotional intelligence (EI) among students who are in their senior year of secondary school. Data was collected from 400 students, and there were 398 degrees of freedom total. The analysis was based on this data.

Table 2: A Statistical Analysis Of The Gender Gap In Emotional Intelligence Among High School Seniors

Male Senior Secondary School Students			Female Senior Secondary School Students			t-value
Mean(M1)	SD(σ_1)	N1	Mean(M2)	SD(σ_2)	N2	
58.856	9.205	195	58.273	9.169	205	0.635

The t-value that was computed is lower than the critical threshold when subjected to a significance level of 0.05, a critical t-value of 1.977 (derived from the standard table 2), and a degree of freedom that was calculated to be 398. In a similar manner, whIt can be concluded from this result that the finding does not satisfy the requirements for statistical significance, which leads to the acceptance of the null hypothesis.

**Figure 1: Gender Gap In Emotional Intelligence Among High School Seniors****Table 3: Differences In Emotional Intelligence Between Urban And Rural High School Seniors And Their Implications**

Rural Senior Secondary School Students			Urban Senior Secondary School Students			t-value
Mean(M1)	SD(σ_1)	N1	Mean(M2)	SD(σ_2)	N2	
60.478	8.108	182	56.954	9.718	218	3.954

The critical t-value falls at 1.977 when the significance level is set at 0.05. This threshold is exceeded by the computed t-value, which indicates statistical significance and leads to the disproof of the null hypothesis. The degrees of freedom are calculated as $(N_1 + N_2 - 2)$, which equals 398. Furthermore, the t-value is greater than this threshold. As an additional point of interest, the computed t-value continues to be higher than this reference value even when the analysis is carried out at a more stringent significance level of 0.01, where the critical t-value is 2.611. This provides additional evidence that the result is statistically significant, which results in the null hypothesis being rejected again.

5. DISCUSSIONS

The results highlight interesting patterns in the emotional intelligence (EI), achievement motivation (AM), and academic achievement (AA) of senior secondary school students. Gender-wise, males and females displayed similar EI scores, with only marginal differences in AM and AA, suggesting that gender does not significantly impact these variables. Urban and rural differences, however, were more pronounced. Rural students exhibited higher EI and AM scores compared to their urban counterparts, indicating that rural environments may nurture stronger emotional and motivational traits. Conversely, urban students outperformed rural students in academic achievement, likely reflecting better infrastructural and educational resources in urban areas.[14]

Statistical analysis further reinforced these findings. Gender differences in EI were not statistically significant, leading to the acceptance of the null hypothesis, whereas rural-urban differences in EI were significant, with rural students consistently scoring higher. These findings imply a need for targeted educational strategies, such as enhancing achievement motivation and academic resources in urban schools and addressing academic challenges faced by rural students. Overall, the study emphasizes the importance of understanding demographic influences to foster balanced development in students across various domains.[15]

6. CONCLUSIONS

The study reveals significant insights into the emotional intelligence (EI), achievement motivation (AM), and academic achievement (AA) of senior secondary school students. Gender-based differences in emotional intelligence were not statistically significant, indicating that both male and female students exhibit similar levels of EI. However, slight variations in achievement motivation and academic achievement suggest gender plays a limited role in these traits. On the other hand, rural students displayed higher emotional intelligence and achievement motivation compared to urban students, possibly due to stronger community bonding and support systems in rural areas. Conversely, urban students outperformed their rural counterparts in academic achievement, likely owing to better access to educational resources and opportunities. These rural-urban differences in emotional intelligence were found to be statistically significant, affirming the impact of demographic factors.

These findings underscore the importance of context-specific educational strategies, such as programs to enhance emotional intelligence and motivation in urban schools and initiatives to improve academic support and resources in rural areas. Overall, the study highlights the need for balanced and inclusive approaches to foster students' holistic development.

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