

Academic Achievement and Emotional Intelligence among High School Students: Does Type of Institution and Place of Living Make Any Difference?

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Abstract: Emotional intelligence is crucial for effective functioning. Students who are emotionally stable can allocate and utilize their cognitive resource effectively. In present study data was collected from five hundred ten students (510) of Aligarh district (Uttar Pradesh) through a stratified sampling technique. A standardised scale (EIS; Sharma & Sharma, 2017) was used to measure emotional intelligence while academic achievement was assessed based on GPA (Grade Point Average) at High school level. The researcher used Pearson r and 2×2 factorial design to test hypotheses for meaningful results. The outcome uncovered that there was significant main effect of type of institution on learner academic achievement (AA) and emotional intelligence (EI). Students studying in private schools had higher level of AA and EI than students studying in government school. Furthermore, the interaction effect of type of institution and place of living on AA and EI was found non-significant. The result exhibits that significant positive linear correlation of medium strength ($r = .436$ $p < 0.01$) between academic achievement (AA) and emotional intelligence (EI) of students.

Keywords: Emotional intelligence, academic achievement, type of institution, and place of living

1. Introduction

Emotional Intelligence' is defined as "the ability to monitor one's own and others' feelings and emotions, to discriminate among them, and to use this information to guide one's thinking and actions" (Salovey & Mayer, 1990, p.189). Daniel Goleman's propagated this concept with famous book "Emotional Intelligence: Why It Can Matter More Than IQ" (1995) claims that 'Emotional Intelligence' could be more powerful than 'Intelligence Quotient'. EI is indispensable for its theoretical importance and practical implications. Students who experience negative emotions feel incompetent and choose to disengagement from their learning which ultimately hampers learning pursuit (Hernandez et al., 2018; Pekrun et al., 2011). Conversely, students who experience positive emotions are connected with engagement, persistence and exert more determination in term of effort and behavior even when encountered with complications (King et al., 2015). Positive emotions enhance learning through optimal operational of one's intellect, flexible thinking, novelty and memory retention (Isen 2000; King & Gaerlan, 2014).

World Health organization reported that approximately 280 million people in the world are suffering from depression. In every year, close to 700000 peoples die from suicide, and this is the fourth leading cause of death factor for 15-29-year-old (WHO 2023). Students with low emotional intelligence levels are more likely to feel depressed (Martínez-Monteaquedo et al.2019), associated with deviant school behaviors (truancy & unruliness) (Petrides et al, 2004), and depression which leads to suicidal intention (Abdollahi et al., 2016).

Students' academic procrastination behavior constructs numerous difficulties that might strongly affect their academic performance. This type of procrastination might

involve various factors and emotional intelligence was one of them (Jan & Anwar, 2019). Students with high emotional intelligence can be more self-confident in dealing with the challenges of living and learning in educational institutions (Jan & Anwar, 2019). High level of emotional intelligence increases the absorption of information and facilitates thinking which improves academic performance (Nasir & Masrur, 2010) and make appropriate life decisions, cope with stress and control impulses (Lee & Madera, 2019; Ma et al., 2019).

However, students with higher emotional competency had better academic goals, a higher level of enthusiasm, self-restraint, and stress control. EI is connected with students' academic improvement, social behaviors, lesser distress, and good evaluations (Costa & Faria, 2015). The academically successful students had significantly high levels of emotional and social competencies in comparison to the academically unsuccessful students (Nasir & Masrur, 2010). Emotions were associated with learning and academic performance of students (Pekrun et al., 2011). In existing literature numerous studies have shown connections between higher levels of AA and EI (Costa & Faria, 2015; Petrides et al, 2004).

There existed a statistically significant difference between academic achievement and emotional intelligence of government and private / High school students while, private school students outperformed government school students in academic achievement (Alam & Islam, 2020) and emotional intelligence (Rathi, 2015). A non-significant difference was reported between the emotional intelligence of rural and urban school students (Alam, 2018). Similarly, non-significant difference existed between academic achievement of rural and urban school students (Alam & Islam, 2020).

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2.Objective

- To examine the relationship of academic achievement with emotional intelligence among high school students.
- To identify the difference in academic achievement of high school students in terms of type of institution and place of living.
- To find out the difference in emotional intelligence of high school students in terms of type of institution and place of living.

3.Hypothesis

- There is no significant association of academic achievement with emotional intelligence among High school students.
- There is no significant difference in academic achievement of high school students in terms of type of institution and place of living.
- There is no significant difference in emotional intelligence of high school students in terms of type of institution and place of living.

4.Methodology

The study was quantitative in nature and employed survey method. Sample comprised of 500 High school students (244 government & 266 private; 252 rural & 258 urban) of Aligarh district employing stratified sampling technique.

Tools

For collecting the data, the emotional intelligence scale developed by Sharma and Sharma (2017) was used. The tool consists of 50 items under 5 dimensions. The value of reliability coefficient for the scale has high reliability value i. e., 0.74 (split half method) and 0.857 (cronbach's alpha method).

Academic achievement was assessed through the aggregate percentage in previous class.

Statistical Techniques Used

The investigator employed the Pearson (r) to know the relationship between AA and EI two-way ANOVA to identify the difference in academic achievement and emotional intelligence in term of type of institution and place of living.

Analysis and Interpretation

Objective 1: To examine the relationship of academic achievement with emotional intelligence among High school students.

H₀ 1. There is no significant relationship of academic achievement with emotional intelligence among High school students.

To test the null hypothesis (H₀ 1), Pearson correlation was employed. The outcome are shown in the tabular form under Table 1.

Table 1: Correlation of Emotional Intelligence with academic achievement

Independent Variable	Dependent Variable (Academic Achievement) (Total Sample = 510)
Emotional Intelligence	0.436**

Table 1 exhibits that relationship between academic achievement and emotional intelligence ($r = 0.436$, $p < .001$) appeared to be statistically significant and positive at 0.01 level of significance. It indicates that any in variation in emotional intelligence is likely to result in a similar variation in academic achievement. Based on Cohen's (1988) benchmark of effect size, the correlation coefficient ($r = 0.436$) specifies a medium strength of correlation. Therefore, H₀1 is rejected.

Objective 2: To identify the difference in academic achievement of High school students in terms of type of institution and place of living.

H₀ 2. There is no significant difference in academic achievement of High school students in terms of type of institution and place of living.

Two-way ANOVA (2×2 factorial design) for the scores of Academic Achievement with respect to Type of institution and Place of Living.

Source of Variation	Mean	Sum of Squares	df	Mean Square	F-ratio	η^2	Sig.
Type of Institution	Government 70.91	1509.029	1	1509.029	20.436	.039	.000
	Private 74.83						
Place of Living	Rural 71.84	152.960	1	152.960	2.071	.004	.151
	Urban 74.05						
Type of Institution × Place of Living		105.552	1	105.552	1.429	.003	.232
Error		37363.326	506	73.841			
Total		2754023.000	510				
Corrected Total		39589.963	509				

Table 2 (two-way ANOVA) reveals a significant main effect of type of institution on academic achievement $F(1, 506) = 20.436, p < 0.05, \eta^2 = 0.039$ for High school students. It stipulates that type of institution variation causes a difference in the scores of academic achievement. Private school students ($M = 70.91$) performed better academically than government school students ($M = 74.83$). The mean values explicate the difference between the defined groups. A non-significant main effect of place of living on academic achievement $F(1, 506) = 2.071, p > 0.05, \eta^2 = 0.004$ is found for High school students.

Similarly, non-significant interaction effect of type of institution and place of living on $F(1, 506) = 1.429, p > 0.05, \eta^2 = 0.003$ is found for High school students. It suggests that the significant interaction effect for government and private school students with place of living i. e., (rural & urban) does not exist on academic achievement.

The value of the effect size (0.039) indicates that only 3.9% variation is caused by type of institution, while place of living causes 0.4% variation on academic achievement. Further, the effect size of two-way interaction i. e., type of institution \times place of living in combination causes only 0.3% among students for their academic achievement.

Objective 3: To find out the difference in emotional intelligence of High school students in terms of type of institution and place of living.

H₀₃. There is no significant difference in emotional intelligence of High school students in terms of type of institution and place of living.

Two-way ANOVA (2 \times 2 factorial design) for the scores of Emotional Intelligence with respect to Type of institution and Place of Living.

Source of Variation		Mean	Sum of Squares	df	Mean Square	F-ratio	η^2	Sig.
Type of Institution	Government	178.30	421.965	1	421.965	12.915	.025	.000
	Private	180.48						
Place of Living	Rural	178.64	119.657	1	119.657	3.662	.007	.056
	Urban	180.22						
Type of Institution \times Place of Living			38.956	1	38.956	1.192	.002	.275
Error			16532.329	506	32.673			
Total			16438149.000	510				
Corrected Total			17307.492	509				

Table 3 explicates a significant main effect of type of institution on emotional intelligence $F(1, 506) = 12.915, p < 0.01, \eta^2 = 0.025$ for High school students. It reveals that type of institution difference causes a distinction in the scores of emotional intelligence. Private school students ($M = 178.30$) scored higher than government school students ($M = 180.48$) on emotional intelligence. The F ratio for the main effect of place of living on emotional intelligence $F(1, 506) = 3.662, p > 0.05, \eta^2 = 0.007$ is observed to be non-significant for High school students. It asserts that the change in place of living (rural & urban) does not result in a statistically significant difference in emotional intelligence.

Similarly, the interaction effect of type of institution and place of living on emotional intelligence $F(1, 506) = 1.192, p > 0.05, \eta^2 = 0.002$ is found to be non-significant for High school students. It uncovers that the significant interaction effect for government and private school students with different place of living i. e., (rural & urban) does not exist on emotional intelligence.

The value of the effect size (0.025) indicates that only 2.5% variation is caused by type of institution, while place of living causes 0.7% variation on emotional intelligence. Further, the effect size of two-way interaction i.e., type of institution \times place of living collectively causes only 0.2% among students for their emotional intelligence.

5. Findings and Discussion

A significant positive correlation coefficient of medium strength was observed between academic achievement and emotional intelligence. The outcome aligns with the findings of (Jan & Anwar., 2019; Nasir & Masrur., 2010). However, Mitrofan and Cioricaru (2014) reported that emotional intelligence was non-significantly correlated with academic achievement. A statistically significant difference was observed in the scores of academic achievement in term of type of institution. Students studying in private schools scored higher on academic achievement measure in comparison to studying in private schools. The finding is in accordance with the outcomes of (Alam & Islam 2020; Malini & Arasi2018). However, contradictory findings were reported by Nandini (2013) that government schools students performed better academically than private-aided schools. There existed a statistically non-significant difference in academic achievement in terms of place of living. The outcome is similar to the finding of (Alam & Islam 2020; Alokani & Arijesuyo, 2013; Saikia, 2017). However, contradictory Illahi and Khandai (2015) reported that urban students performed better than rural students academically while, research by Liao et al., (2013) explicated that rural students are academically better as compared to urban students. A statistically significant difference was found in the scores of emotional intelligence in term of type of institution. Students studying in private schools scored higher on emotional intelligence measure in comparison to studying in private schools. The outcome is similar to the

result of (Vijayalatha, 2019; Rathi, 2015; Alam, 2018; Chauhan, 2014). However, Gosh and Syiem (2018) reported non-significant difference in EI in term of type of school. There existed a statistically non-significant difference in emotional intelligence in terms of place of living. The finding is in accordance with the outcomes of (Kumar, 2020; Alam, 2018; Rathi2015). However, Alam (2018) reported non-significant difference in emotional intelligence based on place of living.

Educational Implication

Ample evidence suggested that EI and AA are intimately connected. The current investigation proposed that emotional intelligence plays a vital role in influencing academic achievement positively. The students should be acquainted with emotional intelligence to perform academically better and cope with their daily concerns as emotions are mainly acquired. Teacher as well as parents encourage and facilitate the learners to perform better in their academic pursuit. They create a conducive environment, clear their doubt, motivate and deal with them empathically which facilitates learning. Trained counselor can assist students to recover from emotional turmoil, behavioural issues and mental health. Provision should be made for discussion, debate, quizzes music etc. to boost students' hidden talents. There should be provision for physical activities to refresh body and brain thereby channelizes their energy in the right direction. The government should take the necessary steps to provide all facilities to government schools. The difference between government school students and private school students are not in terms of intellect but in the availability of better educational facilities, adequate resources and access to different facilities that are not easily accessible to government school students.

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