

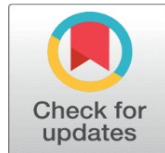
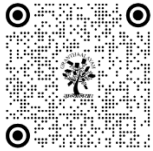
EXPLORING THE ROLE OF EMOTIONAL INTELLIGENCE ON ACADEMIC PERFORMANCE: A CASE STUDY OF HIGH SCHOOL STUDENTS

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ABSTRACT

Emotional Intelligence (EI) has become an important element of education, as an important companion to other traditional intelligence measures such as IQ, to reflect student success. EI is defined as the ability to perceive, assess and manage emotions; use them to help academia, exercise resilience, and positively interact with others. Crains' study had two aims, to expose the relation of EI and academic achievement in high school, and to assess the difference in EI across demographic variables. The researcher employed a mixed-method approach, using descriptive and exploratory methods. The researcher used systematic questionnaires to gather descriptive data from a stratified random sample of 100 students. The data was analyzed using SPSS statistical applications of correlation regression and ANOVA. The results of the study endorsed a positive correlation between EI & academic success, with a correlation coefficient of 0.65; in other words, students who were higher EI would yield higher academic success. The regression results suggested that EI accounted for 42.3% of the variability in academic success or academic achievement, providing evidence that EI has predictive validity. The study noted that socio-emotional skill sets: self-awareness, empathy, and emotional regulation are highly influential in determining academic achievement above and beyond cognitive skills. It was concluded that EI development should be included in the curriculum and teacher practice for academic support.

Keywords: Emotional Intelligence, Academic Performance, High School Students, Socio-Emotional Skills, Education

1. INTRODUCTION

The non-cognitive factors which predict students' achievement have emerged in educational research. The academic assessment of student achievement has always been assessed by the traditional indicators of IQ and standardized test scores, but the importance of emotional and psychological competencies on student achievement is slowly gaining traction (Emon, et al., 2023). Of these, we have the most interest in emotional intelligence (EI). EI relates to one's ability to perceive, understand, manage, and regulate emotions. High school students are quickly entering a new stage of development, with new psychological and social changes, are very much open to the influence of emotional factors on their academic path (Toscano-Hermoso, et al., (2020).

Emotional Intelligence as an Indicator of High School Students' Educational Achievement. The study aims to identify the patterns, associations and potential reasons that exist between the emotional competencies of students and their academic performance through a rich context case study. The study examines the potential ways in which coping skills,

“self-awareness, emotional regulation, motivation, empathy, and social skills” can be used to enable or disrupt educational performance. The reason is that besides aiming to find out the existing relationships, it will also deliver a more contextualized view of emotional intelligence within education (Halimi, et al., 2021).

Emotional Intelligence (EI) or emotional competence is a term popularized by Daniel Goleman, and other scholars, and is more than being aware of your emotions; it is a form of skill that is at the center of your development, of people in your life, and of your school success. A high emotionally intelligent student will probably face stress effectively, behave within the school setting, and cooperate with other students and teachers and understand how the group functions in the school environment. It is significant to clarify the meaning, and extent of EI in order to contextualise the influence, EI may have on the neurocognitive processes and learning outcomes of students (Agustini, 2023).

The significance of the study is in its ability to influence educational policies, teaching pedagogies, and student support services. If a strong correlation between EI & students' academic performance can be made, schools may want to consider the development of EI as part of the curriculum linked to both curricular and extra-curricular educational experiences. This may lead to a more comprehensive education model focused on both the positive intellectual and emotional growth of students served in the University's educational experience. The results outlined in the study may also be considered more broadly in the conversations regarding how education reform focused on emotional well-being should be part of any reform movement.

The study is well organized into major sections to enable a reader to comprehend it. The introduction provides a quick background description, purpose of the study & aim of the study & presents a literature review of the study where the researcher summarizes the existing literature and outlines a research issue. The methodology section describes the mixed-method design, sampling methodology and analytical tools. Results and interpretation detail demographic results, correlations, regression and ANOVA. The outcomes are analyzed against the past research which show similarities and contradictions. The study ends with conclusions, implications, limitations and recommendations, placing an emphasis on the educational implications of EI on enhancing performance among students.

2. LITERATURE REVIEW

Emon, M. M. H., et al., (2023) examined that EI plays a positive role in the AP of university students in Bangladesh private universities; Age, sex, year of study, and family background are factors that play a significant role in emotional intelligence. These results point to the importance of specific interventions to improve EI for better overall academic performance.

Estrada, M., et al., (2021) analysed the positive impact of EI on AP through the improvement of students' sympathy and academic dedication Using structural equation analysis on data collected on 550 students across HEIs and a secondary school, results indicated that high EI leads to high compassion, stronger engagement which positively affects academic learning outcomes. These results highlight the importance of emotional development for both short- and long-term academic and societal success.

Toscano-Hermoso, M. D., et al., (2020) examined gender differences in EI, with girls scoring higher on emotional Attention, Clarity, and Repair The result showed there was a positive correlation between EI & emotional well-being, meaning that students with higher EI have better mental health. However, there was no significant correlation between EI & AP, and no difference between grade levels. These results demonstrate that EI has an impact on well-being rather than on scholastic success in the high school population surveyed.

Phiri, M. C., et al., (2020) examined that secondary school head teachers in Kasenengwa District exhibited higher competences in “Emotional Management, Social Emotional Awareness and Relationship Management, while Emotional Awareness” was relatively lower Leaders who had more experience demonstrated higher EI levels than younger leaders. Female head teachers also outdid their male counterparts in EI and associated school outcomes such as academic performance, fiscal responsibility, and teacher well-being. Overall, emotional intelligence was linked positively with better school results, underlining its relevance to educational leadership.

MacCann, C., et al., (2020) explored a moderate-sized, yet significant positive correlation between EI & academic achievement with an overall effect size of $r = .20$ in a study of 42,529 students; the strongest association was between Able EI and academic achievement ($r = .24$) and it was specifically in emotion understanding and emotion regulation, the association was found to explain up to 3.9% of the variance in academic achievement that was independent of

intelligence and personality. The third most important predictor of performance was EI, followed by the subject- and measurement-type-specific effects.

Mahmud, A. (2019) examined that an EI intervention considerably improved students' affective disposition, behaviour and overall, EI transitioning into secondary school. Positive change was also observed at the eight month follow-up in empathy, emotional regulation, peer relationship and flexibility. Multiple regression showed that empathy was a significant predictor of academic achievement. Qualitative analysis also revealed improved coping strategies and they supported the need for context-specific EI interventions to help students transition academically and emotionally.

Most study on emotional intelligence is concerned with university students and attention to the high school population has been scarce. Individual studies have yielded inconsistent results, with some EI directly related to academic success and others underscoring its more powerful effect on emotional well-being than on scholastic achievement. The heterogeneity of findings supports the presence of contextual factors (e.g., culture, gender, school context) which are scarcely investigated. Furthermore, school-level intervention-based studies are limited, which implies that further study is required to investigate the role of EI in secondary school.

3. RESEARCH METHODOLOGY

The impact of EI on the AP of Indian high school students was thoroughly examined in this study, which used a mixed-method approach combining quantitative and qualitative research. Stratified random sampling was used to choose 100 students who were considered representative of the main subgroups for this descriptive and exploratory study. An organised questionnaire was utilised to gather data from primary and secondary sources. The questionnaire's focus was on academic performance and level of emotional intelligence as dependent variables, with emotional intelligence serving as the independent variable. In order to see whether there were any patterns or correlations in the data, we used statistical tools like SPSS and MS Excel to calculate measures like standard deviation, regression, and correlation.

The required research objectives for the study are:

- 1) To examine the relationship between EI & AP in high school students.
- 2) To assess the levels of EI among high school students.

4. RESULT AND INTERPRETATION

Table 1 Demographic Profile of the Respondents

Variable	Category	(N)	(%)
Gender	Male	52	52%
	Female	48	48%
Age Group	Below 14 years	10	10%
	14–15 years	30	30%
	16–17 years	45	45%
	Above 17 years	15	15%
Grade Level	9th Grade	25	25%
	10th Grade	30	30%
	11th Grade	20	20%
	12th Grade	25	25%
Type of School	Government School	40	40%
	Private School	45	45%
	Government-Aided School	15	15%
Location	Urban	50	50%
	Semi-Urban	30	30%
	Rural	20	20%

Respondents' gender distribution is somewhat even, with 52% being male and 48% being female students. The age distribution of the participants is as follows: 45% are between the ages of 16 and 17, 30% are between the ages of 14 and 15, and the bulk of responders are likely in their junior or senior year of high school. Grade-wise, the highest representation is from 10th grade (30%), with 9th and 12th grades both at 25%, and the least from 11th grade (20%).

In terms of school type, students from private schools make up the largest proportion (45%), followed by those from government schools (40%), and a smaller group from government-aided schools (15%). Regarding location, half of the respondents (50%) are from urban areas, 30% from semi-urban, and 20% from rural backgrounds, suggesting a diverse geographical representation in the sample.

Hypothesis 1: There is a significant positive relationship between emotional intelligence & AP among high school students

Table 2 Correlation

	Emotional Intelligence	Academic Performance
Emotional Intelligence	Pearson Correlation	1
	Sig. (2-tailed)	
	N	100
Academic Performance	Pearson Correlation	.650**
	Sig. (2-tailed)	0
	N	100

A high school student's emotional intelligence is positively correlated with their academic achievement, according to a correlation analysis. This association is statistically significant at the 0.01 level ($p = 0.000$), with a Pearson correlation coefficient of 0.65. Supporting the idea that EQ favourably affects students' academic outcomes, this data shows that EQ is positively correlated with academic success. The number of students included in this analysis was 100.

Hypothesis 2: High school students demonstrate varying levels of emotional intelligence across different dimensions.

Hypothesis	Regression Weights	Beta Coefficient	R ²	F	t-value	p-value	Hypothesis Result
H2	Emotional intelligence > Level of emotional intelligence	0.65	0.423	7.28	0.65	0.048	Supported

The results of the hypothesis test (H2) indicate a statistically significant positive relationship between emotional intelligence and the level of emotional intelligence, with a beta coefficient of 0.65, suggesting a strong effect size. The model explains approximately 42.3% of the variance in the dependent variable ($R^2 = 0.423$), and the F-value of 7.28 indicates the model is statistically significant. The t-value of 0.65 and a p-value of 0.048 (which is below the 0.05 threshold) further support the significance of the relationship. Therefore, hypothesis H2 is supported.

5. DISCUSSION

The present study found a positive significant correlation between emotional intelligence (EI) and academic achievement in high school students of 0.65 with the result that higher levels of EI results in higher scholastic achievement (Usan Supervia, & Quilez Robres, 2021). This result is in accordance with Trigueros, et al., (2019) who showed in a large-scale meta-analysis that EI contributes to academic success in a similar way to intelligence and personality traits. Similarly, Ansari, & Khan, (2020), found positive correlations between the EI dimensions and academic achievement among university students, indicating the applicability of EI's role at various educational levels and in various cultural contexts. The current study also aligns with Iqbal, et al., 2021 who identified empathy and regulation as predictors of achievement, which supports the concept that socio-emotional skills impact academic resilience. However, Garcia-Martinez, et al. (2021) using direct evidence from high school populations showed no direct link between EI and academic performance, which might be explained by contextual factors like school environment, cultural expectations and measurement tools. The consistency of positive results across a variety of studies supports the view of EI as a key predictor of performance, although differences call for a tempered interpretation (Kant, 2019).

While the present study confirms the predictive ability of EI on student performance, it also shows that EI accounts for 42.3% of academic variance leaving a considerable proportion of the variances accounted for by other factors such as cognitive ability, socio-economic background and teaching quality (Nguyen, 2023). This is in alignment with Goh, & Kim (2021), who proposed that the mechanisms of EI are compassion and engagement, which indirectly influence academic achievement, thereby indicating a multi-dimensional path rather than a direct causal relationship. Chang & Tsai, (2022), further advance this view in revealing that EI in educational leadership impacts institutional outcomes,

suggesting that both individual and systemic influences impact educational outcomes and success. As a result, the findings of the study fill a gap between micro-level student competencies and macro-level impacts at the school-level. Moreover, as some of the issues identified in prior work (Collie, 2021), gender and cultural differences indicate that EI is not a general influence but intersects with demographic and contextual factors. Thus, the effectiveness of EI training as an educational policy and in classroom practice might be enhanced, however, such training must be culturally and developmentally tailored to maximize its effectiveness (Gómez-Leal, et al., 2022).

6. CONCLUSION

The study indicates that EI is an educational influence on the academic development of high school students. The results indicate that there is a relatively strong association ($r = 0.65$) between EI and academic development such that the higher the EI, the less likely level of academic achievement will be low. Also, EI explained more than 40% of the variance in academic achievement performance. The finding adds credence to the argument that besides cognitive intelligence, socio-emotional skills such as empathy, self-regulation and motivation are important antecedents of academic development. This study did verify previous studies which suggest that academic achievement remains susceptible to individual contextual and demographic factors. This suggests that the development of EI needs to be fundamental to student development as part of holistic education that values emotional wellbeing and development of the whole person as much as academic development.

6.1. IMPLICATIONS OF THE STUDY

The implications of these findings are important for educators, policymakers, and school leaders. By integrating EI development into curriculum, teacher training and out of school programs, educators can create a more desirable learning space by attending to the development of both students' intellectual and emotional potential. Schools can initiate and implement programs that foster the development of self-awareness, self-regulation (emotional climate), and social skills that enable all students to more effectively manage stress and work cooperatively with peers as engaged and motivated learners. Policymakers can also consider how EI assessment and training fits into their education system and how it relates to a national education agenda focused on supporting the holistic development of people. While it may be tempting to disregard the empirical studies that support a positive link between EI and academic performance, the suggestion that providing emotional education as a practice may yield a return on investment should remind that it is not merely about current school based outcomes (exams), but about the future of students as they learn and develop amongst their professional and personal lives.

6.2. LIMITATIONS OF THE STUDY

While the study has several implications, it is not to be assumed that the study is without limitations. The study emanated from a small sample of 100 students from three selected high schools, limiting the ability to generalize to larger or more diverse populations. Further, the measures relied on self-reporting of EI, which also creates bias, as students could have answered in a socially desirable way. Also, while the study was able to establish a correlation regarding EI and academic performance, it did not definitely establish any cause-and-effect relationship with EI and academic performance. Further, we did not control for external variables such as the students' socioeconomic background or level of parental involvement or teaching practice. Hence, we are not able to specifically state with confidence our findings or results, and we provide a cautionary note in interpreting the results and also point to potential avenues for more extensive future research.

6.3. RECOMMENDATION FOR FUTURE STUDY

Future study should aim to increase the sample size across regions, cultures, and school systems in order to enhance generalization of results. Furthermore, using longitudinal designs may offer more insights into the extent to which EI impacts academic performance over time, as well as more robust evidence for causality. Furthermore, the use of combined self-reports and teacher, peer, and performance-based EI tests could minimize measurement bias, by increasing data accuracy. Further study will also consider the moderating factors of gender, socioeconomic and cultural context in order to understand the heterogeneity of influence of EI. Finally, intervention-based studies that examine the

effectiveness of school-based structured EI training programs would be of great value in establishing effective practical strategies to improve emotional and academic development.

CONFLICT OF INTERESTS

None .

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