



EMOTIONAL INTELLIGENCE, GENDER AND TYPES OF SCHOOL AS PREDICTOR OF ACHIEVEMENT OF ADOLESCENT STUDENTS

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Abstract: This study is intended to explore the relationship of Emotional Intelligence (EI) with Academic Achievement (AA) of Adolescent Students. Also efforts have been made to find whether Emotional Intelligence can predict the Academic Achievement. To satisfy these questions, investigator decided to undergo this study. For this study, a sample of 232 adolescent students studying in Private and Government Elementary Schools of Bhopal City. The sample was drawn through purposive sampling technique. Mangal's Emotional Intelligence Inventory was used for collecting the data of EI; and for AA students marks of previous examination was taken. The obtained data was analyzed mainly through correlation, regression, and three way ANOVA. Major finding of the study was EI and AA was found to be significantly positively related. Further, EI emerged as the strongest predictor of AA contributing 36.2% variance. And significant differences were found in three levels of EI. The groups of High EI and Low EI were found to be Higher and Lower mean scores in AA respectively. This study has the major implications for teachers as well as students.

Keywords – Emotional Intelligence, Academic Achievement, Adolescent Students, Predictor.

I. INTRODUCTION

Emotional Intelligence (EI) has been the burning topic in researches conducting in recent years. It has been proved one of the most attracting and crucial variables for researchers. According to Neil Humphrey et. al. (2007) there has been an increased interest noted in the role of EI in academic success of students and their emotional adjustment in school. Its positive role in success at workplace and in Academic Achievement (AA) has proved significantly. Now it is considered as more important than cognitive intelligence (IQ); and it is significant for performance in many aspects of everyday life. It represents the set (collection) of specific abilities, competencies, and skills in an individual which helps in enhancing the performance and in coping with adverse situations of life effectively. It consists of capabilities in self-awareness (how we feel and our feelings' impact on our surroundings), self-management (how we respond to our feelings), social awareness (how we respond to others' emotions), and social skill (how we combine our awareness of others to develop their skills and influence their actions). Now, Intelligence Quotient (IQ) alone is not the only measure for success; but EI and Social Intelligence also plays a great role in a person's success. EI predicts as much as 80% of a person's success in life, whereas IQ predicts about 20% (Daniel Goleman, 1995).

Theoretical Framework

Emotional intelligence (EI) refers to the ability to perceive, control, and evaluate emotions of self and react accordingly. It is the ability to recognize the self and others' emotions, understanding the indications of emotions, and realize how the emotions affect people around us. It also involves our perception of others' feelings, and comprehension of how others feelings; this allows us to manage relationships more effectively. Salovey and Mayer (1990) defined Emotional Intelligence as, "the subset of social intelligence that involves 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". It enables to monitor one's own and others' feelings and emotions, to discriminate among them, and to use it to guide one's thinking and actions. Further, emotionally intelligent person is skilled in four areas: Identifying, using, understanding, and regulating the emotions (Salovey and Mayer, 1990, 1993).

Mayers and Salovey (1997) proposed the Four Branch Model of EI which explains the four categories of Emotional Intelligence. These are: *Perceiving Emotions*, *Facilitating Thought Using Emotions*, *Understanding Emotions*, and *Managing Emotions*. Brief description of these four areas is mentioned below:

1. **Perceiving emotions of Self and others:** It is the basic and lowest levels of EI skill which refers to being aware of and sensitive to self and others' emotions; and the ability to identify the emotions of self and others through detecting and decoding emotional signals. Indication of emotion is received through facial expressions, pitch and loudness of voices, pause, and so on.
2. **Facilitating thought using emotions:** After detecting and identifying the emotions we analyze and register this as *emotional information*. Then, incorporate it into our higher-level of cognitive functions for enhanced decision-making, rationalizing, problem-solving, and consideration of others' perspectives (Mayer & Salovey, 1997; Mayer et al., 2002).
3. **Understanding the emotions:** It enables us to understand relationship of one emotion to other; and way of alteration based on the situations we encounter; and how our feeling changes over the period. Moreover, it predicts how one's emotion is changing through their facial expressions and gestures, their tone of voice and its speed, pause and so forth. It means one has got strong emotional management skills. This, in turn, proves a very important factor of effective communications.
4. **Managing emotions:** It is the highest level of EI skill which helps to deal with our own and others' emotions effectively. This depends upon how we perceive and facilitate the emotions of self and others to work effectively. It proves very helpful for teacher in managing the emotions with colleagues and the students.

According to Daniel Goleman (1995) Emotional Quotient (EQ) is the strongest predictor of human success. People who possess high EI are likely more succeed in work, academic performance as well as play, building and flourishing careers and lasting meaningful relationships. Further, Goleman describes five essential factors determining EI as Self-awareness, Self-regulation, Motivation, Empathy, and Social skills.

1. **Self-awareness:** It refers to Knowing our emotions, and their effect on others,
2. **Self-regulation:** It concerns managing the self emotions and predicting their effects,
3. **Motivation:** It deals with carrying the work on in adverse situations,
4. **Empathy:** It relates to identify and recognize others' emotions, and
5. **Social skills:** It is a product of social and emotional competence which helps us to manage our interpersonal relationships and direct our behavior accordingly.

In order to be an emotionally intelligent person, we must listen to others, facilitate their thoughts, and understand the perspective of their elicit behavior from their point of view (empathy). There are certain ways that help in developing the EI. A teacher should help and trained the students to develop their EI by adopting these measures. They may be:

1. Analyze objectively the reaction elicited to develop self-awareness.
2. Change the view point/ perception/ perspective towards a controversial situation.
3. Isolate, anticipate and control the aspect related to reaction elicited.
4. Recall, recognize and celebrated the positive emotions like obedience, kindness, humbleness, gratitude, happiness, etc.

II. REVIEW OF NOTWORTHY RESEARCHES

Patil & Kumar (2006) studied the Emotional Intelligence among student teachers in relation to gender, faculty and academic achievement and found no difference between gender, stream (arts and science) but it influenced the Academic Achievement of the student teachers. Indu (2009) also examined the Emotional intelligence of Secondary School Teacher Trainees and found that majority of Teacher Trainees (67.93%) posses average EI. It is positively associated with work effectiveness (Padhi & Verma, 2011).

Many researches revealed the significant positive correlation-ship between Emotional intelligence and Academic achievement at various levels of education (Abisamra, 2000; Romanelli et. al. 2006; Fatum, 2008; Lather, 2009; Umadevi, 2009; Zahed & Moeinikia, 2010; Akbar et. al. 2011; Falahzadeh, 2011; Mahajan, 2011; Farnandez et. al. 2012; Chamundeswari, 2013; Maraichelvi & Rajan, 2013; Upadhyaya, 2013; Amalu, 2018; Ramana & Devi, 2018; Suleman et. al. 2019; MacCann et. al. 2020).

But Lawrence and Deepa (2013) reported no significant relationship between EI and AA of high school students. Whereas, Shah et. al. (2014) revealed negative correlation between emotional intelligence and achievement.

Some researchers found that Emotional Intelligence is a significant predictor of Academic Performance/ Success of the students (Romanelli et. al. 2006; Zahed & Moeinikia, 2010; Farnandez et. al. 2012; Maraichelvi & Rajan, 2013; Raj & Chandramohan, 2015; Gharetepeh, 2015; Amalu, 2018; Suleman et. al. 2019; MacCann et. al. 2020). In this way it can be inferred that EI can play a crucial role in enhancing academic achievement of students. So the teacher must try to develop the EQ level of the students (Raj & Chandramohan, 2015; Gharetepeh, 2015; Amalu, 2018).

Significance of the Study

Teaching and training emotional and social skills is very important at school level, it affects academic achievement positively not only during the year they are taught, but during the years that follow as well. Teaching these skills has a long-term effect on achievement (Elias et al, 1991). According to Ediger (1997), the emotions, feelings, and values are vital for a person's well being and achievement in life. He also states that science teachers should stress on the affective domain that cannot be separated from the cognitive domain. Appropriate reactions through emotions and feelings help students give their best potential in the classroom. Research suggested that schools should help the students to learn the abilities underlying emotional intelligence through which they can lead to achievement from the academic life of the child and adolescent to the professional life (career) of adult effectively in the school, workplace and in society (Finnegan 1998; Amalu, 2018; Suleman et. al. 2019). It is, in the background of the above researches the investigators selected the topic for the study.

Objectives: The objectives of the study were:

1. To find out the levels of Emotional Intelligence of Adolescent students.
2. To find out the co-relationship between Emotional Intelligence and Achievement of Adolescent students.
3. To find out the influence of Type of Schools, Gender and Levels of Emotional Intelligence on Achievement of Adolescent students either independently or in a combined way.
4. To find the predictor(s) of Achievement among Emotional Intelligence, Gender and Types of School.

Hypotheses: To meet the objectives of the study, null hypotheses were formulated. These were:

H0 I: There will be no significant relationship between Emotional Intelligence and Achievement of Adolescent students. *(for objective 2)*

H0 II: There will be no significant influence of Type of Schools, Gender and Levels of Emotional Intelligence on Achievement of Adolescent students either independently or in a combined way. *(for objective 3)*

H0 III: There will be no significant predictor(s) of Achievement among Emotional Intelligence, Gender and Types of School. *(for objective 4)*

III. RESEARCH METHODOLOGY

3.1 Population and Sample

In the present study all the student studying in Standard VIII of Government and Private Schools of the Bhopal City comprises the population. A sample of 232 students studying in class 8th was selected through purposive sampling technique. Out of these, 127 students taken from Private Schools and 105 from Government Elementary Schools of Bhopal City. The Gender-wise and School-wise sample distribution is given in the following table-1.

Table-1: Gender X School Cross tabulation of Sample

Type of Schools	Gender		Total
	Boys	Girls	
Government	47	58	105
Private	66	61	127
Total	113	119	232

3.2 Tools used for Data Collection

Mangal's Emotional Intelligence Inventory developed by S.K Mangal and Shubra Mangal was used to collect the data for Emotional Intelligence and for Academic Achievement students previous class marks was taken in the present study.

3.3 Descriptive Statistics used for Data Analysis

For data analysis frequency, percentage, mean, SD, Pearson's Product moment Correlation, Three-way ANOVA, Scheffe's Post-Hoc Test and Regression Analysis was applied. The obtained output were presented in the forms of tables and graphs.

IV. RESULT AND DISCUSSION

Outputs obtained from data analysis, as per the objectives formulated, are presented in tables 2-5 and graphs Fig.1-4; and discussion followed them.

Objective 1: To find out the levels of Emotional Intelligence of Adolescent students.

To attain this objective, simple descriptive statistics frequencies, percentages, means and SDs were used and the output is presented below in the tables 2(A), 2(B) and 2(C).

Table-2(A): Frequency Distribution and Percentage showing Gender-wise and School-wise Levels of Emotional Intelligence of Adolescent students

Type of Schools			Levels of Emotional Intelligence			Total
			High	Average	Low	
Government Schools	Gender	Boys	13	21	13	47
		Girls	30	19	9	58
	Total		43 (40.95%)	40 (38.10%)	22 (20.95%)	105 (100%)
Private Schools	Gender	Boys	8	47	11	66
		Girls	9	31	21	61
	Total		17 (13.39%)	78 (61.41%)	32 (25.20%)	127 (100%)
Total	Gender	Boys	21 (18.58%)	68 (60.18%)	24 (21.24%)	113 (100%)
		Girls	39 (32.77%)	50 (42.02%)	30 (25.21%)	119 (100%)
	Total		60 (25.86%)	118 (50.86%)	54 (23.28%)	N=232 (100%)

From the table 2(A), it is evident that total sample of 232 was divided in to three levels of Emotional Intelligence; namely- High EI, Average EI and Low EI that constitute the 25.86%, 50.86% and 23.28% of total N. Also, this table presents gender-wise classification of these levels of EI. Boys falling in these three levels are 18.58%, 60.18% and 21.24% (of their total number 113) respectively. Whereas, Girls comprised 32.77%, 42.02% and 25.21% of their total number 119 respectively. The variation in respect of EI was seen more in boys as compared to their counterparts. Further, this table gives the school-wise distribution of EI levels. Adolescent students of Government Schools (total number 105) constituted 40.95%, 38.10% and 20.95% of these categories, i.e. High EI, Average EI and Low EI. Whereas, Private Schools comprised (total number 127) 13.39%, 61.41% and 25.20% respectively. Variation in respect of EI levels was found clearly more in the adolescent students of Private Schools as compared to their counterparts.

The descriptive statistics namely mean and SD of these three levels of EI has been given below in the table-2(B).

Table-2(B) : Descriptive Statistics for three Levels of Emotional Intelligence

S.No.	Levels	Scores	Frequency	Mean	S.D.
1.	Low EI	Below 34	54	29.89	4.93
2.	Average EI	Between 34-67	118	32.60	4.36
3.	High EI	Above 67	60	39.77	3.99
Total (N)			232	33.82	5.80

Table-2(B) denotes level-wise and consolidated means of EI. It was found to be 33.82 for the entire sample, whereas it was 29.89, 32.60 and 39.77 for adolescent students of groups belonging to Low EI, Average EI and High EI respectively. Further, from the table it is clear that mean of Average EI (32.6) is closer to the mean of entire sample (33.82). But, the mean of group having High EI (39.77) was higher than the mean of entire sample (33.82). Do these differences really exists and do the differences are significant? This can be ascertained by employing higher level statistics, i.e. ANOVA. Its output and interpretation is discussed in successive tables 4(A) and 4(B).

The descriptive statistics namely mean and SD of grouping variables, i.e. Gender and Type of Schools has been given below in the table-2(C).

Table-2(C) : Descriptive Statistics for Grouping Variables

S.No.	Grouping Variables	Groups	Frequency	Mean	S.D.
1.	Gender	Boys	113	33.45	6.56
2.		Girls	119	30.40	5.23
3.	Type of Schools	Government	105	30.08	5.79
4.		Private	127	33.39	5.95
Total (N)			232	31.89	6.09

Table-2(C) gives gender-wise and school-wise means of EI. It is clear from the table, that mean of Boys is higher (33.45) as compared to the means of Girls (30.40). The differences in means of EI can also be seen in the Government (30.08) and Private Schools (33.39). Do the differences in means really exist and are they significant? This can also be determined by employing ANOVA. Its output and discussion is given in next tables 4(A) and 4(B).

For Objectives second to fourth, *Null Hypotheses (H₀)* was formulated and to test these *H₀*, relevant statistical techniques applied. The Hypothesis wise result and discussion is given below:

Objective 2: To find out the co-relationship between Emotional Intelligence and Academic Achievement of Adolescent students.

For realizing this objective, formulated *H₀* was:

H₀ I: There will be no significant relationship between Emotional Intelligence and Academic Achievement of Adolescent students. (*for objective 2*)

Pearson Product Moment Correlation method was employed to test the *H₀* and to find the Inter-correlations among emotional intelligence, academic achievement and aspects of emotional intelligence; and the output is presented in Table 3

Table-3: Correlation coefficients of different Variable Pairs (N=232 and df=230)

S.No.	Pairs of Variable	Value of r
1.	Emotional Intelligence and Achievement	0.60**
2.	Intra Personal Awareness and Achievement	0.54**
3.	Inter Personal Awareness and Achievement	0.57**
4.	Intra Personal Management and Achievement	0.52**
5.	Inter Personal Management and Achievement	0.50**
**. Correlation is significant at the 0.01 level (2-tailed).		

It is evident from Table 3 that the value of co-efficient of correlations (r) between emotional intelligence and achievement is 0.60 which is positive and average; but significant at 0.01 level. It means emotional intelligence and academic achievement of adolescent student is positively related with each other. Also, the values of r between academic achievement and all four components of emotional intelligence i.e. intra-personal awareness, interpersonal awareness, Intra-personal management and inter-personal management are found to be 0.54, 0.57, 0.52 and 0.50 respectively, which are also significant at 0.01 level. Hence it may be inferred that academic achievement of adolescent students and their inter and intra personal awareness and management of emotions are positively related. This is in tune with the finding of Amalu (2018). In this way, the null hypothesis that "There will be no significant correlations among Emotional Intelligence and Academic Achievement of Adolescent students" is rejected. Hence, it can be inferred that significant positive correlation exist between emotional intelligence and academic achievement. This result is in line with the findings of Abisamra (2000), Romanelli et. al. (2006), Fatum (2008), Lather (2009), Umadevi (2009), Zahed & Moeinikia (2010), Akbar et. al. (2011), Falahzadeh (2011), Mahajan (2011), Farnandez et. al. (2012), Chamundeswari (2013), Maraichelvi & Rajan (2013), Upadhyaya (2013), Amalu (2018), Ramana & Devi (2018), Suleman et. al. (2019), and MacCann et. al. (2020)

Objective 3: To find out the influence of Gender, Type of Schools and Levels of Emotional Intelligence on Academic Achievement of Adolescent students either independently or in a combined way.

For realizing this objective, formulated H_0 was:

$H_0 II$: There will be no significant influence of Gender, Type of Schools and Levels of Emotional Intelligence on Academic Achievement of Adolescent students either independently or in a combined way. (**for objective 3**)

For testing the $H_0 II$, three way ANOVA was employed to find the Independent and joint influences of gender, type of schools and levels of emotional intelligence on the academic achievement of adolescent students. Consequently, the outputs of Independent (main effect) and joint (combined/ interactional effect) influences are presented in Table 4 (A); and Post-Hoc test is given in Table 4 (B).

Table-4(A): Independent and Joint Influences of Gender, Type of Schools and Levels of Emotional Intelligence on Academic Achievement of Adolescent Students
(Summary of Three Way ANOVA 2X2X3 Factorial Design)

Source	Sum Squares	df	Mean Square	F	P-value (Sig.)
Gender	254.164	1	254.164	17.695**	.000
Type of Schools	109.984	1	109.984	7.657**	.006
Levels of EI	3158.022	2	1579.011	109.934**	.000
Gender X School	40.575	1	40.575	2.825	.094
Gender X EI_Levels	550.855	2	275.427	19.176**	.000
School X EI_Levels	36.782	2	18.391	1.280	.280
Gender X School X EI_Levels	132.665	2	66.332	4.618*	.011
Error	3159.921	220	14.363		
Total	288194.000	232			

**Significant at the 0.01 level (2-tailed). *Significant at the 0.05 level (2-tailed).

Main Effect: From Table 4(A) it is evident that the F-value for *the scores of academic achievement of adolescent students* having different gender is 17.70 which is significant at 0.01 level with $df = (1, 220)$. It means that the gender of adolescent students influence their academic achievement. Hence, it can be infer that boys and girls differ significantly in their academic achievement. The mean of boys (33.45) was found to be higher than that of girls (30.40) as shown in table-2(C).

Similarly, table 4(A) reveals that the F-value for *the scores of academic achievement of adolescent students* studying in two different type of schools is 7.66 which is also significant at 0.01 level with $df = (1, 220)$. It means that the type of schools in which adolescent students studying influence their academic achievement. Hence, it can also be infer that adolescent students studying in Government and Private schools differ significantly in their academic achievement. The mean of *adolescent students* studying in private schools (33.39) was found to be higher than that of government schools (30.08) as shown in table-2(C).

Further, from Table 4(A) it is evident that the F-value for *the scores of academic achievement of adolescent students* having three different levels of emotional intelligence is 109.93 which is significant at 0.01 level with $df = (2, 220)$. It means that the three levels of emotional intelligence (i.e. high, average and low) of adolescent students influence their academic achievement. But which level significantly influences is not clear from the above table 4(A). It can be ascertain from the Multiple Comparisons Table 4(B) which contains the output of Scheffe's post-hoc test.

Interactional Effects: Also from Table 4(A) it can be observed that F-value for the interactions of gender and levels of emotional intelligence is 19.18 which is significant at 0.01 level with $df = (2, 220)$. It means that the joint influence (interactional effect) of gender and levels of emotional intelligence of adolescent student influence their academic achievement. It may be inferred that different combinations of gender and levels of emotional intelligence of adolescent student produce some significance difference in the scores of their academic achievement. This difference can easily be comprehended with the help of following graph in Figure-1:

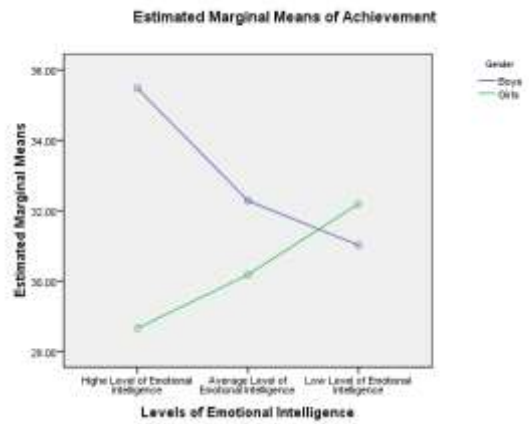


Figure-1: Mean Scores of Academic Achievement of Boys and Girls having Three different Levels of EI

It is clear from the graph (Fig.1) that the Boys having High EI has higher mean of academic achievement than those of Girls having High EI. Further, the Girls having Low EI has higher mean of academic achievement than those of Boys having Low EI.

Moreover, Table 4(A) also denotes that F-value for the interactions of gender, type of schools and levels of emotional intelligence is 4.62 which is significant at 0.05 level with $df = (2, 220)$. It means that the joint influence (interactional effect) of gender, type of schools and levels of emotional intelligence of adolescent student influence their academic achievement. It may also be inferred that different combinations of gender, type of schools and levels of emotional intelligence of adolescent student produce significance difference in the scores of their academic achievement. This difference can be easily comprehended with the help of following graphs in Figure-2-4:

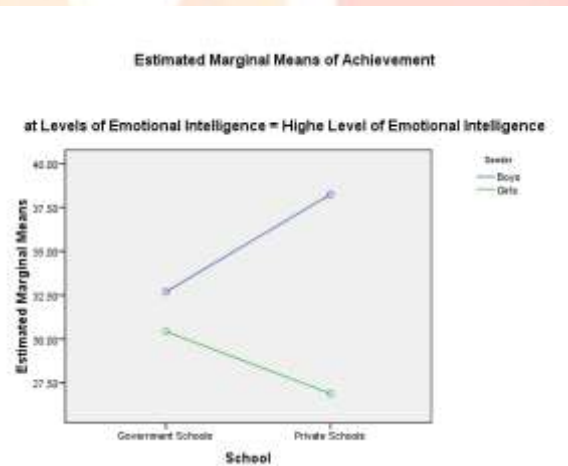


Figure-2: Mean Scores of Academic Achievement of Boys and Girls studying in Two different Schools with High EI

It is evident from the above graph (Fig.2) that the Boys of Private Schools having High EI has higher mean of academic achievement than those of Girls of Private Schools having High EI.

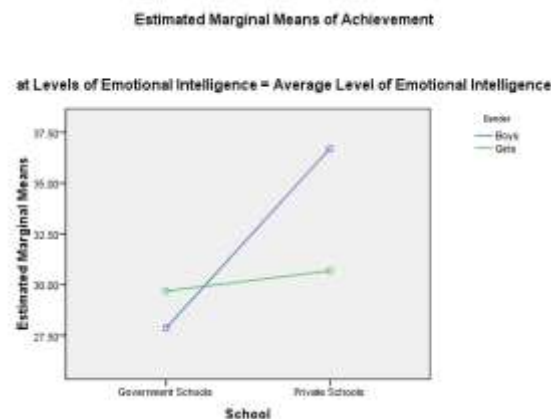


Figure-3: Mean Scores of Academic Achievement of Boys and Girls studying in Two different Schools with Average EI

This graph (Fig.3) shows that the Boys of Private Schools having Average EI has higher mean of academic achievement than those of Girls of Private Schools having Average EI. Further, the Girls of Government Schools having Average EI has higher mean of academic achievement than those of Boys of Government Schools having Average EI.

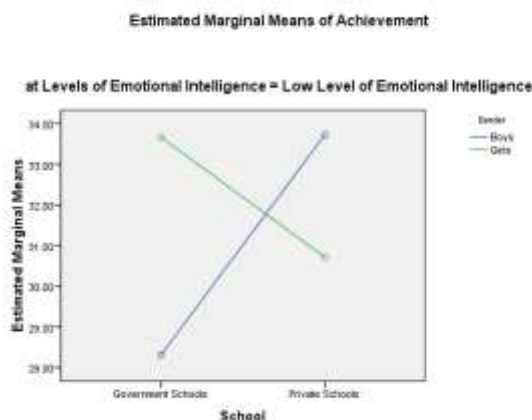


Figure-4: Mean Scores of Academic Achievement of Boys and Girls studying in Two different Schools with Low EI

This graph (Fig.4) showing another interaction that the Boys of Private Schools having Low EI has higher mean of academic achievement than those of Girls of Private Schools having Low EI. Whereas, the Girls of Government Schools having Low EI has higher mean of academic achievement than those of Boys of Government Schools having Low EI.

Table- 4 (B): Showing Multiple Comparisons among three levels of emotional intelligence (for significant main/ independent effect of Emotional Intelligence on Academic Achievement) Scheffe's Post Hoc Test

(I) Levels of Emotional Intelligence	(J) Levels of Emotional Intelligence	Mean Difference (I-J)	Std. Error	P-value (Sig.)	95% Confidence Interval	
					Lower Bound	Upper Bound
High EI	Low EI	9.88*	.71090	.000	8.1313	11.6353
High EI	Average EI	7.17*	.60092	.000	5.6933	8.6553
Average EI	Low EI	2.71*	.62266	.000	1.1745	4.2436

*The mean difference is significant at the 0.05 level.

It is evident from the multiple comparisons Table 4(B) that there are significant differences in all the three pairs of EI Levels at .05 level. The mean differences of academic achievement of adolescent students having *High* and *Low* levels of EI; *High* and *Average* levels of EI; and *Average* and *Low* levels of EI were 9.88, 7.17 and 2.71 respectively. It may be concluded that the mean scores of academic achievement of adolescent students having three different EI Levels differ significantly with each other.

The mean scores (refer the Table-2B) of academic achievement of adolescent students having *high* levels of EI was ($M=39.77$) found to be significantly higher as compared to low levels of EI ($M=29.89$); and this difference ($39.77 - 29.89 = 9.88$) is significant at 0.05 level. Similarly, the mean scores (refer the Table-2B) of academic achievement of adolescent students having *high* levels of EI was ($M=39.77$) found to be significantly higher as compared to average levels of EI ($M=32.60$); and this difference ($39.77 - 32.60 = 7.17$) is also significant at 0.05 level. Moreover, the third pair, i.e. the mean scores (refer the Table-2B) of academic achievement of adolescent students having *average* levels of EI was ($M=32.60$) found to be significantly higher as compared to low levels of EI ($M=29.89$); and this difference ($32.60 - 29.89 = 2.71$) is significant at 0.05 level. Thus, it can be inferred that higher the level of EI higher the academic achievement.

Objective 4: To find the predictor(s) of Achievement among Emotional Intelligence, Gender and Types of School. For achieving this objective, formulated H_0 was:

H_0 III: There will be no significant predictor(s) of Achievement among Emotional Intelligence, Gender and Types of School. (for objective 4)

To test the above null hypothesis, regression technique was employed. And the results are presented below in table 5(A), 5(B) and 5(C):

Table- 5 (A): Model Summary for Academic Achievement of Adolescent Students with EI, Gender and Type of Schools as Predictors

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.601 ^a	.362	.359	4.64108	.362	130.333	1	230	.000	
2	.642 ^b	.413	.408	4.46172	.051	19.863	1	229	.000	
3	.653 ^c	.426	.419	4.41991	.013	5.354	1	228	.022	1.240
a. Predictors: (Constant), Emotional Intelligence										
b. Predictors: (Constant), Emotional Intelligence, Gender of Adolescent										
c. Predictors: (Constant), Emotional Intelligence, Gender of Adolescent, Type of Schools										
d. Dependent Variable: Academic Achievement										

From the above table 5(A), it is evident that the correlation of Achievement with Emotional Intelligence alone is 0.60, with combining Emotional Intelligence and Gender it is 0.64 whereas with combining EI, Gender and Types of Schools is maximum i.e. 0.65 These value indicate an average degree of correlations. Further, the R^2 value indicates 36.2% of the total variation in the Achievement can be explained by the Emotional Intelligence alone. But when combining Emotional Intelligence with Gender this value becomes 41.3% and combination of Emotional Intelligence, Gender and Types of Schools it yields 42.6%

Table- 5 (B): Summary of ANOVA for Academic Achievement of Adolescent Students with EI, Gender and Type of Schools as Predictors

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2807.323	1	2807.323	130.333	.000 ^b
	Residual	4954.108	230	21.540		
	Total	7761.431	231			
2	Regression	3202.732	2	1601.366	80.442	.000 ^c
	Residual	4558.699	229	19.907		
	Total	7761.431	231			
3	Regression	3307.316	3	1102.439	56.432	.000 ^d
	Residual	4454.115	228	19.536		
	Total	7761.431	231			
a. Dependent Variable: Achievement						
b. Predictors: (Constant), Emotional Intelligence						
c. Predictors: (Constant), Emotional Intelligence, Gender of Adolescent						
d. Predictors: (Constant), Emotional Intelligence, Gender of Adolescent, Types of School						

The above ANOVA table 5(B), reports that the independent variables (i.e. Emotional Intelligence independently itself and jointly with Gender and Types of Schools) statistically significantly predict the dependent variable, $F(1, 230) = 130.333, p < .0005$; $F(2, 229) = 80.442, p < .0005$ and $F(3, 228) = 56.432, p < .0005$. The value of all the F -ratios are significant which implies that the overall regression model is a good fit for the data (i.e., predicts the dependent variable i.e. Achievement significantly).

Here, in all the three cases, $p < 0.0005$, which is less than 0.05, it means, the regression model overall, statistically significantly predicts the outcome variable (i.e., it is a good fit for the data).

Table- 5 (C): Regression Coefficients for Academic Achievement of Adolescent Students with EI, Gender and Type of Schools as Predictors

Model		Unstandardized Coefficients		Standardized Coefficients	Sig.	95.0% Confidence Interval for B		Collinearity Statistics		Fraction of Missed Information	Relative Increase in Variance	Relative Efficiency
		B	Std. Error			Lower Bound	Upper Bound	Tolerance	VIF			
		Beta										
1	(Constant)	21.874	1.170		18.699	.000	19.569	24.179				
	Emotional Intelligence	.236	.021	.601	11.416	.000	.196	.277	1.000	1.000		
	Gender of Adolescent											
	Type of Schools											
2	(Constant)	18.548	1.350		13.742	.000	15.888	21.207				
	Emotional Intelligence	.224	.020	.571	11.161	.000	.185	.264	.982	1.019		
	Gender of Adolescent	2.636	.592	.228	4.457	.000	1.471	3.802	.982	1.019		
	Type of Schools											
3	(Constant)	15.869	1.769		8.973	.000	12.384	19.354				
	Emotional Intelligence	.233	.020	.592	11.499	.000	.193	.272	.951	1.052		
	Gender of Adolescent	2.701	.587	.233	4.605	.000	1.545	3.857	.979	1.021		
	Type of Schools	1.374	.594	.118	2.314	.022	.204	2.545	.963	1.038		

a. Dependent Variable: Achievement

In the table 5(C), the Unstandardized Coefficient B (Beta) tells us x number unit of Dependent Variable (Achievement) increases for a single unit increase in each predictor/ Independent Variable (EI, Gender and Type of Schools).

Further, from the coefficients table5(C), it can be inferred that one unit increase in the score of Emotional Intelligence corresponds to 0.24 points increase on the Achievement. (See equation-1 given below)

If the scores of predictor/ Independent Variable (in this study EI) are known, then we can predict Achievement of students by Regression Equation. From the above table, the following regression equations can be formulated:

$$\text{Achievement} = 21.87 + (0.24 \times \text{EI}) \dots\dots\dots (1)$$

Further, from the table it is clear that all Beta coefficients are positive numbers; it means higher the EI score associated with higher Achievement. All the *p* values of predictors are less than 0.05. So it can be infer that all the coefficients are statistically significant at 0.05 level. Moreover, the beta coefficient compares the relative strengths of predictors. In combination of EI and Gender, Emotional Intelligence (0.57) is more powerful predictor of Achievement in comparison of Gender (0.23). Whereas, in combination of all the three predictors, i.e. EI, Gender and Type of Schools, EI (0.59) becomes the strongest predictor of Achievement followed by Gender (0.23); and Types of Schools (0.12) is the weakest predictor of Achievement in all. Very aptly this finding is substantiated by the work of Romanelli et. al. (2006), Zahed & Moeinikia (2010), Farnandez et. al. (2012), Maraichelvi & Rajan (2013), Raj & Chandramohan (2015), Gharetepeh (2015), Amalu (2018), Suleman et. al. (2019) and MacCann et. al. (2020).

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